

IMPACT OF CAPITAL MARKET ON ECONOMIC GROWTH IN NIGERIA (1990-2019)

ONIGAH Peter Oko¹ & ARIWA Florence Onyinye²

¹Department of Banking and Finance, University of Abuja, Abuja, FCT, Nigeria. ²Department of Banking and Finance, Michael Okpara University of Agriculture, Umudike

Abstract

This research is designed to investigate the Impact of the Capital Market Operations on Economic Growth in Nigeria. Data for the study were drawn from the Central Bank of Nigeria Statistical Bulletin (2019). Ordinary least squares method of multiple regressions was applied. The research discovered that capital market enhances growth of the Nigerian economy. It was recommended to improve the growth of Nigerian economy; the government should encourage more trading activities in the Capital Market. Secondly, Government at all levels should be encouraged to meet their developmental programmes and needs through active participation in Nigerian capital market. Finally, there is also an urgent need for the Nigerian capital market to broaden their investment potential, from basically equity and bonds into derivatives and other investment opportunities, to strengthen the breadth and depth of the market.

Keywords: Impact, Capital, Market, Nigerian, Economy

1.0 Introduction

Capital is a key determinant of the level of investment in an economy. Hence, without capital, personal, corporate, and fiscal plans cannot be converted into realities. In a developing country, capital is usually identified as a bane of investment, economic growth, and development (Jombo, 2005). Hence, the need for adequate capital cannot be over-stressed. According to Nzotta (2004), capital is required to stimulate growth, enhance output and real growth in the economy. Jombo (2003), noted that the activities of capital market started in Nigeria when the first government securities were issued in 1946, though there were no institutional facilities available as at that time for the operation of the capital market in Nigeria. Before the capital market came into existence, money market institutions provide short-term loans to businesses. Money market provides short-term funds to individuals, firms, and government. He further disclosed that because of the absence of institutional facilities for efficient operation of the capital market, Nigerians who had surplus funds had no optimal investment arena; hence, they took their funds overseas for investment purposes.

Nwankwo (1980) noted that as a follow-up to the Barback report of 1958, the Lagos stock Exchange was established on September 15, 1960, as a company limited by guarantee with a head office in Lagos and an authorized capital of ¥10, 000. They noted that it was given a legal backing by the Lagos Stock





Exchange Act of 1961. According to Osuala (2009), it started operation in Lagos on June 5, 1961, with nineteen (19) securities listed for trading and few other market instruments. It started with minimal number of operators while turnover and value were both at low ebb. Today, the market supports remote operations. The Exchange has experienced various reforms.

It is pertinent therefore to find out the extent to which capital market has been providing long-term funds for investment purposes to investors through its operations and how its affect growth in Nigeria.

Capital has been identified as a major problem of investment in most developing economies including Nigeria (Nzotta, 2004). It is a situation where an intended economic decision is totally or partially abandoned because of inadequate capital or dearth of capital by economic agents (Anyanwu, 1993). Hence, the need for adequate capital cannot be over-stressed. Households require capital to meet their household needs, firms require capital to meet their corporate needs, and governments require capital to meet their public needs to the citizens. This scenario creates a situation where there is a struggle for funds by economic units (financial struggle).

Before March 2008, the capital market in Nigeria experienced a prolonged period of increased activities but shortly after that, the market experienced a near collapse that was not easily recovered (SEC, 2009).

Consequently, companies in different sectors were attracted to the capital market to raise funds for their operations. It is important to know that within that period (before March 2008) the Nigerian capital market added immensely to the economic growth and development of the Nigerian economy. The need to increase economic growth in Nigeria has widely been expressed; this is because of the population hike. Nigerian suffers from population explosion with a current population more than 170million (2013) from about 150million in the last census (2005) meaning a growth rate of more than 2% per annum (or a doubling time of about 30 years). CIA World Facts Book quoted Nigerian population as 162,471,000 (July 2011) and 170,123,740 (July 2012). Nigeria's population is estimated to be about 200million in 2023. According to United States Census Bureau, Nigerian population is projected to be around 402 million by 2050, likely to make Nigeria the fourth most populous country in the world then. Therefore, there exists a need to grow the Nigerian economy to meet the fast-growing population.

There exist presently some gaps, which will be adequately addressed by the study on the impact of Capital Market Operations on Economic Growth in Nigeria. Market capitalization of Nigerian Capital market is the summation of operations from government stock, debt instruments, exchange trust Fund and ordinary shares (equities) traded. There exists an urgent need to determine the implications of Capital







Market Operations on Economic Growth in Nigerian economy. The central objective behind this research is to establish the effect of Government Stock, Debt instruments and Values of Equity on the growth of the Nigerian economy.

2.0 Literature Review

Considerable body of literature exists in the broad field of capital market and economic growth. This chapter is treated to several reviews of conceptual framework and empirical literature. First is the conceptual framework. Secondly, theoretical framework is provided and thirdly, a brief empirical review on the research topic. The chapter concludes with summary of review of related literature and other issues relating to the Nigerian capital market.

2.1 Conceptual Framework on Capital Market Operations and Economic Growth

The capital market is a market for long term funds or instruments. The capital market deals with longterm financial instruments or securities. Therefore, it constitutes a platform for mobilizing long-term capital resources from lenders (surplus economic units) and allocating them to their areas of greatest need (deficit economic units).

Economic growth means an increase in the value of goods and services produced in a country over a period, usually for one year. The capital market seems to influence economic growth through its funds mobilization that would result in savings. Savings, on the other hand result in capital accumulations, which have direct bearing on economic growth and development. It is on this note that this research is undertaken.

2.2 Theoretical Framework

Several schools of thought offer theoretical explanations for the activities of capital market and economic growth. These include the fundamentalist school, the technical school, the random walk hypothesis school, and others (Maku & Atanda, 2009). Accordingly, the fundamental approach, every security has an intrinsic value, the intrinsic value of every security is reflected by the market price, and basic economic factors about the firm determine the intrinsic value of securities. The technical school, on the other hand, argues that stock prices tend to be affected by demand and supply forces (invisible forces). The random-





walk hypothesis believes that stock prices respond to the effect of new information in the market. Consequently, the macroeconomic approach argues that stock prices are sensitive to changes in macroeconomic variables. On the other hand, theories of economic growth include the neoclassical growth model, Salter cycle and Schumpeterian innovative growth theory. This research is anchored on the above theories.

2.3 Review of Related Literature

Review of related literature on the impact of the capital market performance on economic growth.

The Nigerian capital market was established to mobilize financial resources for investment and developmental purposes. According to Adewale (1998), Ariyo and Adelegan (2005), Ewah, et al (2009), Obiora (2012), and Olawoye (2011), Capital market impacts positively on economic growth in Nigeria. The primary relevance of capital market is that of mobilization and channelization of medium and long-term funds into the economy for investment purposes. Therefore, it is of prime significance to any country that desires economic growth and development. Anyanwu, (1993), highlighted the following contributions of capital market to economic growth in Nigeria: Capital Formation, allocation efficiency, development of Investment Climate, Debt management, the growth of small business, liquidity of investments, investors' Protection, parameter for measuring aggregate economic growth).

On the contrary, Gabriel (2002) in Nyong (2003), laid emphasis on the capital market in Romania and concluded that the market is inefficient and hence it has not contributed to economic growth in Romania. Also, Adam and Sanni (2005), in a related study applied and analysed their data using both the Granger-Causality test and regression analysis. Eventually, their study established a one-way causality between GDP growth and market capitalization. They also noticed a two-way causality between GDP growth and market turnover. The study also observed a positive and significant relationship between GDP growth turnover ratios.

Judging from the reviewed literature, though the Nigerian capital market is still at developing stage, it has consistently added to the economic growth of Nigeria.

3.0 Research Methodology

3.1 Research Design







This research work will employ expose facto research design. The expose facto will be applied using descriptive and analytical approach. The descriptive approach is necessary to give theoretical explanation while the analytical approach is aimed at revealing facts and figures to support these theoretical postulations. The analytical approach is specially chosen to enable the study to evaluate the relationships existing among variables of interest in the study.

3.2 Sources of Data

Various sources of data have been used in this research work. Dominating in the study is secondary source of information. Among which are information sourced from Securities and Exchange Commission (SEC) report on Nigerian Stock Exchange, Central Bank of Nigeria (CBN) Statistical Bulletin.

3.3 Techniques of Data Estimation

The OLS method and E-view statistical package were used for the analysis. The Eview statistical package was used to test ordinary least squares regression test analysis.

3.4 Model Specification

To achieve the objectives of this research, the following models are formulated for our tests and analysis:

1. <u>Model 1:</u>

GDP = f (GSNCM, DINCM, VENCM).....(1)

 $GDP = b_0 + b_1 GSNCM + b_2 DINCM + b_3 VENCM + U......(2)$

Where: GDP = Gross domestic product (GDP). It is the total value of goods and services produced within the country during a year; GSNCM =. Government Stock traded in Nigerian Capital Market. It is the measure of Total Value of Government Stock traded in the Nigerian Capital market; DINCM = Debt Instruments traded in Nigerian Capital Market. It is the measure of Total Value of Debt Instruments traded in the Nigerian Capital market; VENCM = Value of Equity traded in Nigerian Capital Market. It is the measure of Total Value of Total Value of Equities traded in the Nigerian Capital market; be capital Market. It is the measure of Total Value of Debt Instruments traded in the Nigerian Capital market; VENCM = Value of Equity traded in Nigerian Capital Market. It is the measure of Total Value of Equities traded in the Nigerian Capital market; bo = Constant or intercept of the equation; b₁, b₂, b₃ =Slopes of the equation; The aprori expectation is b₁, b₂, b₃ > 0 and U = Stochastic (error) Term.

4.0 Data Presentation and Analysis

The data were collected in line with the stated objectives of the study as shown in chapter one. Data are presented in tabular format. This is necessary to allow easy presentation and understanding. Three (3)







tabular presentations of data are involved in this chapter. The discussion of data for each table was done before the tabular presentation as displayed below: Table 4.1 shows the components of the total market capitalization in the Nigerian capital market. Between 1981 and 1987, government stocks were dominating the market, followed by equity capital and debt securities. However, between 1988 and 2020, equities became a dominating capital source in the market followed by government stocks. It is clear from the table that the debt securities have not fully been traded in the market by the values shown from the inception of the market to date.

Year	Government stocks/		Equities/ ordinary	al market capitalization. Exchange Trust Total market		
1001		bond in the Nigerian	shares in Nigerian	Fund (ETF) (N	capitalization (N	
		(₦ Billion)	capital market (N	Billion)	Billion)	
		(it Billion)	Billion)	Billiony	Billionij	
1990	3.40	0.80	12.10		16.30	
1991	3.30	1.40	18.40		23.10	
1992	3.20	1.80	26.20		31.20	
1993	3.60	2.10	41.80		47.50	
1994	3.20	2.10	61.00		66.30	
1995	3.20	2.10	175.10		180.40	
1996	3.00	3.00	279.80		285.80	
1997	2.80	2.80	276.30		281.90	
1998	2.70	3.10	256.80		262.60	
1999	2.40	3.10	294.50		300.00	
2000	2.10	4.10	466.10		472.30	
2001	8.30	5.80	648.40		662.50	
2002	12.70	3.50	748.70		764.90	
2003	25.20	8.40	1,325.70		1,359.30	
2004	178.10	7.90	1,926.50		2,112.50	
2005	365.47	9.83	2,523.50		2,900.06	
2006	902.99	3.49	4,227.13		5,120.90	
2007	2,976.58	16.98	10,180.29		13,181.69	
2008	2,558.96	16.41	6,957.45		9,562.97	
2009	2,030.76	10.05	4,989.39		7,030.84	
2010	1,939.27	56.37	7,913.75		9,918.21	
2011	2,400.47	1,341.29	6,532.58	0.99	10,275.34	
2012	4,425.05	1,400.43	8,974.45	1.01	14,800.94	
2013	4,456.90	1,394.00	13,226.00	0.28	19,077.42	
2014	5,247.96	144.96	11,477.66	4.52	16,875.10	
2015	6,942.87	205.89	9,850.61	4.02	17,003.39	
2016	6,652.03	281.97	9,246.92	4.80	16,185.73	
2017	7,236.23	276.50	13,609.47	6.69	21,128.90	
2018	9,920.63	256.56	11,720.72	6.13	21,904.04	
2019	12,559.23	355.82	12,968.59	6.58	25,890.22	

Table 4.1: The composition of market capitalization in the Nigerian capital market showing the value of government stocks, debt securities, equity, Exchange Trust Fund, and total market capitalization.







Source: Central Bank of Nigeria (2019).

Pease note that the Exchange Trust Fund (ETF) is an investment instrument introduced in 2011. Our focus is on the three main (primary) components of Market Capitalization, which include the value of government stocks, debt securities and equity.

	4.2: Capital Market Performance and Economic Growth (Gross Domestic Product) in Nigeria. Gross domestic Government Stock Debt Instruments Value of Equity						
	product at current	traded in Nigerian	traded in Nigerian	traded in Nigerian			
Veer	basic prices (GDP)	Capital Market N	Capital Market N	Capital Market N			
Year	NBillion	Billion	Billion	Billion			
1990	499.68	3.4	0.8	12.1			
1991	596.04	3.3	1.4	18.4			
1992	909.8	3.2	1.8	26.2			
1993	1259.07	3.6	2.1	41.8			
1994	1762.81	3.2	2.1	61			
1995	2895.2	3.2	2.1	175.1			
1996	3779.13	3	3	279.8			
1997	4111.64	2.8	2.8	276.3			
1998	4588.99	2.7	3.1	256.8			
1999	5307.36	2.4	3.1	294.5			
2000	6897.48	2.1	4.1	466.1			
2001	8134.14	8.3	5.8	648.4			
2002	11332.25	12.7	3.5	748.7			
2003	13301.56	25.2	8.4	1,325.70			
2004	17321.3	178.1	7.9	1,926.50			
2005	22269.98	365.47	9.83	2,523.50			
2006	28662.47	902.99	3.49	4,227.13			
2007	32995.38	2,976.58	16.98	10,180.29			
2008	39157.88	2,558.96	16.41	6,957.45			
2009	44285.56	2,030.76	10.05	4,989.39			
2010	54612.26	1,939.27	56.37	7,913.75			
2011	62980.4	2,400.47	1,341.29	6,532.58			
2012	71713.94	4,425.05	1,400.43	8,974.45			
2013	80092.56	4,456.90	1,394.00	13,226.00			
2014	89043.62	5,247.96	144.96	11,477.66			
2015	94144.96	6,942.87	205.89	9,850.61			
2016	101489.49	6,652.03	281.97	9,246.92			
2017	113711.63	7,236.23	276.5	13,609.47			
2018	127736.83	9,920.63	256.56	11,720.72			
2019	144210.49	12,559.23	355.82	12,968.59			

Table 4.2: Capital Market Performance and Economic Growth (Gross Domestic Product) in Nigeria.







Source: Central Bank of Nigeria (2019).

4.2 Results and Discussions of Findings

4.2.3: Summary of regression Results on the Impact of Capital Market Operations on Economic Growth in Nigeria

Dependent Variable: GDP

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GSNCM DINCM VENCM C	8.947634 6.641522 2.536862 53.13514	0.946272 4.246862 0.699955 2060.106	9.455672 1.563866 3.624322 2.579243	0.0000 0.1299 0.0012 0.0159
R-squared Adjusted R-squared Durbin-Watson stat F-statistic Prob(F-statistic)	0.970391 0.966974 1.376368 284.0356 0.000000			

Source: Author's computation 2019.

Transforming the model, we have:

 $GDP = b_0 + b_1 GSNCM + b_2 DINCM + b_3 VENCM + U.....(2)$

GDP= 53.13514 + 8.947634GSNCM + 6.641522DINCM +2.536862VENCM + U (3)

The regression results as shown above revealed that Government Stock traded in Nigerian Capital Market (GSNCM) was statistically significant and positive at 5%, Value of Equity traded in the Nigerian Capital Market (VENCM) is statistically significant and positive at 15% while Debt Instruments traded in Nigerian Capital Market (DINCM) was not statistically significant at 5% and 15%, respectively but showed a positive coefficient. Therefore, constant co-efficient of 53.13514 means 53.13% of the change in Gross Domestic Product (GDP) was recorded irrespective of the changes in the independent variables (GSNCM, DINCM, and VENCM). GSNCM co-efficient of 8.947634 means 100% change in GSNCM, changes GDP by 8.95%, DINCM co-efficient of 6.641522 means that 100% change in DINCM, changes GDP by 6.64%. VENCM co-efficient of 2.536862 means that 100% increase in VENCM in, GDP increased by 2.53%, keeping every other factor constant. The model shows a reasonable level of good-fit; variables were properly selected. R² (co-efficient of multiple determinations) of 0.970391 means 97.04% of total variation in the dependent variable (GDP) is explained by the independent variables (GSNCM, DINCM, and VENCM) and it stood at 96.69% after adjusting for degrees of freedom. DW







(Durbin-Watson) statistic of 1.376368 shows that there is a linear relationship between GDP and the independent variables (GSNCM, DINCM, and VENCM). The t-values for GSNCM and VENCM showed that the independent variables significantly affect the dependent variable (GDP). Since the value of F-calculated is larger than the critical value of F or Table value of F, we reject the null hypothesis and then accept the alternative hypothesis; therefore, Nigerian capital market operations have positive and significant effect on the growth of Nigerian economy.

5.0 Summary of Findings

The research examined the impact of Capital Market Operations on Economic Growth in Nigeria (1990-2019). The regression results revealed that Government Stock traded in Nigerian Capital Market (GSNCM) was statistically significant and positive in relation to economic growth in Nigeria, Value of Equity traded in the Nigerian Capital Market (VENCM) is statistically significant and positive in relation to economic growth in Nigeria while Debt Instruments traded in Nigerian Capital Market (DINCM) was not statistically significant at the acceptable level but showed a positive coefficient in relation to economic growth in Nigeria. Therefore, the findings of the research revealed and confirmed that there exist positive and significant relationships between the capital market operations and economic growth in Nigeria.

The following policy recommendations are necessary as established in our study thus: To improve the growth of Nigerian economy, the government should encourage more trading activities in the Capital Market. Secondly, Government at all levels should be encouraged to meet their realistic developmental programmes and needs through participation in Nigerian capital market. Finally, there is also an urgent need for the Nigerian capital market to broaden their investment potential, from basically equity, government/development stock and bonds into derivatives, convertibles, future swaps, and options to strengthen the breadth and depth of the market.

6. Conclusion

The study has revealed that capital market operations have positive and significant effects on economic growth. This relates to the fact that capital market provides an opportunity for funds mobilization. Hence, the capital market remained one of the mainstreams in the economy that has power to influence economic growth through private and public sector participation in the market.

The impact of capital market on economic growth can be strengthened since the market is yet to compete with some of her counterparts in Africa like South African and Egyptian Stock Exchanges and other global







exchanges. In conclusion, Capital Market Operations have significant and positive effects on Economic Growth in Nigeria. It is necessary to note that more capital market operations will result in higher level of economic growth in Nigeria.

References

- Adegbite, & Babalola, M. A. (2012). The Nigerian Capital Market. *CBN Economic & financial Review*, 39(1).
- Afees, A. S. & Kazeem, B. A. (2010). The Stock Market and Economic Growth in Nigeria: An Empirical Investigation. *Journal of Economic Theory*, 4, 65
- Al-Faki, M. (2007). Understanding the Nigerian Capital Market": Best Investment Practices & Regulatory Compliance Abuja: Nigerian Securities and Exchange Commission.
- Ariyo, A., & Adelegan, O. (2005). Assessing the Impact of Capital Market Reforms in Nigeria: An Incremental Approach. Paper Presented at 46th Annual Conference of the Nigeria Economic Society in Lagos.
- Central Bank of Nigeria (2015). The Nigerian capital market. Central Bank of Nigeria Briefs.
- Central Bank of Nigeria (2019) Statistical Bulletins Abuja: Central Bank of Nigeria Publication.
- Chandra, P. (2004) Investment Analysis and Portfolio Management New Delhi: McGrow-Hill.
- Demetriades, P., & Luintel, K. (2001). Financial development and economic growth: The role of stock markets. *Journal of Money, Credit and Banking*, 33, 16-41.
- Ekundayo, I. K. (2002). Creating credit and investment in Nigerian capital market. Paper Presented at Public Enlightenment on Opportunities in the Capital Market for Industrial Development of Kogi State "Lokoja, 29th March to 1st April.
- Ewah, S., Esang, A., & Bassey, J. (2009). Appraisal of capital market efficiency on economic growth in Nigeria. *International Journal of Business and Management*, 4 (12) 219 225.
- Ezeoha, A., Ebele, O., & Ndi-Okereke, O. (2019). Stock Market Development and Private Investment Growth in Nigeria. *Journal of Sustainable Development* 11, (2).

Federal Government of Nigeria, FGN 2017 "Budget, 2017" Abuja: The Government Printer.

- Hondroyiannis G. P. (2001). Macroeconomic influences on the stock market. *Journal of Economics and Finance*, 25 (1) 33-49.
- IJBM, Editor. (2009) International Journal of Business and Management. *International Journal of Business and Management* 4(12),







- Ikechukwu, N. C., & Anyanwokoro, M. (2019). Investigating the impact of the capital market operations on a developing economy: The Nigerian Experience (1983 2016), South Asian Journal of Social Studies and Economics
- Levine, R., & Dimirgue-Kunc, A. (1996). Stock market, corporate finance, and economic growth: an overview. *The World Bank Review* 10(2), 223- 225.
- Mishra, P., & Mishra, B. (2010). Capital market efficiency and economic growth: The Case of India. *European Journal of Economics, Finance and Administrative Sciences Issue* 27 (18). 130-138.
- Mohtadi, H., & Agarwal, S. (2004). Financial markets and the financing choice of Firms; Evidence from developing countries. *Global Financial Journal*,15 (2). 52-70.
- Myles, M. (2013). The capital market and its institutions positioning for Global Dominance" 24 February.
- Nagayasu, J. (2003). The efficiency of the Japanese equity market. IMF Working Paper, No.142.
- Nieuwerburgh, S., Buelens, F., & Cuyvers, L. (2006). Stock market development and economic growth in Belgium, explorations in economic history. *Global Finance Journal*, 43, 13–38.
- Nigerian Stock Exchange (NSE, 2019). Fact Book. Lagos: The Nigeria Stock Exchange.
- Nwankwo, G. O. (1991). Money and Capital Market in Nigeria Lagos: University of Lagos press.
- Nyong, M. O. (2003). Predictability and volatility of stock return in three emerging markets: Nigeria, South Africa, and Brazil. *Nigeria Journal of Economics and Development Matters* 2(1): 12 29.
- Nwosu, E. O. et al (2021). Mainstreaming whistleblowing as a regulatory mechanism against fraud in Nigeria's capital market. *Journal of Financial Crime.*
- Nzotta, S. M. (2005). *Money, Banking and Finance, Theory and Practice, 2nd* Ed. Owerri: Hudson Jude Nigerian Publisher.
- Obamiro, J. K. (2005). Nigerian economy: growth and the role of stock market. *Journal of Economic and Financial Studies*, 2(2).
- Obiora, K. (2012). Can the capital market be in engine for economic growth in Nigeria?" SEC's Nigeria Economic lecture.
- Odoje, D. (1993). Stock Broking in Nigeria, Problems and Prospects", Securities Market Journal.
- Olawoye, L. (2011). Impact of capital market on economic growth and development. an article on lekanolawoye.blogspot.com//Impact–of-capitalmarket-on-economic-growth-and development cached.
- Onyekachi R., & Odi N (2017). Impact of Nigerian capital market instability on the growth of the economy (1990-2011), *Journal of Economics.*







- Osinubi, T., & Amaghionyeodiwe, L. (2003). Stock market development and long-run growth in Nigeria. *Journal of African Business, 4* (3), 103-12
- Osuala, A. E. (2009). Investment Analysis: A modern Approach to Evaluation of Project and Securities, Umuahia: Toni Prints Services.
- Panan, D. G. et al., (2021). Capital market and economic growth in Nigeria: an autoregressive distributed lag (ARDL) bounds testing approach. *International Journal of Finance Research.*
- Pat, D. & James, O. (2010). An empirical analysis of the impact of the Nigerian capital market on her socio- economic development. *Journal of Social* Science 24 (2), 135.
- Securities and Exchange Commission (2014). Nigerian's capital market, making world-class potential reality. *The Report of the Sec Committee on the Nigerian Capital Market.*
- Suberu O. J. (2015). Capital market operations and its impacts on local investments in Nigeria. International Journal of Economic Behavior and Organization.
- ThankGod A (2018). Capital Market Operation and the Nigerian Economy. Wilberforce Journal of the Social Science.
- Ubesie M. C., et al (2020). Impact of capital market on economic growth in Nigeria. *Business and Management Research*.
- Ughulu S. E (2021). Industrial output and economic growth in emerging economies: Evidence from Nigeria. *Applied Finance and Accounting.*







13



