


EFFECT OF CAPITAL MARKET ON THE ECONOMIC DEVELOPMENT OF EMERGING ECONOMIES; THE NIGERIA EXPERIENCE

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ARTICLE INFO	ABSTRACT
<p><b>Article history:</b>  <b>Received:</b> May, 24<sup>th</sup> 2024  <b>Accepted:</b> July, 26<sup>th</sup> 2024</p>	<p><b>Purpose:</b> This study examined the effect of Nigeria's capital market on the economic development the country. The aim of this study is to determine how much the capital market has contributed to Nigeria's Human Development and Unemployment Reduction in the country. The specific objectives are to determine the effect of: Market Capitalization, All Shares Index, Volume of market Transactions, Value of market Transactions affect both Unemployment rate and Human Development Index.</p>
<p><b>Keywords:</b>            Market Capitalization;            All Shares Index;            Transaction Volume;            Economic Development;            Unemployment Rate;            Human Development Index.</p> 	<p><b>Methodology:</b> The secondary data for this study came from the World Bank report for the period 1991 to 2022 and the CBN statistical bulletin. The Augmented Dickey-Fuller Unit Root test was conducted to check for the stationarity of the data set, the Johansen co-integration test was used to determine if the relationship in the models exists in either the short run or long run, and the Granger Causality was also conducted. The dependent variables were the Unemployment Rate and the Human Development Index, whereas the independent variables were Market Capitalization, All Shares Index, Transaction Volume, and Transaction Value.</p> <p><b>Findings and Conclusion:</b> Market capitalization and the All-Shares Index are significantly correlated with the Human Development Index, although there is no correlation between the Human Development Index and Transaction Volume or Value, according to a review of the regression data. In the second model, the correlations between market capitalization, the All Shares Index, the quantity and value of transactions, and the unemployment rate are not statistically significant. The study's conclusions indicate that while the capital market has a small effect on unemployment, it has a large impact on the Human Development Index. Therefore, in order to eliminate fraud and other unethical actions that breach investor trust, we implore the regulatory authorities to take regulatory measures that tend to improve and maintain the market's Market Capitalization and All Share Index.</p>

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**Originality:** This study contributes to the existing literature by examining how capital market affects economic development in Nigeria. This research has also successfully developed a model that could be used to predict the effect of Capital Market on both Human Development Index and Unemployment Reduction in Nigeria.

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## EFEITO DO MERCADO DE CAPITAIS NO DESENVOLVIMENTO ECONÔMICO DE ECONOMIAS EMERGENTES; A EXPERIÊNCIA DA NIGÉRIA

### RESUMO:

**Objetivo:** Este estudo examinou o efeito do mercado de capitais da Nigéria sobre o desenvolvimento econômico do país. O objetivo deste estudo é determinar o quanto o mercado de capitais contribuiu para o desenvolvimento humano da Nigéria e para a redução do desemprego no país. Os objetivos específicos são determinar o efeito de: Capitalização de mercado, índice de todas as ações, volume de transações de mercado, valor das transações de mercado afetam a taxa de desemprego e o índice de desenvolvimento humano.

**Metodologia:** Os dados secundários para este estudo foram obtidos do relatório do Banco Mundial para o período de 1991 a 2022 e do boletim estatístico da CBN. O teste de raiz unitária de Dickey-Fuller aumentado foi realizado para verificar a estacionariedade do conjunto de dados, o teste de cointegração de Johansen foi usado para determinar se a relação nos modelos existe a curto ou longo prazo, e a causalidade de Granger também foi realizada. As variáveis dependentes foram a Taxa de Desemprego e o Índice de Desenvolvimento Humano, enquanto as variáveis independentes foram a Capitalização de Mercado, o Índice de Todas as Ações, o Volume de Transações e o Valor das Transações.

**Resultados e Conclusões:** A capitalização de mercado e o índice de todas as ações estão significativamente correlacionados com o índice de desenvolvimento humano, embora não haja correlação entre o índice de desenvolvimento humano e o volume ou valor das transações, de acordo com uma análise dos dados da regressão. No segundo modelo, as correlações entre a capitalização de mercado, o Índice de Todas as Ações, a quantidade e o valor das transações e a taxa de desemprego não são estatisticamente significativas. As conclusões do estudo indicam que, embora o mercado de capitais tenha um pequeno efeito sobre o desemprego, ele tem um grande impacto sobre o Índice de Desenvolvimento Humano. Portanto, a fim de eliminar a fraude e outras ações antiéticas que violam a confiança dos investidores, imploramos às autoridades reguladoras que tomem medidas regulatórias que tendem a melhorar e manter a Capitalização de Mercado e o Índice de Todas as Ações do mercado.

**Originalidade:** Este estudo contribui para a literatura existente ao examinar como o mercado de capitais afeta o desenvolvimento econômico na Nigéria. Esta pesquisa também desenvolveu com sucesso um modelo que poderia ser usado para prever o efeito do mercado de capitais sobre o Índice de Desenvolvimento Humano e a Redução do Desemprego na Nigéria.

**Palavras-chave:** Capitalização de Mercado, Índice de Todas as Ações, Volume de Transações, Desenvolvimento Econômico, Taxa de Desemprego, Índice de Desenvolvimento Humano.

## EFFECTO DEL MERCADO DE CAPITALES EN EL DESARROLLO ECONÓMICO DE LAS ECONOMÍAS EMERGENTES; LA EXPERIENCIA DE NIGERIA

### RESUMEN:

**Propósito:** Este estudio examina el efecto del mercado de capitales de Nigeria en el desarrollo económico del país. El objetivo de este estudio es determinar en qué medida el mercado de capitales ha contribuido al desarrollo humano de Nigeria y a la reducción del desempleo en el país. Los objetivos específicos son determinar el efecto de: Capitalización del mercado, Índice de todas las acciones, Volumen de transacciones del mercado, Valor de las transacciones del mercado afectan tanto a la tasa de Desempleo como al Índice de Desarrollo Humano.

**Metodología:** Los datos secundarios para este estudio proceden del informe del Banco Mundial para el periodo de 1991 a 2022 y del boletín estadístico del CBN. Se realizó la prueba de raíz unitaria Dickey-Fuller aumentada para comprobar la estacionariedad del conjunto de datos, se utilizó la prueba de cointegración de Johansen para determinar si la relación en los modelos existe a corto o largo plazo, y también se realizó la causalidad de Granger. Las variables dependientes fueron la tasa de desempleo y el índice de desarrollo humano, mientras que las variables independientes fueron la capitalización bursátil, el índice bursátil total, el volumen de transacciones y el valor de las transacciones.

**Resultados y Conclusiones:** La capitalización bursátil y el índice All-Shares están significativamente correlacionados con el Índice de Desarrollo Humano, aunque no existe correlación entre el Índice de Desarrollo

Humano y el Volumen o el Valor de las Transacciones, según una revisión de los datos de regresión. En el segundo modelo, las correlaciones entre la capitalización bursátil, el índice All-Shares, la cantidad y el valor de las transacciones y la tasa de desempleo no son estadísticamente significativas. Las conclusiones del estudio indican que, si bien el mercado de capitales tiene un pequeño efecto en el desempleo, tiene un gran impacto en el Índice de Desarrollo Humano. Por lo tanto, con el fin de eliminar el fraude y otras acciones poco éticas que quebrantan la confianza de los inversores, imploramos a las autoridades reguladoras que adopten medidas normativas que tiendan a mejorar y mantener la Capitalización Bursátil y el Índice Accionario Global del mercado.

**Originalidad:** Este estudio contribuye a la literatura existente examinando cómo el mercado de capitales afecta al desarrollo económico de Nigeria. Esta investigación también ha desarrollado con éxito un modelo que podría utilizarse para predecir el efecto del Mercado de Capitales tanto en el Índice de Desarrollo Humano como en la Reducción del Desempleo en Nigeria.

**Palabras clave:** Capitalización del Mercado, Índice de Todas las Acciones, Volumen de Transacciones, Desarrollo Económico, Tasa de Desempleo, Índice de Desarrollo Humano.

## 1 INTRODUCTION

The capital market is a market for buying and selling medium- to long-term financial assets (equities and debt), such as stocks and bonds having a maturity of more than one year (Odo et al., 2017). The stock market is a financial market where securities based on shares or long-term (more than one year) debt are bought and sold. It is a set of infrastructures, processes and mechanisms that facilitate long-term relationships between suppliers and buyers (Okekwu et al., 2022). Capital suppliers like retail and institutional investors transfer savings and investments to capital consumers like firms, the government, and individuals through capital markets. For an economy to operate effectively, capital markets are of utmost importance as capital is necessary for generating economic production. Economic growth is recognized when the variables that drive it are identified. This takes place when there is a continuous enhancement in the standard of living of the populace, coupled with long-term price stability and a steady number of individuals living in poverty (Adamu & Mustafa, 2023).

The availability of funds for private investment plays a crucial role in influencing economic development. Investors may find traditional banks unsuitable as they only provide short-term funding. Although the money market, especially commercial banks, can offer short-duration cash, investors seek an institution that can provide funds for longer periods (Eniekezimene & Opuofoni, 2024).

Through the capital market, private investors are able to acquire long-term capital, which leads to the establishment of new company divisions, increased production, and the purchase of new equipment for growth. This will greatly increase economic growth, create jobs, lower the poverty rate, and raise people's standards of living (Onoh, 2012). Therefore, the

capital market offers the long-term financing the public and private sectors require to hasten economic growth and development.

The efficient mobilization and distribution of capital for investments is the capital market's most important function. In order to facilitate the production process and promote economic growth and development, the market develops mechanisms for the mobilization of savings from multiple excess economic units (Olusegun & Ajao, 2024).

It also serves as a barometer for the nation's economy and offers investment opportunities for many business sectors. In order to finance new projects, develop current ones, and modernize industrial and commercial concerns, government and corporate entities can more easily raise long-term money through the capital market (Nwankwo, 1990). Because it is necessary for generating long-term growth capital, the capital market supports economic growth (Ogrika & Andabai, 2014). The capital market is a major factor in economic growth. Nigeria is now able to provide services to both the public and private sectors in order to raise long-term money for development projects, project expansion, and modernization. This is thanks to the growth of the country's capital market. When trading on the Nigerian capital market started in the middle of 1961, eight stocks and other assets were listed on the Nigerian Stock Exchange (NSE). About seven UK companies had parallel twin quotations on the London Stock Exchange. In just 334 trades, there were 0.3 million shares valued at N1.5 million; by 1970, there were 634 trades totaling N16.6 million (CBN, 2004). The Federal Government liberalized the capital market by lifting the prohibitions against foreign investors participating in the local capital market (Okpara, 2010).

This is covered by Decree No. 1 on Foreign Exchange, Monitoring, and Other Provisions. The Securities and Investment Act of 1995, the Securities and Investment Act of 1999, and the Companies and Allied Matters Decree of 1990 were all repealed by the Nigerian Investment Promotion Commission's Decree No. 17, which was published on August 17. As a result of these laws, Nigerians and foreign investors now enjoy equal access to rights, benefits, and opportunities.

A nation's ability to mobilize savings and convert them into investment depends on the type of capital market that exists at any given time. Since the inception of the Nigerian capital market, various challenges have been discovered including poor economic development which hampers a conducive investment environment to sustain a vibrant capital market and the challenges of buy and hold strategy, that is, stocks are held for a long time and stock prices are sometimes manipulated (Itive & Okoli, 2022). A few of the problems and difficulties that the

Nigerian capital faces include the public sector-led economy, the buy-and-hold mentality of Nigerians, the absence of economic policies that are friendly to the capital market, political instability, and the less-than-full operations of recent developments, such as telecommunications towers are the problems the capital market has overcome in recent time. The Central Securities Clearing System (CSCS) of the Nigerian Stock Exchange includes capabilities including online and remote trading (ORT), transaction alerts, and capital trade points. Prior to 1989, there were fewer than N1 billion in fresh issues. However, it held around N10 billion between 1989 and 1996. In 1997, it went beyond the N10 billion mark. For instance, 172 new issuance of securities from publicly traded companies worth N56.4 billion were launched on the capital market between 1996 and 2001. The total value of new issues was N5.85 billion in 1996, but it rose to N37.198 billion in 2001, a 532 percent increase. From N61,284 billion in fresh issues in 2002 to N180,079,079,090, N195,418.4, and N552,782 billion in 2004 and 2005, respectively, there was a wide range. It exceeded the trillion-dollar mark in 2007 when it reached N1.935 trillion, but it fell to N1.509 trillion in 2008 (CBN, 2018).

Recent measures used to assess the expansion of the Nigerian capital market include market capitalization, the All Share Index, transaction volumes, and transaction values (Nwite, 2014).

The market capitalization describes the size of the capital market and is used to determine how well developed it is in relation to the growth of the economy. Market capitalization falls in bear markets while rising in bull markets (Nwanne, 2015).

The total market capitalization of the Nigerian Capital Market was less than N10 billion before 1988; from 1988 to 1994, it varied between N10 and N57 billion. The amounts were N1.359 trillion, N2,1125 trillion, and N5.12 trillion, respectively, in 2003, 2004, and 2006. In 2007, the market capitalization rose to a record N15.2294 trillion. This sum decreased to N9.562 trillion in 2008 due to the global financial crisis. N10.275 trillion was spent overall in 2011, N16.875 trillion was spent in 2014, and N17.003 trillion was spent in 2016. The market capitalisation reached its highest height at N21.904 trillion. The All Share Index is another option, and it offers a quick assessment of the market's overall movement and direction. It is a set of figures that illustrates the fluctuating average value of the share prices of all companies listed on a stock exchange and is used to evaluate the health of a market. The value of the All Share Index fell below 10,000 between 1987 and 2000. However, from 10,963 to 31,450, the ASI rose by 187% between 2001 and 2008. The All Share Index peaked in 2015 at 57,990. In 2017, there were 38,243 people living there. It dropped from 38,243 to 31,430 between 2017 and 2018 (CBN, 2018).

Between 1987 and 1996, however, fewer than N10 billion worth of trading were made on the Nigerian Capital Market. Trading volume surpassed N1 billion in 1997. It was N28.153 in 2000, N470,253 in 2006, and N1.076 in 2007. The volume of transactions on the Nigerian Capital Market decreased by 51.88 percent between 2008 and 2012. In 2013, it reached a peak of N2.350 trillion. It was N1.285 trillion in 2018 (CBN, 2018).

Less than 100 trades took place on the Nigerian Capital Market annually prior to 1999. It fluctuated between 120,000 and 970,000 between 1999 and 2004. The largest number of transactions in 2013, totaling \$3,245,866, occurred on the Nigerian Capital Market. It was 1,039,333 in 2018 (CBN, 2018).

Economic growth is the improvement of human autonomy and fundamental rights that allow people to freely engage in economic life (Amartya, 1999). Economic growth therefore occurs when individual agents have the chance to acquire the abilities needed for them to participate in and contribute to the economy. Rising real per capita income, the unemployment rate, the human development index, Gini coefficients, and other indicators of income and wealth distribution, as well as indicators of quality of life, such as life expectancy, crime rates, and environmental quality, are just a few of the metrics used to gauge economic development. Economic development varies from growth from this vantage point in that it gives various measures more weight. The human development index and the unemployment rate in Nigeria will be the two development indicators that this work will concentrate on (Ologunwa & Sadibo, 2016).

Prior to 1999, Nigeria's unemployment rate was under 10%. It fluctuated between 13 and 23% between 2000 and 2018. Nigeria's 2017 HDI score and position were 0.532, putting it in the poor human development category and placing it 157th out of 189 nations and territories. It was 23 percent in 2018. There doesn't appear to be a wide variety of financial instruments that can promote industrialization and economic activity on the Nigerian capital market (Onyekachi & Odi, 2013).

It is uncertain to what extent Nigeria has succeeded in resource mobilization and effective capital allocation for investment purposes given that its Human Development Index (HDI) is still low and its unemployment rate is rising alarmingly quickly (Adeoye, 2017). Over time, the capital market seems to have failed to offer investors a variety of investment alternatives, improved risk-mitigation tools, and a transparent environment. This deficiency has restricted the market's ability to efficiently distribute resources to productive sectors, thereby hampering economic growth and development (Eniekezimene & Opuofoni, 2024).

The rules implemented to stimulate the capital market's progress do not seem to be positively impacting Nigeria's economic growth. The lackluster growth in private investments is exacerbating the unemployment and poverty issues in the country.

Therefore, the purpose of this paper is to investigate how Nigeria's capital market affects the reduction of unemployment and the Human Development Index.

This research work is structured five sections: Introduction, Literature Review, Methodology, Results and Discussion and Conclusion and Recommendations.

## 2 LITERATURE REVIEW

Eniekezimene and Opuofoni (2024) conducted a study that examined the impact of the capital market on Nigeria's economic growth from 1981 to 2022. They utilized vector autoregressive (VAR) analysis and considered several variables, including real gross domestic product (RGDP), market capitalization (MCAP), total value of securities traded (TVST), and gross fixed capital formation (GFCF). The study's findings revealed that both RGDP and MCAP positively influenced their own outcomes as well as the outcomes of other variables in both the short and long run. On the other hand, TVST and GFCF negatively influenced their own outcomes as well as the outcomes of other variables in both the short and long run, as determined through the VAR system tools of impulse response function and forecast error variance decomposition. Based on these findings, we recommend prioritizing the enhancement of local firms' perception, both domestically and internationally, in terms of their total corporate assets and performance measured by metrics such as price-to-earnings, price-to-sales, and return-on-equity. Achieving this can be facilitated by improving the quality of their products and services, enabling them to become stronger competitors in the global market.

In their research, Sulaiman, Adejayan & Ilori (2023) aimed to investigate the influence of capital market development on economic growth in ECOWAS countries. Utilizing annual data from 1980 to 2019 obtained from the World database, the study employed the Panel Auto regressive Distributed Lag model. The results indicated that Gross Capital Formation (GCF) and Foreign Direct Investment (FDI) significantly impact the economic growth of Anglophone nations, while only Gross Capital Formation plays a significant role in the growth of Francophone economies. This suggests that Anglophone countries benefit from a combination of foreign and domestic investments, whereas the growth of Francophone economies is largely dependent on domestic investment levels. Consequently, the study suggests that governments

should create a secure and favorable investment climate to attract foreign multinational corporations and domestic investments for economic development.

Adamu and Mustafa (2023) investigated Capital Market and Economic Growth in Nigeria, Using Johansen cointegration and vector error Correction model for correlation analysis (VECM). The results show, among other things: The normalized Johansen cointegration shows that in the long run, all stock indexes and total Value of Transactions there is a negative impact on trading, and a negative impact on market capitalization. The data obtained shows that Nigeria's capital market would benefit from active participation by the real sector etc. Expand production bases, raise public awareness.

Itive and Okoli, (2022) in their study examined capital market operations and Nigeria's economic growth from 1999 to 2021. The study was conducted to demonstrate the importance of effective capital market operations to the country's economic growth. The study used Ordinary Least Squares (OLS) methods empirically examined the effect of market capitalization, total new issues, and transaction value on GDP. They tested and validated the hypothesis that capital market operations have a significant impact on Nigeria's economic growth. As a result, their research recommended that the government step up efforts to create an enabling business environment that would enable domestic and foreign investors to invest in the Nigerian capital market, thereby accelerating the country's economic growth.

Okekwu et al. (2022) examined the impact of the capital market on economic growth in Nigeria for the period 1986-2021 in their study. The study used the Autoregressive Distributed Lag (ARDL) model to perform the analysis. Empirical studies have shown that the Nigerian capital market plays an important role in the growth of the Nigerian economy. He found that market capitalization is the most widely used indicator for assessing the size of the financial market, which has a significant impact on economic growth in both the short and long term. Therefore, the study suggests that to ensure financial market efficiency, the Securities and Exchange Commission should increase efficiency by increasing the level of interaction among financial market regulators and help individual investors understand risks. and 'financial literacy; ensuring accessibility to long-term loans and ensuring that only legitimate companies can access the capital market, etc.

Anyanwu and Kalu (2021) conducted a study focusing on the relationship between capital market development and economic growth in Nigeria from 2002 to 2018. The researchers utilized multiple regression analysis to examine the data and estimated an error correction model for economic growth using Vector Error Correction techniques. The variables



were also checked for Co integration using E-view 7.0 statistical software. The findings indicated that market capitalization rate, new issues, total value of listed securities, and total listing are significant macroeconomic determinants of economic development in Nigeria during the specified period. The study concluded that these variables have played a crucial role in influencing Nigeria's economic growth through capital market development. To further enhance the Nigerian capital market as a driver of economic growth, it was suggested that the government should invest in cutting-edge technology to facilitate information flow in the market, attract more investors, increase new issues, boost transaction volumes, and ultimately raise market capitalization.

In their study, Abere et al. (2021) examined the impact of financial market development on economic growth in Nigeria over a 35-year period from 1986 to 2020. Johansen's Cointegration Model and Error Correction Model was used in the study. The following data on the country's number of contracts, sales rate and revenue was obtained from the Central Bank of Nigeria and the Nigerian Stock Exchange. The study shows that there is a link between the development of financial markets and economic development in Nigeria. The study also shows that the number of contracts and transactions has a positive and significant impact on economic growth in Nigeria. Therefore, this means that the development of the financial market can boost the Nigerian economy. The study therefore concluded that capital market development has a positive and significant impact on economic growth in Nigeria and recommended that the government should expand Nigeria's capital market by creating easy access to investments that will increase the efficiency of the economy and increase the number of investments in the economy.

Algaeed (2021) analyzed the impact of capital market development on per-capita GDP growth in Saudi Arabia from 1985 to 2018. Tests including ARDL, FMOLS, and Johansen tests were conducted using a log-linear eclectic model with stock market indicators. Surprisingly, capitalization and liquidity have negative effects, while the share price index, number of shares traded, and share transaction ratio have positive effects. These findings raised questions about market size and measures to deepen the capital market for promoting per-capita GDP growth. The Granger causality test shows that certain indicators do not directly cause changes in GDP, but they are still significant. It was recommended that the CMA develop a strategic plan to deepen the capital market for economic growth.

The study conducted by Agu (2018) aimed to investigate the interconnectedness of financial innovation, stock market expansion, and economic growth. Time series data spanning from 1980 to 2016 were analyzed in this research. The statistical technique employed was

autoregressive distributed lagged (ARDL), complemented by limits testing. The results of the Granger causality test revealed a positive association between financial innovation, stock market development, and economic growth, both in the short run and the long run, after satisfying all the ARDL requirements. Additionally, the ARDL findings emphasized the significance of financial innovation in driving economic growth. By leveraging technology, financial services have been able to expedite transactions, enhance the customer experience, and encourage potential customers to utilize the available facilities. This innovative approach is expected to result in increased savings and overall financial resources.

Adeoye (2017) investigated how the capital market, a crucial component in a nation's economic development, affected Nigeria's economy. The paper asserts that it is impossible to exaggerate the significance of financial markets as a growth engine for the majority of emerging economies. The extent of market control and consumer knowledge will have a significant impact on how much of this growth these economies actually see.

Nigeria is far from the only country attempting to boost its economy through capital market income. For economic statistics including Gross Domestic Product (GDP), Foreign Direct Investment (FDI), inflation rates, the total number of new issues, the amount of transactions, and the number of listings, market capitalization was substituted.

As a result, the report recommended strengthening programs and policies.

Investors' confidence in the Nigerian capital market should be maintained because it has the ability to significantly accelerate the nation's economic growth and since all market elements are crucial to a nation's development.

### 3 METHODOLOGY

This study is aimed at evaluating the effects of capital market on economic development of emerging economies; the Nigeria experience. The specific objectives of this study are as follows:

1. to ascertain the effect of Capital Market on Human Development Index in Nigeria;
2. to evaluate the effect of Capital Market on Unemployment Reduction in Nigeria.

In line with the research works of Onyekachi and Odi (2013), Agu (2018), Okekwu et al. (2022). The market capitalization, the All Shares Index, Transaction Volume, and Transaction Value were used in this research as independent variables that represent Capital Market. Onyekachi and Odi (2013), Agu (2018), Okekwu et al. (2022) emphasized on the effect of Capital Market on Economic Growth, with the Gross Domestic Product (GDP) as the

Dependent Variable. This Research work used Unemployment Rate and the Human Development Index (HDI) as dependent variables in order to ascertain the effect of Capital Market on both Unemployment Reduction and Human Development Index in Nigeria as proxies for economic development.

The secondary data were compiled between 1991 and 2022 using the CBN Statistical Bulletin and World Bank economic statistics and the period is long enough to capture the effect of Capital Market on Economic development.

This research work conducted unit root test to check for stationarity of the variables, in order to avoid spurious regression result. The Unit root method adopted was the Augmented Dickey-Fuller test. In order to ascertain if the relationship between Capital Market variables and the dependent variables exist in the short run or in the long run, Johansen Cointegration test was conducted.

In this research model, there are four analytical procedures involved. Initially, the descriptive statistics of the variables used for the analysis was conducted, then the unit root test was conducted for each variable to determine the time series properties of the dataset and establish its stationary status. This is crucial to ensure that the variables are stationary and that any fluctuations will eventually dissipate and return to their long-term average in order to avoid spurious regression result. The Unit root method adopted was the Augmented Dickey-Fuller test. Subsequently, the co-integration test is performed to identify the long-term rational properties of the data. Thirdly, the Granger Causality test was conducted to determine the direction of causality between the variables in the two models. As the results of the Granger Causality Showed the existence of a Uni-Directional Causality in the two models of this research, the estimation of the linear regression equations of the models that define the effect of Capital Market variables (Market Capitalization, All Shares Index, Volume of Transactions and Value of Transactions) on both Unemployment Reduction and Human Development Index in Nigeria was conducted using the Ordinary Least Squared Method.

### 3.1 RESEARCH HYPOTHESES

H<sub>01</sub>: Capital Market has no significant effect on Human Development Index in Nigeria.

H<sub>02</sub>: Capital Market has no significant effect on Unemployment Reduction in Nigeria.

## 3.2 THE FUNCTIONAL MODEL ONE FOR ESTIMATION IS STATED THUS

$$\text{HDI}_t = f(\text{MCP}_t, \text{ASI}_t, \text{VOT}_t, \text{VAT}_t) \quad (1)$$

The econometric model of the equation is expressed below:

$$\text{HDI}_t = \beta_0 + \beta_1 \text{MCP}_t + \beta_2 \text{ASI}_t + \beta_3 \text{VOT}_t + \beta_4 \text{VAT}_t + U_t \quad (2)$$

To enhance estimated and ensure uniformity of the data set, equation (2) above is transformed into log-linear as follows:

$$\ln \text{HDI}_t = \beta_0 + \beta_1 \ln \text{MCP}_t + \beta_2 \ln \text{ASI}_t + \beta_3 \ln \text{VOT}_t + \beta_4 \ln \text{VAT}_t + U_t \quad (3)$$

where:

$\text{HDI}_t$  = Human Development Index (proxy for economic development)

$\text{MCP}_t$  = Market Capitalization

$\text{ASI}_t$  = All Shares Index

$\text{VOT}_t$  = Volume of Transactions

$\text{VAT}_t$  = Value of Transactions

$\ln$  = natural logarithms

$\beta_0$  is the intercept and  $U_t$  is disturbance term.

$\beta_1, \beta_2, \beta_3$  and  $\beta_4$  are coefficient of explanatory variables,  $t$  is time period under investigation.

Other things being equal, the theoretical *a priori* expectation is:  $\beta_1 > 0, \beta_2 > 0, \beta_3 > 0, \beta_4 > 0$ .

## 3.3 THE FUNCTIONAL MODEL TWO FOR ESTIMATION IS STATED THUS

$$\text{UNR}_t = f(\text{MCP}_t, \text{ASI}_t, \text{VOT}_t, \text{VAT}_t) \quad (4)$$

In order to capture the effect of the random term 'U' in a parametric form, the equation is stated as follows:

$$\text{UNR}_t = \beta_0 + \beta_1 \text{MCP}_t + \beta_2 \text{ASI}_t + \beta_3 \text{VOT}_t + \beta_4 \text{VAT}_t + U_t \quad (5)$$

To uniformity of the data set used for the analysis the equation (5) above is transformed into log-linear as follows:

$$\ln UNR_t = \beta_0 + \beta_1 \ln MCP_t + \beta_2 \ln ASI_t + \beta_3 \ln VOT_t + \beta_4 \ln VAT_t + U_t \quad (6)$$

where:

$UNR_t$  = Unemployment Rate (proxy for economic development)

$MCP_t$  = Market Capitalization

$ASI_t$  = All Shares Index

$VOT_t$  = Volume of Transactions

$VAT_t$  = Value of Transactions

$\ln$  = natural logarithms

$\beta_0$  is the intercept and  $U_t$  is disturbance term.

$\beta_1, \beta_2, \beta_3$  and  $\beta_4$  are coefficient of explanatory variables,  $t$  is time period under investigation

Other things being equal, the theoretical *a priori* expectation is:  $\beta_1 < 0, \beta_2 < 0, \beta_3 < 0, \beta_4 < 0$

## 4 RESULTS AND DISCUSSION:

### 4.1 DESCRIPTIVE STATISTICS

**Table 1**

*Descriptive Statistics Result:*

	HDI	UMP	MCP	ASI	VOT	VAT
Mean	0.431250	15.36375	8010.148	18961.40	912255.3	515.8869
Median	0.465000	13.50000	2506.280	22984.14	856485.0	244.3800
Maximum	0.530000	48.61000	38589.58	50424.70	3535631.	2350.880
Minimum	0.300000	1.800000	12.80000	273.8700	33444.00	0.230000
Std. Dev.	0.079788	11.64520	9857.863	14845.48	953836.4	602.8219
Skewness	-0.192289	0.940252	1.225347	0.947291	1.225309	1.124865
Kurtosis	1.467421	3.488325	3.997611	4.096158	3.877965	3.827130
Jarque-Bera	3.328929	5.033007	9.334842	6.732498	9.035142	7.660575
Probability	0.189292	0.080741	0.009396	0.030526	0.010916	0.021703
Sum	13.80000	491.6400	256324.7	606764.7	29192170	16508.38
Sum Sq. Dev.	0.197350	4203.932	3.01E+09	6.83E+09	2.82E+13	11265220
Observations	32	32	32	32	32	32

Source: (Authors computation)

The descriptive statistics of the dataset used for the analysis can be found in Table 1 above. The mean values represent the average of each variable, while the minimum and maximum values show the range of values associated with each variable. The standard deviation, which measures the spread of data around the mean, indicated a significant deviation

from the mean values. The skewness values, except for HDI, were positive and close to one, suggesting a right-skewed distribution with a long tail. The Kurtosis values ( $>3$ ) indicated leptokurtic distributions for all variables except HDI, with heavy tails and extreme observations. The Jarque-Bera test ( $p < 0.05$ ) revealed that the data did not follow a normal distribution, except for HDI. Therefore, the variables were transformed into logarithmic form to meet distributional assumptions.

In order to avoid potential data errors, and to avoid spurious regression results, the Augmented Dickey-Fuller Unit Root test was conducted to ensure that the data were stationary. The test's outcome can be seen in Table 2 below.

**Table 2**

*Summary Of Unit Root Test Results*

Variables	ADF value	Critical value	Order of Integration
HDI	-4.363800	1% = -3.670170 5% = -2.963972 10% = -2.621007	Stationary at first difference I(1)
UNR	-7.903971	1% = -3.670170 5% = -2.963972 10% = -2.621007	Stationary at first difference I(1)
MCP	-4.226751	1% = -3.670170 5% = -2.963972 10% = -2.621007	Stationary at first difference I(1)
ASI	-4.022327	1% = -3.670170 5% = -2.963972 10% = -2.621007	Stationary at first difference I(1)
VOT	-4.651660	1% = -3.670170 5% = -2.963972 10% = -2.621007	Stationary at first difference I(1)
VAT	-4.604068	1% = -3.670170 5% = -2.963972 10% = -2.621007	Stationary at first difference I(1)

Source: Extracts from Result of Stationarity Test (Authors' Computation)

The Augmented Dickey Fuller test was used to run the unit root test and determine whether the data sets were stationary and the order of integration. The Human Development Index (HDI), the Unemployment Rate (UNR), the Market Capitalization (MCP), the All Share Index (ASI), the Volume of Transactions (VOT), and VAT = Value of Transactions were all found to be stationary at the first difference, according to the results of the stationarity test using the Augmented Dickey-Fuller Unit Root test. This is true because the Augmented Dickey-Fuller test statistic exceeds the Mackinnon critical value at the 5% level of significance.

## 4.2 THE CO-INTEGRATION TEST RESULTS

After confirming the stationarity of the data set, the Johansen co-integration test was used, which is based on vector auto regression (VAR) modeling and does not use exogenous variables. Here, our goal is to establish if the variables and, consequently, the various predicted regression equation outcomes are in a short-run or long-run equilibrium.

### 4.2.1 The co-integration results of capital market and Human Development Index (HDI)

**Table 3**

*Co-integrating Test Result of Capital Market and Human Development Index (HDI) (Johansen Cointegration Method)*

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value
None *	0.708367	82.71653	69.81889	None *	0.708367	36.96775	33.87687
At most 1	0.474374	45.74878	47.85613	At most 1	0.474374	19.29497	27.58434
At most 2	0.364284	26.45382	29.79707	At most 2	0.364284	13.59008	21.13162
At most 3	0.272513	12.86374	15.49471	At most 3	0.272513	9.544770	14.26460
At most 4	0.104732	3.318967	3.841466	At most 4	0.104732	3.318967	3.841466

Source: Extracts from Result of Stationarity Test (Authors' Computation)

(Note) \*(\*\*) denotes rejection of the hypothesis at 5% (1%) significance level.

Trace test indicates 1 cointegrating eqn(s) at the 0.05 level

The Table 3 above is the result of the Johansen Cointegration Test used in determining the number of cointegrating equations in the model which also suggest the existence of a long-run effect of Capital Market Variables on Human Development Index in Nigeria. The trace statistic and max-eigen statistic show that the null hypothesis of no co-integration for  $r=0$  (None) was rejected. The statistical results of this test were higher than the critical value, indicating that the series only contains one (1) co-integrating vector. This finding implies that there may be a chance of a long-term, favorable link between the Capital market Variables and Human Development Index in Nigeria.

#### 4.2.2 The co-integration results of capital market and Unemployment Rate (UNR):

**Table 4**

*Co-integrating Test Result of Capital Market and Unemployment Rate (UNR) (Johansen Cointegration Method)*

Hypothesized No. of CE(s)	Eigenvalue	Trace Statistic	0.05 Critical Value	Hypothesized No. of CE(s)	Eigenvalue	Max-Eigen Statistic	0.05 Critical Value
None *	0.691564	93.43145	69.81889	None *	0.691564	35.28724	33.87687
At most 1 *	0.605270	58.14420	47.85613	At most 1 *	0.605270	27.88658	27.58434
At most 2 *	0.330570	30.25762	29.79707	At most 2	0.330570	12.03988	21.13162
At most 3 *	0.289461	18.21774	15.49471	At most 3	0.289461	10.25194	14.26460
At most 4 *	0.233198	7.965804	3.841466	At most 4 *	0.233198	7.965804	3.841466

Source: Extract from Cointegration Test Result (Authors' Computation)

\*(\*\*) denotes rejection of the hypothesis at 5% (1%) significance level.

In Table 4 above, the result of the Johansen Cointegration Test in the model that explains the effect of Capital Market on Unemployment reduction in Nigeria is presented. The result shows  $r=0$  (None),  $r=1$  (at most 1),  $r=2$  (at most 2),  $r=3$  (at most 3), and  $r=4$  (at most 4), the null hypothesis of no co-integration was rejected in the trace statistic. According to the statistical values of these tests, which were greater than their critical values, there must be at least five (5) co-integrating vectors among the series.

For  $r=0$  (None),  $r=1$  (at most 1), and  $r=4$  (at most 4), the max-eigen statistic rejected the null hypothesis of no co-integration, but it accepted  $r=1$  and  $r=4$ . The series contains three (3) co-integrating vectors, according to the statistical findings of these tests, which were greater than their cut off points.

However, the trace test and max-eigen test, respectively, indicated 5 cointegrating vectors and 3 cointegrating vectors, as can be seen from the results. According to this result, it suggests the existence of a long run effect of Capital Market variables on Unemployment reduction in Nigeria.

#### 4.2.3 Results Of The Granger Causality Test

Capital Market Variables and the Human Development Index (HDI), there is proof that the human development index (HDI) and the capital market variables contained in Model 1 have a single-direction causal relationship. The MCP and ASI both have a one-way impact on the VAT, as does the unidirectional effect. The appendix contains the results.



**4.2.4 The UNR and the granger causality finding for capital market variables (UNR)**

The variables included in the model for model two, which also included capital market indicators and the Unemployment Rate (UNR), however, also showed evidence of uni-directional causation effects. The MCP and ASI both have a one-way impact on the VAT, as does the unidirectional effect.

The next results present the Linear Regression Equations of the Models of this research, which were estimated using Ordinary Least Square method. This method of estimation was adopted because of the existence of Uni-directional Causality in the Granger Causality Test.

**4.2.5 Economic Test**

**Table 5**

*Ordinary Least Square Result for Capital Market Variables and Human Development Index (HDI).*

Dependent Variable: HDI				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.331957	0.025644	-12.94493	0.0000
MCP	0.082651	0.007538	10.96489	0.0000
ASI	-0.061600	0.006674	-9.230317	0.0000
VOT	0.001354	0.007306	0.185308	0.8544
VAT	-0.005732	0.006692	-0.856567	0.3992
R-squared		0.979356	Mean dependent var	-0.347315
Adjusted R-squared		0.976298	S.D. dependent var	0.048417
S.E. of regression		0.007454	Akaike info criterion	-6.817528
Sum squared resid		0.001500	Schwarz criterion	-6.588507
Log likelihood		114.0805	Hannan-Quinn criter	-6.741614
F-statistic		320.2282	Durbin-Watson stat	0.615552
Prob(F-statistic)		0.000000		

Source: E-views ((Authors' Computation)

$$HDI = -0.332 + 0.083*MCP - 0.062*ASI + 0.001*VOT - 0.006*VAT \tag{7}$$

**4.2.6 Human Development Index (HDI) and economic test of capital market variables**

**4.2.6.1 Model 1 interpretation**

The constant term in the model,  $\beta_0 = -0.332$ , indicates that the Human Development Index (HDI), when all other variables are held constant, is at -0.332.

Market Capitalization (MCP) and the Human Development Index (HDI) have a positive relationship, as indicated by the first intercept of the model,  $\beta_1 = 0.083$ . An increase in MCP of one unit results in a 0.083 increase in HDI.

The second intercept of the relationship between the All Shares Index (ASI) and the Human Development Index (HDI),  $\beta_2 = -0.062$ , indicates that there is a negative correlation. The HDI is reduced by 0.062 for every unit increase in ASI.

The third intercept,  $\beta_3 = 0.001$ , demonstrates a direct correlation between the volume of transactions (VOT) and the human development index (HDI). The HDI rises by 0.001 for every unit increase in VOT.

The fourth intercept,  $\beta_4 = -0.006$ , demonstrates the inverse relationship between the Human Development Index (HDI) and Value of Transactions (VAT). The HDI is reduced by 0 point 006 for every unit increase in VAT.

**Table 6**

*Ordinary Least Square Result for Capital Market Variables and Unemployment Rate (UNR).*

Dependent Variable: UNR				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	-0.795657	0.578438	-1.375527	0.1803
MCP	-0.009528	0.170027	-0.056037	0.9557
ASI	-0.189446	0.150536	-0.056037	0.2190
VOT	0.246886	0.164792	1.498174	0.1457
VAT	0.245392	0.150953	1.625618	0.1156
R-squared		0.855540	Mean dependent var	0.933110
Adjusted R-squared		0.834138	S.D. dependent var	0.412849
S.E. of regression		0.168137	Akaike info criterion	-0.58547
Sum squared resid		0.763295	Schwarz criterion	-0.356449
Log likelihood		14.36752	Hannan-Quinn criter	-0.509556
F-statistic		39.97567	Durbin-Watson stat	1.346826
Prob(F-statistic)		0.000000		

Source: E-views (Authors' Computation)

$$UNR = - 0.796 - 0.010*MCP - 0.189*ASI + 0.247*VOT + 0.245*VAT \quad (8)$$

**4.2.7 the economic test of capital market variables and the Unemployment Rate (UNR)**

When all other variables are held constant, the constant term of the model,  $\beta_0$ , indicates that the unemployment rate (UNR) is at -0.796. Market Capitalization (MCP) and Unemployment Rate (UNR) have a negative relationship, as shown by the first intercept of the model,  $\beta_1 = 0.010$ . UNR falls by 0.010 for every unit increase in MCP.

The second intercept, which indicates a inverse relationship between the All Shares Index (ASI) and Unemployment Rate (UNR), is  $\beta_2 = -0.189$ . The UNR is reduced by 0.189 for every unit increase in ASI. The third intercept,  $\beta_3 = 0.247$ , demonstrates that there is a direct correlation between the volume of transactions (VOT) and the unemployment rate (UNR). UNR rises by 0.247 for each unit increase in VOT. The fourth intercept,  $\beta_4 = 0.247$ , demonstrates a positive relationship between the Value of Transactions (VAT) and Unemployment Rate (UNR). The UNR rises by 0.006 for every unit of VAT that is raised.

#### 4.2.8 Coefficient of Determinations ( $R^2$ )

**Table 7**

*Results of the Regression Results for the Models on the Influence of Capital Market on HDI and UNR.*

Test-statistic	MODEL 1 Capital Market variables and HDI	MODEL 1 Capital Market variables and UNR
R-square	0.979	0.856
Adjusted R-square	0.976	0.834
Durbin-Watson stat	1.616	1.347
F-statistic	320.23	39.98
Prob(F-statistic)	0.000	0.000

Source: E-views 7.0 (Authors' Computation)

Capital market variables and Human Development Index (HDI) have a 1 point 1 Coefficient of Determination ( $R^2$ ) each. For model 1, the adjusted coefficient of determination is 0.976, and the coefficient of determination is 0.979. A very high coefficient of determination ( $R^2$ ), 0.979, can be inferred from the findings. The implication is that the model's exogenous variables accounted for approximately 97.9% of the total variation or changes in the Human Development Index (HDI), while the remaining 2.1 percent was explained by other factors. Additionally, the Human Development Index (HDI) adjusted coefficient of determination (Adjusted  $R^2$ ) of 0.976 indicates that the exogenous variables in the model explained approximately 97.6 percent of the total variation or changes in HDI, with the remaining 2.4 percent being accounted for by other factors that the model was unable to account for after taking into account the degrees of freedom.

Model 2's capital market variables and unemployment rate (UNR) have a 12 Coefficient of Determination ( $R^2$ ). The coefficient of determination and adjusted coefficient of determination for model 2 are 0.856 and 0.834 respectively. The results show a strong

coefficient of determination ( $R^2$ ) of 0.856. The implication is that the exogenous variables in the model explained approximately 85.6 percent of the total variation or changes in Unemployment Rate (UNR), and the remaining 14.4 percent is accounted for by other factors not covered by the model. Additionally, the adjusted coefficient of determination (Adjusted  $R^2$ ), 0.834, shows that the exogenous variables in the model explained approximately 83.4 percent of the total variation or changes in unemployment rate (UNR), with the remaining 16.6 percent being accounted for by other factors that the model was unable to account for after taking the degrees of freedom into consideration.

#### 4.3 TEST OF HYPOTHESES

The two Hypotheses of this research were tested using the F.Ratio results in Table 6 above.

##### **4.3.1 Test of model significance for model 1: the effect of capital market variables on the Human Development Index (HDI)**

$H_{01}$ : The Human Development Index (HDI) and Capital Market variables have no meaningful relationship. Df (4, 27) performed an F-ratio calculation; 5% = 2.73. Prob. (F-statistic) = 0 point 000, F-statistic = 320 point 23.

Rule for making decisions.

The research rejects ( $H_0$ ) the Null Hypothesis and conclude that Capital Market significantly affect Human Development Index (HDI) using the E-views software 7.0 because the F-ratio calculated (320.23) > F - ratio critical (2.73), at 5% level of significance.

##### **4.3.2 The influence of capital market variables on Unemployment Rate (UNR)**

###### 4.3.2.1 Test of model significance for model 2

$H_{01}$ : There is no significant correlation between Capital Market variables and Unemployment Rate (UNR). F-ratio Df (4, 27) tabulated; 5% = 2.73. Prob. (F-statistic) = 0.000 and (F-statistic) = 39.98.

**Decisive Rule:** The research rejects the Null Hypothesis (Ho) and come to the conclusion that Capital Market significantly affect Unemployment Rate (UNR) using the E-views software 7.0 because the F-ratio calculated (39.98) > F-ratio critical (2.73), at 5% level of significance.

#### 4.4 TWO-HYPOTHET TESTS

The two models of this study were taken into account when testing the hypotheses. These include both the Capital Market Significantly and Human Development Index (HDI) model and the Capital Market Significantly and Unemployment Rate model.

The impact of the capital market on economic growth is the first point.

**Table 8**

*T-test Result for HDI and UNR.*

Variable	HDI t-cal.	HDI Prob.	Comments	UNR t- cal	UNR Prob.	Comments
MCP	10.965	0.000*	Significant	-0.056	0.956	No significant
ASI	-9.230	0.000*	Significant	-1.258	0.219	Not significant
VOT	0.185	0.854	Not significant	1.498	0.146	Not significant
VAT	-0.857	0.399	Not significant	1.626	0.116	Not significant

Source: E-Views output (Authors' Computation)

Market capitalization and Nigeria's economic growth do not significantly correlate.

$$\text{HDI Prob. (T-statistic)} = 0.0000. 05. \quad (9)$$

The market capitalization is significant to the human development index but not to the unemployment rate. The research concludes that Market Capitalization has significant effect on the Human Development Index. On Nigeria's economic development, the All Shares Index has no discernible impact.

$$\text{HI Prob. (t-statistic)} = 0.0000. 05. \quad (10)$$

According to the analysis in Table 8 above, the All Shares Index is significant in relation to the Human Development Index but not in relation to the unemployment rate. We come to the conclusion that only the Human Development Index is improved by the All Shares Index.

Economic development in Nigeria has not been significantly impacted by transaction volume.

$$\text{HDI Prob. (T-statistic)} = 0.854 > 0.05. \quad (11)$$

A UNR Prob. The (t-statistic) value is 0.146 greater than 0.05.

The volume of transactions in Nigeria has not significantly affected either the Human Development Index or the unemployment rate.

The research concludes that the number of transactions does not significantly impact on Nigeria's economic development. Value of transactions and Nigeria's economic development have no meaningful correlation. HDI the t-statistic is  $0.399 > 0.05$ . UNI Prob. (t-statistic) = 0.116 > 0.05. There is no significant relationship between the value of transactions and Nigeria's economic development.

#### 4.5 DISCUSSION RESULTS

The estimated equations of the models are:

$$\text{HDI} = -0.332 + 0.083 * \text{MCP} - 0.062 * \text{ASI} + 0.001 * \text{VOT} - 0.006 * \text{VAT} \quad (12)$$

$$\text{UNR} = -0.796 - 0.010 * \text{MCP} - 0.189 * \text{ASI} + 0.247 * \text{VOT} + 0.245 * \text{VAT} \quad (13)$$

The estimation result revealed a positive relationship between the Human Development Index (HDI) and two of the explanatory variables: Market Capitalization (MCP), and Volume of Transactions (VOT). Additionally, the Market Capitalization (MCP) and All Shares Index (ASI) and the Unemployment Rate (UNR) had an inverse relationship. The coefficients of these variables were correctly signed, which supported the a priori prediction. This finding is in line with the results of Eniekezimene & Opuofoni (2024), Itive, & Okoli, (2022) and Anyanwu and Kalu (2021) in their research on the effect of Capital Market on Economic growth in Nigeria.

However, according to the estimation results, the Human Development Index (HDI) had a negative relationship with the All Shares Index (ASI) and Value of Transactions (VAT). Transaction Volume (VOT) and Transaction Value (VAT) were positively correlated with the

Unemployment Rate (UNR). The coefficients of these variables are incorrectly signed in contrast to what was predicted a priori.

The Human Development Index (HDI) of Nigeria was significantly influenced by two explanatory variables, Market Capitalization (MCP) and All Shares Index (ASI), at the 5% level of significance, confirming the existence of a significant correlation between the two. This is in tandem with the works of Sulaiman, Adejayan & Ilori (2023) on the effect of Capital Market on Economic Development of some selected ECOWAS countries. The implication of this result is that Market Capitalization and All Shares Index which are strong indicators of capital market development have positive effect on Human Development in Nigeria. Market Capitalization also has significant effect on Human Development Index at 5% level of significance on average ceteris paribus. So, an improvement on market capitalization in Nigeria would positively affect standard of living, life expectancy and access to education in Nigeria.

However, none of the explanatory variables had an effect on Nigeria's unemployment rate (UNR) at the 5% level of significance. This result is in tandem with the work of Algaheed (2021) on his research on the effect of capital market development on per-capita GDP growth in Saudi Arabia.

The analysis's result shows an extremely high coefficient of determination ( $R^2$ ) of 0.979, with adjusted R-squared and coefficient of determination ( $R^2$ ) values of 0.979 and 0.976, respectively. The model's exogenous variables are implied to have contributed roughly 97% of the variation or changes in Nigeria's Human Development Index (HDI), leaving only about 2% to chance occurrence. The exogenous variables in the model, which explained about 97 point 6 percent of the total variation or changes in the Human Development Index (HDI) of Nigeria, according to the adjusted coefficient of determination (Adjusted  $R^2$ ), which is 0 point 976, with the remaining 2 point 4 percent being accounted for by other factors that the model was unable to account for after taking the degrees of freedom into account.

There is a strong coefficient of determination ( $R^2$ ), 0.856, as evidenced by the values of the Adjusted R-squared and coefficient of determination ( $R^2$ ) of 0.856 and 0.834, respectively. This is in line with the works Okekwu, Njoku, Ajeniwani, Aliyu, Onyibo, and Adejoh, (2022), Agu (2018), and Popoola (2014) in their works on Capital Market and Economic growth and Development.

According to the inference, only about 14.4 percent of the variation or changes in the Unemployment Rate (UNR) of Nigeria could be attributed to chance, with the exogenous variables in the model accounting for about 85.6 percent of the total variation or changes. The

model's exogenous variables explained about 83.4 percent of the variation or changes in Nigeria's unemployment rate (UNR), according to the adjusted coefficient of determination (Adjusted  $R^2$ ), which stands at 0.834. The remaining 16.6 percent of the variation or changes in the UNR was explained by other factors that the model was unable to account for after taking the degrees of freedom into account.

The findings of model one is in line with the investigation and theoretical foundations of financial intermediation theory. The capital market, which includes market capitalization and the all shares index, supports economic development as measured by the Human Development Index. The capital market variable in model 2 had only a marginal effect on the Nigerian Unemployment Rate (UNR).

## 5 CONCLUSION AND RECOMMENDATIONS

This research work has formulated two eclectic models to investigate the effect of Capital market on economic development in Nigeria. The models explain the effect of Capital Market on Human development Index and Unemployment Reduction in Nigeria. This study has convincingly shown a significant relationship between the capital market and Nigeria's economic development as measured by HDI. This is consistent with the other findings that the capital market is the main engine of economic activity and development. The results, however, also indicated that the capital market has not had a significant impact on Nigeria's unemployment rate. It is further concluded that in order to boost economic activity, increase job creation, and lower the unemployment rate, the financial intermediation activities of the capital market should be prioritized.

Financial intermediation procedures in the capital market need to be improved if more funding is to be allocated to the productive and economically viable areas of the economy. This will support economic growth, lower unemployment rates, and increase employment opportunities.

In order to prevent fraud and other unethical practices that betray investor trust, the regulatory authorities should put in place regulatory measures that have the tendency to raise and maintain the market's Market Capitalization and All Shares Index. There is a need to improve the declining volume and value of transactions by luring more foreign investors to invest in the market and adding more derivatives to the markets to keep up with other markets around the world. The money that the government raises on the capital market by offering government securities should be invested in productive sectors of the economy that will be



necessary for growth in all sectors of the economy, thereby increasing productivity and expanding the pool of available investment opportunities. It is suggested that policymakers should focus on implementing measures that stimulate growth in the stock market in order to achieve substantial progress.

Limitation of this study is the inability to consider empirical study on how capital market affect unemployment and Human Development Index as most of the studies in the last decade on capital market focused on its effect on economic growth.

The researchers recommend that further studies be carried out to determine the effect of Capital Market Variables on Poverty Reduction. As of 2022, an estimated 88.4 million people in Nigeria were living in extreme poverty. The number of men surviving on less than 1.90 U.S. dollars per day in the country was around 44.7 million, while the count was 43.7 million for women. Nigeria represented 12.9 percent of the global population living in extreme poverty in 2022. This increased by 46 percent in 2023 representing over 104 million Nigerians living below 1.9 US Dollars per day (UNDP 2023). Therefore, it is pertinent to further this research to determine how capital market contributes to the reduction of poverty in Nigeria. It is also essential for empirical analysis to be carried out in the future in order to effectively assess the effect of the Capital Market on the Economic Development of emerging economies like Ghana, Kenya, South Africa, and more.

## REFERENCES

- Abere, M. A., Daramola, K. O, Ogunsanwo, O. F., Adebayo, A. O. (2021). Effect of capital market development on economic growth in Nigeria. *FUOYE Journal of Finance and Contemporary Issues*, 1(1), 2021.
- Abdul Hakeem, S. (2014). *Impact of capital market performance on economic growth in Nigeria*. Department of Business Administration Ahmadu Bello University, Zaria, Unpublished Thesis.
- Abina, A. P. (2019). Capital market development and economic growth in Nigeria: An empirical analysis. *International Journal of Innovative Finance and Economics Research*, 7(2), 51-66.
- Abu, N. (2009). *Does stock market development raise economic growth? Evidence from Educational Publishers Ltd*. ISBN:978-2784-17-6, 131-212.
- Adam, J. A. & Sanni, I. (2005). Stock market development and Nigeria's economic growth. *Journal of Economics and Allied Fields*, 2(2), 116-132.
- Adamu, I. M. & Mustafa, Z. A. (2023). Capital market and economic growth in Nigeria. *SSRN Electron J*. Retrieved from <https://doi.org/10.2139/ssrn.4517642>

- Adeoye, A.A. ( 2015). Impact of the Nigerian capital market on the economy. *European Journal of Accounting Auditing and Finance Research*, 3(2).
- Agu, B. O. (2018). Economic growth and capital market development in Nigeria: An appraisal. *Journal of Business Management and Economic Research*, 2(4), 27-28.
- Algaheed,A. H. (2021). Capital market development and economic growth: an ARDL approach for Saudi Arabia, 1985–2018. *Journal of Business Economics and Management*, 22(2). Retrieved from <https://doi.org/10.3846/jbem.2020.13569>
- Anyanwu, U. N & Kalu U, A. O. (2021) Capital market and economic development of Nigeria. *Journal of Economic Studies*, Department of Economics, Nnamdi Azikiwe University, Awka, 18(1)
- Bencivenga, V. R., Bruce, D. S., & Ross, M. S. (1996). Equity markets, transaction costs, and capital accumulations: An illustration. *The World Bank Review*, 10(2), 241-265.
- Central Bank of Nigeria (2018). *Central Bank of Nigeria's Statistical Bulletin*.
- Didier, T., Levine, R., Montanes, R. L., & Schmukler, S. L. (2021). Capital market financing and firm growth. *Journal of International Money and Finance*, 118, 102459.
- Emeh, Y. & Chigbu, E. E. (2014) The impact of capital market on economic growth: The Nigerian perspective. *International Journal of Development and Sustainability*, 3(4), 838-864.
- Eniekezimene, F. A. & Opuofoni, C. A. (2024). Capital market and economic growth in Nigeria. *Asian Journal of Economics, Business and Accounting*, 24(15), 297-309. DOI: 10.9734/AJEBA/2024/v24i51311
- Itiva, R. A. & Okoli, U. C. (2022) Capital market operation and Nigeria's economic growth. *Economic Insights-Trends and Challenges*, XI(LXXIV).
- Nwankwo, G. O. (1991). *Money and capital market in Nigeria today*. Lagos: University of Lagos Press.
- Nyong, M. O. (1997). Capital market development and long-run economic growth: theory evidence and analysis. *First Bank Review*.
- Nzotta, S. M. (2004). *Money, Banking & Finance: Theory and Practice*. Husdon-Judge Publications Owerri.
- Odo, S. I., Anoke, C. I., Onyeisi, O. S., & Chukwu, B. C. (2017). Capital market indicators and economic growth in Nigeria; An Autoregressive Distributed Lag (ARDL) Model. *Asian Journal of Economics, Business and Accounting*, 2(3).
- Ogbulu, M. A. (2009). Capital market development and economic growth: application of cointegration and causality tests. *Journal of Finance, Banking and Investment*, 1(1).
- Ogirike, T. & Andabai, P. W. (2014). Financial intermediation and economic growth in Nigeria: A vector error correction investigation. *Mediterranean journal social sciences*, 5(17), 19.

- Oke, M. O. (2012). Nigerian capital market operation and economic growth: A case of the oil and gas sector. *Asian Journal of Business Management Science*, 1(2).
- Okekwu, A. M., Njoku, U. O., Ajeniwani, P. O., Aliyu, M., Onyibo, O. E. & Adejoh, M. O., (2022, December). The capital market and economic growth in Nigeria. *Journal of Economics and Allied Research*, 7(4).
- Okonkwo, V., Ananwude, A., & Egekoba, F. (2015). Nigerian stock market development of economic growth. A time series analyses. *Scholars Journal of Economics, Bussiness of Management*, 2(3).
- Okpara, G.C. (2010), Analysis of capital market performance and the growth of the Nigerian Economy: A Co-integration Approach. *Global Journal of Human Social Science*, 10(1).
- Ologunwa, O. P. & Sadibo, O. V. (2016). Capital Market Development and Growth. *FUTA Journal of Management and Technology*, Maiden Edition.
- Olowofeso, E. O., Adeleke, A. O., & Udoji, A. O. (2015). Impact of private sector credit on economic growth in Nigeria. *CBN Journal of Applied Statistics*, 6(2).
- Olusegun, B. O. & Ajao, O. S. (2024). Capital market development and economic Growth in Nigeria. *Scientific Research An Academic Publisher*, 11(2).
- Oluwatosin, A., Taiwo E. O., & Yusuf, S. A. (2013). Empirical analysis of the impact of capital market efficiency on economic growth and development in Nigeria. *International Journal of Academic Research in Economics and Management Sciences*, 2(6).
- Onoh, J. K. (2002). *Dynamics of money, banking and finance in Nigeria: An emerging market*. Astra Meridian Publishers, Aba- Nigeria
- Onyekachi, R. E. & Odi. N. ( 2013). Impact of Nigerian capital market instability on the growth of the economy (1990-2011). *Journal of Economics*, 4(1).
- Osaze , B.E. (2000). *The Nigeria capital market in the african and global financial system*.
- Osaze, B. O. (1997). *Understanding the Capital Market*. Revised Edition. Benin City.
- Osuala, A. E., Okereke, J. E., & Nwansi, G. U. (2013). Does stock market development promote economic growth in emerging markets? A causality evidence from Nigeria. *World Review of Business Research*, 3(4).
- Pagano, M. (1993). Financial markets and growth: An overview. *European Economic Review*, 37(2).
- Shittu, A. I. (2012). Financial intermediation and economic growth in Nigeria. *British Journal of Art and Social Sciences*, 4(2).
- Smathers, M. O. (2014). *Factors that determine a country's rate of economic growth*. Retrieved from <http://www.ehow.com>
- Solow, R. M. (1956): A contribution to the theory of economic growth, *Quarterly Journal of Economics*. Retrieved on 15/09/2012 from <http://links.jstor.org/sici>.

Sulaiman, L. A., Adejayan, A. O. & Ilori O. O. (2023). Capital market development and economic growth of West African countries. *Nigerian Journal of Banking and Financial Issues (NJBFI)*, 9(1).

UNDP (2023). *Human Development Indices and Indicators: 2023 Statistical Update*.

Usman, I. R. & Cross, O. D. (2020). Role of capital market on economic development in Nigeria. *IOSR Journal of Business and Management*, 22(5).

Vazakidis, A. & Adamopoulos, A. (2010). Stock market development and economic growth. *American Journal of Applied Sciences*, 6(11).