



Availability of Insurance and Investment in the Shipping Industry

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This study investigated the significance of the availability of Insurance in Nigeria's economy on investment in shipping in Nigeria. An ex-post facto research design was applied. The time scope was from 2015- 2020. Multiple regression statistical technique was applied. It was found that the availability of Insurance in Nigeria's economy had no significant impact on the investment in shipping in Nigeria. In line with the findings, it was recommended that the capacity of the insurance industry to provide marine insurance and other forms of insurance covers related to the shipping business should be enhanced. This will increase investors' confidence.

ABSTRACT



Keywords: Shipping Industry; Insurance Availability, Investment Availability

Introduction

To boost high productivity, innovation, employment level, standard of living, reduce poverty level and ultimately accelerate economic growth, the government of various countries of which Nigeria is not an exception encourages investment in their local economies (Ayení, 2014). This is given that investment plays important role in the functioning of an economy whether developed or underdeveloped (Rosenberg, 2020). Investment involves the commitment of resources made with the hope of realizing benefits that are expected to occur over a reasonably long period of time. Real domestic investment is an expenditure made to increase the total capital stock in the economy. This is done by acquiring further capital-producing assets and assets that can generate income within the domestic economy. This is the same as gross domestic fixed capital formation. David, Sakanko and Obilikwu (2020) see domestic investment as gross domestic fixed capital formation. Statistically, it measures the value of acquisitions of new or existing fixed assets by the business sector, governments, and "pure" households. Gross fixed capital formation as an indicator of domestic investment is a component of the expenditure on product (GDP), and thus shows something about how much of the new value added to the local economy is invested rather than consumed (Lequiller, 2020). For Nigeria, in 2020 it was 26.2065477 percent of the Real Gross Domestic Product of the country (Worldbank, 2020). In other words, out of 70,014,370,000,000 Naira, gross fixed capital formation (domestic investment) was 18,348,349,270,904.49 Naira (the new value added in the local economy). Domestic investment in Nigeria recorded a 6.39 percent growth in 2020 (Worldbank, 2020).

There is also foreign direct investment (FDI). This is a purchase of an interest in a company by a company or an investor located outside its borders. Generally, the term is used to describe a business decision to acquire a substantial stake in a foreign business or to buy it outright in order to expand its operations to a new region. Nigeria recorded \$1.44 billion inflow of FDI in 2015, \$1.028 trillion recorded in 2020 as against \$340.55 billion in 9 months in 2021, which is a far cry from those of other countries in the region (Moses-Ashike, 2022). Nigeria has received foreign direct investment (FDI) to the tune of \$223.3 million between January and May 2022. This shows an increase of 3.7 percent when compared to \$215.3 million recorded in the corresponding period of 2021. However, when compared to the comparable period of 2020, FDI declined by 7.5 percent from \$241.5 million received in the period under review.

The inflow of investment into Nigeria has not translated to meaningful investment in its shipping industry, despite the unique importance of the sector (Nwokedi, Ndikom, Okoroji and Nwaorgu, 2021). Shipping and seafarers keep global commerce and trade running with over 50,000 merchant ships trading internationally and transporting every kind of cargo. The shipping industry is the most efficient mode of transportation and is responsible for over 90 percent of everything we see around us including manufactured items or bulk transport of raw materials. Economists expect Nigeria's maritime industry to be a major contributor to the country's Gross Domestic Product since 90% of world trade is by sea (Stears, 2020). As a Maritime nation, shipping is strategic in our national planning in terms of national security, job creation and socio-economic stability. Having a coastline of over 750km and eight major ports excluding oil terminals, Nigeria is a maritime State. The national ports have a cargo handling capability of 35million tones annually. These ports, over the past decade, have accounted for around 99 percent by volume and 95 percent by value of the country's total seaborne trade. The demand for shipping in Nigeria has always been there, but Nigeria's indigenous shipping carriers lack adequate shipping capacity to participate effectively in international trade. As a result, Nigeria is losing enormous freight revenues to foreign shipping carriers which dominate our freight transport market. There are indications that Nigeria's shipping industry may have declined as registered vessels dropped to 412 with 524,978.58 tonnages in 2020 as against 607 with 1,278,041.75 tonnages registered in 2019 (Oritse, 2020). The World Merchant Shipping Fleet has ranked Nigeria in 48th position in its 2019 report, having contributed a mere 1.6 million tonnage to the global shipping trade. Modor (2022) attributes the industry's decline to the poor inflow of investment. Viewed from this perspective, it is an important challenge to the Nigerian economy to attract investment into the shipping industry.

Statement of the Problem

The challenges of the Nigerian shipping industry are numerous. Some of the factors that have been identified and well documented as standing in the way of the development of Nigeria's maritime sector are broadly categorized under two major issues – administrative issues and criminal activities (Jamoh, 2022). The administrative issues include inadequate infrastructure, international cooperation, bureaucracy, pollution, and corruption. Inadequate

infrastructure includes inadequate power supply, insufficient deployment of technology, poor port, and ship repair facilities. Lack of required manpower in terms of the availability of core professionals is also a problem. There are also issues of the absence of a national carrier and domination of the shipping industry by foreign carriers. The criminal activities include piracy, illegal oil bunkering, cybercrime, illegal and unregulated fishing; smuggling and human trafficking, as well as illegal arms trafficking. Others are drug trafficking, militancy and kidnapping, sabotage, maritime terrorism, and pipeline vandalism.

Despite these numerous challenges, a key factor that is often neglected is attracting investment into the sector. The importance of investment to the sector was highlighted in the estimate intended to be attracted therein by the Federal Government. The Federal Government estimated an investment of N7.73 trillion for the maritime industry and other industries under the transport sector in the N348.1 trillion in the five-year National Development Plan (NDP) covering 2021-2025 (Onyenucheya, 2021). Increased investment is believed to help improve the level of development in the country, allowing the transfer of technology, and thereby contributing to economic growth. It is an integral part of an open and effective international economic system and a major catalyst for a country's development. However, the shipping industry has been lacking in investment.

A number of factors have been empirically determined to influence investment in Nigeria. Some of these factors include public investment, real GDP, real interest rate, exchange rate, credit to the private sector, terms of trade, external debts (Bakare, 2011); (Ajide and Lawanson, 2012); fund mobilization by insurance companies (Torbira & Ogbulu, 2014); inflation, exchange rate and interest rate (Agbarakwe, 2019); financial sector development (Iheonu, Asongu, Odo and Ojiem, 2020); terrorism and corruption (Danjuma, 2021), among others. These factors are widely applicable to various sectors of the economy, the shipping industry inclusive. However, it was noted that the shipping industry has not been examined in the context of the availability of insurance in the economy that ensures risk mitigation to investment. Gross premium income in the second quarter of 2021 stood at ₦307.4 billion, a whopping expansion in performance at about forty-six percent (45.8%), quarter on quarter. The industry grew at a far higher rate than Nigeria's Gross Domestic Product (GDP) which recorded a negative one percent (-0.8%) during the same period on a quarter-on-quarter basis, a notable development owing to not just the reopening of the economy but, growing market confidence and awareness (NAICOM, 2021). Given that existing empirical studies have not evaluated this factor, it is the intent of this study to examine it as a determinant for attracting investment to the shipping industry in Nigeria.

Objectives of the Study

The main objective of the study is to look at determinants of investment in the Nigerian shipping industry. The specific objective of the study is to assess the availability of Insurance in the economy as a determinant of investment in the Nigerian shipping industry.

Research Hypothesis

The hypothesis formulated for the study is stated as:

- i. H₀: Availability of Insurance in Nigeria's economy had no significant impact on the investment in the Nigerian shipping industry.
- ii. H₁: The availability of Insurance in Nigeria's economy had a significant impact on the investment in the Nigerian shipping industry.

Scope of the Study

The period of the study is from 2015 to 2020. The choice of this period was to align the study with the tenure of the current government at the centre which started in the same base year. The end year of 2020 was selected given that it was when the most current data on the selected variables stopped.

Limitations of the Study

A central challenge faced in the study was the dearth of clear-cut data on the actual number of local shipping companies in Nigeria, their market capitalization, and investment inflow into these companies. The researcher had to use related variables to proxy investment in the industry.

Overview of Availability of Insurance in the Economy

The insurance industry of Nigeria consists of 57 registered insurance companies, 14 of them are in the life insurance business while 43 are non-life insurers. There are also 2 reinsurance companies whose roles are to provide technical security and capacity for the insurance companies. There are 460 registered insurance brokers and about 15,000 insurance agents. The Nigerian Insurance Industry ranks 62nd in the world with \$1.64 billion premium representing 0.2 percent of premiums collected globally (Omobola, 2021). The Nigerian insurance industry grew by 8.01 percent in 2021, compared to a negative growth rate of 13.29 percent in 2020. The NBS, in its Gross Domestic Product report for the fourth quarter of 2021, said the insurance industry also accounted for 7.82 percent of the finance sector. According to the report, the underwriting industry recorded negative growth of 2.08 percent in the first quarter of 2021. It, however, expanded by 16.41 percent, 7.86 percent, and 13.61 percent in the second, third, and fourth quarters of 2021.

As a whole, the sector grew at 24.92 percent in nominal terms (year-on-year), with the growth rate of financial institutions at 25.99 percent and 13.61 percent growth rate recorded for insurance. "The overall rate was higher than that in Q4 2020 by 26.02 percent points and lower by 1.54 percent points than the preceding quarter. Quarter-on-quarter growth was 25.34 percent, while the annual growth rate stood at 11.88 percent in 2021. "The sector's contribution to the overall nominal GDP was 3.10 percent in Q4 2021, higher than the 2.80 percent it represented a year previously, and higher than the contribution of 2.70 percent it made in the preceding quarter. "Growth in this sector in real terms totaled 24.14 percent, higher by 27.76 percent points from the rate recorded in 2020 fourth quarter and up by 0.90 percent points from the rate recorded in the preceding quarter. Quarter-on-quarter growth in real terms stood at 26.99 percent, while annual growth was 10.07 percent in 2021. The report said the contribution of finance and insurance to real GDP totaled 3.66 percent, higher than the contribution of 3.07 percent recorded in the fourth quarter of 2020 by 0.59 percent points, and higher than 3.16 percent recorded in Q3 2021 by 0.50 percent points (Popoola, 2022).

Theoretical Framework

The theoretical basis for this study is the Tatum investment theory. The theory was propounded by Malcom Tatum in 2019. It holds that an investment theory is a concept that is based on consideration of a number of different factors associated with the process of investing. Ideally, the theory will involve looking closely at a wide range of factors to determine how to go about choosing the right investments for a particular goal or purpose. While there are approaches to investment theory that involve employing a number of other theories as part of the process, some economists break down the task into four areas that anyone can grasp.

The first key factor in investment theory has to do with the goals for the investment portfolio. By determining how to diversify the portfolio while still balancing that diversification with the type of individual securities, the idea is to protect the investor from downturns in one market by providing for upswings in value with other holdings. Known as modern portfolio theory, this factor is key to the investment process for investors who have specific goals for the income generated by the portfolio. Another important aspect of investment theory has to do with evaluating investments based on the degree of risk and potential return. Here, the idea is to help the investor focus on options that carry an acceptable amount of risk while providing the greatest amount of return. This element is the basis for the capital asset pricing model and can make a big difference in whether or not an investor makes the right choices for his or her portfolio. A similar approach, known as the arbitrage pricing theory, focuses more on assessing the degree of risk associated with a given investment option but still serves the purpose of helping an investor decide if the potential return is worth the volatility associated with a given option. A well-crafted investment theory will also consider the amount of information available about both the investment option and the general condition of the market or markets where the option is traded. Known as the efficient market hypothesis, this concept holds that all information that is relevant to making the decision to hold, buy, or sell an option must be readily available to the investor in order for the market to be truly efficient. Since knowing the past history, the current status, and the potential future risks associated with any investment is key to being able to make wise choices, the investor should determine if this situation of an efficient market exists before deciding to get involved with a given investment. Essentially, an investment theory is all about making informed investment decisions. By taking into consideration the goals and aims of the investor, it is possible to build a portfolio that will help meet those goals. In order to wisely

choose the right investments, it is important to know all that should be known about investment and the market in which it is traded. Developing an investment theory that encompasses all these factors will greatly increase the chances for success, as well as aid the investor in avoiding investment options that are not in his or her best interest.

In relation to this study, an investor will seek to have clear understanding of the state of environment in which the Nigerian shipping industry operates. Having knowledge of the terrain will guide the investor on the dynamics of the environment and help determine how best to approach investment plans.

Empirical Review

Bakare (2011) employed the Error correction model (ECM) to examine the determinants of domestic private investment in Nigeria over the 1978 to 2008 period. It was found that while the savings rate influences domestic private investment positively, public investment and exchange rate indicate a negative impact on domestic private investment in Nigeria.

Ajide and Lawanson (2012) examined modeling the long-run determinants of domestic private investment in Nigeria. Auto-Regressive Distributed Lag (ARDL) bounds test was applied. It was found that public investment, real GDP, real interest rate, exchange rate, credit to the private sector, terms of trade, external debts, and reforms dummy are the key long run determinants of domestic private investment while public investment, real GDP and terms of trade are statistically significant in the short run.

Torbira & Ogbulu (2014) looked at the relationship between fund mobilization by insurance companies and gross fixed capital formation in Nigeria. It was found that in the long run, the fund mobilization by insurance companies positively and significantly impacts the growth of gross fixed capital formation.

Agbarakwe (2019) employed the Autoregressive Distributed Lag (ARDL) model to examine the macroeconomic determinants of investment in Nigeria from 1980 to 2018 period. The empirical results suggest that inflation, exchange rate, and interest rate (both in current and past values) impact domestic investment negatively, while government spending has a positive impact on domestic investment.

Iheonu, Asongu, Odo, and Ojiem (2020) investigated the impact of financial sector development on domestic investment in selected countries of the Economic Community of West African States (ECOWAS) for the years 1985–2017. The results show that (1) The impact of financial sector development on domestic investment depends on the measure of financial sector development utilized; domestic credit to the private sector has a positive but insignificant impact on domestic investment in ECOWAS.

Danjuma (2021) examined the effect of terrorism, political violence, corruption, and religious tension on FDI inflows to the banking, construction, manufacturing, oil, gas, and telecommunication sectors in Nigeria. Findings show that terrorism adversely affects FDI inflow to the telecommunication sector, while corruption positively impacts on the oil and gas sector.

Nwokedi, et al. (2021) studied determinant port-related factors affecting the flow of shipping trade and logistics in Nigerian Seaports. The results indicate that high cargo pilferage risk profile, long ship turnaround time and increasing trend of cargo dwell time constitute the significant port-related factors constraining the flow of shipping in Nigerian ports.

Research Design

Ex-post facto research design was adopted. The data used in the study was secondary data. Data on availability of insurance was taken from Central Bank of Nigeria publication, while data on investment in shipping in Nigeria was gotten from World Bank publication. The model in the study was estimated using Multiple Regression.

Independent Variable:

Availability of Insurance: This refers to the capacity to provide insurance cover to shipping in Nigeria

Dependent Variable:

Openness to International Relations: The Liner Shipping Connectivity Index captures how well countries are connected to global shipping networks.

Control Variable

Foreign Exchange Rate: This is measured by the rate of exchange between the Naira and US Dollars.

Model Specification

The functional relation of the model for the study is given as:

$$OPEN = f(INSU + FOREX) \dots(i)$$

The model is specified as follows:

$$OPEN = \beta_0 + \beta_1 INSU + \beta_2 FOREX + \mu \dots(ii)$$

Where:

OPEN = Openness to International relations

INSU = Availability of Insurance

FOREX = Foreign Exchange rate

β_0 = Constant parameters

β_1, β_2 = Coefficient parameter of INSU and FOREX

μ = error term

Data Presentation

Table 1: Original Data on all the Variables in the Study

YEAR	OPEN (%)	FOREX (N per USD)	INSU (N, Billions)
2015	23.6589032	192.440333	289,341,480,000
2016	23.0003182	253.492	326,114,020,000
2017	21.2323584	305.790109	372,358,420,000
2018	21.2874109	306.083688	426,210,930,000
2019	21.533967	306.920951	428,211,881,000
2020	21.2509511	358.810797	427211405500

Source: Researcher's compilation, 2022

Foreign exchange rate which was at 192.44 Naira to one US Dollars in 2015 had risen to 358.81 Naira in 2020. Total premium generated by the insurance industry was 289,341,480,000 in 2015 and 427211405500 in 2020. The Openness to International relations of Nigerian shipping industry from 23.65% in 2015 dropped to 21.25% in 2020. Given that the units of measurement of all variables in the study were not the same, all data were converted to the natural logarithm.

Data Analysis

Table 2: Result of Multiple Regression Test

Dependent Variable: OPEN

Method: Least Squares

Date: 08/04/22 Time: 03:06

Sample: 1 6

Included Observations: 6

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	2.981135	1.340522	2.223861	0.1126
INSU	-0.115613	0.135833	-0.851141	0.4572
FOREX	-0.122953	0.103809	-1.184422	0.3215
R-squared	0.900847	Mean dependent var		1.341892
Adjusted R-squared	0.834745	S.D. dependent var		0.020607
S.E. of regression	0.008377	Akaike info criterion		-6.419780
Sum squared resid	0.000211	Schwarz criterion		-6.523900
Log likelihood	22.25934	Hannan-Quinn criter.		-6.836581
F-statistic	13.62817	Durbin-Watson stat		2.357200
Prob(F-statistic)	0.031222			

Source: Researcher's calculation using Eviews 10

Discussion of Findings

Availability of insurance had a regression coefficient of -0.115613. This was a negative coefficient. It showed that there is a decreasing interaction between it and investment in Nigerian shipping industry. Therefore, for any unit increase available in insurance, the extent of change that will be seen in investment in Nigerian shipping industry will be decreased by 0.115613 basis points. With its p-value at 0.4572 which is higher than the level of significance of 0.05, it shows that there was statistical insignificance. In other words, the evidence was not enough against the null hypothesis. That is to say, the availability of insurance had no significant impact on the investment in the Nigerian shipping industry. This implies that the existence of marine insurance services as provided in Nigeria was not strong enough to influence investment in the Shipping industry in Nigeria. Despite the growing capacity of the insurance industry, its magnitude was not enough to favorably draw-in investment into the shipping sector of the economy of Nigeria. The Adjusted Co-efficient of Determination which was 0.834745 shows that in the model the independent variable can only explain 83.4745 percent of any variation seen in investment into the Shipping industry in Nigeria. The remaining 16.5255 percent can be attributed to other variables not used in the model.

The findings of the study agreed with Jamoh (2022) who concluded that the point to note is that the problem does not lie in identifying the factors that have continued to stifle the growth of a sector that could topple oil as Nigeria's major foreign exchange earner. The major challenge has been the absence of cooperation and synergy that is required among stakeholders within and even outside the maritime sector, as a prerequisite for achieving the common objective of making Nigeria optimally reap the benefits that are inherent in the maritime sector, in the same manner, other countries of the world are doing.

Hellen (2020) held the view that incentives by the government were the best strategy for attracting investment in the shipping industry. This is seen in October 2021 when the Director-General of NIMASA, Dr. Bashir Jamoh, at the Nigerian International Maritime Summit (NIMS) announced that the Federal Government of Nigeria had approved the waiver of import duty on the acquisition of ships as a fiscal incentive aimed at boosting and enabling the Nigerian maritime sector.

Conclusion

Nigeria is increasingly attracting attention as a country with significant potential for maritime transport and seaborne trade. Although Nigeria's impact on shipping is still comparatively small, it is poised to expand as the country sets out to exploit its vast resources and as consumption demand increases in tandem with changing capital expenditure levels. Nigeria is becoming increasingly attractive, with the value of trade between it and the rest of the world steadily rising. This has posited it as an opportunity for investment. In line with this background, this study investigated the determinants that could attract investment into the shipping industry in Nigeria. It aimed specifically at evaluating to what extent the availability of Insurance in the economy significantly attracted investment into the shipping industry in the country. Based on the findings of the study it was concluded that the availability of Insurance in Nigeria's economy had no significant impact on investment in the Nigerian shipping industry.

Recommendations

In line with the findings of the study the following recommendations were made:

- i. The capacity of the insurance industry to provide marine insurance and other forms of insurance covers related to the shipping business should be enhanced.
- ii. Operators in the insurance and reinsurance segments should increase their capital base and technical expertise in order to bear the brunt of maritime disasters. This will encourage investors to come in, knowing that their risk exposures can be contained.

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