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WORLD MARITIME UNIVERSITY

Malmö, Sweden

**IMPLEMENTATION AND ENFORCEMENT
OF IMO INSTRUMENTS IN NIGERIA**

A case study of MARPOL ANNEX VI

By

SYNTYCHE BABA HARUNA

Nigeria

A dissertation submitted to the World Maritime University in partial
fulfilment of the requirements for the reward of the degree of

**MASTER OF SCIENCE
in
MARITIME AFFAIRS**

MSEA

2020

Declaration

I certify that all the material in this dissertation that is not my own work has been identified, and that no material is included for which a degree has previously been conferred on me.

The contents of this dissertation reflect my own personal views, and are not necessarily endorsed by the University.

(Signature):

(Date):

Supervised by:

Dr. Anish Hebbar

.....

Dr. Meinhard Doelle

.....

Acknowledgements

To the glory of God for a great fortune, I have been surrounded by a number of people who have supported and encouraged me through all of my endeavors. I want to take a moment now to formally recognize and sincerely appreciate all those who have contributed to the success of this amazing accomplishment.

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Abstract

Title of Dissertation: **Implementation and enforcement of IMO instruments in Nigeria - A case study of MARPOL Annex VI**

Degree: **Master of Science**

The growing awareness of rising global air pollution problems led to the adoption of measures by the International Maritime Organization to minimize emissions from ships and protect the marine environment. Although the impact of shipping emission in Africa is low compared to other parts of the world, the increased number of ships at African ports due to the growing population and economy creates an increased risk of air pollution from ships. Nigeria occupies a pivot position in the maritime sector of West Africa supporting the movements of 40% - 60% of cargo in the North and Central African sub-region. Like other developing countries, Nigeria has been facing political and economic challenges in implementation.

This research aims to use MARPOL Annex VI as a case to examine Nigeria's regulatory framework for implementing and enforcing IMO instruments. This research was conducted as an analytical study using qualitative analysis. It involved semi-structured interviews from the maritime administration and stakeholders in the maritime industry, and reviewed primary and secondary sources within the PESTLE tool to identify gaps.

From the findings, the highlighted issues faced by Nigeria include the complexity and red tapes of the organizational structure for domestication; undefined employment criteria and regulatory roles for personnel; inadequate technical capacity and infrastructure; and a lack of performance evaluation system. The study linked these findings to slow legislation and bureaucratic bottlenecks that was shown in the national provisions to address the core issues that hinder the effective functioning of the Nigerian maritime sector. To indicate the problem developing countries and especially Nigeria face in implementation, this study concluded that the delayed legislative process is most likely the cause of a flawed process. Although other issues emanate from the administration, it appears that there is a willingness on its part to rectify the existing inadequacies.

Keywords: MARPOL Annex VI, IMO instruments, implementation, enforcement

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List of Abbreviations

EU	European Union
FEC	Federal Executive Council
FMoJ	Federal Ministry of Justice
FMoT	Federal Ministry of Transport
ICS	International Chamber of Shipping
III Code	IMO Instruments Implementation Code
IMO	International Maritime Organization
ITF	International Transport Workers' Federation
MARPOL	International Convention for the Prevention of Pollution from Ships
MSA	Merchant Shipping Act
NASS	National Assembly
NIMASA	Nigerian Maritime Administration and Safety Agency
NO _x	Nitrogen Oxides
NPA	Nigerian Ports Authority
OECD	Organization for Economic Co-operation and Development
PESTLE	Political, Economic, Social, Technical, Legal and Environmental factors
PM	Particulate Matter
ROs	Recognized Organizations
SDG	Sustainable Development Goal
SDG 12	Ensure sustainable consumption and production patterns
SDG 13	Take urgent action to combat climate change and its impacts
SDG 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development
SDG 3	Ensure healthy lives and promote well-being for all at all ages
SDG 7	Ensure access to affordable, reliable, sustainable and modern energy for all
SO _x	Sulphur Oxide
UNCLOS	United Nations Convention for the Law of the Sea
VOCs	Volatile Organic Compounds
WMU	World Maritime University

Chapter 1: Introduction

1.1 Background

The sustainability of the ecosystem and the wellbeing of coastal populations relies on a healthy marine environment. However, continuous pollution from land-based activities, marine operations, dumping and transportation has altered natural biodiversity and affected human health, resulting in economic costs and environmental harm (De Moura et al., 2012).

The growing awareness of rising global air pollution problems led to the adoption of measures to minimize emissions from ships and protect the marine environment. The 1982 United Nations Convention on the Law of the Sea (UNCLOS) deals specifically with sea and air pollution in Article 212. It required states to enact laws and regulations for the prevention; reduction and control of marine pollution from all sources, taking into account internationally established standards (United Nations, 1982).

Shipping currently contributes an estimated 2.5% to global emissions, which could grow to 17% by 2050 if left unregulated (Transparency International, 2018). Ships emit large quantities of concentrate and toxic air pollutants in the form of sulphur, nitrogen oxides and particulate matter. About 5-10% of all anthropogenic SO₂ emissions worldwide is produced from ships (OECD/ITF, 2016). In 2013, emissions from ships engaged in international trade were measured at 1.6 million tons of sulphur dioxide and 3 million tons of nitrogen oxides in the Baltic, North Sea and North-eastern Atlantic, Mediterranean and Black Seas (Air Pollution & Climate Secretariat, 2020). Shipping air pollution leads to regional and global environmental issues, including acidification (NO_x, SO_x), eutrophication (NO_x), ground-level ozone (VOCs and NO_x), ozone depletion (CFCs), and food chain accumulation of PCBs and heavy metals that damage health, heart disease, respiratory disease and premature deaths. According to the Air pollution and climate secretariat, a Danish study from 2011 shows about 50,000 annual deaths in Europe from heart and lung failure and cancer due to international shipping emissions. Studies by the U.S. Environmental Protection Agency predict that shipping air pollution would still cause 21,000 annual premature

deaths in the U.S. by 2020, with associated health costs of USD 47-110 billion (Air pollution and climate secretariat, 2020). On a global scale, Sofiev et al., (2018) discovered that shipping emission is responsible for 14 million cases of childhood asthma and 400,000 premature deaths from lung cancer to cardiovascular disease annually. Although the impact of shipping emission in Africa is low compared to other parts of the world, the increased number of ships at African ports due to the growing population and economy creates an increased risk of air pollution from ships. A study by Greidanus et al., (2013) found that within six months, about 12,000 ships visited the Gulf of Guinea, particularly West Africa, where Nigeria is located.

As the competent Authority responsible for regulating international shipping, ensuring maritime safety and protection of the marine environment, the International Maritime Organization (IMO) to address both operational and accidental pollution from ships formed a comprehensive set of International Regulations under the International Convention for the Prevention of Pollution from Ships (MARPOL) adopted in November 1973. In reaction to a spate of tanker incidents in 1976-1977, the 1978 Protocol was adopted. Since the MARPOL Convention of 1973 had not yet come into force, the MARPOL Protocol of 1978 incorporated both the Conventions. The joint instrument entered into force on 2 October 1983 and presently has six technical annexes (Table 1) (IMO, 2020a).

Table 1: Provisions of MARPOL (Adapted from MARPOL 73/78)

	Entry into force	Provisions
Annex I: Regulations for the Prevention of Pollution by Oil	2 October 1983	Addresses the prevention of oil pollution
Annex II: Regulations for the Control of Pollution by Noxious Liquid Substances in Bulk	2 October 1983	Describes the discharge requirements and measures for controlling pollution from noxious liquid substances carried in bulk.
Annex III: Prevention of Pollution by Harmful Substances Carried by Sea in Packaged Form	1 July 1992	Provides general criteria for the issuance of comprehensive guidelines for packaging, marking, labeling, recording, storage, quantity limits, exceptions and notifications
Annex IV: Prevention of Pollution by Sewage from Ships	27 September 2003	Provides sewage pollution control requirements
Annex V: Prevention of Pollution by Garbage from Ships	31 December 1988	Addresses the different types of garbage and defines the distances from the land and how they can be disposed of. It completely prohibits the dumping of all kinds of plastics into the sea
Annex VI: Prevention of Air Pollution from Ships	19 May 2005	Addresses the prevention of air pollution from ships. It sets emission control limits for sulfur oxides (SO _x) and particulate matter (PM), nitrogen oxides (NO _x), ozone-depleting substances, and volatile organic compounds.

Annex VI was adopted in 1997 after twelve years (IMO, 1998) of negotiations between the IMO member states and industry stakeholders who delayed the process because of political and economic interest. It came into force in May 2005 and presently has 97 contracting states representing 96.75% of the world tonnage (IMO, 2020b). New provisions and technical amendments by MEPC in 2008 revised the code to strengthen emission limits that came to force in 2010 (IMO, 2008). In December 2003, measures were initiated by MEPC to develop and include mandatory energy efficiency aimed at reducing greenhouse gas emissions from international shipping. The MEPC 62nd session adopted this in July 2011 (IMO, 2011). It introduced chapter 4 regulations on energy efficiency of ships and entered into force in January 2013.

Additionally, IMO at the MEPC 70th session further reduced the Sulphur limit from 3.5% to 0.5%. It entered into force in January 2020 (IMO, 2016). Global Sulphur Cap that was decided upon in 2016 was one of the biggest challenges the maritime industry has experienced in the modern era for its magnitude and urgency (Esty & Fisher, 2019). Being the first in the series of IMO measures to drastically reduce marine pollution, the IMO 2020 Sulphur cap regulation created many headlines in all maritime

sectors (AMSA, 2020; Hapag-lloyd, 2020; Lloyd's Register, 2020; The Guardian, 2020; WMU, 2020). Even before the regulation came into force, Lloyd's List reported that the challenges posed by such a significant change had made the controversy around its implementation still far from over (Lloyd's list, 2019).

1.2 Justification for the study

Nigeria, with a coastline of 852 kilometres bordering the Atlantic Ocean in the Gulf of Guinea and a maritime area of 46,000 km² occupies a pivot position in the maritime sector of West Africa supporting the movements of 40% - 60% of cargo in North and Central African sub-region (NIMASA, 2018). It has six ports located in the southern part of the country with Apapa port, Lagos, being the biggest. The country's over 200 million population (The World Bank, 2019) encourages large-scale imports of raw materials, luxury goods and other resources, and large volumes of petroleum products due to a lack of adequate refining capacity in Nigeria. Crude oil and natural gas continue to be exported in large amounts. This exports has resulted in increased demand for shipping services. Referring to the various sources (National Bureau of Statistics, 2018; NIMASA, 2018), one can infer that there is a steady increase in the Nigerian tonnage from 2015 onwards. Increased shipping leads to increased emissions that could affect the air quality (Viana et al., 2014).

To address pollution from ships, Nigeria ratified the MARPOL 73/78 and its Annexes. It is therefore required to fulfil its obligations by domesticating the provisions of the convention in its national legislation that will ensure the specific criteria and conditions provided in the Convention are fully implemented and enforced. This study will therefore look into the regulatory framework for the implementation and enforcement of IMO instruments in Nigeria focusing on MARPOL Annex VI to provide for an effective, efficient and sustainable process that will safeguard the marine environment and human health.

1.3 Problem statement

States party to conventions have the primary responsibility to put in place an adequate and effective system to exercise control over ships entitled to fly their flag and to

ensure that they comply with relevant international regulations (IMO, 2013). With an effective mechanism for sampling and evaluating the performance of maritime stakeholders, challenges faced in implementation and enforcement procedures could be effectively addressed.

Nigeria is required to fulfil its obligations as a State party to any international instrument and to respect the rights of other parties to the instrument. More significantly, and as a dualist state, Nigeria under section 12 of its 1999 Constitution, as amended, is required to enact into law the provisions of any international instrument to have the force of law. The implication of the previous takes into account the prevailing national circumstances in ensuring that the requirements set out in the conventions are relevant and achievable.

While Lloyd's list in July 2020 said there appears to be a smooth implementation of MARPOL Annex VI requirements (Anastassios, 2020), some developing countries like Nigeria have been facing political and economic challenges for implementation. From the discussion above, it is clear that Nigeria needs a legal framework for regulating the shipping industry to fully implement IMO instruments, in particular the MARPOL convention.

1.4 Aim and objectives

This research aims to use MARPOL Annex VI as a case to examine Nigeria's regulatory structure for implementing and enforcing IMO instruments to which it is a party.

The objectives of this research are to:

- To examine the regulatory framework for implementation and enforcement of IMO instruments in Nigeria using MARPOL Annex VI as a case
- To identify potential challenges (weaknesses) in the current implementation and enforcement regime.

1.5 Research questions

To achieve the aim and objectives, this research will address the following questions:

- How adequate is the regulatory framework for implementation and enforcement of MARPOL Annex VI in Nigeria?
- What are the challenges faced by Nigeria in implementation and enforcement process?

1.6 Research design

This research was conducted as an analytical study using qualitative analysis. It is aimed at examining the framework for the implementation and enforcement of IMO MARPOL Annex VI standards in Nigeria, using requirements of the III Code and MARPOL. The study involved semi-structured interviews from the maritime administration, stakeholders in the maritime industry and reviewed sources, including, international regulations, national legislations, books, journals, articles and relevant sources online. In this regard, the research is designed to investigate the legislative framework and resources in the Nigerian maritime sector. It identified the factors considered within the six PESTLE themes to enable a proper understanding of the issues addressed within its scope.

1.7 Ethical issues

This dissertation observed all ethical prerequisites and standards of academic research, data collection and academic writing. The study had the requirement of originality and acknowledged the data or information obtained through paraphrasing, quoting and referencing. The information and character of the people involved were kept confidential.

1.8 Scope and limitation of the research

The scope of this dissertation is to study the system for implementation and enforcement of IMO instruments, particularly, MARPOL Annex VI in Nigeria with standards set by IMO. The research will not go further beyond the focus on MARPOL Annex VI to study the implementation of other IMO instruments in Nigeria.

Some of the limitations were the unavailability or inaccessibility of sufficient data to support the theoretical reasons discussed and time constraint. Fifteen stakeholders were interviewed from the maritime administration, shipping companies and recognised organisations. Due to the small number of participants, coverage and investment of the data collection, the research findings cannot be generalized as the complete representation of the country's maritime industry. However, the data obtained can be used to carry out more extensive studies and to get a deeper understanding of specific situations.

1.9 Organization of chapters

This research has been structured into five chapters. Chapter one gives the background of the study, problem statement, aim and objectives, research questions, research design, ethical issues and potential limitation of the study. Chapter two provides a literature review on the process required for implementation and enforcement of IMO instruments. It focuses on maritime governance; overview of implementation and enforcement of IMO instruments and MARPOL Annex VI; and strategy for member state. Additionally, it reviewed literature on Nigeria's stance concerning international maritime instruments and its regulatory framework in the prevention of pollution from ships. In chapter three, the rationale for the research method and criteria used in the analysis were discussed to provide clarifications related to the various activities to be carried out in the next chapter. The research interviews gave insights on the process of implementation and enforcement of IMO instruments, particularly MARPOL Annex VI regulation in Nigeria. It served the function of the data collected through interviews and review of national legislation to examine implementation and enforcement in Nigeria. Chapter four presents the result of the study from the interviews and documents reviewed. Chapter five provides discussion, conclusions and recommendations to tackle the challenges identified in the study.

Chapter 2: Literature review

2.1 Introduction

This chapter begins with the broad context of the role of government in policy formulation and the administration of maritime affairs. It discusses recommended procedures for effective implementation. The chapter highlighted the jurisdiction of member states while outlining their rights and responsibilities. The role of IMO in assessing member states performance (III code) were also discussed. Also, the importance of strategic planning, evaluation and management review for performance analysis were emphasized to stress the need for an equipped regulatory and administrative regime ineffective implementation. Some general best practices were presented.

The chapter then narrowed down to review Nigeria's posture towards maritime treaties by discussing the shipping policy and implementation challenges faced over the years, which provided a critical review of the Nigerian maritime sector. Lastly, an introduction of the maritime administration and their guiding laws were given.

2.2 Maritime Governance

There has always been a need to establish an effective and sustainable regime of accountability for the shipping industry. Efforts have been made through various regulatory processes to enhance the collaboration of the principal actors towards that aim. The principal actors in the maritime industry includes the International Maritime Organization (IMO); Governments; Recognized Organizations (ROs); Seafarers; ship-owners and shipping companies (Roe, 2015; Vanelslander, 2011; Barchue 2009). The freedom given to governments (flag states) by various treaties to ensure compliance by actors provides a gap in determining shipping standards are uniform, thereby creating an unhealthy competitive environment for ship-owners. This superior jurisdiction has left maritime governance largely driven by institutionally alternative policy frameworks (Roe, 2015).

Moreover, a review of 30 maritime nations by Li & Cheng (2007) showed that maritime policy results more from the economic circumstances than from the rational

decision of the legislators as it appears. States have an interest in protecting their economy through the adoption of regulations that will not interfere with its industrial activities. These economic interests will decide a State's willingness to implement a maritime regulation. Sometimes the problem becomes more complicated when a rule has to be revised to add more stringent standards (Karahalios, 2015). Karahalios et al., (2011) suggested that a maritime regulation would be implemented more effectively if there were a cost-benefit balance between the industry stakeholders.

Governing the maritime industry consists of legal regimes and requirements; and compliance and execution with the maritime administration functioning as a flag, port and/or coastal state (Mukherjee et al., 2013). At the National level, this involves the three arms of government that formulate (legislative), execute (executive) and interpret (judiciary) the laws of the state. Even though their powers are separate, they are interdependent for the proper functioning of the system. The maritime administration works with the executive to put the decisions taken by the government into effect. Many IMO member States have a two-tier system of domesticating IMO conventions for flexibility & efficiency

- Tier 1 - Statutes or Acts passed by parliament for example maritime administration Act and Merchant Shipping Act

- Tier 2 - Subsidiary legislation or Regulations passed by government agencies (e.g. MA) with approval of the Minister, under the authority of the parent act. Mandatory IMO codes and guidelines are given effect by direct reference in subsidiary legislation and are usually subject to frequent amendments, technical & detailed.

For a significant impact in maritime governance, the relationship between the maritime administration, policy implementation and development are held by clarity of political goals of all stakeholders, understanding of the legislative structure and transparency in distribution of resources (Roe, 2015). Policy is usually initiated at the senior level of the maritime administration. Because maritime policy has international implications, Mukherjee et al., (2013) stress the need for maritime officials to be multifaceted, open to relevant disciplines in technical, scientific, law, economics,

finance and management in the maritime context. In the researcher's, this will assist the formulation of rational policy and planning for the consideration of the executive. The interest and implications of policy on a state influences their participation and acceptance of that policy (Roe, 2015). Acceptance could be either at national or regional level, which is usually decided in collaboration with other stakeholders in both private and public sectors. In Figure 1, the initiation of policy passes from the maritime administration to the legislative and judiciary through the executive. It passes back to the administration after the legislation has enacted through the same process for implementation. The maritime administration advises on how to administer the laws and regulations and the guidance received from it to deliver the state's mandate (Mukherjee et al., 2013).

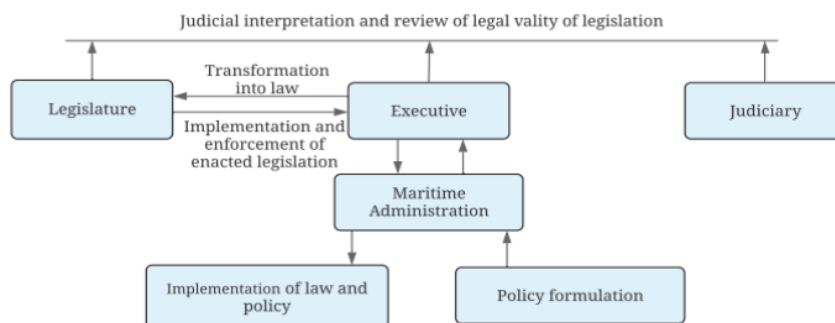


Figure 1: Maritime governance structure (source: Mukherjee et al., 2013)

Because an effective national maritime administration is the key to an effective flag state performance and will enhance shipping performance and sustainability (Standard, 2019), it is of essence that the maritime sector uses technocrats with adequate experience and knowledge to draft secondary legislation in the forms of regulations. This is done with the authority from the principal instrument and subject to interpretation by a court of construction. The maritime administrators, because of the complex and shifting dynamics of the maritime laws and policy framework (Mansell, 2009), face various challenges at the execution level of governance.

2.3 Implementation and enforcement of IMO instruments

As rightly said by Mukherjee et al., 2013, “*UNCLOS is the motherboard for governing all maritime-related matters from a public law perspective. It provides the blueprint for IMO conventions addressing maritime safety security and protection of the marine environment while IMO conventions provide a detailed regulatory framework*”. Part XII UNCLOS covers marine environmental issues concerning domestication (United Nations, 1982).

IMO’s mandate was limited to “maritime safety and efficiency of navigation” (Art 1a, IMO convention). However, after OILPOL 54 entered into force, the mandate was formally extended in 1975 to “prevention and control of marine pollution from ships” regulating vessel source pollution and established the Marine Environment Protection Committee (MEPC) under a new Part IX of the IMO Convention. IMO has had newer mandates since then to address emerging issues.

Most International instruments provide standards but do not provide the required guidance for effective enforcement. Having a policy, therefore defines the principles to ensure consistency in implementation and prevent deviation from the set standards—for example, the guidance for requirements to prosecute violations of regulations and penalties for violations.

Implementation and enforcement are the two ways of giving effect to a convention domestically. Implementation is said to be achieved when a treaty is made part of the national legislation. Domestic implementation can be:

- Monistic - where the treaty becomes automatically part of the national law once the state formally consents to it by either signature, ratification, accession, acceptance or approval as provided by the Vienna Convention on the law of the treaties, 1969 (Iwasawa, 1985; Dixon, 2013). However, when it is not directly applicable or self-executing, then express legislation is needed.
- Dualistic - where express legislation is required in all instances regardless of the nature of the treaty (Dixon, 2013).

The process of Implementation of IMO instruments involves the decision to ratify and implement an international Instrument; formulation of National legislation and

notifying IMO; Provision of policies, guidance (interpretations) and publication; informing IMO, ship-owners, ROs and other interested parties. Implemented treaties can be enforced either by a preventive approach that includes surveys, certification, monitoring and inspection; and/or by a remedial approach that involves appropriate sanctions in the event of violation of implemented convention law (Mukherjee et al., 2013).

2.4 Flag State implementation

The sovereignty of a state grants it territorial jurisdiction under the principle of territoriality which is exercised over anyone in the territory and also grants it jurisdiction concerning nationals without being restricted under the principle of personality (United Nations, 1982). States have certain rights and obligations under various mandatory IMO instruments as a flag (Bateman, 2016), port (Rayfuse, 2016) or coastal (Bautista, 2016) state. This study however focuses on flag state implementation.

According to Mansell, 2009's study, the flag state's existing regulatory regime is adequate in law; however, its implementation and enforcement does not fulfil the aims of the law of the sea (LOSC). There are diverse responsibilities of flag state under international and domestic laws concerning ships possessing its nationality and compliance with different international conventions relevant to the state (Mukherjee et al., 2013; Bateman, 2016).

Flag States may be solely responsible for administering international law through the maritime administration and may permit private entities to carry out technical inspection, survey, and ship certification (UNCLOS Art 94 (I)) under a performance-monitoring regime (III Code). The major problem with effective flag State responsibilities is the will and capacity to have the required maritime infrastructure and legal resources to administer and enforce the relevant laws enacted by them. The UN Secretary-General's report submitted to the 58th session noted that "*many shipping incidents and resulting loss of life and marine pollution are not the result of insufficient global legislation, but are due to poor implementation and enforcement by the flag State*" (Bateman, 2016).

To assist in the implementation and enforcement of the requirements of all safety and pollution prevention conventions and protocols to which they are party, the III Code, Annex, Part 2, requires flag States to implement relevant policies through the issuance of national legislation and to assign clear responsibilities within the Administration. The experiences of some flag States however shows that the preparation for the implementation of some of the new instruments require significant resources for administrative purposes and timely handling of cases of ships with established deficiencies either found during Flag State inspections, Port State Control or confirmed by Recognized Organizations or ship's crew (ICS, 2014; Government of Bermuda, 2018). In addition, reporting to IMO on mandatory and recommendatory instruments are part of the obligations of flag states. This can be done through the Global Integrated Shipping Information System (GISIS); Submissions to IMO Sessions; and/or Letters to the Secretariat (IMO, 2013a).

2.5 Role of IMO in implementation and enforcement

The rise of substandard shipping is attributed to the failure of flag states to properly regulate the shipping industry (Mukherjee et al., 2013). In the absence of enforcement, powers came the need for measuring the effectiveness of how IMO standards are implemented and enforced by Member States. To assist this process, a Flag State Implementation (FSI) committee was established to help check and improve flag state performance through a system of self-assessment by flag state administrations of convention parties submitted to IMO Resolution A.912(22) (IMO, 2001). This has enhanced accountability among Member States of IMO concerning their treaty obligations. The scheme supports the principle of sovereignty that makes the audit approach constructive using an agreed questionnaire, including criteria and performance indicators to facilitate compliance and rectify deficiencies. It however lacks an enforcement component. This might be the reason for the low response received by IMO from the MARPOL mandatory reporting requirements from 2011 - 2016 (IMO, 2018). In the future, it is expected to do the same amongst the various

actors of the shipping industry as the demand for equal rights of ROs, companies and seafarers are on the increase from governments (Barchue, 2009).

The root causes for most common underlying deficiencies or findings as identified by IMO audits in States is shown in Figure 2. It includes lack of national provisions; lack of policies and documented procedures; insufficient resources available to maritime administrations; lack of management systems; lack of awareness, understanding and interpretation of the requirements; lack of coordination among various entities of the State; and lack of training programs (Barchue, 2020). Nigeria had 11 findings from the 2016 IMSAS audit.

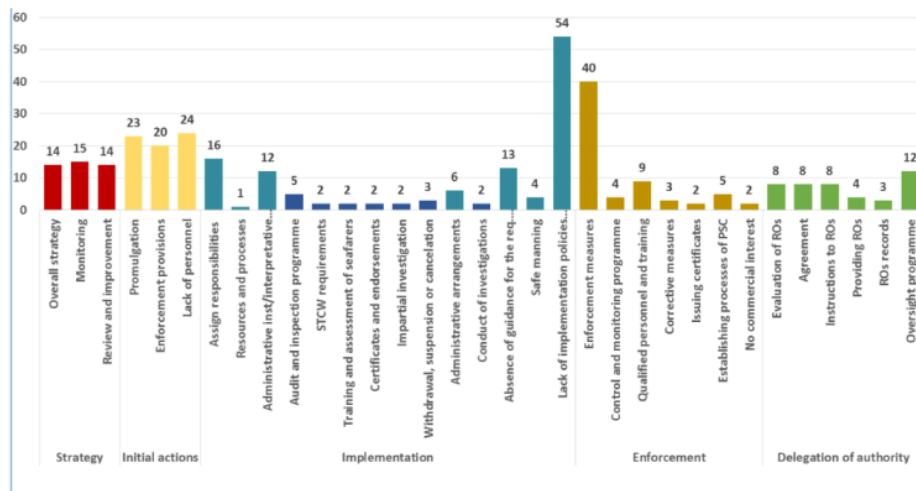


Figure 2: Number of shortcomings reported in audits (source: IMO DEPT. MSA&IS, 2018)

2.7 Overview of MARPOL Annex VI

MARPOL Annex VI supports international measures to achieve sustainable development, in particular SDGs 13, 14, 7, 12 and 3. It bans deliberate emissions of ozone-depleting compounds, restrictions on emissions of NOx, SOx and VOCs among others. MARPOL Annex VI applies to all ships. Unlike the other MARPOL Annexes, Annex VI regulates a range of different pollutant sources along with other aspects relevant to ship operation that can result in air pollution themselves as shown in Table 2 (IMO, 2013b).

Table 2: Pollutants regulated by MARPOL Annex VI (Adapted from MARPOL 73/78)

Controlled compounds	Regulation
Ozone-depleting substances released from refrigeration	12
Nitrogen oxides from diesel engine combustion	13
Sulphur oxides and particulate matter emissions from the combustion of fuel oils which contain Sulphur	14
Volatile organic compounds, the hydrocarbon vapours displaced from tanker cargo spaces	15
Shipboard incineration	16
Reception facilities	17
Fuel oil quality as it involves a variety of issues related to air quality and energy efficiency for ships	18

MARPOL sets out definite requirements that form the basis for its rules. The provisions of the convention must be given full effect under the national law of party states (Becker, 1997). Therefore, it basically involves the legislation and maritime administration to fulfil its obligation. The laws apply to ships entitled to fly the flag of a Party and ships not entitled to fly the flag of a Party but which operate under the authority of a Party (IMO, 2013b). Compliance with the applicable specifications of Annex VI is demonstrated by the issuance of an International Air Pollution Prevention (IAPP) Certificate and for ships of 400 gross tons and above and for platforms and drilling rigs involved in international voyages. An International Energy Efficiency (IEE) Certification is also required for ships of 400 gross tons and above. The Administration can establish appropriate measures for ships of less than 400 gross tons to demonstrate the required compliance (IMO, 2013b).

Table 3: IMO requirements set for MARPOL Annex VI (Adapted from IMO, 2013)

	IMO provisions	Member States obligations
Enforcement	<ul style="list-style-type: none"> Regulation 5 Regulation 11 	<ul style="list-style-type: none"> Ensure that all criteria regarding shipbuilding, facilities, documentation, and operating procedures are met by flagships Collaborating to check flagship's compliance and identifying violations Inspect ships as coastal and port state to verify no prohibited discharge was made Take appropriate measures in case of discharge without causing unnecessary delay to a ship Forbid violations and enforce penalties under their laws and to take action against offenders
Port State Control	<ul style="list-style-type: none"> Regulation 15.3 MEPC.321(74) MARPOL article 5(4) 	<ul style="list-style-type: none"> PSC officers are to ensure the date of ship construction; installation of equipment on board; and all documents like IAPP, IEE certificates comply with the principal provisions of the annex They are to use their professional judgement in detaining ships if they pose a threat to life and the environment Apply the principle of no more favorable treatment
Communication of information	<ul style="list-style-type: none"> Regulation 4 MARPOL protocol Article 3 	<ul style="list-style-type: none"> Provide IMO with information on all published laws relating to MARPOL Provide IMO with list of designated surveyors or recognized organizations authorized to act on their behalf, specific roles and conditions assigned Provide IMO with specimens of their certificates issued under the regulations Provide IMO with list of available reception facilities including their location, capability and other features Provide IMO with annual statistical report standardized by IMO of the penalties currently issued for violation Provide IMO with updates of information on Global Integrated Shipping Information System (GISIS)
Issuance of certificates	<ul style="list-style-type: none"> Regulations 6,7,8 & 9 	<ul style="list-style-type: none"> Recognize a MARPOL certificate issued under the authority of a Party Notify other flag State Administrations of actions taken against any ship should be notified
Reception facilities	<ul style="list-style-type: none"> Regulation 17 Resolution MEPC.83(44) 	<ul style="list-style-type: none"> Ensure that ships using ports or terminals have adequate reception facilities to meet their needs
Availability of complaint Fuel	<ul style="list-style-type: none"> Regulation 18 and 19.4 	<ul style="list-style-type: none"> Promote the availability of compliant fuel oils in ports and terminals under its jurisdiction and notify IMO of same Consider cases where ships have on board non-compliant fuel oil due to non-availability of same and notify IMO of findings Authorize appropriate authorities within its jurisdiction to establish and apply fuel oil supplier registration schemes Approve alternatives to the bunker delivery note Waive the requirements to comply with regulations 20 and 21

2.6. Member State strategy for MARPOL Annex VI

For a State to meet the objective of the III Code, a strategy is needed to address issues relating to adherence to international recommendations on implementation and

enforcement of relevant international mandatory instruments in this case MARPOL Annex VI. Without a strategy, the roles and responsibilities of various regulatory agencies may not be clear. In certain instances, it may result in non-compliance or non-timely implementation of instruments. The necessary steps for a member State strategy includes methods for establishing competence and areas of responsibility for entities involved in the State's maritime activities; clear mandates and lines of authority to ensure an overall coordinated body for all maritime activities.

For proper implementation and enforcement of MARPOL Annex VI, there should be a strategy to monitor the process of survey and certification, the availability of compliant fuel, port reception facilities, prosecuting violation and reporting procedure to IMO (IMO, 2013b). For example, the European Union in 2013 gave a directive that established a data collection system for ships over 5000 gross tonnage as a strategy to reduce emissions within European Economic Area (EEA) from January 2018 (Directive EU 2018/410). The steps involved Monitoring, Reporting and Verification (MRV) of emissions, setting emission targets and market-based measures, in the medium to long term. The guidance on methodology for collecting data on fuel oil consumption involves checking distance travelled and hours underway using bunker delivery notes (BDNs), flow meters and monitoring of bunker fuel oil tank on board by accredited MRV shipping verifier (Regulation 2015/757). An annual report is published at the end of the year to inform the public of the emissions and the monitored fleet (European Union, 2020). The IMO in 2016 followed the same model in its Regulation 22A for Collection and reporting of data for ship fuel oil consumption. In this case, the data will be collected and verified by the Administration before submission (MEPC.292(71)). This strategy will help in monitoring and evaluating the performance of the regulation for the reduction of emission from ships.

[2.7 Nigeria's posture towards maritime treaties](#)

Since joining the United Nations as an independent sovereign state after its independence in October 1960, Nigeria has participated actively in numerous international treaty forums. It has also signed to become a party to several international

treaties since 1960. Nigeria is a party to a range of international treaties concerning or regulating different marine and maritime issues.

Nigeria, to fulfil its obligation under IMO, has ratified 27 Conventions and Protocols. The ratification ranges from 0 to 29 years, having a mean of 7 years. However, this does not diminish the maritime administration's efforts in ensuring that the state meets its international commitments under the UNCLOS. Additionally, successive governments have established key institutions such as Nigerian Maritime Administration and Safety Agency (NIMASA) and Nigerian Ports Authority (NPA) with different responsibilities for promoting and regulating relevant national and international rules, standards and requirements in the maritime sector. Figure 3, shows the disparity between the date of entry into force (EIF) at the IMO and in the country. The blue bars in the chart indicates the date the Convention entered into force at IMO, and the red bars indicates the year it was ratified by Nigeria. The dotted line represents the gap in ratification.

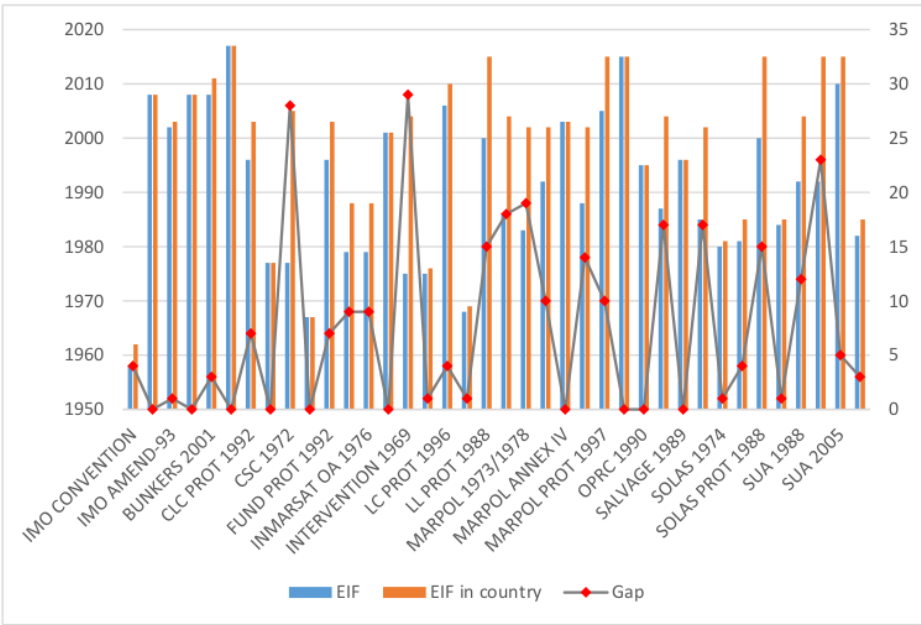


Figure 3: IMO treaties and date of Entry into Force (EIF) in Nigeria (Source: IMO GISIS)

2.8 Nigerian Maritime Administration and Safety Agency (NIMASA)

Nigeria is among the best maritime administrations in West Africa. It operates a zonal structure to facilitate effective collaboration of its activities to cover the maritime zones of the country. Section 2(4) of the NIMASA Act 2007 placed it under the supervision of the Federal Ministry responsible for maritime transport (FMoT). Section 2 of the Merchant Shipping Act (MSA) 2007 authorized NIMASA to act as the government agency responsible for establishing procedures for the implementation of the International Maritime Organization (IMO) conventions. NIMASA is manned by 25 exclusive and 50 non-exclusive surveyors that are adequate to the 3365-flagged ships as recorded by the Nigerian ship registry. The problem, however, lies with the lack of periodic training and modern infrastructure for effective enforcement (Ahmed-Hameed, 2016). NIMASA presently has a strong leadership that has been waxing its concerns about inadequate prerequisite technical capacity. Buhari et al., 2017 was very critical in his analysis of the current challenges and prospects of the Nigerian maritime industry policy issues. Still, the government feels it should devote its time and energy towards response to measures concerning other urgent security issues facing the country.

2.9 Merchant shipping act (MSA) 2007

The Merchant Shipping Act (MSA) 2007 provides details of Nigeria's obligations as a flag, port and coastal state as well as domesticates international instruments ratified by Nigeria. Under the MSA, 2007 and NIMASA Act, 2007, the Federal Ministry of Transport (FMoT) and NIMASA are responsible for promulgating and implementing national legislation and guidance, which will assist in the implementation and enforcement of the requirements of all safety and pollution prevention conventions and protocols to which Nigeria is a Party. Some arrangements were defining the responsibilities of surveyors in the MSA Section 219, but they were neither detailed nor extensive. There were no other regulations or instructions on the responsibilities, authority and interrelationship of exclusive and nominated surveyors. Nigeria has ten recognized organizations as recorded in GISIS to carry out surveys and certification on its behalf, five IACS members and five non-IACS members. There are no

references to the recognition of organizations found in the main acts and there are no regulations in place for choosing, reviewing, evaluating, identifying, and supervising ROs. Also, the RO Code is not enacted into domestic law, but there are agreements as required by the RO Code were the Administration authorizes its ROs on a case-by-case basis.

Nigeria has ratified and domesticated the MARPOL 73/78 convention; however, MARPOL Annex VI has not been domesticated. Consequently, under the powers of the minister in MSA Section 336, Nigeria has by way of regulation given effect to conventions relating to the prevention, reduction and control of pollution from ships more particularly MARPOL and its Annexes. According to the Act, no prosecution shall be initiated or continued without the permission of the Attorney-General of the Federation for an offence under the Act, except in respect of offences relating to discipline and order onboard a ship. The Minister can prohibit a ship entitled to fly the Nigerian flag from sailing until such ship can proceed to sea in compliance with the requirements of international rules and standards. Even though it was not clear who implemented this practice on behalf of the Minister, there are detailed penal provisions in the MSA and NIMASA Act. The level of monetary fines is to be considered as a deterrent. The regulations available on specific issues also define monetary fines, detention and imprisonment in Sections 282 and 407. In practice, as monetary fines are applicable only upon conviction of violators after a lengthy (up to 5 years) judicial process, the application of these enforcement provisions is very low. NIMASA is not granted direct application powers for the fines. The MSA's regulations on ship-generated marine waste reception facilities placed the Nigerian Ports Authority (NPA) as the agency responsible for providing the facilities. At the same time, NIMASA is expected to monitor the implementation. NPA is to prepare and implement a waste management plan approved by NIMASA. If there is an alleged inadequacy, NIMASA is required to consult with the Port Authority for rectification. Currently, the ports only have MARPOL 73/78 Annexes I to V reception facilities.

In addition, Nigeria is a member of the Abuja MoU on port State control with the highest shipping traffic in the region. The principle of "no more favourable treatment"

is not directly reflected in Nigerian law, although it is well understood. There is no national legislation or procedures for PSC, but various policies and guidelines by Abuja MoU were followed informally. They do not contain conditions for detaining ships, so this criterion was not clearly identified.

2.10 Reviews on Nigerian's regulatory framework for shipping

After a critical review of the MSA 2007 and the background of how the Nigerian shipping policy came to being, a study by Iheduru, in 1992 showed that the shipping policies in Nigeria were not properly promulgated. It attributed the gaps found between the intent and actual implementation to the lack of clarity and precision in some provisions. The study also stated inexperience, incompetence, politicized management and the strained relation between the private shipping operators and the government authority as some causes. It went further to point out the lack of coordination among different ministries and state agencies charged with the supervision of the maritime sector. The study then proposed the need for proper shipping policy for the benefit of the maritime sector, which will extend to the country at large (Iheduru, 1992).

Considering the time in which the study was carried out, it is expected that significant improvements would have been made in the maritime sector by now. However, recent studies have shown similar results. A study by Buhari et al., 2017 on "current challenges and prospects of the Nigerian maritime industry policy issues", reviewed the structural nature and situational content of the maritime sector. The study also identified similar issues as stated by Iheduru, 1992, as some of the problems still faced by the Nigerian maritime sector. The paper further stressed on the lack of political will to enforce implemented government policies as the leading cause of the issues encountered in Nigeria's maritime sector. Nevertheless, the study pinpointed the establishment of maritime institutional programs to improve technical capacity and workforce; the new cabotage implementation policy and concession of port terminals as some prospects in the industry (Buhari et al., 2017).

The active participation of Nigeria in IMO meetings and treaty formulations does not necessarily mean it effectively implements and enforces the conventions which is the case with most developing countries. From the happenings in the governance scheme,

Nigeria seems to face issues when it comes to domesticating international conventions standards. This has raised questions of either lack of capacity or interest in the standards (Ahmed-Hameed, 2016), which has created problems that affects and limits the participation and welfare of Nigerians, as well as the position of the country as a compliant member of the international community. Consequently, the Government has made some moves to close the gap by institutional restructuring, operational reforms, concession and privatization of key areas for increased performance and compliance with international standards. Nevertheless, (Ahmed-Hameed, 2016) concluded that Nigeria needs to reassess the structure, strategy and policies for implementation and enforcement of IMO instruments to redeem the situation.

These studies, in one way or the other, have concluded the lack of government willingness to implement and enforce policies in the maritime industry. However, it is worthy of note that Nigeria signed an MoU with the World Maritime University in 2018, where 8 to 11 personnel from the maritime administration are sent every year to be trained. This points to the capacity building initiative of the present maritime administration.

2.11 Conclusion

From the discussions, regulating the maritime industry requires commitment and willingness on the part of the member states. The IMO has put in place measures that can be a blueprint to assist effective implementation and enforcement of its instruments. However, for proper implementation and enforcement, states must be able to interpret those blueprints, enact it to their national laws and get all the actors of the maritime field to collaborate. Nigeria has had many challenges, as mentioned by several studies in fulfilling its obligations as a member state. With the recent change in administration however, this study deemed it necessary to look into the efforts they are making to bridge the gap and ensure compliance.

Chapter 3: Research methodology

3.1 Introduction

“Methodology is the systematic, theoretical analysis of the methods applied to a field of study. It comprises the theoretical analysis of the body of methods and principles associated with a branch of knowledge” (Igwenagu, 2016). This chapter therefore discusses the design of this study that includes the research approach, the data collection process and provides the reasons for the research choices used to answer the research questions. It clarifies the applied methodological approach to look at the governance structures and processes for implementation and enforcement of IMO instruments in Nigeria using MARPOL Annex VI as case.

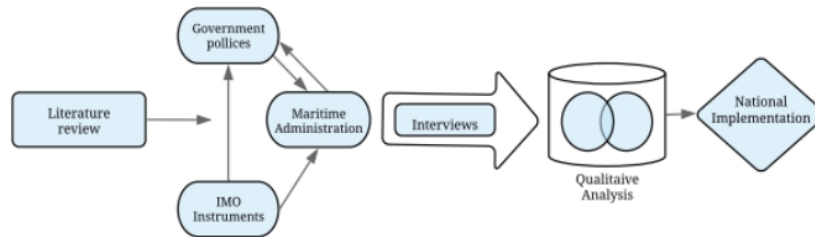


Figure 4: Research framework

3.2 Reason for the selected methodology

Since analysis within the qualitative framework enables better access to personal experiences and makes it possible to interact more closely with the data collected (Cho & Lee, 2014), the researcher used the qualitative method to answer the research questions. Although several analytical tools like TOWS/cross-impact matrix (Proctor, 2000) and Analytic Hierarchy Process (AHP) (Saaty, 2000) can be used for qualitative analysis, this study mapped out its discussion with the PESTLE factors (Alanzi, 2018). After a critical analysis of the validity of PESTLE analysis technique in terms of method, content and success, Yüksel showed that the method is widely accepted and

provided significant and considerable information for decision-making (Yüksel, 2012). PESTLE is widely used by organizations for the evaluation of the impact that the external environment might have on a project (Christodoulou & Cullinane, 2019). Although the present form of PESTLE analysis provides important foundational knowledge in conceptual terms for analysis of the macro-environment and a holistic approach, it has some limitations in terms of quantitative approach to measurement and evaluation (Yüksel, 2012). This prevents objective, rational and detailed analysis. Furthermore, the analysed factors are generally measured and evaluated independently without considering their relations and interactions. They may differ in relative importance, which require measurement techniques to determine. (Yüksel, 2012). Considering that the process of implementation and enforcement in states is quite complex and encompasses various distinct standards, a PESTLE analysis was applied in this study to highlight the political, economic, social, technological, legal and environmental factors that affect the domestication of MARPOL Annex VI in Nigeria. The III Code and standards for implementation of MARPOL Annex VI were used to set out the criteria for the interview questions and analysis. It maps out a framework that the maritime industry can follow for effective implementation and enforcement.

3.3 Criteria used

The criteria used to assess Nigeria's implementation and enforcement were adapted from Resolution A.847(20) guidelines to assist flag states in the implementation of IMO instruments and Resolution A.912(22) self-assessment of flag state performance. These criteria include:

- Legal performance and means of promulgating maritime legislation in respect to the international maritime obligations of the State;
- Ability to demonstrate giving full and complete effect to instruments in force to the convention;
- Enforcement of maritime legislation;

- Responsibility for any Recognized Organization (RO) acting on behalf of the Administration, including authorization and monitoring of, and any corrective action against, the RO;
- Ability to investigate the causes of pollution incidents and the ability to take appropriate remedial action;
- Ability to ensure that a ship having joined its register does not operate unless it complies with applicable instruments;
- Ability to demonstrate that a policy is in place to promote at all times a safety and environmentally minded working culture (IMO, 2002).

3.4 Method of data collection

Data was collected employing semi-structured interviews among maritime administrators, port authority officials, shipping companies and recognized organizations. Other sources include NIMASA's website, the Nigerian Merchant Shipping Act (MSA) 2007, NIMASA Act 2007 and documents on activities of the Nigerian maritime administration.

3.4.1 Structure of questionnaire

The questions were structured into three main headings based on the requirements of the III Code and MARPOL. An overview of the framework used for the questionnaire is presented in Table 4.

Table 4: Constituents of the interview questionnaires

Main headings	Reasons for the question	How it was used
Professional background	To find out the level of experience and expertise of the respondent	To verify the capacity of response given
Legal framework	To understand the organisational structure, competency and jurisdictional roles for domestication of legislation	To check for the adequacy of the legal framework
Resources	To ascertain the available resources in terms of finances, infrastructure, human capacity and Acts for implementation and enforcement	To examine the level of preparedness of the state

3.4.2 Interview process

The semi-structured interviews aimed at identifying the factors that play a vital role in the issues of implementation and enforcement of MARPOL Annex VI in Nigeria as a member state. The interviews were particularly focused on gaining a deeper understanding of the priority the state is giving towards the maritime sector in terms of the regulatory framework and resources required to enhance its effective functioning. This enabled the researcher to acquire insights into the present regulatory framework and government initiatives relating to the legal and administrative procedures of Nigeria. Copies of the interview questionnaire is included in Appendix A, B and C.

3.4.3 Selection of respondents

A critical step in this research was the identification of suitable respondents from the maritime administration, port authority, shipping companies and recognized organizations with in-depth knowledge of the obtainable processes. All interviews were scheduled and carried out with the informed consent of the respondents. The aim of collecting data from the different sectors of the maritime industry was a way to ensure triangulation (Heale & Forbes, 2013). It was intended to compare and verify

the response from the various actors of the Nigerian maritime sector. Interview questions were sent to prepare the thoughts of the respondents in advance. Additional data from the MSA 2007, NIMASA Act 2007 and website of the administration were also used to substantiate the responses received. Ensuring compliance with IMO standards are high priorities for the agencies as shown in their forecast of the maritime industry in Nigeria (NIMASA, 2018).

3.5 Method of data analysis

“Data analysis is the process of reducing large amount of collected data to make sense from them” (Kawulich, 2004). The study used the deductive approach for content analysis mapped within the PESTLE analytical tool. This allowed for the identification of the environment within which the maritime administration operates and provided data and information that enabled the researcher to predict situations and circumstances that it might encounter in future (Yüksel, 2012). The method was applied due to the sample size and resources available.

3.6 Conclusion

The researcher’s choice of the qualitative methodology within the PESTLE tool gives an elaborate analysis of the factors that need to be examined when checking for compliance. Yüksel, 2012 presented it to be a precondition analysis, which should be utilized in strategic administration. It presents the necessary details required to draw an informed conclusion. Because the data collection system in qualitative research has a huge impact on the results, the chapter carefully described the collection and analytic process that provides a clear view of how the findings were drawn.

Chapter 4: Results

4.1 Introduction

The purpose of this study was to examine the regulatory framework for implementation and enforcement of IMO instruments in Nigeria using MARPOL Annex VI as a case. The first three chapters offered an introduction to the reasons IMO decided to have regulations to protect the marine environment and how they intend to achieve it; a review of literature on IMO's implementation and enforcement measures and Nigeria's posture towards IMO instruments; and the methodological design that was employed for this study. This chapter will now present the findings that emanated from the data collected and analysed using the constituents of the questionnaire used for the interview. Selected quotations presented in italics give the opinions of respondents and are written without any form of modifications. All the findings presented were to answer the research questions: How adequate is the institutional framework for implementation and enforcement in Nigeria? What are the challenges faced by Nigeria in the process?

4.2 Distribution of respondent

In total, this study had 15 participants. The respondents from the administration ranged from the principal officers responsible for key functioning of departments to managerial level. This highlights the valuable contribution made on the various subjects by the experts. The respondents from the shipping companies and the recognised organisations were also in charge of the administrative and operational activities of their various sectors. The selected respondents represents the sectors and activities involved in the implementation of IMO instruments and specifically MARPOL Annex VI. Table 5 gives a descriptive statistics relating to the number of years the respondents served in the maritime industry and the number of respondents per sector. Furthermore, the female representation is 20%, as shown in Figure 6. It also shows the present level of the interviewed respondents.

Table 5: Years of experience and number of respondents from each sector

Number of years served in the industry

	Years
Maximum	27
Minimum	5
Median	15

Number of respondents per sector

	Number
Maritime administration	10
Shipping companies	3
Recognised organisations	2

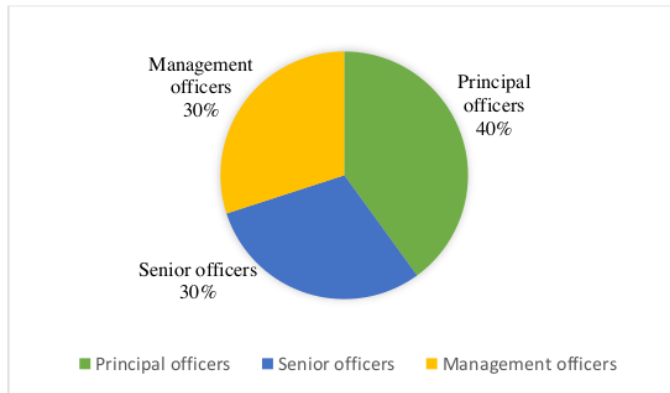


Figure 5: Present level of respondents

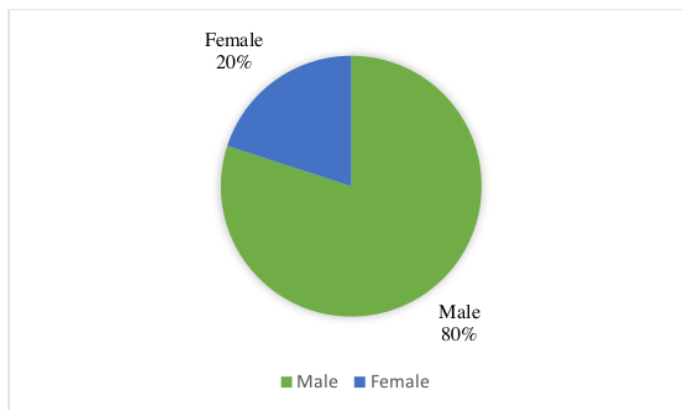


Figure 6: Gender representation of respondents

4.3 Legal framework

In analyzing the data, the legal framework is presented under three themes - organizational structure, competency and jurisdictional roles for the domestication of legislation.

4.3.1 Organizational structure

An examination of the data reveals that the process involved in domestication of legislation in Nigeria as presented in Table 6 moves between NIMASA, FMoT, Federal Ministry of Justice (FMoJ), consultants, Federal Executive Council (FEC) and the National Assembly (NASS). The same procedure also extends to the introduction of instruments, such as MARPOL's Annex VI, which is an amendment to an existing instrument domesticated by Nigeria. Detailed steps of the national legislative process is included in Appendix D.

Table 6: Steps for domestication of IMO instruments in Nigeria

	Handling body	Action
Stage 1	NIMASA	<ul style="list-style-type: none"> Request to user departments to furnish the legal unit with the proposed international instruments for ratification and justification Collation of submissions from user departments Reconvene NIMASA's technical working group comprising operational departments to discuss implications and obligations of being a party.
Stage 2	FMoT	<ul style="list-style-type: none"> Forward the recommendations to the management and the ministerial committee of ratification and domestication of international conventions, protocols and other related matters for implementation to seek for approval.
Stage 3	Consultants	<ul style="list-style-type: none"> Engage legal professionals to review the instrument
Stage 4	FMoT	<ul style="list-style-type: none"> Receipt of report from legal professionals Reconstitution of the technical working group to review the report in line with the Agency's laws amendments. Review of same report by ministerial technical sub-committee on ratification and domestication
Stage 5	NIMASA, FMoT and FMOJ	<ul style="list-style-type: none"> Consult stakeholders to seek their support Submission of draft bill to the FMOJ. Interface with the FMOJ department of legal drafting to finalize the bill
Stage 6	FMOJ, FMoT and FEC	<ul style="list-style-type: none"> Interface with the FMOJ and FMOT for the transmission of the bill to FEC for approval and transmission to NASS Approval from FEC
Stage 7	FMoT and NASS	Interface with FMOT and NASS for: <ul style="list-style-type: none"> Constitution of sub-committee on legislative advocacy Advocacy, public hearing, and sensitization Conclusion of terms of reference for committee on legislative advocacy/passage of bill Gazetting and production of legislation
Stage 8	NASS	<ul style="list-style-type: none"> Undertake an appraisal of amended MSA 2007
Stage 9	FMOJ, FMoT and NIMASA	<ul style="list-style-type: none"> FMOJ obtains the printed copy and forward for the president's signature NIMASA deposits the instrument at IMO through the office of the Permanent representative of Nigeria to IMO.
Stage 10	NIMASA	<ul style="list-style-type: none"> Issue circulars & press releases Liaise with relevant parties to organize seminars Conduct internal briefings or training for staff

From the structure, the data showed that there is no fixed period for each stage and there are lots of avoidable back and forth movement that delays the legislative process. Further probe of the administration's respondents also presented several obstructions arising from conflicting interest, insufficient knowledge and required outcomes in various stages. All the respondents suggest the need for a fast-tracking of the

procedure, especially for MARPOL Annex VI that was ratified 15 years ago. In one of the discussions:

RS AD: "Nigeria has a challenge of domesticating MARPOL Annex VI because of bureaucratic protocols. The technical working group from the maritime administration has had several meetings to come up with regulations".

The NASS seems to be interested in other revenue-generating bills.

The congruence between comments made by the respondents seem to verify the red tapes present in the organizational structure that hinders a smooth and timely delivery of the national legislations.

4.3.2 Competence

Concerning competence, an in-depth knowledge of the requirements and procedures laid out for the domestication of conventions is important in generating a well-interpreted national legislation. During the data survey, the administrators complained about the lack of sufficient knowledge and skills of the people involved in the legislative process at the ministerial and parliament levels. While discussing further:

RS AD: "FMoJ was not even aware of the express powers given to the administration in the MSA 2007 to bring into force amendments. We had to bring it to their attention".

When asked for a criteria used in the employment of officers involved in those positions, the data from the administration based on the respondents' understanding and the MSA 2007 and NIMASA Act 2007 revealed that there were no documented criteria. This also extended to the heads of the maritime administration and ministries that are appointed politically with a tenure of four years. Other stakeholders in the industry, however, had no idea if there were required qualifications considered in

employing legislative officers or not. In some opinions received while discussing on the competence of the present officials:

RS AD: *“I think the officers involved in the domestication process are not also interested in understanding the details on their part”*.

This implies that the level of competence of the officers participating in the domestication process has reflected their inadequacy and that plays a part delaying the process of national legislation in Nigeria.

4.3.3 Jurisdictional roles and responsibilities

The III Code requires States to assign responsibilities within the Administration to update and revise any relevant policies adopted, as necessary. The responses received from interviews with the administrators involved in the legislative process shows there are no fixed or clearly defined roles and responsibilities as it relates to the process of domestication of the IMO instruments in Nigeria. This was obvious in the statement:

RS AD: *“We don't have assigned roles. We just have a term of reference and it is based on those terms that we operate. Also, it is based on the constitutional role that automatically places you in a position to act on such documents. For the committee and subcommittee, anybody can be assigned the role”*.

In an enquiry on annual reports for detentions on both flag and port state with the contraventions and way forward which is provided by NIMASA, the respondents from the enforcement unit of the administration confirmed the availability. However, it appears the responsibility of reporting is too widely spread and no one takes overall responsibility for ensuring that reporting was completed comprehensively and timely. From the industries' perspective, the shipping companies and ROs voiced out their concerns on the communication gap between the maritime administration and other stakeholders. As mentioned:

RS SC: *“It is very difficult to get information or find the person in charge to solve a problem from the Nigerian maritime administration especially if you are not in Nigeria. The contact information on the website is not reachable. The process of contacting NIMASA is not streamlined. It is slow”.*

This statement in the researcher’s opinion is attributed to the lack of clearly defined roles in the administration. Additional concerns raised by the ROs was the lack of comprehensive guidelines for survey and certification from the administration.

The ratings received from the shipping companies and ROs on the services provided by the maritime administration in terms of timeliness (25%), accuracy of information (75%) and structural organization (50%) is presented in figure 7.

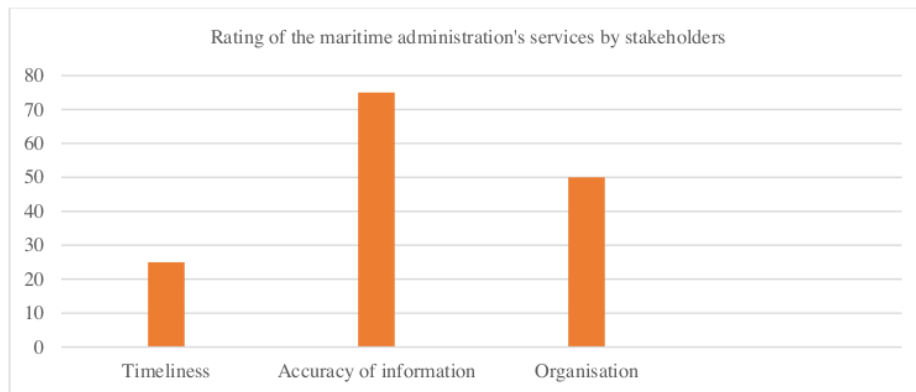


Figure 7: Rating for Nimasa by the stakeholders

An examination of these expressed opinions seem to provide evidence that the maritime administration’s regulatory functions are being hampered due to undefined roles for two reasons. The application of terms of reference requires high technical competence that appears to be insufficient, and the expressed grievance from the shipping industry and ROs in response to ratings of the administrative services.

4.4 Resources

In analysing the data, the resources will be presented within the following themes - human resources, infrastructure, legal and finances.

4.4.1 Human capacity

From the interviews with respondents of the administration from the various zones, seven admitted that the number of personnel in their departments are adequate. However, they all confirmed the lack of technical capacity. The discussions confirmed Nigeria's deficiencies in complying with the criteria for the selection, qualification and training of its surveyors as required by IMO. In a response from the unit handling MARPOL:

RS AD: "there is inadequate technical expertise on surveys of MARPOL Annex VI implementation on the side of the maritime administration. Specific training on MARPOL Annex VI for the environment unit in the form of sensitization, especially on equipment used on vessels to refine fuels on Sulphur content is needed.

The data also revealed that there is no formal system in place for the Nigerian Administration to evaluate its flag State performance to determine whether staffing, resources and administrative procedures are adequate to meet its flag State obligations. Some statistics like port State control detention rates and flag State inspection results are informally considered during the day-to-day business of the Administration. As a result, the flag inspections seem flawed to the researcher. This is reflected in the monitoring and auditing of the ROs. As presented by the responses from the enforcement unit, the ROs are audited by the administration once in a year with a general checklist used, but there are no criteria for the evaluation of the outcome of these audits. From a critical review, the methodology and document setting out the overall or sub-level performance monitoring and improvement systems appears to be insufficient.

One of the main topics that the respondents highlighted was the need for more training to develop technical expertise. This was a focal point for 8 of the 10 participants from the administration who have worked for an average of three decades. The discussions indicated that training and continuous updating of knowledge were done as the

opportunity became available at both national and regional levels. From her experience, one of the respondent mentioned:

RS AD: "I just get letters notifying me to come for training. So I don't know if there is a documented schedule or type of training to be done at a particular time for a group of people".

The response from other zones, however, showed a bias in the selection criteria for training opportunities. There seems to be an unequal distribution of the opportunities within the administration.

The reoccurring focus by all participants on the need for more training demonstrates its fundamental requirement to meet the need for capacity for effective implementation and enforcement. From further findings, however, it seems the present administration has realised the need to develop capacity and has started making efforts to bridge that gap by sending officers on the middle cadre on professional long and short-term training. In addition, Nigeria requested for IMO's intervention for Technical Cooperation in developing strategy for domestication that was granted in 2018 (IMO, 2019). The knowledge gained is what the NIMASA technical working group is currently using in its efforts to develop requirements for national legislation. Furthermore, Nigeria also requested IMO's technical assistance in capacity building, training and emission control strategy in its submission for the preliminary session of MEPC 73 in October 2018 to enable full implementation. However, the request is yet to be granted.

4.4.2 Acts

The development, documentation and provision of guidance concerning requirements found in the international instruments seem to be insufficient. A review of the MSA 2007 and NIMASA Act 2007 shows that many of the mandatory IMO instruments like the MARPOL protocol and their amendments were not enacted into domestic legislation. Responses from the administration demonstrated their lack of satisfaction with the present provisions of the Act. Some reoccurring issues were the enforcement

process to get convictions in court that takes a long time and the insufficient penalties for some offences.

RS AD: The penalties provided by the merchant shipping act are not enough to discourage violations. Some offences are not also provided for in the Act. Offences need to be punished either by administrative fines or civil sanctions because most maritime offences are considered strict liability”.

Further discussions led to the discovery of the lack of procedures in place to review the relevant maritime legislation as required by IMO. This in the researcher’s opinion, has also affected proper enforcement. A concern raised by one of the respondents was the challenge with the enforcement of MARPOL Annex VI because of the lack of domestication to avoid litigation. Presently, Marine Notices are sent on various compliance issues. From the legal unit, a state made in the regard was:

RS AD: Nigeria does not have the binding effect of punishing violations of Annex VI but only has a persuasive effect on offenders”.

In responding to the enforcement and monitoring of compliant fuel for MARPOL Annex VI, the data found that the Marine Environment Management department of NIMASA has the responsibility for establishing a register of fuel oil suppliers. There is a register book for maintaining a list of fuel oil suppliers in a manual manner. The Agency with other relevant stakeholders like the Department for Petroleum Resources (DPR) have developed requirements for bunker fuel suppliers to provide the bunker delivery notes, samples or to retain a copy of the bunker delivery note for inspection and verification as necessary however it is yet to be implemented into the national legislation. This has made the enforcement and monitoring of availability of compliant fuel available in Nigeria difficult. Although an alternative mentioned is:

RS AD: "The fuel non-availability form (FONAR) that the IMO has given is what the administration mostly use at the moment especially for ships going on international voyage".

Furthermore, responses from some enforcement personnel found that NIMASA carries out unscheduled inspections of Nigerian ships as necessary with its exclusive surveyors. However, there is no defined or documented auditing or monitoring process of the ROs. Some kind of coordination meetings with the representatives of ROs are held once a year, but records of these meetings could not be obtained.

One of the management personnel from the legal unit while addressing the issues presented in previous responses revealed that NIMASA's technical working group had drafted all the necessary regulations needed for updating the MSA 2007 including the domestication of MARPOL Annex VI. In her words,

RS AD: "The maritime administration is working to create a compliance and enforcement framework for safety, environment and labour matters. My department has presently developed a holistic framework to approach these issues. We will present the final draft to FEC in the next meeting. We hope to fast track the legislative process of the new regulations with the committee".

This statement seems to confirm the willingness of the maritime administration to make available the necessary tool for an effective implementation and enforcement process. This now brings the question of how supportive the arms of governments in the country is towards the maritime issues. The administrative instructions in the form of marine notice needs to be developed and disseminated as national regulations to implement and enforce applicable international rules and regulations effectively.

4.4.3 Infrastructure

Considering the implementation of a control and monitoring programme, the responses from both the administration and shipping companies communicate some discrepancies in the availability of resources in Nigeria. The administration's website

provides details of a world-class Automatic Identification System (AIS) surveillance system, fast intervention vessels, C4i centre and helicopters recently purchased by the administration. In reaction to this, some respondents from the zones admitted they are aware of the new developments, however it yet to be fully functional. The distribution of the infrastructure appears to be limited to certain zones with high shipping traffic. On the part of the shipping companies, the concern was raised for seafarers training institutions. As mentioned by the respondent:

RS SC: The administration can decide to cooperate with existing maritime institutions and ensure they are supplied with all the necessary facilities to meet its standard. This will aid in achieving the collective goal of having effective implementation and enforcement in Nigeria.

In responding to the availability of reception facilities for MARPOL, the shipping companies showed satisfaction with the ports in Lagos. Still, they complained about services they received in other ports that cannot provide for all their needs. Information received from the administration, however, shows there are quarterly inspections of all the ports to check availability and adequacy of the reception facilities by NIMASA. The reports presented from those inspections have shown that adequate reception facilities are provided in the Nation's ports. This creates a gap that requires further research to bridge the conflicting findings from the administration and shipping companies.

4.4.4 Finances

The data from three heads of the various units presented that budget allocation for the running of the administration is adequate and has increased over the last three years. While five of the other administrative respondents confirmed these statements, one of the respondents stated he had no information on funding. Additional information received during the discussions was the availability of the Cabotage Vessel Financing Fund (CVFF), which the administration is planning to release as a means of improving indigenous shipping in Nigeria. The fund is mainly for acquisition of new ships. From

the survey of the shipping companies, the different respondents mentioned their concerns on the transparency of the administrative process of acquiring the funds.

4.5 Conclusion

This chapter presented the research findings from the semi-structured interview on implementation and enforcement in Nigeria. The factors considered include the legal framework and the resources made available by the state. From the findings, the highlighted issues faced by Nigeria includes the complexity and red tapes of the organisational structure for domestication; undefined employment criteria and regulatory roles for personnel; and a lack of performance evaluation system. It also pointed to the need for improved infrastructure. The issues all point to the lack of appropriate national legislation that addresses the concerns. Furthermore, the chapter presented the steps taken by the maritime administration towards making available the necessary tools for an effective implementation and enforcement process. This now point to the political will of the government to ensure proper legislative provisions to meet up with IMO's requirements.

Chapter 5: Discussion, conclusion and recommendations

5.1 Introduction

The research presents the connection between political will and legal requirements for the development of policies and regulations to influence the organizational structure, human resources, infrastructure, defined roles and responsibilities and stakeholder involvement in implementation and enforcement. Possessing the required maritime policies, regulations and human resources is a prerequisite to determine the adequacy of Nigeria's regulatory framework.

Figure 8 shows the relationship between PESTLE factors that affect Nigeria's ability to implement and enforce MARPOL Annex VI, and includes identified gaps. The arrows show the various gaps that have been identified within the PESTLE factors. The PESTLE factors are all interrelated and collectively determine the overall implementation and enforcement framework in Nigeria.

In this chapter, the research findings are discussed according to the level of adequacy in terms of the legal framework, available resources and their implications on the implementation and enforcement process of IMO instruments that have a direct effect on MARPOL Annex VI. It provides a holistic approach to answering the research question on the adequacy of the implementation and enforcement in Nigeria. Furthermore, the chapter gives a conclusion to the study and provides recommendations for the Nigerian government and the maritime administration to consider for compliance with the IMO provisions. It offered suggestions for further research on ways to streamline the process of bill drafting in Nigeria to build on the findings of this study.

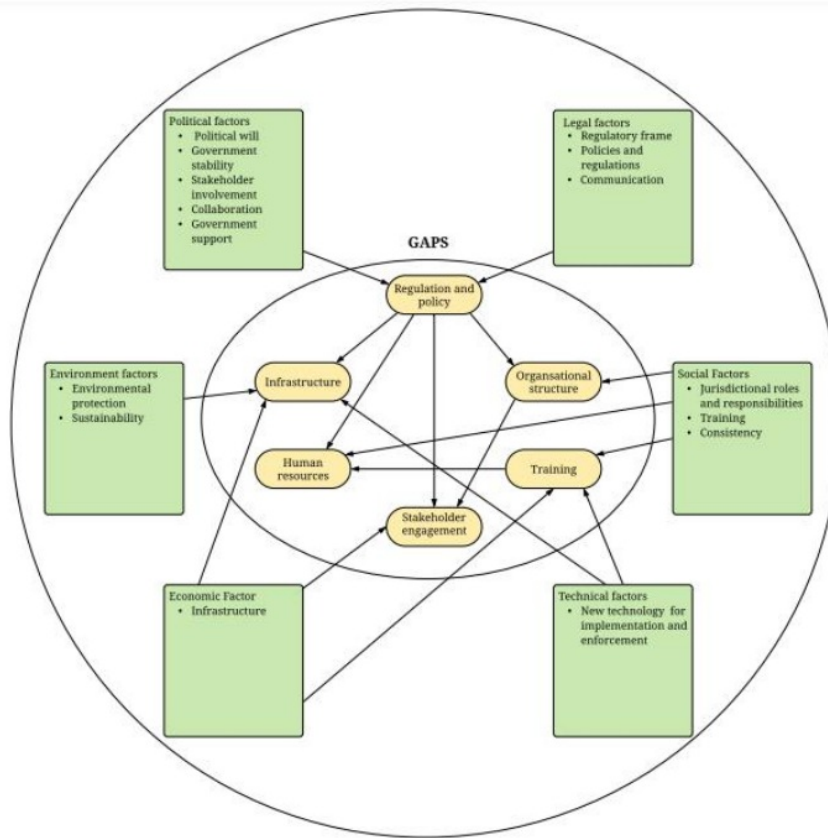


Figure 8: PESTLE Network interrelation including gaps

5.2 Discussions

5.2.1 Legal framework

The findings of this research has shown that the domestication of IMO instruments in Nigeria, especially MARPOL Annex VI, is affected by the organizational structure of the legal stream in Nigeria that is too cumbersome (figure 9) and has no specified period for domestication. This makes the process inefficient. In addition, the jurisdictional roles and responsibilities of NIMASA, FMoT and FMoJ seem to be overlapping. This resulted in the lack of clarity and well-communicated standards to the shipping companies and ROs. It created a gap that is perceived as a hindrance to

even playing field, in agreement with a finding by Igwe et al., (2019). Having them to liaise from the beginning of drafting, the bill will aid in streamlining the process and give an improved understanding of the requirements.

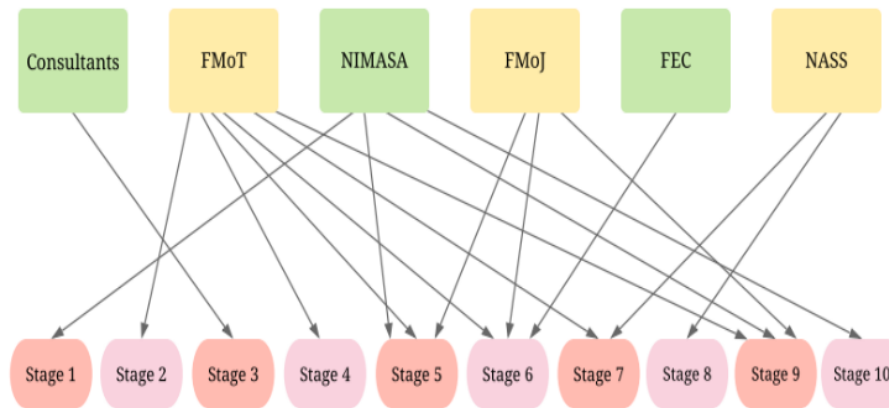


Figure 9: Organizational structure for domestication in Nigeria.

This research also indicated the inconsistency in administration. The position of the head of the maritime administration and ministries involved in the process are all political appointees with a tenure of four years that is renewable. In the case of a change in governance, a new set of legislative committee members will emerge that will bring the process back to the initial stage. This highlights one of the political factor that affects the implementation of IMO instruments in Nigeria. Besides, each administration comes up with its areas of priority, thereby discontinuing what has been started, indicating the lack of continuity culture in national programs. For sustainability and effectiveness of the maritime sector, the heads of the administration should be appointed from within the maritime industry and clear selection criteria published. This will ensure competent and capable people will be assigned for the position. The swift progress revealed in the present administration's zeal to ensure that MARPOL Annex VI is domesticated was attributed to the fact that the current administrative head had worked in the maritime agency for almost three decades. However, this research indicates that there is a lack of political will to legislate, which was also shown in earlier research by Iherudu, (1991) and Buhari et al., (2017). This

appears to be one of the leading causes of the issues encountered in the Nigerian maritime sector.

5.2.2 Resources

This research found that there were no Acts, formal and periodical systems in place for the Nigerian Flag administrations to evaluate their organizational performances in order to assess if staffing, resources and administrative procedures is appropriate to fulfil their respective roles and obligations. Mukherjee et al., (2013) stated, policy is needed to ensure consistency in implementation and prevent deviation from the set standards. It necessitates domestic regulations to give effect to the intendments of the convention (III Code). Currently, Nigeria cannot effectively enforce MARPOL Annex VI. The National Acts needed to set criteria to regulate the activities of the maritime sector from employment of personnel; standards for ROs; surveys and certification; monitoring of compliant fuel; inspections and other day-to-day running of the administration are inadequate. The lack of national legislation makes the enforcement regime insufficient and weak. These points to the legal factor influencing implementation and enforcement in Nigeria. The requirements to perform the technical parts of their responsibilities, like monitoring the classification societies are also insufficient. This supports the sentiment provided by Ahmad-Hameed (2016) on the deficiency incapacity to implement and enforce the provisions IMO conventions.

Noting that effective national maritime administration is the key to an effective flag state performance (Mansell 2009), the lack of technical knowledge and unequal distribution of infrastructure like fast intervention vessels, and waste reception facilities for MARPOL Annex VI, cripples the administration as a flag State. This makes it difficult to go for inspections, especially offshore. The research also noted from survey responses that staff training was presented on an unequal level within the various zones. Some staff have the opportunity to be trained at both local and international level having an advantage over others, although they perform the same functions. This can lead to non-uniform enforcement throughout the administration zones because of unequal professional standards. However, for the last two years, the personnel nominations for the technical capacity building MoU between the World

Maritime University (WMU) and NIMASA had representation from the different zones. From 2018 onwards, the WMU has recorded a strong delegation of 8 to 10 students from Nigeria. In responding to the training gap from the administration:

RS AD: *“The present administration is trying to bridge that gap by sending officers on the middle cadre from the various zones on training. We want to drive people's desire for research and to always be aware of the changes that are going on in the maritime sector”.*

Nevertheless, that does not undo the knowledge gap that exists within the administration. The administration could consider integrating highly trained employees to have a balance in the system because the new training developments would take a while before reaching a balance. This research could investigate the existing gaps further, but that was not achieved due to time constraint.

The shipping companies also emphasized the need for maritime education and training institutions to boost the country's human resource capacity. Having maritime education and training institutions in Nigeria will increase the number of maritime experts and improve its capacity in implementation and enforcement.

Furthermore, prioritizing the sustainability of the maritime industry and environmental protection appears to be lacking in the Nigerian legislation. The NASS have less interest in some maritime bills. Revenue generating bills or laws attract more legislative attention (Li & Cheng 2007). Having a national legislation that will grant the administration the powers to implement will improve the efficiency of the process. Although proper implementation may seem costly in the short term, it will provide a healthy environment for economic growth.

5.2.3 Relevance of the finding

The findings of this research have shown that the domestication of IMO instruments in Nigeria, especially MARPOL Annex VI, is affected by the inconsistency and complexity of the legislation process. The inconsistency in regards to the administrative regime that changes within a political tenure of four years and the lack

of set period for each stage of the bill drafting. The long structure involved in drafting makes the process complicated. The study linked these findings to the lack of political will, which was shown in the inadequate national provisions to address the core issues that affect the effective functioning of the Nigerian maritime sector. There were no formal and periodical systems in place for Nigerian flag, coastal and port State administrations to evaluate their organizational performances to determine if there was sufficient personnel, resources and administrative processes to fulfil their respective responsibilities and obligations. However, these issues, as displayed by the present administration's efforts, have been identified and are being addressed. In the researcher's opinion, the provisions for implementation and enforcement of IMO instruments, especially MARPOL Annex VI, are presently inadequate. Although the Nigerian maritime administration has shown commitment towards tackling the issues presented in this research, there is a need for legislative support to achieve effective and sustainable implementation and enforcement in Nigeria.

5.2.4 Contribution to literature

The maritime regulatory process of a country is directly influenced by political factors such as political will and legal factors that link to the legislative structure and include policies and regulations. National maritime administrations need to be equipped with all the necessary regulatory tools, infrastructure and human resources to enhance compliance with the requirements of the dynamic IMO instruments. The responsibilities of the maritime administration need to be supported through the enactment of such policies that will enable a smooth process, especially in terms of prosecuting violators.

Engagement of stakeholders has been highlighted as an important element in advancing the maritime compliance of any country. There is therefore a need for close collaboration between the government, maritime industry and academia to address the issues facing the proper implementation of IMO instruments.

5.3 Conclusions

This research aimed to examine the regulatory framework for implementation and enforcement of IMO instruments in Nigeria using MARPOL Annex VI as a case study. For the effective implementation of international conventions in dualistic countries like Nigeria, there have to be national laws that enforce its provision. Based on the results from a qualitative analysis of the maritime regulatory framework in Nigeria, this study concluded that Nigeria's national provisions for the implementation of MARPOL Annex VI is inadequate and needs to be reviewed. It also revealed the need for capacity building and a more structured maritime administration for an efficient and effective implementation process.

Nigeria has had many challenges, as mentioned by several studies in fulfilling its obligations as a member state. With the recent change in administration, however, this study looked into the efforts they are making to bridge the gap and ensure compliance. The administration has drafted all the needed regulations; however, it is yet to be enacted into the national laws.

In an attempt to indicate the problem developing countries and especially Nigeria face in implementation, this study has shown that the delayed legislative process is most likely the cause of a flawed process. Although other issues emanate from the administration, it appears that there is a willingness from their part to rectify the existing inadequacies.

5.4 Recommendations

The Nigerian government should consider the following in having an improved implementation and enforcement process:

1. Promulgating all ratified IMO instruments into domestic legislation by reviewing the Merchant Shipping Act 2007 and NIMASA Act 2007
2. Review and streamline the organizational structure for drafting bills for the efficiency of future domestication processes.

In addition, the maritime administration should also consider the following:

1. Having an overall (flag, coastal and port State) continuous performance monitoring, as well as a system to formally and periodically evaluate the effectiveness of the maritime administration.
2. Sending more personnel for training, especially on technical and practical aspects of enforcement.
3. Providing all the needed infrastructural facilities and equipment to implement and enforce IMO instruments in Nigeria. This will enhance their capacity and provide for an improved implementation process.

5.5 Limitations of the study and future research

The findings in this study were generated following a semi-structured interview with the personnel of the Maritime Administration, Shipping Companies and Recognised Organisations. The personnel of the FMoT and FMoJ could not be interviewed. Their participation could have resulted in a more plausible analysis of the domestication process for implementation and enforcement of IMO instruments in Nigeria. Future research would benefit from the involvement of all the stakeholders in the maritime industry when evaluating the effectiveness of the processes. Particular emphasis in examining and proposing ways to streamline the process of bill drafting will greatly contribute to the discussion of how best Nigeria can improve its implementation and enforcement of IMO instruments.

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Appendices

Appendix A: Questionnaire for maritime administration

IMPLEMENTATION AND ENFORCEMENT OF MARPOL ANNEX VI BY MEMBER STATE

The information gathered through this questionnaire will be used as a part of empirical research into the procedure for implementation and enforcement of MARPOL Annex VI by member states as well as to propose possible ways of overcoming challenges faced within the scope of dissertation for obtaining a Master of Science in Maritime Affairs. The questionnaire consists of 22 questions. This will take no longer than 30 minutes.

Target Respondents: to be completed by employees of the maritime administration implementing or enforcing MARPOL Annex VI.

Confidentiality: Please note that the responses you provide are completely anonymous and confidential. The research outcome and report will not include references to any individuals and the questionnaire will be destroyed after completion of the research.

Professional background

1. What is your position?

2. How long have you worked?

> 10 Years

6 – 10 Years

1 – 5 Years

3. What department/unit do you work with?

4. Level of Education of respondent.

Certificate

Diploma

Degree

Masters

Doctorate

Others (Specify).....

5. Have you received any special training on MARPOL Annex VI implementation and enforcement?

Part 2

1. How many flag State inspectors and Port State Control officers do you have? How many surveyors do you have? From your experience, are they adequate?

2. What are the equipment used for enforcement (PPEs, operational equipment) of MARPOL Annex VI? Are they adequate?

3. Is the budget provided to perform your activities adequate?

4. Indicate, for MARPOL, which survey and/or certification functions are not delegated to ROs but are carried out by your Administration.

5. Does your Administration carry out the verification and monitoring functions specified in guidelines for the authorization of organizations acting on behalf of the administration? Yes/No

6. How does your Administration carry out the verification and monitoring functions specified in guidelines for the authorization of organizations acting on behalf of the administration?
7. How often does your Administration verify and monitor the work of recognized organizations acting on its behalf?
8. How does your Administration take specific responsibility for international certificates issued on its behalf by dependent territories/second registers?
9. What are the measures used by the maritime administration to audit the activities of Recognized Organization that survey and certify the flagships of the state for compliance with MARPOL Annex VI?
10. What is the willingness of shipping companies in ensuring seafarers are trained on the required practical onboard procedures for compliance with MARPOL Annex VI?
11. What are the measures put in place by the maritime administration to encourage shipping companies to comply with MARPOL Annex VI?
12. Are alternative arrangements installed onboard according to Annex VI approved by the flag State? (e.g. scrubber fitting, material, appliance or apparatus to be fitted in a ship, or other procedures, alternative fuel oils, or compliance methods used as an alternative to that required by MARPOL Annex VI if they are effective in ensuring compliance)
13. Do ships which have rechargeable systems containing ozone-depleting substances, maintain the ozone-depleting substances record book?
14. Where an Approved Method in accordance with Annex VI is installed, does such an installation receive confirmation by a survey using the verification procedure specified in the Approved Method File, including appropriate notation on the ship's International Air Pollution Prevention Certificate of the presence of the Approved Method?
15. For ships equipped with a shipboard incinerator or thermal waste treatment device installed as an alternative arrangement, is the ship's crew responsible for the operation of the equipment familiar with, properly trained in, and capable of implementing the guidance provided in the manufacturer's operating manual? How has this been verified?
16. Are the master and crew familiar with essential shipboard procedures in the approved VOC Management Plan relating to the prevention of air pollution from ships? How has this been verified?
17. How often do you train in a year? Do you need more training?
18. What is the system in place for the training and retraining of enforcement officers in relation to the inspection and enforcement of ships for MARPOL Annex VI requirements? (Is it documented)
19. From your experience, what challenges does the administration face in the implementation of IMO instruments in general, and MARPOL Annex VI implementation in particular?
20. Please describe any significant experience and best practice relating to the resource and management structure.

21. From your experience, what suggestions do you have for improved implementation process of MARPOL Annex VI?
22. Please describe 3 things that you would like to see an improvement in the implementation and enforcement process of IMO regulations on Nigerian flagships.

Appendix B: Questionnaire for shipping companies

IMPLEMENTATION AND ENFORCEMENT OF MARPOL ANNEX VI IN NIGERIA

The information gathered through this questionnaire will be used as a part of empirical research to analyze the implementation and enforcement of MARPOL Annex VI in Nigeria as well as to propose possible ways of overcoming challenges faced within the scope of dissertation for obtaining a Master of Science in Maritime Affairs. The questionnaire consists of 16 questions. This will take no longer than 30 minutes.

Target Respondents: to be completed by shipping companies

Confidentiality: Please note that the responses you provide are completely anonymous and confidential. The research outcome and report will not include references to any individuals and the questionnaire will be destroyed after completion of the research.

How old is the shipping company?

- > 20 Years
- 10 – 20 Years
- 1 – 10 Years

Professional background

1. What is your position?

2. How long have you worked?

- > 10 Years
- 6 – 10 Years
- 1 – 5 Years

3. What department/unit do you work with?

4. Level of Education of respondent.

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> Certificate | <input type="checkbox"/> Diploma |
| <input type="checkbox"/> Degree | <input type="checkbox"/> Masters |
| <input type="checkbox"/> Doctorate | <input type="checkbox"/> Others (Specify)..... |

Part 2

1. From your experience, how is the survey and certification process of the maritime administration used to ensure that the MARPOL Annex VI requirements are met by its flag ships?
2. From your experience, what are the challenges you face during inspections in general, and for MARPOL Annex VI in particular, by the Administration? What suggestions do you have for improvements?
3. In your experience, are the procedures employed by the administration for the implementation and enforcement of MARPOL Annex VI in Nigeria capable of supporting compliance with the regulations? Yes No
Please give suggestions for improvement.
4. What are the challenges with services of the port reception facilities in respect to collection MARPOL Annex VI waste from ships visiting the ports in Nigeria?

5. What is your opinion on the ease of acquiring log books from the maritime administration? Give suggestions for improvement
6. From your experience, does the maritime administration make information on its obligations for complying with its regulations including MARPOL Annex VI readily available to shipping companies (either through media, flyers, websites etc.)? How will you prefer the regulatory information to be communicated?
7. Have you ever contacted the maritime administration for an enquiry concerning any regulations, especially regulations regarding MARPOL Annex VI?
 Yes No
8. If the answer to the above question is yes, please rate the services provided by the maritime administration
 . Timeliness excellent good average poor very poor
 . Accuracy of information excellent good average poor very poor
 . Organization excellent good average poor very poor
9. Do you know if the maritime administration gives incentives to shipping companies for compliance with the MARPOL Annex VI regulation? Yes
 No
 If yes, please describe.
10. What is the response of the administration when there is deficiency in a flag vessel?
11. What are the challenges you face in complying with MARPOL Annex VI regulations?
12. What suggestions do you have for an improved implementation and enforcement of MARPOL Annex VI in Nigeria?
13. Are there any regulations you implement or have ever implemented before Nigeria ratifies? Is it routine that you implement regulations before Nigeria ratifies?
14. Do you have a general challenge with the system in place that affects implementing IMO regulations on Nigerian flag ships?
15. Please describe up to 3 things that you would like to see improved in the implementation and enforcement process of IMO regulations on Nigerian flag ships.

Appendix C: Questionnaire for recognised organisations

IMPLEMENTATION AND ENFORCEMENT OF MARPOL ANNEX VI IN NIGERIA

The information gathered through this questionnaire will be used as a part of empirical research to analyze the implementation and enforcement of MARPOL Annex VI in Nigeria as well as to propose possible ways of overcoming challenges faced within the scope of dissertation for obtaining a Master of Science in Maritime Affairs. The questionnaire consists of 14 questions. This will take no longer than 30 minutes.

Target Respondents: to be completed by Classification Societies

Confidentiality: Please note that the responses you provide are completely anonymous and confidential. The research outcome and report will not include references to any individuals and the questionnaire will be destroyed after completion of the research.

How long have you been an RO to Nigeria?

- > 20 Years
- 10 – 20 Years
- 1 – 10 Years

Professional background

1. What is your position?

2. How long have you worked?

- > 10 Years
- 6 – 10 Years
- 1 – 5 Years

3. What department/unit do you work with?

4. Level of Education of respondent.

- | | |
|--------------------------------------|--|
| <input type="checkbox"/> Certificate | <input type="checkbox"/> Diploma |
| <input type="checkbox"/> Degree | <input type="checkbox"/> Masters |
| <input type="checkbox"/> Doctorate | <input type="checkbox"/> Others (Specify)..... |

Part 2

1. How many ships are classed with your organization? How many of those are Nigerian flagged ships?
2. What types of ships are classed with you? (tankers, bulk carriers, container, passenger, offshore etc.)
3. What measures do the ships classed with your organization use to ensure compliance with the MARPOL Annex VI Sulphur regulation? (compliant fuel, scrubbers or others)
4. In your experience, are the procedures employed by the administration for the implementation and enforcement of MARPOL Annex VI in Nigeria capable of supporting compliance with the regulations? Yes No Please give suggestions for improvement.

5. How often are you audited by the maritime administration? Please describe the audit process.
6. Are facilities for installation of scrubbers available in Nigeria?
7. Are the instructions given by the Nigerian maritime administration for the survey and certification of MARPOL Annex VI clearly spelt out in the event of;

- | | | |
|---|------------------------------|--------------------------|
| . Temporary non-compliance with the regulations
No | <input type="checkbox"/> Yes | <input type="checkbox"/> |
| . Interpretation of regulations
No | <input type="checkbox"/> Yes | <input type="checkbox"/> |
| . Issuing of exemptions
No | <input type="checkbox"/> Yes | <input type="checkbox"/> |
| . Approval of equipment on behalf of the Administration
No | <input type="checkbox"/> Yes | <input type="checkbox"/> |
| . Survey of ships not classed
No | <input type="checkbox"/> Yes | <input type="checkbox"/> |
| . Provision of information to the Administration
No | <input type="checkbox"/> Yes | <input type="checkbox"/> |

8. What is the level/statistics (in %) of compliance of MARPOL Annex VI Nigerian flagged ships classed with your society?
9. What are the challenges you face with Nigerian flagged ships in complying with regulations in general, and MARPOL Annex VI in particular?
10. What are the challenges you face in terms of the provision of every necessary support and information for a smooth administrative process from the maritime administration?
11. What suggestions do you have for an improved implementation and enforcement of IMO regulations in Nigeria, especially MARPOL Annex VI?
12. Describe the oversight process of your class society by the maritime administration of Nigeria.
13. What are the systemic challenges for implementing IMO regulations on Nigerian flag ships?
14. Please describe 3 things that you would like to see improved in the implementation and enforcement process of IMO regulations on Nigerian flag ships.

Appendix D: Steps for drafting national legislation in Nigeria

1. Steps for ratification

- a) Request to user Departments to furnish the Legal Services Unit with a list of proposed International Instruments for Ratification and justification.
- b) Collation of submissions from user Departments
- c) Consideration of submissions from departments and recommend Instruments for Ratification.
- d) Collation of list of Instruments for Ratification and forward to Ships & Ports and IMO Publications for cost evaluation, if any.
- e) Sourcing and purchase of identified IMO/ILO Instruments from Ships & Ports and IMO Publication
- f) Forwarding of compiled list of International Instruments for Ratification to the Ministerial Committee of Ratification and Domestication of International Conventions, Protocols and Other related matters.
- g) Scheduling of meeting of Ministerial Committee on Ratification and Domestication
 - Preparation and adoption of Terms of Reference for Administrative sub-committee.
 - Preparation of all necessary documentation and approvals for the meeting of Administrative Sub-committee
 - Organization of stakeholder's engagement/sensitization workshop Interface with Ministerial Committee on reconvening Administrative sub-committee to commence their work.
 - Preparation of Federal Executive Council (FEC) memo and other documents for approval.
- h) Interface with LA FMOT for the preparation and transmission of the Instruments of ratification to FEC.
- i) Interface with the Legal Adviser FMOT for the facilitation of memo to FEC for the ratification and domestication of the Conventions.
- j) Approval of memo by FEC. Once the memo is approved by FEC, the following process would be undertaken:
 - Approval/extract is sent back to FMOT
 - Interface with the FMOT for the transmission of FEC approval/extract to the Attorney General for the preparation of the Instrument of ratification;

- FMOJ prepares a cost implication for preparing the instrument of ratification to NIMASA for payment;
- Preparation of cost implication for the preparation of instruments of ratification
- Processing of payment by NIMASA
- Facilitation of the annexure of copies (8) of the Conventions to the instruments of ratification.
- Interfacing with the office of the Honorable Attorney General after preparation of the Instrument of Ratification forwards same to the President for signature
- Presidential signature and seal of the instruments of ratification

k) Interface with the FMOT, FMOJ and Foreign Affairs for the deposit of the Instruments of Ratification at the IMO Headquarters in London.

2. Steps for domestication

- a) Request to user Departments to furnish the LU with a list of proposed International Instruments for Ratification and justification
- b) Collation of submissions from user Departments
- c) Reconvene the Agency's technical work group comprising operational Departments (Maritime Labour, Marine Environmental Management, Maritime Safety and Seafarers Standards Departments and Ship Registry Unit).
- d) Forward report of technical work group to management and Ministerial Committee of Ratification and Domestication of International Conventions, Protocols and Other related matters for implementation.
- e) Engage Legal Professionals to review the Merchant Shipping Act and domesticate International Conventions.
- f) Receipt of work from Legal Professionals
- g) Reconstitution of the Technical Working Group (TGW) on the Review of the Agency's Laws to review of Report of Legal Professionals and Amendments.
- h) Review of Report of Legal Professionals by Ministerial Technical Sub-Committee on Ratification and Domestication.
- i) Submission of draft Merchant Shipping Amendment Act Bill to the FMOJ.

- j) Interface with the FMOJ Department of Legal Drafting to finalize the Bill.
- k) Interface with the FMOJ and FMOT for the transmission of the Bill to FEC for approval and transmission to NASS
- l) Interface with FMOT and NASS for:
 - Constitution of Sub- Committee on Legislative Advocacy
 - Advocacy, public hearing, and sensitization
 - Conclusion of Terms of Reference (TOR) for Committee on Legislative Advocacy/Passage of Bill
 - Gazetting & Production of Legislation
- m) Undertake an appraisal of the amended MSA 2007

3. Steps for drafting regulations drafting

- a) Request to user Departments to furnish the Legal Services Unit (LSU) to provide a list of Regulations to be review/developed.
- b) Collation of submissions from user Departments
- c) Reconvene the Agency's technical work group comprising operational Departments (Maritime Labour, Marine Environmental Management, Maritime Safety and Seafarers Standards Departments and Ship Registry Unit).
- d) Identify Regulations yet to be domesticated by way of Regulations and Regulations for review and forward report of technical work group to management and Ministerial Committee of Ratification and Domestication of International Conventions, Protocols and Other related matters for implementation.
- e) Engage Legal Professionals to review and develop Regulations pursuant to the Merchant Shipping Act.
- f) Receipt of work from Legal Professionals.
- g) Reconstitution of the Technical Work Group on the Review of the Agency's laws.
- h) Consideration and final review of Regulations by Technical Sub-Committee/TWG
- i) Interface with Ministerial Committee on forwarding of draft Regulations to Honorable Minister of Transport (HMOT)/ Federal Ministry of Justice (FMOJ)
- j) Interface with FMOT/FMOJ for the finalization of the Regulations and approval of HMOT.

k) Interface with FMOT on the Gazetting and production of the Regulations.

l) Undertake appraisal of Regulations Undertake appraisal of Regulations

Notes:

1. The above represents a summary (Ministerial Committee (FEC)) and detailed (NIMASA) processes for ratification and domestication of international maritime instruments.

2. The procedure is undertaken by the Ministerial Standing Committee on Ratification and Domestication of IMO/ILO Conventions & Protocols and Related Matters, a national standing committee comprising relevant MDA's and other officers such as the National Assembly Consultant on Maritime Matters and the Presidency represented by the State House Counsel.

The procedure is subject to periodic review by the Minister.