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# Trade Outwardness and International Financial Flows in Nigeria

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#### Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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# ABSTRACT

This study used the Autoregressive Distributed Lag model to investigate the impact of international financial flows on trade outwardness in Nigeria. With dataset covering the period 1999 – 2023 drawn from the World Development Indicator, which is a repository of the World Bank, official development assistance (ODA), Foreign portfolio investment (FPI) and foreign direct investment (FDI) were used as proxies for international financial flows. The quotient of the sum of export and import over gross domestic product represented trade outward which found to positively and significantly respond to changes in ODA and FPI and insignificantly and negative respond to FDI. It is recommended that trade outwardness should be tailored in the direction of international financial flows while harnessing the benefits of trade and mitigating the adverse effects of trade relations. This can be done through protective import strategies and export promotion methods.

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### **1. INTRODUCTION**

Nigeria, Africa's largest economy, has long struggled to achieve sustainable economic growth and development. Despite its vast natural resources and strategic location, the country's economic performance has been hindered by including various factors. inadequate infrastructure, corruption, and a lack of economic diversification. In recent years, Nigeria has sought to address these challenges bv increasing its openness to international trade and investment, a concept known as trading outwardness [1]. However, the impact of this approach on the country's international financial remains poorly understood. Trade flows outwardness refers to a country's degree of openness to international trade, encompassing both exports and imports [2]. In Nigeria's case, increasing trading outwardness is seen as a key driver of economic growth, as it allows the country to tap into global markets, attract foreign investment, and access new technologies. On the other hand, international financial flows, including foreign direct investment, portfolio investment, and external debt, play a crucial role facilitating economic development by in providing much-needed capital for investment and growth [3].

"International trade serves as an exchange of capital, goods, and services across international borders. International trade is known to encourage the economy of a nation and also serves as a key component of globalization" [4]. According to the Economic Watch (2010), "when international trade is practiced in the appropriate manner, it has the tendency to open up available opportunities in the global markets to the entrepreneur of the developing nation. Trade plays an essential role in achieving economic growth in any country, especially developing countries". "It also helps to tackle problems of high unemployment and increasing poverty levels, it triggers commerce, industry, and multicultural tastes and lifestyles, it also promotes world peace and integration and also promotes financial development" [4]. Pradhan, et al. [3] noted that "one of the most important characteristics of economic growth and development in both developing and developed nations is the proper development of the financial system. They further outlined four vital ways through which financial development can

spur economic growth which are through efficiency in the roles of financial intermediaries, improvement in allocating resources, increased savings, and promotion of the financial markets. In the words of Ishola, Ajayi, Onafowokan, and Giwa [5], Nigeria started international trade during the period of the Trans-Sahara trade in the 16th century and the colonial period saw more trade openness due to the discovery of crude oil in the country in commercial quantity. However, the contributions of trade in the growth process of any economy depend on the specific objective in which it serves" [6]. "While it has helped a number of countries, especially the East Asian countries to achieve economic growth and development at a faster pace, other developing countries have limited benefits from trade openness" [5].

"The African continent has more than enough resources to satisfy its current and future demands, but most countries in Africa struggle with significant difficulties in meeting up with their financial needs for developmental purposes" [7]. "This can be attributed to lack of financial resources (for governments, the private sector and individual households), high cost of borrowing, limiting the ability of governments to drive development in a manner that satisfy local and international demand" [8]. This underscores the imperatives of international trade and reversal impact of financial inflow to the economy.

Despite Nigeria's efforts to increase its trading outwardness and attract international financial flows, the country continues to face significant challenges in achieving sustainable economic growth and development. The country's trade policies and outwardness have not yielded the expected benefits, and international financial flows have been volatile and often detrimental to the economy.

#### Specifically, the problems include:

- Low and declining foreign direct investment (FDI) inflows, despite Nigeria's efforts to attract foreign investors.
- Volatile portfolio investment flows, which have contributed to exchange rate instability and currency fluctuations.
- Rising external debt, which has increased Nigeria's vulnerability to external shocks and limited its fiscal space.

- Limited economic diversification, with the country remaining heavily dependent on oil exports.
- Inadequate infrastructure and institutional framework, which hinders the country's ability to effectively utilize international financial flows.

These challenges have significant implications for Nigeria's economic growth, development, and poverty reduction efforts. Therefore, this study seeks to investigate the relationship between trading outwardness and international financial flows in Nigeria, with a view to identifying the key challenges and opportunities for promoting sustainable economic growth and development."

This study seeks to explore the relationship between trading outwardness and international financial flows in Nigeria, with a view to understanding how the country's trade policies and outwardness affect its ability to attract international financial flows, and the implications of these flows for economic growth and development. The time dimension is 1999 to 2023 and the explanatory variable is international financial flow. Given that the outcome variable is trade outwardness, the studv focused on the reverse side of outwardness which is inflow in the evaluation of the explanatory variables which include official development assistance (ODA), Foreign portfolio investment (FPI) and foreign direct investment (FDI).

By examining this complex relationship, this research aims to provide insights for policymakers and stakeholders on how to optimize Nigeria's trading outwardness and international financial flows to achieve sustainable economic growth and development alongside contributing to the existing body of knowledge on international trade and finance, particularly in the context of developing countries like Nigeria.

# 2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

#### 2.1 Conceptual Review

"International trade refers to the exchange of goods, services, and capital across national borders. It involves the import and export of products between countries, allowing nations to specialize in producing goods and services in which they have a comparative advantage" [9]. "International trade is also an alternate development strategy for improving human living situations without jeopardizing society's merit" [10]. "According to this analysis, overseas trade provides a viable platform for growing domestic enterprises' market base and increasing domestic capacity utilization, both of which are important for supporting economic growth" [6].

"Trade outwardness refers to the degree to which a country engages in international trade, relative to its economic size. It measures the extent to which a country's economy is oriented towards exporting and importing goods and services" [3]. "Trade outwardness is an important concept in international trade and economics, as can influence a country's economic it nce, global competitiveness, development" [11]. "High performance, and [11]. overall trade outwardness may include to indicates a strong focus on international trade, suggests a high degree of economic openness, often associated with small. export-oriented economies, to increased economic efficiency, productivity, and growth" [12]. "While the low trade outwardness may include to indicates a weaker focus on international trade, suggests a more closed or self-sufficient economy, often associated with larger, more diversified economies, to reduced economic efficiency, productivity, and growth" [1].

# 2.2 Theoretical Review

"The Heckscher-Ohlin theory has been adopted as a theoretical underpinning for this study. The theory is deemed appropriate as a theoretical framework owing to its suitability in capturing contemporary trends in international trade" [11] "The theory relaxes some of the restrictive assumptions of the classical models (absolute advantage and comparative advantage) of international trade and captured the essential role of factor endowments in determining a country's comparative advantage and position" international trade [13]. "The Heckscher-Ohlin (HO) model of the patterns and determinants of international trade was developed by two Swedish economists, Eli Heckscher and Bertil Ohlin. Heckscher and Ohlin built their theory around two basic characteristics of countries and products. Countries differ from each other according to the factors of production they possess" [8]. "Goods differ from each other according to the factors that are required in their production. Given these features of the world, Heckscher and Ohlin argued that a country will

be able to produce at lower cost (and therefore have comparative advantage in) those products whose production requires relatively large amounts of the factors of production (also known as factor endowments; namely, labour, land, capital, natural resources) with which that country is relatively well endowed" [11]. "As economists studying the model, suggest that it is capable of providing important insights into such issues as the effect of international trade on wages and other factor prices, and the impact of economic growth on the pattern of international trade Chima [14]. It also provides an explanation for the political behaviour of various interest groups in an economy. The HO theory is of profound importance to this study as it provides a robust theoretical basis for linking international trade to economic growth in a country" [15]. The theory posits that that the factor endowments of a country can be leveraged as an instrument of economic growth through international trade.

## 2.3 Empirical Review

Literatures on the relationship between trade outwardness and international financial flows in Nigeria were reviewed accordingly in line with the direction of trade and financial development.

Gaies et al. [16] "investigated the relationship between financial development and energy consumption in the major MENA countries (Algeria, Bahrain, Egypt, Iran, Iraq, Israel, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Qatar, Saudi Arabia, Syria, Tunisia, United Arab Emirates and Yemen) over the period 1996 to 2014. The empirical result found that financial development proxied by bank development, positively and significantly impacts on energy consumption".

In line with the above finding, Rakpho et al. [17] investigated the "nonlinear effect of financial development on energy security in Asia-16 countries over the period 2000–2016 using panel smooth transition model". "The findings indicate that financial development has a positive effect on energy security in the entire panel framework. Some studies recorded both positive and negative relationship between energy and financial development in a single study" [6] (Chen et al., 2019b) [18]. For studies that towed the causality line, see Furuoka [19], Shahbaz and Lean [20], Saini and Neog (2018) including Haider and Adil (2019). Furthermore, some documented studies looked at the impact of energy consumption on financial development as against financial development on energy.

Tsaurai [21] in a study of African countries from 2001 to 2015 using dynamic generalized methods of moments, found that energy consumption had a negative and insignificant effect on financial development when domestic credit to private sector [% of gross domestic product (GDP)] was used as a proxy for financial development. The result showed significant positive effect on energy use when broad money (% of GDP) as a proxy of financial development.

This result is in agreement with Zhe et al. [22], Deljavan and Siab (2014), Mahmood and Saleem (2016), Zeren and Karaca [23], Ahmed [24], Farhani and Solarin [25] and Yang et al. [26]. McFarlane et al. [27], Thebuho et al. [28] and Qamruzzaman and Jianguo [29], in the novelty of their study and in apparent departure from others, investigated the energy and financial development nexus from an asymmetric perspective. This is with an assumption that negative and positive variations in financial development have the proclivity of eliciting not just symmetric but also asymmetric reactions from trade outwardness.

McFarlane et al. [27] "in their study of the Jamaican economy not only found cointegration running from the three dimensions of financial development to energy consumption, but also found that falling levels of financial development are causally interconnected with increase in energy consumption in the long run, while the overall level of financial development exhibited differential impact on energy consumption".

Egbulonu and Ezeocha [30] "investigate the relationship between trade openness and economic growth. The study used the ARDL technique and covered the years 1990 to 2015. Economic Growth, Trade Openness, Foreign Direct Investment, and Gross Capital Formation all have a long-run link, according to the ARDL findings. In the short run, Trade Openness and Gross Capital Formation have positive and effects on GDP negative growth rates, respectively. In order to enhance economic growth in Nigeria, the study proposed that trade openness be regulated by the government and FDI be encouraged".

Dumani, Nelson, and Siaisiai [15]. "The study investigates how oil imports, non-oil imports, oil

exports, and non-oil exports affected Nigeria's economic growth from 1981 to 2016. The data was first examined for unit roots using the Augmented Dickey Fuller test, which revealed integration at the first difference I level (1). The data was analyzed using a multiple regression model and the ordinary least square estimation technique. The finding reveals that oil imports had a positive but insignificant impact on Nigeria's real gross domestic product, non-oil imports and non-oil exports had a positive and significant impact on Nigeria's economic growth, and oil exports had an insignificant impact on the country's real gross domestic product. This backed up the link between foreign trade and economic growth. As a result, the study recommends that economic managers take steps to diversify the economy away from oil in order to boost the economy's development potential".

Hasnain [11] investigates "the impact of foreign trade on Bangladesh's economic growth. The study's goal was to find out the kind of relationship that exists between foreign trade and economic growth. The secondary data acquired for the purpose of the study was analyzed using Pearson Correlation and a Multiple Regression Model. The finding shows that international trade is closely connected with economic growth".

Agbo, Agu, and Eze [7] "investigates the influence of international trade on Nigerian economic growth with the only purpose of determining the impact of export trade and the impact of import trade on the Nigerian economy. Using multiple regression analysis, the study reveals that export trade has a substantial impact on economic growth. The study also shows that import trade had no substantial economic growth. They impact on recommend that the government should make conscious efforts to fine-tune various macroeconomic variables in order to provide an enabling environment for stimulating foreign trade by engaging in more export trade and, in effect, curtailing import trade, to cushion this negative effect on the economy".

Afolabi, Danladi and Azeez [2] "work on the primary determinants driving economic growth through international trade. To determine the stationarity properties of the variables, they use the Augmented Dickey-Fuller (ADF) test in conjunction with the Phillip-Perron (PP) test of Unit Root Tests and employ the Ordinary Least Square (OLS) technique. GDP was utilized as a proxy for economic growth, with the exchange rate, government spending, interest rate, foreign direct investment, import, and export serving as independent variables. Finding shows that Government spending, interest rates, import and export are all positively significant, while the exchange rate and foreign direct investment are both adversely inconsequential in the Nigerian economy's growth process. They recommend that the Nigerian government should place a greater priority on agriculture specialization in order to diversify the country's production and export base and reap the full benefits of trade, including economic growth".

Ulasan [31] "empirically examined the impact of international trade on the economic growth of Nigeria. The study adopted a multiple regression model to discover that relationship exists between international trade components' degree of openness, foreign exchange and interest rate. and economic growth. All the components of international trade exerted positive relationships on the economy. All the components of international trade exerted significant impact except interest rate which exerted insignificant impact. It was recommended that Nigeria should adopt more policies on trade liberation". Adeniran et al. [32], "investigated the impact of exchange rates on economic growth using multiple regression analysis. The paper indicated that the exchange rate component of international trade has a positive but insignificant impact on the economic growth of Nigeria. This previous studies that developing affirms countries are relatively better off in their choice of flexible exchange rate regimes. It was also indicated that interest rates and inflation rates have a negative but significant impact on economic growth". It was recommended that government should encourage export promotion strategies to enable countries to maintain a surplus balance of trade as well as provide a conducive environment, adequate security effective fiscal and monetary policies, and infrastructural facilities so that foreign investors will be attracted to invest in Nigeria.

#### 3. METHODOLOGY

**Data:** The data for this study were extracted from the World Development Indicator which is a repository of the World Bank covering the period 1999 - 2023. The datasets are not only quantitative but are of time series nature. They are considered time series data because they

are ordered following a natural frequency (Brooks 2014). The dependent variable in this study is trade outwardness (TO) which is the quotient of the sum of import and export over Gross Domestic Product (GDP) and the independent variables are official development assistance (ODA), foreign direct investment (FDI) and foreign portfolio investment (FPI). The control variable is exchange rate.

The investigated functional relationship is expressed thus:

$$TO_t = f(ODA, FDI, FPI, EXR)$$

The above functional relationship is rewritten in an estimable form following the Autoregressive Distributed Lag (ARDL) model specified in a form used by Arize, Kalu and Nkwor [33] thus:

$$\Delta LNTO_{t} = \pi_{p} \sum_{t=1}^{k} \delta_{ip} \Delta LNTO_{t-i} + \sum_{i=1}^{k_{1}} \tau_{ip} \Delta LNODA_{t-i}$$

$$+ \sum_{l=1}^{k_{3}} \sigma_{ip} \Delta FDI_{t-i} + \sum_{l=1}^{k_{3}} \sigma_{ip} \Delta FPI_{t-i}$$

$$+ \sum_{i=1}^{k_{3}} \sigma_{ip} \Delta LNEXR_{t-i} + \varpi_{1p} LNTO_{t-1}$$

$$+ \varpi_{2p} LNODA_{t-1} + \varpi_{3p} LNFDI_{t-1}$$

$$+ \varpi_{4p} LNFPI_{t-1} + \varpi_{5p} LNEXR_{t-1}$$

$$+ \xi_{1t}$$

Where:

All the variables are as previously defined while  $\pi_p$  = slope,  $\delta_{ip}, \tau_{ip}, \theta_{ip}, \sigma_{ip}$  = coefficients of the variables (short run)  $\varpi_{1p} - \varpi_{5p}$ = coefficient of the variable (long-run),  $\xi_{1t}$  = error term

The analytical process for this study is as follows:

The Pre-Estimation Test (PRE-TEST) were used to evaluate the goodness of the datasets for the study. This included the use of basic descriptive statistics such as measures of central tendency, dispersion, symmetrical features of the series and degree of peakness of the distribution. The strength and direction of linear relationship between the variables and the stationarity properties were tested correlational matrix and the Augmented Dickey Fuller Unit Root Test respectively [34-40].

The main estimation technique used in this study is the Auto Regressive Distributed Lag model (ARDL). The ADRL is preferred due to the fact it accepts a combination of I(0) or I(1) variables, remains efficient even in the face of small samples, combines a measurement of short run and long run elasticities amidst other benefits (Pesaran and Shin, 1998),

Also, to ascertain whether the model is best, linear and unbiased, the following diagnostic tests were carried out:

- Test for higher order auto correlation using Breusch-Godfrey Langrange Multiplier test (BG LM).
- 2. Test for heteroscedasticity following the Breusch, Pegan and Godfrey test (BPG).
- 3. Test for model stability adopting Ramsey Regression Equation Specification Error Test (RESET) and Cumulative Sums of Square Test (CUSUM) test.

Inferences were made following the 0.05 level of significance.

## 4. RESULTS

Table 1 contains the basic descriptive statistics computed to determine the aggregative tendencies of the series, deviation from their mean values and the symmetric properties of the series.

Variables	Mean	Median	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	CV	Prob
LTO	3.18	3.18	0.02	0.31	1.91	1.12	0.01	0.57
LODA	21.74	21.64	0.52	1.23	4.58	6.05	0.02	0.05
LFDI	23.70	23.71	0.12	-0.48	3.33	0.72	0.01	0.70
LFPI	23.57	23.41	0.47	-0.10	2.00	0.74	0.02	0.69
LEXR	0.34	0.03	0.50	1.13	2.77	3.67	1.47	0.16

#### **Table 1. Basic Descriptive Statistics**

Source: Authors' computation

Variables	LTOP	LFPI	LFDI	LEXR	LTOP	
LODA	0.93	0.56	0.55	0.65	0.56	
LFPI	0.68	1.0000	0.45	0.22	0.33	
LFDI	0.35	0.36	1.0000	0.68	0.92	
LEXR	0.88	0.22	0.79	1.0000	0.35	
LTOP	1.00000	0.15	0.71	0.32	1.00000	

#### **Table 2. Summary of Correlational Matrix**

#### Table 3. Summary of Unit Root Test

Variables	Innovative Outlier				Additive Outlier			
	ADF	1%	5%	Break Date	ADF	1%	5%	Break Date
LODA	-6.53	-5.72	-5.18	2014	-6.29	-5.72	-5.18	2012
LFPI	-9.98	-5.72	-5.18	2005	-7.76	-5.72	-5.18	2006
LFDI	-4.54	-4.95	-4.44	2004	-6.77	-5.72	-5.18	2007
LEXR	-18.48	-5.72	-5.18	2004	-9.75	-5.72	-5.18	2008
LTOP	-6.04	-5.72	-5.18	2014	-5.94	-5.72	-5.18	2017

Source: Computed by the author using Eviews 10

#### Table 4. Summary of ARDL Regression Result and Diagnostics Test

	Panel - Long Run Estimates		
Variables	Model (1,1,1,1,1,1)		
	Coefficient	T-Stat	P-Value
LODA	0.08	14.78	0.0007
LFDI	-0.06	-1.11	0.3487
LEXR	-0.48	-1.82	0.1658
LFPI	0.27	5.56	0.0115
	Panel - Diagnostic Statistics		
STAT	Model (1,1,1,1,1,1)		
R <sup>2</sup>	0.70		
BG-LM	27.37 (0.13)		
BPG	5.98 (0.08)		
RESET	0.07 (0.81)		
CUSUM of Squares	Stable		_

The distributions were found to be close knitted. The coefficient of variations in almost all the variables is less than 100% except for exchange rate that showed a degree of volatility with a relative standard deviation that is 147%. From the Table 1, FDI and FPI are negatively skewed (skewed to the left), while, ODA, TO and EXR are positively skewed (skewed to the right). The series are not normally distributed which is consistent with economics and financial time series. To ascertain the linear relationship between the variables, correlational matrices were computed. From Table 2 above, giving attention to the linear association between trade outwardness and the international flow variables, all of them share a positive linear association with trade outwardness.

The stationarity test was conducted to examine the stationarity properties of the variables under study to avoid running a spurious regression. The test used is the breakpoint consistent Augmented Dickey-Fuller (ADF) Unit Root Test. From Table 3, the result of the Break Point Unit Root Test shows the break date of the variables on both the innovative and additive outlier. The Break Point Unit Root Test provides justification for choosing ARDL as the estimation technique for this study. This is because it accommodates variables integrated of order zero I (0) and order one I(1). The result suits this position as trade outwardness and all the international trade flow variables are all integrated or order one (1) and order zero (0).

Next, the main ARDL results are presented in Table 4 alongside the relevant diagnostic tests. It follows the form of the model specified with the relevant outcome and explanatory variables.

The diagnostic tests are shown in lower wrung of Table 4. The goodness of fit of the model is shown by the  $R^2$  of the model shows a good test of fit though the high R<sup>2</sup> is a pointer of multi colinearity. The R<sup>2</sup>. The 70% which means that 70% of the variation in trade outwardness is jointly explained by the investigation international financial flow measures. The fact that the Rsquared is less than 90% removes suspicion of multicollinearity. The suspicion of autocorrelation of higher and lower order is erased by the result of the BG-LM test. The insignificant p-value of the BG-LM test is evidence in favour of the absence of auto correlation. BPG is a test for heteroscedastic residuals. The insignificant pvalue of the BPG test suggests that the model is without heteroscedastic residuals. The Regression Error Specification Test (RESET) being insignificant suggests that the model is without misspecification (no redundant variable. no omission of a relevant variable and follows a correct functional form).

Having certified the goodness and reliability of the estimates, the elasticity of trade outwardness to the international financial flows variables is presented.

The finding reveals that official development assistance and foreign portfolio investment respectively exerts positive and significant impact on trade outwardness. The coefficient shows that a unit change in official development assistance and foreign portfolio investment increases trade outwardness by 8% and 27% respectively. This suggests that Nigeria as a country becomes more trade outward with every increase in official development assistance and foreign portfolio investment inflow. Conversely, foreign direct investment (FDI) was found to have negative and insignificant impact on trade outwardness in Nigeria. It appears correct given that FDI are production activities domiciled in the recipient economy that may not exert direct trade influence on the domestic economy.

#### 5. CONCLUSION AND RECOMMENDA-TIONS

This investigated study how trade outwardness can be driven by the degree of international financial flows with the Nigerian economy in focus. The study is а good step towards unveiling some of the forces that may drive the intensity of trade outwardness in a developing economy like Nigeria.

Using some appropriate estimation techniques, the study made some key findings. It was discovered that official development assistance and foreign portfolio investment enhance trade outwardness while foreign direct investment insignificantly affects trade inversely and outwardness. The study provides valuable relationship insights into the between international financial flows and the trade openness of the Nigerian economy to other economies of the world. The study underscores the importance of international financial flows and policy measures to drive the trade outwardness of the economy while maximising the accruing benefits.

Following the findings arising from this study, it is recommended that policies should be enacted to maximize the benefits of the trade and international financial flow nexus while mitigating the adverse effects of such a nexus for the Nigerian economy.

It is also believed that this study will open the door for further research on this area while accentuating the policy advocacy on how best to drive trade through international financial flows. This is ideal for a developing economy like Nigeria and others within Africa and the world at large.

#### DISCLAIMER (ARTIFICIAL INTELLIGENCE)

Author(s) hereby declare that NO generative AI technologies such as Large Language Models (ChatGPT, COPILOT, etc) and text-to-image

generators have been used during writing or editing of this manuscript.

## **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

## REFERENCES

- Muhammad MY, Benedict NA. Trade openness and economic growth: Evidence from Nigeria. European Journal of Business, Economics and Accountancy. 2018;6(4).
- Afolabi B, Danladi JD, Azeez MI. International trade and economic growth in Nigeria. Global journal of human-social science: E-economics. 2017;17(5):2249-460x.
- Pradhan RP, Arvin MB, Hall JH, Nair M. Trade openness, foreign direct investment, and finance-growth nexus in the Eurozone countries. The Journal of International Trade & Economic Development. 2017;26(3):336 – 360.
- 4. Barisua FN, Omiete VO. Trade openness, financial development, and the Nigerian economy. American International Journal of Contemporary Research. 2016;6(3).
- Ishola SA, Ajayi EO, Onafowokan I, Giwa AB. Trade openness and economic growth in Nigeria (1981-2009): An empirical analysis. International Journal of Humanities and Social Science Invention. 2013;2(6):101-113
- Çoban S, Topcu M. The nexus between financial development and energy consumption in the EU: a dynamic panel data analysis, Energy Economics. 2013;39:81-88.
- Agbo EI, Agu RE, Eze LO. Impact of international trade on the economic growth of Nigeria. European journal of business and management. 2018;10(18):2222-2839.
- Mongoe S, mongale IP. The impact of international trade on economic growth in South Africa: An Econometrics Analysis. Mediterranean Journal of Social Sciences. 2014;5(14).
- 9. Alfred TY. International trade and economic growth in Ghana; Benefts, Constraints and Impacts. Scholar Journal

of Applied Sciences and Research. 2018;1(2).

- Shivneil KR, Priteshni PC. Analysis of fiji s export and its impact on economic growth. International Journal of Business and Social Research. 2017;7(3).
- 11. Hasnain A. Impact of international trade on economic growth in Bangladesh. International Journal of Development and Economic Sustainability. 2018;6(3): 1-11.
- Keho Y. The impact of trade openness on economic growth: The core of cote ivoire. Journal of Cogent Economic and Finance. 2017;5(1):10.
- Arabatzis G, Kitikidou K, Tampakis S, Soutsas K.The fuelwood consumption in a rural area of Greece", Renewable and Sustainable Energy Reviews. 2012;16(9):6489-6496.
- Chima M. The impact of international Trade on Nigeria s economic Growth: 1970- 2009. American economics review. 2013;56(7):679-733.
- 15. Dumani M, Nelson J, Siaisiai ST. Foreign trade and its impact on economic growth in Nigeria. International Journal of Economics, Commerce and Management. 2018;6(4).
- Gaies B, Kaabia O, Ayadi R, Guesmi K, Abid I. Financial development and energy consumption: is the MENA region different?", Energy Policy. 2019;135:111000.
   DOI: 10.1016/j. enpol.2019.111000, ISSN 0301-4215
- Rakpho P, Yamaka W, Puttachai W, Maneejuk P. Role of financial development for solving the energy insecurity in Asia", The Singapore Economic Review. 2021;66(2):413-434
- Yuea S, Lua R, Shen Y, Chen H. How does financial development affect energy consumption? Evidence from 21 transitional countries", Energy Policy. 2019;130:253-262.
- 19. Furuoka F. Financial development and energy consumption: evidence from a heterogeneous panel of Asian countries, Renewable and Sustainable Energy Reviews. 2015;52:430-444.

DOI: 10.1016/j.rser.2015.07.120

20. Shahbaz M, Lean HH. Does financial development increase energy

consumption? The role of industrialization and urbanization in Tunisia", Energy Policy. 2012;40:473-479.

21. Tsaurai K. Information and communication technology, energy consumption and financial development in Africa", International Journal of Energy Economics and Policy. 2020;10(3):429-437.

DOI: 10.32479/ijeep.8721

- Zhe L, Yüksel S, Dinçer H, Mukhtarov S, Azizov M. The positive influences of renewable energy consumption on financial development and economic growth", SAGE Open. 2021;11(3):21582440211040133.
   DOI: 10.1177/21582440211040133
- 23. Zeren F, Karaca S. The impact of renewable and non-renewable energy consumption on financial development: evidence from emerging countries, Journal of Research in Economics, Politics and Finance. 2021;6(1):1-15.
- 24. Ahmed K. Revisiting the role of financial development for energy-growth-trade nexus in BRICS economies, Energy. 2017;128:487-495.
- 25. Farhani S, Solarin SA. Financial development and energy demand in the United States: new evidence from combined cointegration and asymmetric causality tests, Energy. 2017;134:1029-1037.
- Yang L, Hui P, Yasmeen R, Ullah S. 26. consumption Energy and financial development indicators nexuses in Asian economies: а dynamic seemingly unrelated regression approach, Environmental Science and Pollution Research. 2020;27:16472-16483.

DOI: 10.1007/s11356-020- 08123-6

- McFarlane A, Brown L, Campbell K, Das A. Is the impact of financial development on energy consumption in Jamaica asymmetric?, International Journal of Energy Sector Management; 2022.
   DOI: 10.1108/IJESM-02-2022-0004
- Thebuho W, Opperman P, Steenkamp LA, Aye G. (Reviewing editor) The asymmetric effect of financial development on energy consumption in sub-Saharan Africa", Cogent Economics and Finance. 2022;10(1):2095770.

DOI: 10.1080/23322039.2022.2095770.

- 29. Qamruzzaman M, Jianguo W. The asymmetric relationship between financial development, trade openness, foreign capital flows, and renewable energy consumption: fresh evidence from panel NARDL investigation", Renewable Energy. 2020;159:827-842.
- 30. Egbulonu KG, Ezeocha JA. Trade Openness and Nigeria's Economic Growth; 2018.
- 31. Ulasan B. Trade openness and economic growth: Rural evidence applied economic letters. 2015;22(2):163-67.
- 32. Adeniran LO, Yusuf SA, Adeyemi OA. The impact of exchange rate fluctuation on the Nigerian economic growth: An investigation. International empirical Journal of Academic Research in Business and Social Sciences. 2014;4(2):2222-6990. Available:https://dx.doi.org/10.60007ijarbs s/v4.18/1091
- 33. Arize Augustine, Kalu, Ebere Ume and Nkwor Nelson N. Banks versus markets: Do they compete, complement or Co-evolve in the Nigerian financial system? An ARDL approach, Research in International Business and Finance. 2018;45(C):427-434
- 34. Adenugba AA, Dipo SO. Non-oil exports in the economic growth of Nigeria: A Study of Agricultural and Mineral Resources. Journal of Educational and Social Research. 2013;3(2):403-418.
- 35. Hafner M, Tagliapietra S, de Strasser L. The challenge of energy access in Africa", in Energy in Africa. Springer Briefs in Energy, Springer, Cham; 2018. DOI: 10.1007/978-3-319-92219-5 1
- 36. IEA. Africa energy outlook 2019, International Energy Agency, Paris; 2019. Available:www.iea.org/reports/africaenergy-outlook-2019
- International Renewable Energy Agency (IRENA). Scaling up renewable energy deployment in Africa, Africa; 2019. Available:irena.org
- Onokoya AB, Salami OA, Odedara B, Onokoya AO. Energy consumption and Nigeria economic growth: an empirical analysis", European Scientific Journal. 2013;9 (4):25-40, ISSN: 1857 (print) e-ISSN 1857-7431
- Samelson PA, Nordhaus WD. Economics (19th ed). The McGraw-Hill Companies, New York; 2010.

Ogbonna et al.; S. Asian J. Soc. Stud. Econ., vol. 21, no. 10, pp. 26-36, 2024; Article no.SAJSSE.123307

# 40. United Nations Conference on Trade and Development (UNCTAD). World Economic

Situation and Prospects. New York: United Nations; 2018.

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