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WORLD MARITIME UNIVERSITY
Malmö, Sweden

AN IMPACT OF MARITIME TRADE ON THE NIGERIAN ECONOMY

By

OGUNLEYE FEMI EMMANUEL
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
(SHIPPING MANAGEMENT AND LOGISTICS)

2020

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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: Prof. Dong-Wook Song

...........................................

Supervisor Affiliation SML
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Thank you, God, for bestowing me the wisdom to keep going. I glorify and exalt your holy name for the numerous gifts and favours you vested in me throughout my Academic year at the World Maritime University (WMU) Malmo Sweden. I would like to bestow my profound indebtedness to everyone most especially my Parents Chief Akin Folarin Ogunleye and Mrs Maria Ogunleye, My brother and sisters and most especially my girlfriend Lois Aubyn Nana and my colleagues at NIMASA Faruk, Frank, Christian, Ibrahim, MacDonald, Inuwa, Usman, Ms Chalya Shagaya, Mrs Yinka, Mr Moshood Olalekan and colleagues at WMU S20 Engr. Amatari, Chioma, Folorunsho and Kwesi who have encouraged me in this quest to success. Without their enthusiastic advice, teamwork, support, encouragement, cooperation and guidance, I would not have made progress in this dissertation.

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Abstract

Title of Dissertation:  
An Impact of Maritime Trade on the Nigerian Economy

Degree:  
Master of Science

The present research examined the effect of Maritime trade on the economy of Nigeria, spanning 1991-2019. Maritime trade in millions of Naira was the predictor variable in all the three hypothesis formulated whereas, the Nigerian Gross Domestic Product, Nigeria Foreign Reserve level and Nigerian level of external debt/loan payment (all in millions of Naira) were the dependent variables for Hypothesis one, two and three respectively.

The hypotheses were assessed with ANOVA at 0.05 level of significance and per the outcomes of the hypotheses tests; the accompanying conclusions were made: 1. Maritime trade has a significant positive effect on Nigeria’s Gross domestic product and the economy in general 2. Maritime Trade has a strong connection with the level of Nigeria’s foreign reserve. 3. Similar to the above findings, the Maritime Trade also has a significant positive influence on the degree of Nigeria’s foreign loan repayment, particularly for the years investigated in the study, 1991-2019.

Per the research outcomes, the accompanying suggestions are put forward. Concerning the weak institutional frameworks, there is a pressing and urgent requirement to enhance the institutional policies and frameworks to facilitate and enhance maritime trade impact on Nigeria’s economy in general.

Even though Maritime trade has been discovered to have significant positive influence on the overall Nigeria’s economic growth, be it with respect to the impact on gross domestic product, foreign reserve or external loan payment, it is right to suggest that more significant positive impact could still be made with new viable institutional policies. Also, the lack of transparency and corruption that have become endemic in Nigeria demands purposeful efforts and attempts for enhanced operational performance in the country’s maritime sector.

KEYWORDS: Maritime Trade, Nigeria, Gross Domestic Product, Foreign Reserve, External Debt.
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List of Abbreviations

CBD Central Business District
CMS Christian Mission Society
DSS Department of State Security Services
DWT Dead Weight Ton
EPA Environmental Protection Agency
FEPA Federal Environmental Protection Agency
GATT General Agreement on Trade and Tariff
GDP Gross Domestic Product
IMF International Monetary Fund
LNG Liquefied Natural Gas
LPG Liquefied Petroleum Gas
MAN Maritime Academy of Nigeria
NACMT National Assembly Committee on Maritime Transport
NCA Nigerian Customs Service
NCW Nigerian Coastal Water
NDLEA Nigerian Drug Law Enforcement Agency
NIMASA Nigerian Maritime and Safety Administration Agency
NLRC Nigeria Law Reform Commission
NDDC Niger Delta Development Commission
NMLA Nigeria Maritime Lawyers Associations
NNSP Nigeria National Shipping Policy
NMA National Maritime Authority
NN Nigerian Navy
NNSL Nigeria National Shipping Line
NPA Nigerian Ports Authority
NSC Nigerian Shippers Council
NSDP Nigerian Seafarers Development Programme
NUL  National Unity Line
PESTLE  Political, Economic, Social, Technology, Environment and Legal
RORO  Roll-On-Roll-Off
SON  Standard Organization of Nigeria
STCW  Standard Certification and Watch Keeping
SASBF  Ship Acquisition and Ship Building Fund
TOT  Term of Trade
UK  United Kingdom
USA  United State of America
ULCC  Ultra Large Crude Carrier
UNCTAD  United Nation Committee on Trade and Development
VAT  Value Added Tax
VLCC  Very Large Crude Carrier
WTO  World Trade Organization
CHAPTER 1

Introduction

1.1 Background

Maritime and Shipping ventures in Nigeria fundamentally began towards the end the past century through endeavours of international shipping Lines. The Woreman line began as an exchanging location in Hamburg, later formed into a noticeable shipping organization in 1894. Their pioneer vessel “Theresa Henrietter” moved out of Hamburg for West Africa on March 24, 1849. In 1892, Elder Dempster started operation in Nigeria using their pioneer vessel “Forunner”. It was trailed by another British line, "Palm Line" which appeared after World War II. Nigerian Shipping Line entered the maritime trade in 1960 as a lesser. In 1958, the Nigerian National Shipping Line (N.N.S.L.) was created. This denoted the start of Nigeria national carrier’s involvement in maritime trade from the humble beginnings of three recycled ships; in 1970, it increased to 12 owned ships. By 1977, N.N.S.L. contracted to assemble twelve new ships, which were effectively delivered, to make it a sum of 24 ships (Iniodu and Ukpong, 2004). Currently, most of these vessels have been grounded, and some scraped because of inefficient management. Nonetheless, there has been a reestablished enthusiasm for the endeavour because of the absence of options in contrast to maritime transport.

In a globalised world, the maritime division remains a notable element in encouraging the bridging of business sectors for produced products and industrial merchandise, with seaports serving as a natural path to nations all over the world. As the global trade progresses tremendously quicker than global yield, marine trade has become an undeniably significant factor in the advancement of local economies. The maritime business sector spans all ventures involved with supplying, transporting and cargo services and other comparable activities. The maritime business takes an exceptional spot in all nations economy throughout the globe. The business, in its real sense, incorporates all businesses related to maritime which happen inside the nation’s maritime space. These ranges from seaward operations, for instance, deep-water resources and maritime shipping.
The venture atmosphere in the Nigerian maritime sector is managed by the present local monetary advancement program, with the goal of advancing a robust private driven sector with the Government as the empowering agent. A portion of the key and explicit venture openings in the Nigerian maritime segment are; Dry mooring, Passenger boats, Ship transport services, Dredgers, vessel dry docking, pipe lay vessels, Terminals, Barges/House Boats, Trawlers, Supply barges to deep-water oil fields, Offshore operations, Coastal transportation services, Diving support vessels, Tourism and Crew vessels (Elem, 2008).

Nigeria’s Dry-Bulk Shipping trade is robust. Local interest for salt, grains, sugar, fertilizers, and many more is bolstered by shipments. This is required to proceed for a significant period, especially for the grains where some agronomic elements do not lend themselves to local cultivation. For Tanker Shipping, Nigeria being a significant petroleum exporting country, financial specialists in the big hauler trade are guaranteed the full deployment of their ships on an economic premise, particularly on the shipment of local goods. These ventures develop strong market for gas carrier operators. Additionally, industrial chemicals represent a significant import segment of Nigeria’s cargo business. For the most part, interest and business participation in Very Large Crude Carriers (VLCC), biggest vessel to travel Suez channel (S.U.E.Z.M.A.X.), Liquefied natural liquefied/gas petroleum gas LPG/LNG, ultra-large crude carriers (ULCC) haulers are still economically reasonable for Nigerian petroleum export (Elem, 2008).

According to Container or Liner Shipping, Nigeria as the most seasoned trading posts south of Sahara pulls in high importation from significant trading countries globally. The trade volume to Nigerian ports conveys for the most part high esteemed raw and processed goods in containers. In addition to being maintainable, they are additionally extending extensively as an immediate result of the monetary reforms. Correspondingly, exportation of agribusiness, raw materials for industries and semi-processed materials are observing massive expansion because of very much-organized financial policies on exportation.

Concerning passenger boat services, it is barely used regardless of its potentials as a feasible option in contrast to the land mode of transport, particularly for waterfront car pickups of the South-South district in Nigeria. Intra sub-regional trade and the versatility of residents in the
West African sub-area is developing quickly and is anticipated to be maximized with the full execution of some provincial and sub local monetary inclusion (Elem, 2008).

As far as Coastal Services and Offshore operations are concerned, Nigeria is blessed with substantial petroleum assets and is a significant operator in the global petroleum market. Albeit commercial operations around there are within the limits of cabotage commerce that is confined by right to Nigerians, the cabotage policy additionally accommodates joint ventures among Nigerians and international operators where conceivable to fulfill the need.

Concerning Ship Financing and Maritime Insurance, vessel funding is at the moment emerging within Nigerian economic sphere, to a great extent by its unique nature. Most administrators depend on equity funding, which is not adequate. The administrators need all-around organized and advanced ship funding services with the capacity of offering finances to fulfill the increasing need for economical solutions in the industry.

Concerning Port advancement, the significant changes that are occurring in Nigerian maritime and shipping segment is the deregulation and liberalization of ports operations to private players’ inclusion. Being developed, it has along these lines prompted the concession of significant ports within the Nation to non-government administrators. The Nation, despite everything, requires present-day plus productively managed ports that satisfies the increasing needs of effective port administrations. Improvement in deep seaports to suit the over-expanding version of present-day vessels used in global trade is also a top investment priority. Nigeria at the moment has predetermined number of deep seaport, and the development expected in the economy in the moderate to long run should compel the port infrastructure to suit the dimensions of vessel and the level of traffic.

Funding the availability of shipyard services is proposed to fulfil the quickly developing need for national dry-docking infrastructure because of the effect of the cabotage policy. Shipyards are essential to fulfil the needs of the offshore and coastal vessel services. Interest around this side shall prompt development and expansion in shipping innovation. The consolidated shipyard capacity in the Nation presently is not just constrained, it is also insufficient.
There is no vessel refurbishment and reusing operations in the entire African region regardless of the tremendous amount of scrapped vessels and the remains that enhance the coastal fronts of African nations. This causes movement risks and dangers to more secure waterways. This causes it to move boats for the purpose of scrapping anyplace in Africa right to Asia. This causes a good financial disengagement from different viewpoints. In Nigeria, there are large amount of wrecks and scraps and establish sensible raw feedstock for a reuse and refurbishment business.

Reefer business is growing and emerging in Nigeria. Coupled to a tremendous amount of business in frozen fish and related seafoods, dairy business items, fruits, vegetables, and frozen goods is noteworthy consistently.

As a significant petroleum exporter, it is essential that Nigeria guarantee that proper studies are led and those territories are designated for pollution and contamination management. There is likewise a requirement for receiving infrastructures at ports to accept oil contaminated liquids from vessels (Prasad, 2010). Private interests in technical surveys, availability of reception infrastructure plus overall depiction of the country's waterways for contamination management and quick action frameworks are media for conceivable investment.

At federal level, Nigeria has framed another law of search and rescue that needs the availability of infrastructures and instructions to address the issues. This is targeted at controlling issues at sea. This is additional scope wherein the public-private joint venture is generally wanted.

The cabotage act came into administration on May 1, 2004. The system was established to fortify the investment of Nigerians in the financial areas established by vessel and maritime operations. Interest around this scope obliges international and local commerce via partnerships.

Thus, the monetary advancement of a greater number of developing economies of Africa, including Nigeria, ought to show in the improvement and coordination of maritime commerce that is very significant & key to the improvement of universal export and import activities with various nations globally. This is because maritime activities appropriately fill in as the facilitating power and advancing power of any developing nations. Thus, the planning of management techniques, frameworks that upset the productive management of this basic sub-financial
framework extensively and comprehensively will influence the efficacy & prosperity of the
developed world similarly, and its people (Ndikom, 2015).

Despite the tremendous role of maritime trade and businesses, Nigeria’s local maritime sector is
in shambles. This is brought about by specific factors, for example, investment challenges, the
management & hierarchical issues. The development of "national maritime framework" & the
old "Nigerian Maritime Authority (N.M.A.)" to enforce delivery frameworks are yet to have the
capacity to completely deal handle the disintegration in the efficiency of the Nigerian transporters
in the Maritime sharing equation (Ezem, 2013). The national (Nigerian) maritime industry is
faced with a danger of slow termination, just like in the 1950s, which saw the maritime sector in
Nigeria controlled mainly by foreign vessels (N.M.A., 2006).

Additionally, the absence of capital, poor motivating factors for investors and inadequate
incorporated transport framework have been discovered as a significant aspect of remarkable
components affecting Nigerian maritime trade. Shipping is an exceptionally capital intensive
endeavour whether vessel purchase depends on sanctioning or refurbished vessel. Nigeria, with
a shallow capital base, causes it to be challenging and almost infeasible, to activate the required
finances for funding shipping operations. Furthermore, the payback time for funding shipping
operations is long, particularly as local funders in Nigeria lack access to insured academic loans
because of the absence of reasonable collateral. This makes it hard for local shipping
organizations to get vessels through loans from the vessel yards. Present-day shipping is
profoundly robust and highly financial demanding. To this degree, vessel operation has a huge
business threat. It is attributed to why standard maritime nation’s accord shipping is an entirely
ideal and appealing venture incentive. In Nigeria, shipping is not given comparative
concessionary financial motivating factors like nations in mature maritime countries. For
instance, the tax rate appropriate for vessel operation in Nigeria is equivalent to different
operations. Vessel operations is not given any concessions, and not categorized as a standalone
industry, and it does not come under “agri” ventures that are given tax exemptions after some
time. In these unbearable states, funders would incline toward more favourable ventures with
less threats. In Greece for example, (aside from other reduction steps), vessel proprietors are
exempted from being taxed on cash flow from the activity of maritime ships of 500 total tonnage
or more together with other payment reduction steps. There are additionally profits tax exemptions.

Incorporated ferry is the movement of products within a separate agreement; however, conducted using no fewer than a couple of distinct modes of ferry. The carrier is subject to the whole carriage, however, conducted by a few means of conveyance (land, water, rail, and air). The carrier must not include all the modes of conveyance (Muller, 2011). It is otherwise called consolidated transport. Incorporated ferry is a component via which integrated logistics supply coordination can work adequately. The lawful foundation should be created for integrated ferry to be significant. We have sets of global enactment that influences integrated ferry, though complete application remains consistently an issue in Nigeria. The facilities needs to be created. Advancement of railroad framework, air terminal and seaport structures, refurbishment of roads and construction of new roads and their linkage will have a huge degree of enhancement in integrated ferry in Nigeria. The condition of transport framework in Nigeria demands for genuine consideration both from the Government and the private operators. The transport sector is a profitable sector for funding, and the Nigerian Federal government ought to look at building up another local transport law to develop a five-star transportation framework that has the capacity to improve vessel operations in Nigeria.

Besides, there are some significant turns of events and changes in the maritime division, which sway on the Nigerian shipping business, these turns of events, and variations in maritime business include technological developments, institutional changes in maritime activities, the effect of liberation and insufficient maritime trade management abilities and experience. Over the most recent couple of decades, we have experienced quickened innovation advancements in vessel operations in the scope of technical configurations and freight usage (Ma, 2011). This is for compelling and modest conveyance of products across the globe. Technological advancements have been noted in greater dimensions of vessels, cellular compartment vessels, the roll-on/roll-off (RORO) and I.T. that elevate the expense of vessels to the drawback of under developed nations. Most recent variations in enactment, code alteration, and labour conventions over the most recent past couple of decades cause it to be rather unreasonably hard to meet up for under developed nations and developed nations alike. Specific worldwide legislations cause it to be
hard for application at the local stage. Example is the deregularization by the “United Nations Committee on Trade and Development” (U.N.C.T.A.D.).

The shipping business has and will even turn out to be progressively complicated. New vessel operations plans and company-wise framework will be framed to react to the fast developing patterns in vessel operations. The integrated ferry and short-sea ferry has set the greater obligation on the duties of administrators as they are charged with the obligation to convey products via all means, from starting point to the reception point, and the risk for harm or damage inflicted to merchandise throughout carriage (Donor, 2011).

Even though Maritime trade aids tremendously to the economy, either from the area of G.D.P., foreign reserve or aid/loan settlement, it is also wise to express that more could be accomplished with the aid of competent and robust frameworks.

Since the 1960s, the administration and management of the general transport sector in Nigeria (i.e., water, flight, land sub-divisions) remains in the hands of supervisors who appear not to comprehend the fundamental and underlying difficulties of the business. It is deplorable to express that the sector is severely impacted on by various issues like lack of financing and framework irregularities that vigorously influenced adversely, the advancement and execution strategies & growth.

The position concerning Nigeria’s Economy in the world and Africa, do not allow undue dormancy. Its economy must embrace some unique and adaptable state-of-the-art techniques as per global benchmarks. Obviously, it is right to express that in the past years, globalization has clarified past complicated activities per worldwide overall trade conditions via various technological advances, bridged points among individuals and countries, such that no specific present-day territory of Africa can bear to work, a detached economy. In typical maritime countries, for example, U.K, U.S.A, & some other developed nations, the execution frameworks through government intervention to a great extent represent the enviable degrees of proficiency, robustness and monumental accomplishment in their maritime practices particularly with regard to its commitment to financial advancement. The opposite is by all accounts the circumstance in Nigeria as the sector has kept on suffering ceaseless difficulties consistently over the years. A typical instance is how the N.N.S.L. lost all of her 19 carriers and has been bankrupt. This is
worsened by the lack of ability of administrations of various kinds to register an indigenous national carrier up until date (Chukwu, 2013). In this way, this study will assess the effect of maritime trade on Nigeria economy by seeking for answers to key questions, such as (i) what trend & pattern of maritime trade has existed in Nigeria? (ii) The reasons behind these patterns in maritime trade? (iii) Effect of maritime trade on financial advancement in Nigeria using monetary pointers of Gross Domestic Product (G.D.P.), Foreign Reserves and Debt Services settlement as yardsticks?

1.2 Problem Statement

Tragically, a greater number of under-developed nations worldwide, especially in the West African sub-region, are yet to be exceptionally productive, dynamic and unmistakable in the act of maritime trade and global shipping. There is a requirement for a conscious effort to look for the fate of maritime trade and the inclusion of Nigeria in the genuine worldwide maritime and shipping scheme. It is very obvious that the Nigerian economy is internationally dominated. Approximately eighty-five percent of the country’s foreign commerce goes via the country’s ports. From the 1990s, at the very least, 2,500 ships are noted in the Nigerian seaports yearly (Badejo, 2001). An assessment of the current shipping framework in Nigeria uncovers the requirement for execution of exceptional steps capable of assisting in redirecting maritime fortunes later on.

Maritime business is global and recognized as an incredible part in the related financial design of maritime nations. Nigeria is no particular case. Undoubtedly, countries without a route to the sea, for instance, Mali who depend on Abidjan port for maritime trade also have their economies revolving or centred on maritime trade (Airaahuobhohor, 2011). One significant issue that has kept on tormenting maritime business in Nigeria is the problem of inadequate frameworks. Thus, the impact of maritime trade to monetary improvement has in this manner been a subject of discussion and debate.

Notwithstanding the tremendous positive effect created by maritime trade, adverse effects also spring up. The environmental issues are causing the world enough pain and also affect the economy of countries. The significant environmental effects are notable in dredging, atmospheric
quality, threatened and compromised living things, petroleum contamination and sludges described below:

Vessels radiate poisonous contaminations to the atmosphere, for example, nitrogen, sulphur oxides, (Nox, Sox), hydrocarbons. Different means of atmospheric contamination from vessel operations comprise the emission of xylene, toluene and different poisons from combustion fumes during stacking and emptying of marine tank vessels (Prasad, 2010). As per the “United States Environmental Protection Agency” (E.P.A.), effects of these poisons may include unfriendly wellbeing impacts, for example, heart and respiratory ailments, breathing harm, cognitive debilitation and loss of life at the extreme. Exhaustion of the ozone layer, harm to agro products and increment in unhealthy and acidic rain are numerous other undesirable results (Donovan, 2006).

To keep up safe route depths, numerous harbour means must be occasionally dug. The residue contains poisonous wastes that if discharged, constitute genuine dangers to the environment, primarily by means of bioaccumulation in food streams (Bellefontaine, 2010).

Petroleum discharged in the environment is a significant ecological issue related with maritime trade. Huge spills happen in the course of moving tankers via mishaps and overflows while stacking up and unloading. Wastewater from tank cleaning, release during internal combustion compartment maintenance are regular reasons for litter spills. These are unsafe for people plus the earth via bio-buildup of poisons into arable foods. Likewise, oil contamination corrupts beachfront natural surroundings, covering lagoons and murdering swamp grass (Bellefontaine, 2010).

All ships produce solid wastes during journeys. A large portion of the by-products is capable of being legitimately dropped off into the waters, provided they are discharged a reasonable point off the coasts. Polymeric materials must be appropriately burned onshore. Sludges from vessels enters the ecosystem if vessels are left at sea or unintentionally discharged while stacking it and offloading. This investigation will assess both the positive and negative effects of maritime trade on the Economy of Nigeria.
1.3 Research Objectives

The purpose of this work is to ascertain the influence of maritime commerce on Nigeria's monetary advancement. Particularly, the investigation hopes to actualize the accompanying targets: decide the connection among maritime trade and Nigeria's total national output; find out the impact of maritime trade on Nigeria's foreign reserve; decide if maritime trade fundamentally impacts the degree of external loan settlement and separate frameworks requirements towards the viable utilization of maritime trade to help the economy and offer management suggestions.

1.4 Research Scope and Significance

The economic state of nations are often measured utilizing the gross domestic output (GDP) that is characterized as the estimation of products and services delivered over a specific year, for which maritime trade is among (Ojinka, 2005). Every sector's monetary requirement is canvassed in the nation's budget and the contributions of entire industries in a specific year make up the local budget. The activities of a sector, for example, vessel operations/maritime, has some effect on the economy. The effect of maritime operation can be desirable or undesirable, though the desirable effect largely exceeds the adverse effect. Per the desirable aspects, maritime operation gives a large group of monetary advantages including creation of employment opportunities, supporting export advancement, helping in enhancing the economy, growing business sector opportunities for external trade by offering competitive types of assistance, expanding foreign trade income, opening ways to international rivalry. Commerce and the capacity to contend in international markets are subject to effective, secure and dependable maritime structure (UNCTAD, 2008). Usoro (2005) noted that maritime operations, especially shipping, ought to be viewed as the primary worldwide industry representing about 90% of global seaborne trade.

The maritime division, if appropriately harnessed ought to wedge a staggering desirable effect on the GDP and ought to impact on the development and improvement of the economy via market growth, open doors for international commerce, rivalry, international trade income, and offering vital local interest (UNCTAD, 2008).
The Nigerian economy is powered by petroleum exploitation, exploration, recovery and export. Other significant supporters are income tax, customs charges, foreign freight services and others. In the Nigerian maritime division, vessel operations and businesses are a vital segment of the significant sponsors of the economy. The Nigerian economy is import-dominated and additionally, the most significant petroleum seller in the continent. Greater proportion of Nigeria’s worldwide cargo commerce is enabled via waterways. Nigerian commerce is around 180 million tons of seaborne cargo yearly. Yearly freight fee received is about $6.8 billion (N1,088bn). Over eighty-percent of the figure of this is received by non-Nigerian companies.

Obviously, that the problem of monetary advancement & improvement is among the highest sensitive cases in Nigeria presently, one explanation behind the delicate nature of this case is the situation of degraded standard of living in a place that is known for surplus, this is the circumstance surrounding Nigeria today. The future generations might even suffer more financial enslavement and subjugation in the perspective of today’s degree of destitution.

An investigation focusing on this kind of delicate issues as the connection between financial improvement, foreign reserve, loan settlement and maritime trade in Nigeria, is right now essential. The need to proffer a long term solution to the issue of underdevelopment, abject poverty, and the management of the nation’s rich natural assets is thus an undertaking that has to be carried out.

The present thesis targets looking at general aspect of the connection between the maritime commerce and economic advancement in Nigeria, focusing on a few measures of economic development in Nigeria – GDP, foreign reserve and foreign loan settlement. The study likewise covers a period of 27 years, 1991-2019. Absence or scarcity of quality data and information could represent a challenge to the study.

1.5 Dissertation Structure

*In chapter one* provides the background to the work, outlined the statement of the problem per the research theme, the aim and objectives of the study, research hypotheses and significance of the study.
In chapter two, the theoretical and conceptual frameworks that underpinned the study will be provided.

In chapter three, an extensive literature review on maritime trade in Nigeria will be done. The challenges of the maritime industry in Nigeria and the economic impact of maritime trade in Nigeria will also be reviewed in chapter three.

In chapter four, the research method will be given and justified. The study area, data sources, research design, data analysis, methods of tests for significance will be all provided.

In chapter five, the data for the study, which comprises the values of Nigerian GDP, Foreign reserve, Maritime trade and External debt payment from 1991 to 2019, will be provided.

Chapter six summarises the work, provides the conclusion and implications of study findings and suggests areas for further study. Figure 1.1 illustrates the flow of the dissertation.

![Diagram of Dissertation Flow]

**Figure 1.1: Dissertation Flow**
CHAPTER 2

Review of Maritime Trade Theory

2.1 Introduction

In the last section, the background to the study, problem statement, research objectives were outlined. The scope and the significance of the study were also highlighted. The present section assesses extensively the concept of maritime trade as well as the theories that underpin the study in a logical manner.

2.2 Concept of Maritime Trade

The way toward exploring or taking part in business through different sorts of safe waters presents the related concept of shipping. Gardner et al. (2009) characterize shipping as having to do with ships, as shipping inclined, shipping issues, shipping commerce, shipping analyses. Rolins (1980) as cited in Ekpo (2012) saw shipping boats, as getting onto a vessel for the purpose of conveyance, to have conveyed by a vessel, to lift or bring into a vessel, to connect with, to supply on a boat. As per Webster (2008) as cited by Ekpo (2012), shipping entails the transportation of products, also referred to as freight, starting from a point then onto the next via waterways.

Shipping also takes place via land. Shipping commerce is supposed to be perhaps the most established commerce on the planet. Indeed, it establishes a significant wellspring of political force and regional impact because "he who controls the ocean, runs the world" (Mukherjee, 2010), a reality emphasized by the different triumphs of the Egyptians, Roman, Turkish, and Spanish, Portuguese, Greek and British territories.

The tale of the shipping business since the Second World War remains one of creativity, polished skill, impressive benefits and a few erroneous conclusions (Ma, 2011). Adam Smith, the dad of present-day financial matters, saw shipping as one of the chief venturing stones to monetary advancements. He contended that the focal power in an industrialist society is the division of work and the degree to which it tends to be realized is influenced to a great extent and critically on the share of industry. He considered vessel operations to be an avenue for modest movement
that can create more extensive industries to specialization, delivering fees less than all other methods of transportation (Mshelia, 2002).

Recorded proof shows that, maritime pioneers, wayfarers, pilots, traders and ocean masters were non-Africans. They found ocean paths, created navigational guides and utilized commercial trade and regions furthering their potential benefit. The global shipping sector is serviced generally using non-government businesses and sorted sets of people. The duty of local governments in the business is restricted to making regional water limits, creating guidelines, implementation of policies and production of essential infra-and superstructure most times. High and expanding technological advancements describe the current maritime industry as massive volume vessels, rapid inbuilt freight handling tools, multi-cargo spaces, transhipment transport, exceptionally skilled and talented staff, trade groups, local trade zones, cartel joins, mergers, unfriendly rivalries and fierce promotions (Prasad, 2011). The condition of the shipping sector in Nigeria merits consideration.

2.3 Product Life-Cycle Theory

Vernon (1966) trade theory as cited in Ally (2015) postulated that an industry would commence by exporting its goods and later take up foreign direct investment as the goods goes through its life-cycle. This can be attributed to the fact that as goods mature, both location of sales and optimal production vary and tend to impact the direction and flow of exports and imports. This theory implies that if the domestic market is already saturated, the industry can then migrate to other nations to penetrate a new market.

2.4 Neo Mercantilism Theory

Smith (1776) theory, as cited in Ally (2015) is utilized to explain a policy regime which encourages exports, discourages imports in international trade. In the real situation today, all governments tend to encourage their business people to increase exportation rather than importation in order to strengthen the economy of the Nation as well as to accumulate foreign currency.
2.5 PESTLE Concept

According to Armstrong (2006), as cited in Ally (2015), external factors like Political, Economic, Social, Technological, Environment and Legal are mostly likely to affect roles of maritime industry in enabling the growth of trade, in one way or another. Hence a nation with stable Political, Economic, Social, Technological, Environment and Legal aspects will have a maritime industry that efficiently enables the growth of trade. This theory offers a strategic approach to analyze the external macro-environment of an industry or business and identify the strategic elements that impact on the business. This ensures that some fundamental elements are not ignored or overlooked. The P.E.S.T.E.L. framework is a simple way to motivating the development of external and strategic thinking. However, it may over-simplify the data for strategic decision and does not examine internal factors. As the macro environment often changes, P.E.S.T.E.L. analysis needs undertaking regularly.

2.6 Other Theoretical Framework

Bagwell and Staiger (1999), as cited in Buhari (2013), offered a financial theory of the General Agreement on Trade and Tariffs (GATT). In their works, Bagwell and Staiger confidently stated that the utilization of tariffs to test the terms-of-trade influence could proffer explanations on many of the basic qualities of the present multilateral trading framework. Their study has been very impactful even though there is no immediate proof that nations utilize, or have, market power in a trade before going into reciprocal liberalization in the GATT or the one that came after it, the World Trade Organization (W.T.O.).

The theory that a nation could benefit from protection existed for long (Buhari, 2013). The feeling of nations benefitting from tariffs via improvement in their terms-of-trade can be attributed to two basic reasons. The first, from Torrens (1833) and Mill (1844) is that there are several likely prices at which nations would be convinced to trade. The placement of a tariff causes a welfare loss as a result of demand and supply distortions. However, it could also create a profit if international suppliers decrease their prices to sustain market access. If the losses as a result of the local distortion are lower than the gains from the price or terms-of-trade impact, a nation can benefit from a tariff (Buhari, 2013). Edgeworth (1894), as cited in Buhari (2013), offered the
The basic highlight concerning if a nation should impose a tariff. He demonstrated that provided a foreign nation's offer curve was not ideally elastic, a nation could benefit from a tariff. In this instance, the decrease in import consumption due to tariff causes a drop in the price of all units imported, and this first order profit cancels out the distortion losses from lower imports.

Bickerdike (1907) took Edgeworth's framework to another level and proposed the expression equating the welfare-maximizing tariff and the inverse of the export supply elasticity (Buhari, 2013). Though Bickerdike formed his equation with one import product and a welfare-maximizing administration, the fundamental insight that a nation's "optimal" tariff is elevating in its market power applies to more general settings. It does not need governments to maximize welfare (Buhari, 2013).

Finally, the researcher saw it necessary to investigate the relationship between the theory of "balance of trade" and "term of trade". Balance of trade is the relationship between the total volume of export and import of a nation for a specific timeframe. When the balance of trade in excess by the export, then its beneficial, if not, it constitutes loss (Branch, 2000).

\[ \text{Balance of Trade} = \text{Total Export} - \text{Total Import} \quad (2.1) \]

Term of Trade (T.O.T.) is defined as the grade of local profits that have to be sacrificed to acquire a unit of imported products. They can be regarded as the opportunity cost of getting products via maritime trade rather than manufacturing or producing them directly.

The expression of terms of trade is given as;

\[
\text{T.O.T. index} = \left( \frac{\text{Index of export trade}}{\text{Index of import trade}} \right) \times 100\% \quad (2.2)
\]

As per the relationship between both theories, terms of trade and balance of trade, an enhancement in the former will lead to a profitable outcome of the latter provided that the demand for import and export is more or less inclusive. If the demand is elastic, then the balance of the trade will be less beneficial. A device in the term of trade does not mean an unprofitable balance of trade. If the demand for more import and export is relatively elastic, then a device in the term of trade will make the demand to rise (Branch, 2000).
2.7 Summary

This chapter started with discussions and reviews of the relevant theories that underpin the study. The chapter has also discussed the concept of maritime trade. To attain and maintain a competitive edge in the global market and economy, nations need to understand the underlying factors that promote maritime trade.
CHAPTER 3

Review of Maritime Trade in Nigeria

3.1 Introduction
In this chapter, maritime trade in Nigeria will be broadly reviewed. The discussion of the Nigerian Shipping industry history, the challenges that impacts on maritime trade in Nigeria and the Nigerian economy in the context of global trade are also reviewed in this chapter. The economic impact of maritime trade in Nigeria will also be reviewed. This chapter will be finalised with a summary of the review of the different sections highlighted in the chapter.

3.2 The Nigerian Experience in Maritime Development
The start of present-day port advancement in Nigeria might be followed back to the British control of Lagos, a known point of the cross-Atlantic slave trade, in 1861, and ensuing Nigerian Interland colonization. Port Harcourt and Lagos, in the end, rose as the main ports following broad and costly harbour works. At Lagos, the broadest works completed during the time frame (1861-1960) occurred before the World War II, while Port Harcourt was developed wholly (per account of Kashima) in the quick fallout of the World War I. The subtleties of the harbour activities were done somewhere else and need not postpone things (Olukoju 1992, 1996).

Port advancement strategy wavered during this period from focus to dispersion (Ogundana 1970, 1972). The previous alludes to a framework of concentrating investment in, and creating, a couple of ports, to the detriment of the rest while the latter entailed building up a variety of seaport outlets.

Such constriction and extension mirrored the predominant worldwide and local financial states which directed the interest for shipping and port infrastructures. Consequently, in times of the Great misery of the 1930s, significant open works (plus the harbour works) were stopped or conceded particularly as the amount of maritime commerce and shipping had reduced. Then again, the positive viewpoint encouraged by a trade resonance (after the two universal wars) or the desire for one, prompted the design and execution of port development ventures (Ndikom, 2015).
As far as the organization of Nigerian ports, the framework was portrayed, up to the mid-1950s, by a blend of duality of control and assortment of sovereignty. To start with, the duality of control implied that private entities, for example, the United African Company and the foreign shipping firms, explicitly, Elder Dempster Shipping Line, oversaw several events, lighterage (Olukoju, 2001, 2002), and some ports, (for example, Burutu). Again, there was an assortment of experts and controls in the ports, particularly the significant ones such as Port Harcourt and Lagos. These included the Port Engineering, Marine, Customs and Railways, each taking care of specific parts of port activities, for example, levy gathering, ferry, pilotage and harbour activities. These administrative divisions were entangled in a fierce inter-division competition, which constrained the viable organization of activities and port services (Olukoju, 2002). The control of the disaster involved a progression of examinations and managerial rearrangement; however, it was not until the Nigerian Ports Authority was set up in the mid-1950s that a form of structure was set up. Incomprehensibly, the maritime industry in Nigeria has since deteriorated into a wilderness of contending jurisdictions limiting and intruding with the proficient activity and organization of the ports.

Owing to the Ports Act 1954 (Cap 55) of the Laws of the Federation of Nigeria, the Nigerian Ports Authority (N.P.A.) was set up as the sole power and jurisdiction in charge of Nigeria’s ports instead of eight government divisions. The N.P.A. appeared with power and control over the activity of load and freight movement; support, improvement and coordination of harbours; dredging, pilotage administrations, lighting and navigational guides, and related controls. The N.P.A. carried out nationalization (‘Nigerianisation’) of its workforce and the development of a wharf annexe at Apapa and harbour activities at Port Harcourt. However, within ten years, its functions had become a subject under the examination of a commission of investigation. The Justice Beckley Tribunal discovered that the N.P.A. had committed unnecessary perversion in its engagements, and its activities had been beset by ethnicity, debasement and incompetency. The local war caused the implemented withdrawal of Nigerian maritime activities following the folding up of eastern Nigerian ports, for example, Port Harcourt. Lagos turned into the main utilitarian seaport. The military administration officially positioned the ports of Calabar, Warri and Burutu in 1969, up to this point under private management, heavily overseen by the N.P.A. The local war was trailed by the necessities of renovation, refurbishments and the oil resonance
as a consequence of the Arab-Israeli confrontation in 1973. Massive imports caused by these events brought about remarkable port jam, portrayed by the scandalous cement naval force in which ships conveying concrete or cement remained outside the ports in a long waiting line of vessels holding back to anchor and unload their goods. The Nation attracted colossal misfortunes in demurrage and mutilated goods, notwithstanding the deceitful dealings of certain Nigerians and outsiders. The administration at that point underwent monstrous port improvement not exclusively to adapt to that exigency but in expectance of expanding demands. However, the economic downturn of the 1980s thwarted the plan and left the Nation with under-used infrastructure (Badejo, 2014).

Then, port management was experiencing specific changes, which neutralized the productivity and morale of the workforce. To begin with, the nomination of a military Port Commandant notwithstanding the port jam of the 1970s dissolved the impact and proficiency of the N.P.A. Board. It ruptured the standards of fair treatment and responsibility. Secondly, the open reforms of the 1970s lowered the motivation of the N.P.A. workforce, who were then caused to work under civil service conditions, particularly their remunerations. Also, specific authorities of the N.P.A. were moved to the Ministry of Transport, who oversaw and coordinated the Authority. The result of these events was that the N.P.A. "went from an independent state to that of a division of the Federal Ministry of Transport (Ovbude, 1991).

These transformations had more extensive and more profound impacts on the N.P.A. and the whole ports division. The most obvious is that the Authority was never made aware of the Ministry's significant ventures. For instance, the Sapele ports and Tin-Can Island projects. In the previous case, sufficient fundamental consultations were not done and, in this way, the N.P.A. was burdened with preventable dredging expenses. Also, the new port was excessively near Warri city, in this way making it a trinket venture. The Sapele venture and the development of five compartments (rather than the two suggested by the N.P.A.) at Calabar were carried out by the non-military administration of President Shehu Shagari on political grounds.

A similar framework push was for the 'commercialization' of the port management in Nigeria in the late 1980s. With Decree 25 of 1988, the N.P.A. was mentioned with other 35 government-possessed ventures scheduled for commercialization. Ninety-two others were slated for
privatization. The motive was to cause the N.P.A. to make gains from its activities. Such a strategy suggested that the administration in power would give the N.P.A. management an upper hand in everyday management as well as in the establishments of port fees and the collection of the levy. Shockingly, the intended motive was never accomplished, in spite of the fact that the N.P.A. (at that point renamed Ports P.L.C.) was at long last weaned off its reliance on national aids as it prevailed in sufficiently making gains and earning from its activities on shipping and other port-commuters. In any case, the administration in power never gave its public servants a free hand at least to the degree of designating the Authority's Board of Directors and meddling in other different manners. The N.P.A. was never free from political games, ethnic bigotry and enormous scope extortion which had demolished (or accordingly crushed) other government divisions and departments, for example, the N.N.S.L. and Nigerdock, which should have been monetarily solvent (Iroegbu, 2010).

Taking all things together, port advancement in Nigeria has measurably affected city and provincial turn of events; however, the degree differs from port to port. Indeed, the export-handling zone created in Calabar port in eastern Nigeria still cannot seem to have had an average effect. A common factor in the decay of the port is that its natural hinterland is in Cameroon. This has denied it of an essential factor in its advancement, dissimilar to the case of Lagos and Port Harcourt.

All things considered, the most notable instance of port-induced urban and local advancement has been that of Lagos, which created an immense populace focus in an abutting metropolitan region that stretches out inland up to Ota, some forty-five kilometres towards the north. Significant improvements at Apapa have likewise cultivated a new zone that has developed inside and out since the 1960s. New zones have likewise grown at Ikeja, Yaba and Ilupeju as the port applies its immediate and indirect effect on its neighbouring hinterland. By 1971, the Lagos metropolitan zone was spotted with six modern homes. By 2000, functional homes spanned those at "Ijora, Oshodi/Isolo, Ogba, Matori, Apapa, Oregun, Kirikiri, Ilasamaja and Surulere, Ikeja CBD, Iganmu, Gbagada, Agidingbi, Amuwo Odofin, Ilupeju" (Akintola-Arikawe 1987:116). The modern homes at Mushin and Ikeja had owed their continued existence to the industrial frameworks of the Western Region administration since the late 1950s. However, others had also
been established since the 1970s. The degree of the effect of port advancement at Lagos might be decided by the ascent and improvement of the Ota-Ifo and Agbara modern homes in the 'metropolitan obscurity' about 20 to 40 kilometres away (Akintola-Arikawe, 1987). Also, the western railroad connecting Kano with Ibadan and Lagos, major urban, business and commercial hubs, has additionally spread the effect of the port a few hundred kilometres into the Nigerian hinterland. A similar process has been reproduced, however on a lesser scope, at Port Harcourt, the end of the eastern railroad. The port developed the city as a result of its creation in between the war years (Olukoju 1996). There, just like in Lagos, the port fills in as a modern and business centre, and its hinterland reaches out to the managerial and business hubs on the railroad, for instance, Aba and Umuahia.

Armada development is a related issue, which started vigorously with the foundation of the N.N.S.L. in 1959. The legislative issues of the framework has been researched on (Olukoju, 2003). It is worth noting that the venture was defective from the beginning and it was, regardless, improbable to have succeeded based on the hostile world where Nigerian shipping had had to work, plus the unpatriotic and flighty administration of the maritime division of the Nigerian economy till today. Then, the N.N.S.L. staggered until it at last crumbled in the mid-1990s, amusingly in the prompt result of the U.N.C.T.A.D. Code on Liner Shipping which had tried to help developing nations to increase a portion of their maritime economy, particularly the shipping trade (Karandawala 1989). The administration of General Ibrahim Babangida had even commenced to create a National Shipping Policy (Decree 10 of 1987) to offer impact to this code. The Decree built up a N.M.A as the clearinghouse of the maritime division and the office for the assignment of shipping space. Tragically, the essential precondition for significant participation by Nigerians in the shipping industry - an indigenous armada - was missing and when the administration established a fund for armada development - the Ship Building and Ship Acquisition Fund - that office was transformed into an avenue for the plundering of the treasury. The Fund was drained, and its recipients not only failed to fulfil their obligation of repaying their loans but just purchased piece (useless vessels) which were not seaworthy. In the occasion, Nigerians could not use their 40% share and only fronted for foreign companies. The framework grumbled, and the N.M.A. fell into the hold of a progression of inept and degenerate management who just gather lease and neglect to build up the commercial marine or the maritime division. A
similar judgement applies to the N.P.A, which, similar to the N.M.A., exists to gather leases and fees on shipping. Comparable corrupt management steered the N.N.S.L. into the rocks. At the same time, its partners in different parts of the Global South (Sri Lanka, for instance) have figured out how to remain competitive in business (Olukoju, 2003).

3.3 Maritime Trade Development in Nigeria

The function of maritime trade with regards to monetary, political, social and chronicled advancement of various developed and developing economies is unquestionably vital to every country. The history, progress and development of countries are intently correlated with the level of advancement of the maritime industry that exists. For Nigeria, its marine transport industry is located on the inhabitant part of Africa, which comprises a coastline of 853km which goes through the southern states, Ondo, Bayelsa, Akwa-Ibom, Lagos, Cross Rivers, Delta, and Rivers circumscribing the Atlantic Ocean.

At a monetary level, a satisfactory and effective maritime transport framework plays an imperative role in the advancement of a nation's market particularly the market of worldwide trade by changing local markets into national, provincial and global core interest.

This permits economies of extraordinary scale in territories that have a potential comparative advantage with accompanying generation of immense job opportunities. The concept of shipping as the impetus of building up the economy is anything but a new theory as Adam Smith considered the industry as one of the stepping stones to monetary growth. He stated: An enterprise functioning in a nation city without connections to the outside world can never, he contended, accomplish elevated levels of productivity since its tiny market will confine the level of specialization. In the mid-1950s, Mr. Patrick Osoba as a partnership founded Nigeria's first indigenous shipping line the “Nigerian Line” with a Finnish company, Nordstrom and Company. In 1959, the N.N.S.L. was set up by the Nigerian Government; with Palm Lines ltd. Also, Elder Dempster Ltd. As specialized partners who were purchased in 1961 (Iroegbu, 2010). N.N.S.L. began activities with two recycled vessels, developed to 27 vessels in 1980, and reduced to 13 by 1992.
To revive its business, $65million through the Ship Acquisition and Ship Building Fund (S.A.S.B.F.) was injected. However, this was botched prompting N.N.S.L.'s liquidation in 1995. Bankruptcy of N.N.S.L. can be ascribed to a few elements among which are: colossal obligations, political obstruction, debt owed, excessive repair charges, among others. In 1995, N.M.A. set up another state-owned national carrier: the National Unity Line (N.U.L.), with MV Abuja - a 6,879 DWT vessel, as its lone vessel. Shockingly, in 2002 its lone vessel was auctioned off. By 2000, Nigeria had an aggregate of 122 enrolled indigenous shipping organizations who primarily contracted their vessels. Maritime trade has assumed an essential function in Nigeria's monetary advancement. It represents about 95% of the vehicular methods for Nigeria's International Trade (Victor, 2014). The maritime sector of Nigeria is an essential sector of the Nigerian economy, considering the Nation's status as a significant oil-producing and exporting Nation. As a buyer nation, this Nation is an enormous market for foreign products due to its vast population. The Maritime trade has served as a critical means of diversification of the Nigerian economy, which is a significant inclination taking into account the crashing of petroleum prices currently.

3.4 Nigeria Economy in the Context of World Trade

With regards to characteristic, material and human resources, the Nigerian economy represent a mixed economy with a range of natural resources. There is additionally the tremendous capability of money related, communications, transport and legal assets with a stock exchange (the Nigerian Stock exchange), which is the second biggest in Africa. Nigeria is placed 30th on the planet concerning GDP/23rd in purchasing power parity (P.P.P.) as at 2018, and is the biggest trading accomplice in sub-Saharan Africa with the United States of America and used to supply a fifth of U.S.A. oil imports (11% of the oil imports). Aside from being the 7th most significant trade surplus with the U.S., Nigeria is the 50th biggest export market for United States' products and the fourteenth biggest exporter of merchandise to the U.S. The most significant foreign investor in Nigeria likewise happens to be the United States. The International Monetary Fund (I.M.F.) anticipated financial growth of 9% in 2008 and 8.3% in 2009 individually for Nigeria. The I.M.F. further projected that the Nigerian economy would develop by 8% yearly (Ighodaro, 2009).

As indicated by Citigroup, Nigeria is touted to be among one of the nations that will encounter the most elevated average G.D.P. development between 2012 and 2050. Moreover, Nigeria is
one of the two nations from Africa that is among the 11 Global Growth Generators nations. Already, be that as it may, financial advancements had been thwarted by long periods of political insecurity, military regimes, corruption, and misappropriation of funds. The rebuilding of democracy and ensuing monetary reforms are envisaged to effectively return Nigeria on track towards accomplishing its full financial potential. This again is genuinely sketchy. Progress might be moderate and drowsy, regardless. Nigeria is supposed to be the second-biggest economy in Africa after South Africa, however beyond a shadow of a doubt, the biggest economy in the West African district (Ndikom et al., 2017).

3.5 Net Impact of Emerging Global Trade on Maritime in Nigeria

Developing global patterns in maritime has presented incredible difficulties for shipping activities and management in Nigeria. Besides, as in numerous different businesses, the maritime trade has kept on being affected by happenings in world politico-economic circle. Global shipping is incredibly delicate to developments in the external environment. If events in the external environment are disengaged or aided, the interest for maritime transport is debilitated or elevated. For the most part, the interest for tonnage transport in the shipping sector relies upon global financial standpoint, the pattern in modern production and the worldwide market. In recent decades, the global economy has reliably claimed undue impact on the administration and activities of most local economies. Besides, the global economy has turned progressively subject to trade, with each significant local trade groups quickly increasing the degree of products moved between economies in the province and between significant trade blocks (Badejo, 2014).

The advancement in global trade is currently increasingly set apart according to advancement in worldwide gross national product than it was before. This is for the most part because of China’s expanding integration into the worldwide economy, which likewise has shaped advancements in different districts. Advancements in China are presently viewed as one of the most significant factors of development for big haulier, bulk, container and chemical business (Ndikom, 2006). The external condition wherein a port is situated progressively getting increasingly dangerous, as the powers of globalization and quick improvements in transport innovations and recent improvements in the shipping business have affected the activities of ports and made their bargaining power dependent on those of shipping lines. Seaports no longer relish a monopoly
over their hinterland partners as freights coming from or bound for these spots do not need to be dispatched through them. The elements of globalization, growth in transport technologies and ongoing improvements in the shipping business have not just caused ports to revamp and rebuild their activities and facilities via changes in cargo handling strategies, port infrastructure, workforce, administration and innovation, yet have likewise escalated inter-port rivalry. The idea of globalization, as caused by market liberalizations frameworks, sought after by most nations, and the approaches adopted by numerous value-based enterprises (which apportion the different stages or parts of the development procedure across nations dependent on their individual relative focal points) have strengthened rivalry in the global trading environment. This has an expanding pressure on ports, which makes up a significant connection in the universal trading logistics chain, to improve their operational productivity (Ndikom, 2006).

3.6 Problems with Nigerian Maritime Industry

Numerous difficulties influence the maritime industry in Nigeria, and these must be illuminated and contemplated because this industry assumes a fundamental role in the economy and development of the country.

3.6.1 Enactment and Legal Matters/Reforms

There are such a large number of agents of change of which the Nigerian law Reform Commission is belong. The law Reform Commission is all-inclusive, since it manages the maritime sector alone as well as other sectional laws, which comprises established law, criminal law and more. The board of trustees of the Nigerian Shippers Council (N.S.C), Nigerian Maritime Lawyers Association (N.M.L.A) and the National Assembly Committee on Marine Transport (N.A.C.M.T) would, at some points depend on the Nigerian Law Reform Commission (N.L.R.C) to viably deliver their functions. The acknowledgement of such a large number of comprehensive policies of the Federal Government, from transforming transportation, to associating the maritime business to the financial yearnings of the Federal Government. Adjusting the Maritime business to the world economy and implementing Port changes are static and idle (Iroegbu, 2010).

Throughout the years, the maritime business has been wholly disregarded. Nigeria’s shipping division is estimated to be equipped for creating N7 Trillion every year. In any case, to tap cash
flow from this division, there should be a redesign of strategy, institutional, administrative and legal structure. Nigeria has to create another national shipping framework. Nigeria’s shipping framework goes back to 1987 when the Nigerian Shipping Policy Act, No.10 of 1987 was predominant after Nigeria sanctioned the United Nations Code on Trade and Development (U.N.C.T.A.D.). U.N.C.T.A.D. was to follow the 40: 40: 20 code which spreads across ship procurement, freight sharing and shipping operations. Under the code, 40% of the complete volume of cargo traffic and income was conserved for indigenous Nigerian carriers, 40% was conserved for transporters of freight beginning in destination nations and 20% for recognized third flag bearers. If executed, this would have gone far to address the unevenness in shipping trade as it impacted on Nigeria. The motive behind the Nigerian Shipping framework was to establish an energetic shipping industry that would produce cash flow for Nigeria and its citizens. In the quest for establishing Nigeria maritime industry, the N.M.A. was founded to coordinate and execute Nigeria’s National Shipping Policy. N.M.A.’s replacement, the Nigerian Maritime Administration and Safety Agency (N.I.M.A.S.A.) when founded in 2007, had no characterized domain in regards to Nigeria’s Shipping Policy. However, it was commanded to advance and create indigenous business shipping in global and coastal shipping venture and control and advance maritime wellbeing, security, marine contamination and maritime labour. The Merchant Shipping Act, 2007 was formed to accommodate vendor shipping and related issues. This Act was to be executed by N.I.M.A.S.A. and sets out a rundown of guidelines for ships working in Nigeria in regards to permits, enrollment, accreditation and punishments for non-compliance with the Act. There exist numerous administrative bodies in the maritime sector in Nigeria with duplication of roles and duties (Ekpenyong, 2018). There is a dire need to rearrange these bodies for better capacity and result.

3.6.2 Marine Environmental Protection

The impacts of marine contamination on water bodies and beachfront regions leads to pollution of the earth and its environment. Nigerian Coastal Waters (N.C.W.), like all waterfront and port nations on the planet, encounters the issue of marine contamination, times via new activities at the ports. Also, similar to some other oil-exporting countries, Nigeria’s marine contamination difficulty is worsened by petroleum activities. Nigeria’s hydrocarbon resources are as of now gotten from the south-south part of Nigeria, a locale known for waterways, rivulets, springs and
the Atlantic Ocean. Marine contamination emanating from oil activities is a significant reason for the social distress in the region, which has throughout the years pulled in national and global attention, accordingly making the Nigerian Government take extraordinary measures to stop the unrest, such as the inventive foundation of the Niger Delta Development Commission (N.D.D.C.). It has become pertinent to inspect the laws managing marine contamination, note their insufficiencies and recommend approaches to reinforce the legal system with the end goal of the closure of the social, monetary and ecological scourge of marine contamination. It is worthy of note that there is no specific enactment or laws in Nigeria’s national statute managing the debasement of her marine environment. Instead, what Nigeria has are laws, guidelines and worldwide conventions on this, and it is an intense difficulty complying with the laws because of the significant level of corruption in Nigeria (Iroegbu, 2010).

3.6.3 Wellbeing and Security
The wellbeing and security in the Nigerian maritime sector has improved over time, yet there is still an earnest need to enhance the security of the sector. Theft and Piracy in Nigeria is because of the elevated level of corruption in the Nation. Theft, piracy, ocean robbery and illegal bunkering still exist till date. Even when there is an intense military intercession, there are still a few escape routes in the framework. Because of the significant level of crude oil in Nigeria, its significant wellspring of income is the exportation of petroleum. Because the revenue from the oil sale is not in full dissemination to the individuals of the economy, it has prompted the elevated level of oil abuse and illegal bunkering. This expands the criminal operations and advances ocean theft. Proper measures must be taken to decrease these exercises adrift. While trying to expand the security, N.I.M.A.S.A. empowered the Nigerian Airpower to give strategic air help to sea-based operations against illegal activities of ships. The ongoing accomplishment of the antipiracy activities, including the Agency, the Nigerian Navy and the Nigerian Airpower has offered driving force to this understanding between the two groups. This is an acceptable strategy; however, the adequacy of the memorandum is critical to build the wellbeing and security of Seafarers and Cargo (Ighodaro, 2009).
3.6.4 Human Resources and Training

In each industry, H.R. is one of the most significant roles in the development of the business, so also is Training that must be accommodated for more research that would improve and support the viability of the industry. N.I.M.A.S.A. developed a training program for students in 2009, called the Nigerian Seafarers Development Program (N.S.D.P.). In excess of a thousand students were enlisted in the program and finished from different colleges in the U.K., Romania, Egypt, and Philippines. Sadly, just about 20% of the graduated students have had the opportunity to go for Seatime Training, and this is fundamental and compulsory for the Standard Certification and Watch Keeping (S.T.C.W.) Manilla convention. There is insufficient training and labour capacity development, and this is for sure a misfortune in the endeavour to upgrade the H.R. division of the sector, more consideration is required to improve this region (Badejo, 2014).

3.6.5 Financing

The maritime industry is capital intensive and consequently requires an enormous measure of subsidizing. There is a great deal of business and high interests in shipping because of the high trade level in the Nation. Nigeria has gained enough income yet lamentably, it despite everything has the issue of scarcity in capitals and assets. There are issues of theft, misappropriation of funds in this industry, and along these lines, a great deal of dangers for foreign investments (Ekpenyong, 2018).

Other difficulties still influencing the maritime sector in industry include:

i. Research studies.

ii. They were overlapping between inter-governmental bodies duties.

iii. Technology and Infrastructural Support.

3.7 Economic Impact of Maritime Trade on the Nigerian Economy

The maritime industry generates job opportunities, both actively and passively. Those who are gainfully engaged in the sector are enjoying the dividends of the active job creation, whereas those who are engaged in the sector's supplier industries are recipients of the passive side of the benefits. In Nova Scotia, for instance, the maritime transport industry produced an aggregate of 93,500 jobs or 25% of overall jobs in the state (The Philippine Environmental Governance,
2006). Additionally, in the U.K., a comparable report estimated that the maritime transport sector produced around 212,000 jobs in 2007 (Oxford Economics, 2007). It has been contended that in Nigeria, an estimated 10% of job openings are from both the private and public divisions of the maritime industry (Igbokwe, 2001). The public divisions under this industry comprises the Nigerian Customs Service (N.C.S.), Immigration office, Nigerian Navy (N.N.), National Drug Law Enforcement Agency (N.D.L.E.A.), Standard Organization of Nigeria (S.O.N.), Department of State Security Service (D.S.S.), Federal Environmental Protection Agency (F.E.P.A.), NAFDAC, N.P.A, N.I.M.A.S.A. There are additionally various privately owned businesses which are engaged in maritime operations.

The maritime transport industry does not just create jobs in these divisions above but also creates business and job opportunities in other dependent enterprises like shipbuilding, shipbreaking, ship fixing and maritime Training. In Nigeria, the available jobs in the maritime transport industry have a ripple impact on the advancement of other financial activities like cargo forwarding, dock working, stevedoring activities, towage, pilotage, warehousing, and freight handling of all of which relies upon the maritime industry for their sustenance. It has likewise actuated commercial activities in the casual sector, for example, petty trading, selling, hawking and more which engage Nigerians. Without the business and job openings created by this sector, the unemployment rate in Nigeria would have exacerbated, consequently prompting financial imbalance in the country.

The financial effect of any industry in an economy is routinely estimated as far as its commitment or worth added to the G.D.P. of that economy or country (Sen, 2004). It ought to be noted that the idea of significant worth added to G.D.P. is not total sales or an equivalent by this sector since the total estimation of sales of an industry comprises the estimation of the considerable number of data sources that have been bought from different enterprises; the entirety of definite sales across all businesses can subsequently end up "enumerating" some outputs multiple times (for instance, the unrefined petroleum that is refined into fuel, and the fuel that is bought by a shipping administrator) and is not utilized as a measure of commercial activity for a nation in general. Rather the G.D.P., which is taken as "added value" to goods by the maritime industry. In several studies on the effect of maritime trade, it has been noticed that the economic effect
was separated into three sections, which include; the direct effect, the indirect effect and the induced effect (Oxford Economics, 2009; Sen, 2004; Apex Companies, 2010; Pinfold, 2009; Marinova counselling L.T.D., 2009). The direct impacts of the maritime industry are self-evident. The idea of direct effects can be best represented through the instance of imported products coming to Nigeria on a Nigerian owned ship. Typically, a vessel is moved into a port by a pilot boat, orchestrated by the boat’s operator.

In specific examples, the vessel may require tugs notwithstanding the pilot boat. Stevedores then tie up the vessel. When secure, the vessel is boarded by the ship’s boarding specialist and customs investigators. The crew may come out and spend cash on either individual or ship’s agent. Documentation is taken care of by the ship’s agent, customs broker or cargo forwarder. The vessel must be cleared in and out by the Nigerian Customs Agency. Freight would then be able to be stacked in and out. The impact of the activity of this one vessel will affect the Nigerian economy not just by providing cash flow and job opportunities to its crew but in addition to the crew of the pilot boat, stevedores, and ship agents. The direct effect comprises the worth added to G.D.P., industry income and benefits, number of workers, wages and overall export (Sen, 2004), while as indicated by Oxford economics, it is business and contribution to G.D.P. The direct effect can in this manner be viewed as the effect emerging from the expenses made by firms in the subject ventures on the merchandise and services required to produce industry yields (Marinova Consulting L.T.D., 2009). The present G.D.P. effect of this industry on the Nigerian economy was roughly 3% in 2010 (Olayiwola, 2010).

The indirect effect is supposed to be the inter-industry purchases activated by the direct interest; they are the reverse linkages to the economy (Marinova Consulting L.T.D., 2009). It is the effect on the financial sector that the maritime transport industry, can have on different sectors through their interest of those sector’s merchandise and services as input to its manufacturing (Sen, 2004). For instance, pilot boats purchase fuel from vendors and repair works from shipyards, while the stevedoring organizations purchase or rent vehicles. The sellers of these merchandise and services, in turn, buy progressively fundamental products and services. The indirect effect is principally estimated by utilizing the input-output assessment.
The induced impact alludes to the interest made or demand in the more extensive economy via purchaser spending of salaries earned by those engaged in direct and indirect operations of the maritime industry (Marinova Consulting L.T.D., 2009). For example, a decrease in compensation in the maritime industry, or one of its vendors will bring about less expense by workers and along these lines a drop in demand for consumer products from different ventures. The induced effect may take some time; say a year, before it works its path through the economy.

The economic effect of an industry, even though it is regularly estimated by the degree of commercial activity of that industry, as worth added to G.D.P. and job creation, is not just confined to these monetary activities but also the effect of this industry on different parts of the economy, for example, its impact in enabling of trade and business, income generation and accessibility of funds, the advancement of the travel industry, upgrade of industrial enhancement and improvement, inter-state relations and peaceful co-existence, socio-political agreement, defence and security-regional protection and for transportation of people across locations in Nigeria (Igbokwe, 2001). The sufficiency level of the maritime industry in an economy will decide if the economy can participate in international commerce or not. The output of the maritime industry is firmly connected to the received demand or interest in the goods sector in an economy (Irish maritime improvement office, 2007). Maritime transport, also called shipping, has been a significant people's activity since the beginning of humanity, mainly where prosperity relied upon global and interprovincial trade (Corbett and Winebrake, 2008). For a country like Nigeria which depends intensely on external trade to support its local economy through importation of raw materials, machinery and tools utilized by manufacturers and for exportation of its unrefined petroleum, horticultural and processed items, the significance of a modest means of transport which maritime industry provides does not just make the total expense of these products and goods lower but in addition, makes it feasible for a considerable amount of merchandise to be conveyed over a significant distance and offloaded in Nigeria, along these lines, decreasing the expense of imported products. An exceptionally enormous level of world's trade is conveyed through water, in this way, the interest for maritime transport has been on the rise because of the impact of globalization and advancement of trade, which has made the interest for merchandise between nations to elevate, in this way elevating the requirement for maritime transport. The maritime industry, aside from creating income and cash flow for organizations
under it, likewise produces income to a country in the form of company tax, V.A.T., and numerous other ways (Oxford Economics, 2007). The function of maritime ventures in income generation for the Nigerian administration cannot be overemphasized. The income which is received from these enterprises are utilized in giving better government assistance to the populace by putting more in maritime frameworks and also putting resources into different divisions of the economy. The incomes originate from charges for the certification of ships and their mortgages, custom charges, ports fees and duties obtained by the Nigerian Port Authority for the utilization of its facilities for vessels or ships which anchor at Nigerian ports, corporate duties paid by shipping organizations, charges for permits, clearing and forwarding operators or cargo forwarders and the certification of shipping organizations. The National Maritime Authority takes 2% legal charge on net profit of shipping organizations on imports and exports (section 17, Nigerian National Shipping Policy Act).

The National Maritime Authority likewise fines defaulting big hauliers that contaminate the Nigerian marine surroundings, and each vessel is lifting Nigerian petroleum pays a compulsory fee. Billions of Naira is being produced annually as income by Customs via import and export charges. A considerable part of the income gathered by the Nigerian Port Authority and the National Maritime Authority is in foreign money, in this way improving the country's foreign reserve (Igbokwe, 2001). Aside these sources, the annual tax paid by workers of this crucial industry builds the reserve, which is accessible to the Nigerian Government to help build up the country, and put more in crucial divisions of the economy.

The maritime industry has consistently improved the global travel industry. In 2005, an estimated 10.5% of the overall global tourism expenses was directly linked to maritime transport (The Philippine Environmental Governance, 2006). The travel industry division of the maritime industry likewise assists in producing income to a country.

As a result of the geophysical highlights of Nigeria, the accessibility of water bodies, waterborne transport has been improved and enabled. The maritime transport, aside from taking part in the conveyance of products, also mitigates different types of transport of avoidable pressure and jam with regards to human movement (Igbokwe, 2001, 2002). For instance, Ferry services from Apapa to Mile 12 and C.M.S. in Lagos state, Nigeria diminishes road traffic jams and the slowing
down of economic events in the region. It additionally gives a moderately modest and solid type of transport for people, in this way diminishing their expenses on transportation. Hence, maritime transport diminishes pressure and stress, which individuals experience day by day by giving an alternative type of transport to them.

The effect of transportation on the financial liberation of a nation cannot be over underscored. In Nigeria, transport represents roughly 3% of the Gross Domestic Product (G.D.P.) (Olayiwola, 2010). An energetic, responsive, successful and productive maritime framework will improve Nigeria's monetary, developmental and critical functions in the economy. Thus, the maritime industry and its subdivisions, particularly, the maritime transport should be given high priority in the Nigerian economy.

3.8 Summary

Ekpo (2012) accepted that maybe just like some other nations, the maritime business on a global level gives numerous opportunities for investments. Above all, it has been used to promote international trade by acting as the bridge via which items are exchanged utilizing the sea on a commercial level. It has assumed significant positions in Nigerian financial footprints. It represents over 95% of the medium of exchange for Nigerian International trade. Additionally, it has in like manner, filled in as a focal point in Nigeria's undertaking to address her trade shortfalls with other nations around the globe. Actually, since becoming a part of U.N.C.T.A.D. code for liner meeting in 1975, different respective and multilateral maritime understandings have been agreed upon by the Nigerian Administrations and this has to a greater extent helped the sector in freight and vessels movement all through the Nigerian shores (Elem, 2008). As demonstrated by Ekpo (2012), maritime exercises have aided the expansion of Nigeria’s economy and has kept on engaging Nigerians with different job roles. Undoubtedly, for whatever period that it existed, the N.N.S.L. gave work to Nigerians, it likewise filled in as a platform or preparing the stage for sailors/mariners and other individuals in the sector. The prerequisite for sufficient Training of staff for the business similarly brought about the development of “Maritime Academy of Nigeria (M.A.N.)”. It has moreover prompted the preparation of mariners internationally by states administrations in Nigeria. Maritime trade additionally produces the necessary reserve and exchange to the economy of Nigeria. This is as vessel fixing, duties and harbour expenses. Other
than that, it is the legal strategy of "Nigerian Maritime Administrative and Safety Agency" to charge duties on freight from any ship that touches down at the Nigerian harbours for trade reasons.

The justification for this is to support Nigerian fleets for productive lifting of a great deal of cargoes. If this was ever accomplished by, the release of "Ship Acquisition and Ship Building Fund (S.A.S.B.F.)" is particular altogether. Since the 50's when crude was found in the enormous sum in Niger Delta (south-south Nigeria), Nigeria's tank farms, like Forcados have kept on accommodating oil tankers of various profiles and sizes; unrefined petroleum has since dislodged farming as Nigeria's monetary pillar representing about 85% of Nigeria's foreign reserve. In spite of the fact that unrefined petroleum has aided to support Nigeria's foreign reserve & boost the economy, absolute non-involvement of Nigeria's indigenous vessels from maritime trade has been a theme of intense discussion between practitioners & the Government (Ma, 2011). Lazarous (2013), in an examination, revealed that Nigeria makes a deficit of over $800,000.00 annually as a result of non-association of local transporters of crude. Even cabotage practices, including finding oil around shores are till date controlled by foreigners; consequently, depriving Nigeria maritime sector and the Government a considerable amount of accruable inflow. This review will, therefore assess the impact of maritime on Nigeria's economy.
CHAPTER 4

Research Method

4.1 Introduction
This study adopts both descriptive and inferential statistics. With descriptive statistics, there is ease in accessing information as it enables the researcher to gather information, summarize and interpret data for clarification purposes (Orodho & Kombo, 2002).

Furthermore, the use of inferential statistics ensures that the researcher has the ability to make judgements of the likelihood that an observed trend between two or more sets of data is dependable or might have occurred by chance. Also, with inferential statistics, conclusions that stretch or extend beyond the immediate data can be made.

The use of linear regression in this study is to be able to model the relationship between the independent variable (maritime trade) and the dependent variables (GDP, Foreign Reserve and External Debt Payment) by fitting a linear correlation to observed data.

4.2 Study Area and Population
This research work focuses on the relationship between the maritime trade and economic advancement in Nigeria, adopting a few measures of financial advancement in Nigeria - GDP, foreign reserve and external loan settlement. The study likewise covers a period of 27 years, 1991-2019.

4.3 Data Sources
Data needed for this work will be obtained from secondary sources. This comprises several publications from the Nigerian Maritime Administration and Safety Agency (N.I.M.A.S.A), Nigerian Ports Authority (N.P.A), particularly yearly reports and handbooks, Central Bank of Nigeria, Bureau of measurements and procurement and other secondary sources spanning internet, articles and magazines.
4.4 Research Design and Analysis of Data

The data to be gathered in the work will be analyzed, utilizing both descriptive and inferential statistics. Be that as it may, the hypotheses formed will be analyzed utilizing a simple regression model. As per Kothari (2008), the significant motivation behind descriptive research is a description of the situation, as it exists now.

As stated above, after the data is gathered, it will be sorted utilizing regression, which will aid to estimate one parameter from the other parameter(s) based on the nature of the correlation between the parameters. The parameters being estimated is often known as the dependent parameter; this is due to the fact that its value is dependent on other parameter(s) values. Thus, the dependent parameter is influenced by the predictor parameter. This can be shown in formula as:

\[ Y_1 = A + b_1X_1 + b_2X_2 \ldots + b_nX_n \]

Where Y is the predicted parameter, Xs is the predictor parameters. Per the present study, Y represents - Nigeria’s gross domestic product, Nigeria’s foreign reserve and Nigeria’s external loan settlement X represents maritime trade in Nigeria.

Correlation analysis will further be used to estimate the level of the existing relationship between the dependent and independent parameters. Two parameters can have one of the three relationships: a positive correlation, a negative correlation, or uncorrelated. This means that the coefficient of the correlation depends or is a function of the level of covariability of the parameters X and Y. The values that the coefficient of the correlation ‘r’ could have a range from -1 to +1. If r is 1, it means that X and Y are ideally positively correlated; if r is negative, then X and Y are perfectly negatively correlated. If r is -1, there is also an ideal negative correlation between X and Y, and if r is zero, then the two parameters are not correlated.

This study has to do with an analysis of the effect of maritime trade on the economy in Nigeria. Thus, the study needs the values of the predicted and predictor parameters so as to have an efficient analysis.

From the three (3) hypotheses, we have the accompanying predicted variables, respectively for hypotheses one to three:
GDP_n = Gross Domestic Product for year, n:

Foreign.R_n = Foreign Reserve in year, n:

EXT.L_n = External loan settlement in year, n.

For the three hypotheses, the predictor parameter is given as:

Maritime.Trd_n = Maritime trade in year, n.

**Null Hypothesis One**

H_0: There is no strong connection between maritime trade and the GDP.

The independent variable in hypothesis one is the level of maritime trade from 1991 to 2019.

The dependent variable is the level of GDP for the timeframe, written as GDP_n, and expressed thus:

\[ GDP_n = f(\text{Maritime.Trd}_n) + e \] \[4.2\]

That is, \[ GDP_n = B_1 + f(\text{Maritime.Trd}_n) + e \] \[4.3\]

Where:

GDP_n is the Gross domestic product in year, n; Maritime.Trd_n is the maritime trade in year, n; B_1 is the coefficient of regression and E is the error term.

**Null Hypothesis Two**

H_0: There is no strong connection between maritime trade and foreign reserve.

The independent variable is maritime trade for the period from 1991-2019.

The dependent variable is the foreign reserve for the same time written as Foreign.R_n and expressed thus:

\[ \text{Foreign.R}_n = f(\text{Maritime.Trd}_n) \] \[4.4\]

That is, \[ \text{Foreign.R}_n = B_0 + B_1 (\text{Maritime.Trd}_n) \] \[4.5\]

Where;
Foreign, $R_n$ is the foreign reserve in year, $n$; $B_0$ is regression intercept; $B_1$ is the regression coefficient, and $E$ is the error term.

**Null Hypothesis Three**

$H_0$: There is no strong connection between maritime trade and foreign loan settlement framework.

The independent variable is maritime trade, Maritime, $Trd_a$

The dependent variable is the external loan settlement. Thus, mathematically, we have:

$$EXT.L.a = f(Martime.Trda)$$

That is, $EXT.L.a = B_0 + B_1(Martime.Trda) + E_a$

Where;

- $EXT.L.a$ = external loan settlement
- Maritime, $Trd_a$ is the maritime trade in thousands of tonnes; $B_0$ is the regression intercept; $B_1$ is the regression coefficient, and $E$ is the error term.

**4.5 Test of Model Significance**

It is important that the hypotheses are tested in order to confirm the appropriateness of the model specification. To achieve this, the analysis of variance approach is used. The ANOVA splits the changes of the predicted variables (GDP, foreign reserve and foreign loan settlement, for null hypothesis one, two and three respectively) with its component portions.

Changes in the predicted parameters (GDP, for null hypothesis one, Foreign, $R_n$ for null hypothesis two and Ext, $L_a$ for null hypothesis three) that are considered by the predictor variables are referred to as predicted changes. Any sources not accounted for are as a result of random or chance elements. This can include things like population disturbance variable ‘u’ denoted by ‘e’, also denoted as the error term.
4.6 Test of the Explanatory Variables Significance

Having assessed the importance of the predicted model as a whole, it is pertinent to proceed to analyse the particular impact of the several variables in reaching this outcome. Moreover, this can be done by performing T-tests on the calculated variables of the regressors.

The test statistic, t-ratio is estimated as:

\[
T\text{-ratio} = \beta K = \text{value of the population variables for the regressors and } Se(\beta K) = \text{Standard error of the value.}
\]

4.7 Assumptions of the Linear Regression Model

In selecting the correlation, the accompanying key assumptions about the population disturbance term, ‘ut’ is made. The assumptions made with respect to the distribution of the estimates of ‘ut’ are of utmost significance for the regression analysis. The assumptions are as follow:

a. Assumption of Randomness: The value “ut” assumes in any specific timeframe is dependent on the likelihood that ‘ut’ as a real random parameter could be positive, zero or negative, each with a certain likelihood of occurrence for a specific timeframe.

b. Assumption of Zero Average: The average estimate of ‘ut’ in any specific timeframe is zero, predictor parameter is constant. Thus, ‘ut’ will exhibit similar dispersion for all values of the explanatory parameters. (E (u2t) = 82. This is known as the assumption of HOMOSCEDASTICITY. If this assumption is untrue, then it becomes challenging to build confidence levels on the regression values, and the tests hence turns non-implementable.

c. Normality Assumption: The parameter ‘ut’ has a typical distribution; this implies that the estimates of ‘ut’ (for individual predictor parameters) have a bell-configuration type of distribution. These key assumptions can be denoted as; ut – N (O, 82 ut), meaning that ut is a random parameter, with a normal distribution, zero average and a constant variance.

d. Other Assumptions of the Model include:

i. \( \text{Cov (uiu)} = 0 \) (no covariance between the disturbance parameters of varied observations).
ii. \( \text{Cov (Xi, u)} = 0 \) (no covariance between the disturbance parameter and the explanatory parameters).

iii. \( \text{Cov (Xi, s)} = 0 \) (No Covariance between the explanatory parameters (which implies that multicollinearity does not exist)).

iv. The relationship is IDENTIFIED – this implies that the model has a distinctive mathematical expression. Its explanatory parameters are not seen in any other mathematical expression similar to the case being researched on.

v. It is likewise assumed that the model is accurately stated mathematically.
CHAPTER 5

Empirical Analysis, Findings and Interpretation

5.1 Introduction

This chapter presents analyses and interprets the data obtained primarily from secondary sources. The three null hypotheses in the last chapter are likewise analyzed so as to make inferences. Simple linear regression analyses were utilized to test each of the three hypotheses.

5.2 Data Presentation

Here, the data covering the period of 1991 to 2019 are presented and were utilized in the regression analysis done to test the three hypotheses. The data were also used in the correlational analysis done in the study. The data were sourced primarily from secondary sources thus:

i. The Nigerian Central Bank (CBN) website and report;
ii. Nigerian National Bureau for Statistics (NBS)
iii. Maritime Data Report
iv. International monetary fund (IMF)
v. Journal publications

The figure for the chapter are shown in Table 5.1 (Sources: www.statista.com; Omoke et al., 2018; Nze & Okeudo, 2019):

<table>
<thead>
<tr>
<th>Year</th>
<th>GDP (N'mn)</th>
<th>Foreign Reserve (N'mn)</th>
<th>Ext Debt Payment (N'Mn)</th>
<th>Maritime Trade (N'Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>94235.3</td>
<td>44249.6</td>
<td>35334.2</td>
<td>3010.9</td>
</tr>
<tr>
<td>1992</td>
<td>97019.9</td>
<td>123992.5</td>
<td>11327.9</td>
<td>2779.2</td>
</tr>
<tr>
<td>1993</td>
<td>99604.2</td>
<td>29345.6</td>
<td>38266.4</td>
<td>1175</td>
</tr>
</tbody>
</table>

Table 5.1: Nigeria’s Overall Maritime Trade, GDP, Foreign Reserve and Foreign Loan Payment in millions of Naira, 1991-2019

42
<table>
<thead>
<tr>
<th>Year</th>
<th>Value 1</th>
<th>Value 2</th>
<th>Value 3</th>
<th>Value 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1994</td>
<td>100936.7</td>
<td>36455.9</td>
<td>34722.8</td>
<td>2098.9</td>
</tr>
<tr>
<td>1995</td>
<td>103078.6</td>
<td>1019208</td>
<td>122446.1</td>
<td>1579.9</td>
</tr>
<tr>
<td>1996</td>
<td>106600.6</td>
<td>284603.1</td>
<td>147048</td>
<td>1368.9</td>
</tr>
<tr>
<td>1997</td>
<td>109972.5</td>
<td>65662.2</td>
<td>149122.1</td>
<td>1687</td>
</tr>
<tr>
<td>1998</td>
<td>113509</td>
<td>65895.1</td>
<td>157331</td>
<td>1912.8</td>
</tr>
<tr>
<td>1999</td>
<td>116655.5</td>
<td>120585.2</td>
<td>158471</td>
<td>2419.5</td>
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<tr>
<td>2000</td>
<td>121207.8</td>
<td>166355.2</td>
<td>161112.8</td>
<td>4345.1</td>
</tr>
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<td>2001</td>
<td>126323.8</td>
<td>318968.2</td>
<td>173117.4</td>
<td>8349.4</td>
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<td>131489.8</td>
<td>321520.1</td>
<td>182224.2</td>
<td>9446</td>
</tr>
<tr>
<td>2003</td>
<td>136460</td>
<td>413600.4</td>
<td>200114.9</td>
<td>7988</td>
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<td>2004</td>
<td>145380</td>
<td>473702.1</td>
<td>201113.2</td>
<td>607759</td>
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<td>2005</td>
<td>147105</td>
<td>514310.7</td>
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<td>634148</td>
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<td>148022</td>
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<td>301160</td>
<td>51300</td>
<td>3.65421</td>
<td>10124128.73</td>
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<td>2008</td>
<td>320040</td>
<td>53000</td>
<td>3.72036</td>
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<td>2009</td>
<td>342230</td>
<td>42400</td>
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<td>8757689.264</td>
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<tr>
<td>2010</td>
<td>369060</td>
<td>32300</td>
<td>4.53419</td>
<td>12404847.06</td>
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<tr>
<td>2011</td>
<td>387100</td>
<td>32300</td>
<td>5.63371</td>
<td>15365711.92</td>
</tr>
<tr>
<td>2012</td>
<td>403670</td>
<td>32600</td>
<td>6.52707</td>
<td>14778621.47</td>
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<td>2013</td>
<td>425440</td>
<td>43800</td>
<td>8.8219</td>
<td>14912889.71</td>
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<tr>
<td>2014</td>
<td>452280</td>
<td>34200</td>
<td>9.71145</td>
<td>16917431.04</td>
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<td>2015</td>
<td>464280</td>
<td>28300</td>
<td>10.71843</td>
<td>9809553.603</td>
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<tr>
<td>2016</td>
<td>102600000</td>
<td>5520000</td>
<td>9140000</td>
<td>7689508.071</td>
</tr>
<tr>
<td>2017</td>
<td>114900000</td>
<td>7960000</td>
<td>10120000</td>
<td>14237436.29</td>
</tr>
<tr>
<td>2018</td>
<td>129100000</td>
<td>8520000</td>
<td>12680000</td>
<td>19014242.78</td>
</tr>
<tr>
<td>2019</td>
<td>144600000</td>
<td>7700000</td>
<td>13960000</td>
<td>18507000</td>
</tr>
</tbody>
</table>

(Additional Sources: CBN Statistical Bulletin, National Bureau for statistics and International Monetary Fund).
As earlier mentioned, Table 5.1 has the needed figures utilized in analysing all the three null hypotheses. It depicts the values of Overall Maritime Trade, Foreign Reserve, Foreign loan settlement and GDP of Nigeria, from 1991-2019.

5.3 Analysis of Data and Null Hypotheses

5.3.1 The Effect of Maritime Trade on the Nigerian Economy
To ascertain the influence of maritime trade on Gross Domestic Product, a simple regression analysis was conducted. Null Hypothesis 1 reads:

\[ H_0: \text{There is no strong connection between maritime trade and the GDP in Nigeria.} \]

The outcome of this null hypothesis one test is provided in Table 5.2. As earlier stated in the previous section, the analyses conducted are ANOVA (at 0.05 level of significance) and correlational test using Microsoft Excel software.

**TABLE 5.2 HYPOTHESIS ONE ANALYSIS OUTPUT**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
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</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adj. R Square</td>
</tr>
<tr>
<td>Standard Error</td>
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<tr>
<td>Observations</td>
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<table>
<thead>
<tr>
<th>ANOVA</th>
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<tbody>
<tr>
<td>df</td>
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<tr>
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<tr>
<td>Regression</td>
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<tr>
<td>Residual</td>
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<tr>
<td>Total</td>
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</table>

<table>
<thead>
<tr>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
</table>

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5.3.1.1 Model Significance Analysis – ANOVA Technique

To check if the results are reliable (statistically significant), the Significance F and P values are assessed. As the Significance F value is less than 0.05 (which is approximately 0.0037 in this case), the null hypothesis one is rejected, which implies that the alternate hypothesis – which states that there is a strong connection between maritime trade and Nigerian GDP is accepted.

Also, the P-value has to be less than 0.05. In the present case, the P-value is approximately 0.0037, which is less than 0.05. Hence, the null hypothesis one is rightly rejected because based on the Significance and P values, there is a strong connection between maritime trade and Nigerian GDP.

**Coefficients**

The regression line based on the ANOVA is given as:

\[
GDP = 3.15\text{MaritimeTrade} - 2201438.5
\]  

(5.1)

This implies that, for each unit increase in Maritime Trade, the GDP also increases by 3.15 units. This is crucial information as it can be utilized to perform a forecast of what the GDP of Nigeria would be, knowing the Maritime Trade value.

5.3.1.2 Test of Model Significance - Correlation Method

The hypothesis one was also tested using a correlational analysis to determine the type of relationship that exists between the GDP and Maritime trade. Three kinds of relationship are possible: positively correlated, negatively correlated, and uncorrelated. If the GDP and the maritime trade are either positively or negatively correlated, then the null hypothesis one will be rejected. However, if GDP and maritime trade are uncorrelated, the null hypothesis one is accepted. If the correlation value is more than 0.5 or closer to 1, a positive correlation exists, if the correlation value is less than 0, then a negative correlation exists. However, if the correlation
value is less than 0.5 or zero or closer to zero, then there is no correlation. Table 5.3 shows the correlational analysis result.

<table>
<thead>
<tr>
<th></th>
<th>GDP</th>
<th>Maritime Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td>GDP</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Maritime Trade</td>
<td>0.52186652</td>
<td>1</td>
</tr>
</tbody>
</table>

Based on Table 5.3, the dependent variable (GDP) and the independent variable (Maritime Trade) are positively correlated (0.52).

Therefore, the null hypothesis one is also rejected, implying that there is a significant relationship between maritime trade and GDP in Nigeria.

5.3.1.3 Model Significance Analysis, R Square Technique

To further ascertain the significance of the model for hypothesis one, the R Square approach is employed.

The F-ratio is estimated as:

\[
F_{ratio} = \left( \frac{Regression\ SS}{k - 1} \right) / \left( \frac{Residual\ SS}{n - k} \right)
\]

Substituting using the values in Table 5.2 (with k being the number variables (predictor and predicted and n as the number of observations), we have:

\[
(1.438 \times 10^{16}) / (3.842 \times 10^{16}/27) = 10.106
\]

As estimated F-ratio (10.106) is more than (>1) than the predicted F in the table (10.105), the null hypothesis one is rejected, and the alternate hypothesis is accepted. Therefore, there is a significant positive relationship between Maritime trade level and the level of GDP in Nigeria.
5.3.1.4 Analysis of the Significance of the Predictor Variable.

After testing, the reliability and validity of the correlation for hypothesis one, the significance of the independent variable (level of maritime trade) in explaining or predicting the variations in the level of GDP in Nigeria is tested using t-test.

The \( t_{(n-k-1, a)} = (\beta - c) / (s_e) \)

(\( \beta \) is the coefficient of the explanatory variable, \( c \) is the intercept and \( s_e \) is the standard error), substituting from table 5.2:

\[ T_{(n-k-1, a)} = 3.1544(-2201438.57) / (9274939.306) = 0.237 \]

**DECISION RULE**

If the \( t_{(n-k-1, a)} \) (calculated \( t \)) is greater than (> the tabulated \( t \) (tstat), the null hypothesis is rejected. From table 5.2, the tabulated \( t \) (tstat) is -0.237. Since, the calculated \( t \) (0.237) > tabulated \( t \) (-0.237), the null hypothesis one is also rejected and thus, the Maritime commerce adds greatly to the amount of Nigerian GDP, for the period under investigation.
Figure 5.1: Impact of Maritime Trade on Nigeria’s GDP (1991-2019)

5.3.2 Effect of Maritime Trade on Nigeria Foreign Reserve

Null Hypothesis two reads:

H₀: There is no strong connection between maritime trade and foreign reserve.

The outcome shown in Table 5.4 is used in testing hypothesis two.

TABLE 5.4: HYPOTHESIS 2 ANALYSIS OUTPUT

SUMMARY OUTPUT

<table>
<thead>
<tr>
<th>Regression Statistics</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
<td>0.49</td>
</tr>
<tr>
<td>R Square</td>
<td>0.24</td>
</tr>
<tr>
<td>Adjusted R Square</td>
<td>0.21</td>
</tr>
<tr>
<td>Standard Error</td>
<td>2295478.40</td>
</tr>
<tr>
<td>Observations</td>
<td>29</td>
</tr>
</tbody>
</table>

ANOVA

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>4.44964E+13</td>
<td>4.4496E+13</td>
<td>8.444587</td>
<td>0.01</td>
</tr>
<tr>
<td>Residual</td>
<td>27</td>
<td>1.42269E+14</td>
<td>5.2692E+12</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>1.86765E+14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>119266.09</td>
<td>564379.07</td>
<td>0.21</td>
<td>0.83</td>
<td>-1038744.12</td>
<td>1277276.30</td>
</tr>
<tr>
<td>Maritime Trade (N/Mn)</td>
<td>0.18</td>
<td>0.06</td>
<td>2.91</td>
<td>0.01</td>
<td>0.05</td>
<td>0.30</td>
</tr>
</tbody>
</table>

5.3.2.1 Test of Significance – Anova Method

Just as in the test of hypothesis one, to confirm the statistical significance of the regression analysis, the Significance F and P values are assessed. As the Significance F value is less than 0.05 (which is approximately 0.007 in this case), the null hypothesis two is also rejected, which
means that the alternate hypothesis – which states that there is a significant relationship between maritime trade and Foreign Reserve in Nigeria is accepted.

Also, the P-value has to be less than 0.05. In this case, the P-value is also approximately 0.007, which is less than 0.05. Thus, the null hypothesis two is appropriately rejected since based on the Significance and P values, there is a significant relationship between maritime trade and foreign reserve in Nigeria.

**Coefficients**

The regression line based on the ANOVA is given as:

\[
\text{Foreign Reserve} = 119266.09 + 0.175\text{Maritime Trade} \tag{5.2}
\]

This implies that, for each unit increase in Maritime Trade, Nigerian foreign reserve also increases by 0.175 units. This is very significant as it can be utilised to carry out a forecast of what the foreign reserve of Nigeria would be, knowing the Maritime Trade value.

**5.3.2.2 Analysis of Significance - Correlation Technique**

The hypothesis two was likewise tested using a correlational analysis to confirm the type of connection that exists between the Foreign Reserve and Maritime trade. As earlier stated, three kinds of relationship are possible: positively correlated (0.5 to 1), negatively correlated (<0 to -1), and uncorrelated (0 to 0.499). If the Foreign reserve and the maritime trade are either positively or negatively correlated, then the null hypothesis two is rejected. However, if foreign reserve and maritime trade are uncorrelated, the null hypothesis two is accepted. Table 5.5 shows the correlational analysis result for hypothesis two.

**Table 5.5: Correlational Analysis for Null Hypothesis 2**

<table>
<thead>
<tr>
<th></th>
<th>Ext Res (N'mn)</th>
<th>Maritime Trade (N'Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext Res (N'mn)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Maritime Trade (N'Mn)</td>
<td>0.51110611</td>
<td>1</td>
</tr>
</tbody>
</table>
From Table 5.5, the dependent variable (Foreign reserve) and the independent variable (Maritime Trade) are positively correlated (0.51).

Hence, the null hypothesis two is also rejected, meaning that there is a significant relationship between maritime trade and foreign reserve in Nigeria.

5.3.2.3 Test of Model Significance, R Square Technique

To further analyse the significance of the correlation for hypothesis two, the R Square approach is employed.

The F-ratio is estimated as:

$$F_{ratio} = \left( \frac{\text{Regression SS}}{k - 1} \right) / \left( \frac{\text{Residual SS}}{n - k} \right)$$

Substituting using the values in Table 5.4 (with k being the number of parameters (predictor and predicted) and n as the number of observations), we have:

$$\left(4.4496 \times 10^{13}\right) / \left(1.42269 \times 10^{13}/27\right) = 8.445$$

Decision Rule

With $F = \text{calculated} (8.445) > F = \text{tabulated} (8.444)$, the null hypothesis two $H_0$ is rejected. Thus, we infer that there exists a strong connection between Maritime Trade and the level of Foreign Reserve in Nigeria.

5.3.2.4 Analysis of the Significance of the Predictor Variables

To carry out the explanatory variable test, the t-test is employed.

Using the formula, $t_{stat} = (\beta-c) / (S_\beta) = -0.211$.

With the calculated $t-test (-0.211) > t - \text{tabulated} (-0.213)$, the null hypothesis two $H_0$ is rejected; therefore it can be concluded that the Maritime commerce adds tremendously to the amount of Nigerian Foreign Reserve.
Figure 5.2: Impact of Maritime Trade on Nigeria's Foreign Reserve (1991-2019)

5.3.3 The Impact of Maritime Trade on Foreign Loan Settlement

Null Hypothesis three, which is stated below, is tested here.

Ho: There is no strong connection between maritime trade and foreign loan settlement in Nigeria.

The outcome of the analysis will determine if this hypothesis is accepted or rejected. The outcome of hypothesis three is shown in Table 5.6:

**TABLE 5.6: HYPOTHESIS THREE ANALYSIS OUTPUT**

<table>
<thead>
<tr>
<th>Regression Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Multiple R</td>
</tr>
<tr>
<td>R Square</td>
</tr>
<tr>
<td>Adjusted R Square</td>
</tr>
<tr>
<td>Standard Error</td>
</tr>
</tbody>
</table>
Observations 29

ANOVA

<table>
<thead>
<tr>
<th></th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F</th>
<th>Significance F</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>1</td>
<td>1.21855E+14</td>
<td>1.22E+14</td>
<td>9.66469</td>
<td>0.00</td>
</tr>
<tr>
<td>Residual</td>
<td>27</td>
<td>3.40423E+14</td>
<td>1.26E+13</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>28</td>
<td>4.62279E+14</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Coefficients</th>
<th>Standard Error</th>
<th>t Stat</th>
<th>P-value</th>
<th>Lower 95%</th>
<th>Upper 95%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>-120992.76</td>
<td>873022.74</td>
<td>-0.14</td>
<td>0.89</td>
<td>-1912287.46</td>
<td>1670301.94</td>
</tr>
<tr>
<td>Maritime Trade (N'Mn)</td>
<td>0.29</td>
<td>0.09</td>
<td>3.11</td>
<td>0.00</td>
<td>0.10</td>
<td>0.48</td>
</tr>
</tbody>
</table>

5.3.3.1 Analysis of Significance – ANOVA Technique

To determine the reliability of the analysis (how statistically significant the result of the analysis is), the Significance F and P values are checked. As the Significance F value is less than 0.05 (which is approximately 0.0044 in this case), the null hypothesis 3 is rejected, which means that the alternate hypothesis – which states that there is a strong connection between maritime trade and foreign debt settlement by Nigeria is accepted.

Also, the P-value has to be below 0.05. In the present case, the P-value is approximately 0.0044, which is less than 0.05. Hence, the null hypothesis 3 is rightly rejected because based on the Significance F and P values, there is a strong connection between maritime commerce and foreign debt settlement in Nigeria.

Coefficients

The regression line based on the ANOVA is given as:

\[
\text{Ext Debt payment} = 0.29 \times \text{Maritime Trade} - 120992.76
\]  \( (5.3) \)

This implies that, for each unit increase in Maritime Trade, the Ext Debt also increases by 0.29 units. This is important information as it can be used to do a forecast of what the External Debt of Nigeria would be, when the Maritime Trade value is known.
5.3.3.2 Test of Significance - Correlation Method

The hypothesis three was further tested with a correlational analysis to determine the type of correlation that we have between the Foreign loan settlement and Nigerian Maritime trade. The correlation could be positively correlated, strongly negatively correlated, and uncorrelated based on the earlier explained value of the correlation. If the External debt and the maritime trade are either positively or negatively correlated, then the null hypothesis three is rejected. However, if the External debt and maritime trade are uncorrelated, the null hypothesis three is accepted.

Table 5.7 shows the correlational analysis result for hypothesis three.

Table 5.7: Correlational Analysis for Null Hypothesis 3

<table>
<thead>
<tr>
<th></th>
<th>Ext Debt (N'Mn)</th>
<th>Maritime Trade (N'Mn)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ext Debt (N'Mn)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Maritime Trade (N'Mn)</td>
<td>0.51341667</td>
<td>1</td>
</tr>
</tbody>
</table>

From Table 5.7, the dependent variable (External Debt) and the independent variable (Maritime Trade) are positively correlated (0.51).

Hence, the null hypothesis three is likewise rejected, implying that there exists a strong connection between maritime commerce and foreign debt payment by Nigeria.

5.3.3.3 Test of Model Significance, R Square Technique

To further analyze the reliability of the correlation for hypothesis three, the R Square approach is employed.

The F-ratio is estimated as:

\[ F_{\text{ratio}} = \left( \frac{\text{Regression SS}}{k - 1} \right) / \left( \frac{\text{Residual SS}}{n - k} \right) \]

Substituting using the values in Table 5.6 (with k being the number of parameters (predictor and predicted and n as the number of observations), we have:
\[
\frac{1.21855 \times 10^{14}}{3.40423 \times 10^{14}/27} = 9.665
\]

**Decision Rule**

With \( F \) – calculated (9.665) > \( F \) – tabulated (9.664), the null hypothesis three \( H_0 \) is rejected. Thus, we conclude that there is a significant connection between Maritime Trade and the level of Nigeria’s External Debt Payment within the period of investigation.

**5.3.3.4 Analysis of the Significance of the Predictor Variables**

In order to carry out the explanatory variable test, the t-test is employed.

Using the formula, \( t_{stat} = (t_{b-k-1, a}) = (\beta-c)/(S_0) = 0.1386 \).

With the calculated \( t \)-test (0.1386) > \( t \) – tabulated (-0.13859), the null hypothesis three \( H_0 \) is rejected; therefore it can be concluded that the Maritime Trade contributes significantly to the amount of Nigeria’s Foreign Loan Settlement within the timeframe considered in the study.

![Effect of Maritime Trade on the Volume of Nigeria's External Debt Payment](image)

**Figure 5.3: Impact of Maritime Trade on the Level of Nigeria's Foreign Loan Settlement**

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5.4 Results Discussions

5.4.1 Null Hypothesis I
Per the outcome of null hypothesis I analysis, it is noteworthy that the Maritime Trade adds positively and tremendously to the amount of Nigerian GDP. The output of the regression analysis in Table 5.2 shows that the R square is 0.2723. This implies that over 27% of the variations in GDP level of Nigeria, for the period under investigation (1991 to 2019) is explained by the maritime trade level. Moreover, after adjusting for errors and biases, the adjusted R square was about 0.2454, implying that after adjusting for errors, about 25% of the variations in the GDP level in Nigeria is explained by the maritime trade level.

5.4.2 Hypothesis 2
Hypothesis two sought to ascertain the connection between maritime trade and the level of Nigerian foreign reserve. The results of both significance tests depicted a significant positive connection between Maritime trade and the amount of Nigerian foreign reserve. Following the summary output, the value of the R square was 0.2382, which implies that about 24% of the variations in the level of foreign reserve is explained by Maritime trade level. Moreover, after adjusting for errors and biases, about 21% of the variations in foreign reserve level is explained by maritime trade level.

5.4.3 Hypothesis 3
In hypothesis three, same positive significant correlation between the dependent and independent variables was obtained. The hypothesis sought to ascertain the connection between Maritime trade level and the level of External loan Payment. The summary output of the regression analysis for hypothesis three indicated that over 26% (Rsquare of 0.2635) of the variations in the level of external debt payment in Nigeria is explained by Maritime trade level and after adjusting for errors, about 24% of the variations in the level of external debt payment in Nigeria is explained by Maritime trade level.

In line with the results from the tests for the hypothesis, the research questions can be answered confidently.
The first research question asked: What is the connection between maritime trade and Nigeria's monetary improvement?

The answer to this question is that: as maritime trade increases, the monetary level (measured in terms of GDP) also increases by a factor of 3.15, and as the maritime trade increases, the monetary level (measured in terms of foreign reserve) also increases by a factor of 0.175.

Another research question asked: What is the impact of maritime trade on Nigeria's external debt payment?

From the test of hypothesis three, the answer to this question is that increase in maritime trade increases the external debt service in Nigeria. Therefore, for Nigeria to settle more of their foreign/external debts, they have to increase the volume of their maritime exports.
CHAPTER 6

Conclusion

6.1 Summary
This work evaluated the influence of Maritime Trade on Nigeria's Economy, spanning the period, 1991-2019. In the first chapter of the work, a brief background to the study which contained the overview and history of maritime trade in Nigeria was provided.

In chapter two, the theoretical and conceptual frameworks that underpinned the study were provided. In chapter three, an extensive literature review on maritime commerce in Nigeria was done. The challenges facing Nigerian maritime industry and the economic impact of maritime trade in Nigeria were reviewed in this section. In chapter four, the research method was given and justified. The study area, data sources, research design, data analysis, methods of tests for significance were all provided. In chapter five, the data for the study, which comprises the values of Nigerian GDP, Foreign reserve, Maritime trade and External debt payment from 1991 to 2019 were provided. The data were analysed using Linear Regression in Microsoft excel while the null hypotheses formulated to guide the study were all tested using ANOVA at 0.05 level of significance.

Three null hypotheses were formed and tested with the accompanying study objectives as the guide:

- To ascertain the connection between maritime trade and Nigeria's GDP;
- To find out the impact of maritime trade on Nigeria's foreign reserve;
- To ascertain if maritime trade fundamentally impacts the degree of external loan settlement and;
- To determine the frameworks and policy requirements required for the viable utilization of maritime trade to help the economy and offer management suggestions.

In the three scenarios for the hypotheses, the alternate hypotheses were found significant at 5% alpha level or 95% confidence level, hence, alluding that Maritime Trade has a huge positive
impact on the values of GDP, foreign reserve and external loan payment, respectively for hypotheses one to three in Nigeria.

6.2 Implications and Recommendations
The research evaluated the effect of Maritime Trade on the economy of Nigeria, spanning a period of twenty-nine years from, 1991-2019. Three null hypotheses were tested using analysis of variance at 0.05 level of significance. From the results of the analyses, the accompanying conclusions are made:

1) Maritime trade has a significant positive impact on the economy as it positively influences the GDP of the country.
2) Maritime Trade has a strong positive influence on the amount of Nigerian foreign reserve.
3) Similar to the above findings, the Maritime Trade also has a strong positive influence on the amount of foreign loan settlement by Nigeria, particularly within the time investigated, 1991-2019.

As per the findings from the present study, the accompanying suggestions are made:

1) With the current weak policies and institutional frameworks, it is necessary to set out viable policies and build strong institutions to boost maritime trade in Nigeria. This is most significant given the findings drawn from the study on the positive economic impact of maritime trade to economic development, particularly, the increase in Gross Domestic Product, foreign reserve, and external loan settlement.
2) Likewise, the lack of transparency and corruption that has become endemic in Nigeria across all sectors and specifically in the maritime sector calls for a deliberate concentrated effort to improve the maritime activities and performance.
3) Overall, there is a requirement for the political class and policymakers to be consistent with respect to both the formulation and implementation of policies in the maritime sector to ensure sustainable growth and improved performance of the sector.

6.3 Limitations and Areas for Further Study
From the study, it is discovered that there is a considerable sparsity of available and accessible information on maritime export and import activities. Thus, there is a requirement to improve
the accessible information in this area to enable the actual figures to be compared with the
projected figures. For example, it is tough to accept the fact that there is a wide gap between
Nigeria’s real export invoices and the export projections. Again, it is so because of the evident
corruption, impunity, unethical and unprofessional practices, and lack of transparency that have
eaten deep into the country’s sectors and among the civil and public servants in Nigeria.
In the future, a study can be done to focus on Maritime Logistics Performance in Nigeria and
how it correlates with international trade and the economy of Nigeria.
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