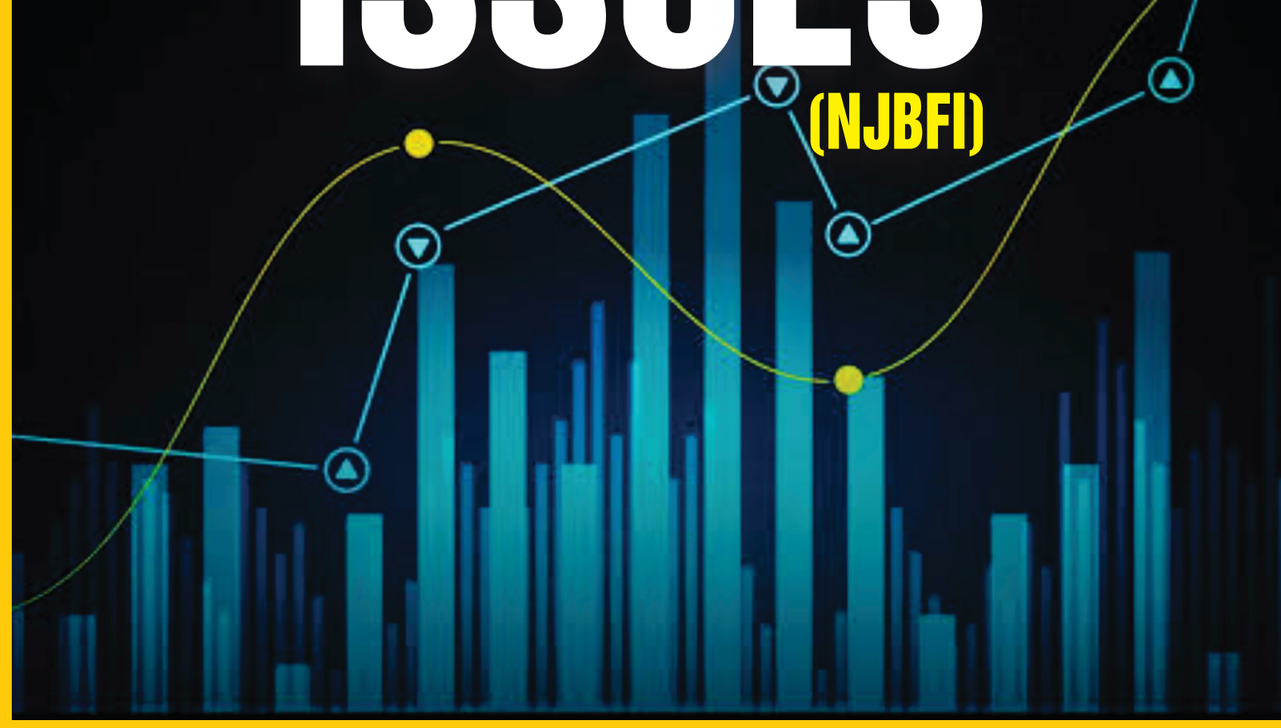
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NIGERIAN JOURNAL OF BANKING AND FINANCIAL ISSUES (NJBFI)

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ABSTRACT

This study examined the impact of insurance on economic growth in Nigeria from 1986 to 2020. Using short run ordinary least square (OLS) model. The present study utilizes Real Gross Domestic Product (RGDP) as a proxy for economic growth, serving as the dependent variable while Total Insurance Premium (TPR), Total Insurance Claim (TIC), Total Insurance Investment (INV) and Inflation Rate were used as the explanatory variables. Short run of OLS result revealed that value total insurance claims, total insurance claim, total insurance investment and inflation rate had an insignificant impact on economic growth while total insurance premium has a significant relationship on economic growth. However, in the short run, insurance firm's indicator had a positive impact on economic growth in the short run and concluded that insurance firms indices has a positive impact on economic growth in the short run. Therefore, recommended that insurance policies be made mandatory for individuals and business organizations to encourage and protect investors as well as ensure sustained economic growth; that the regulatory authorities should put in place policies to enforce transparent and efficient management of funds by insurers; that investors should diversify their portfolio of investments to boost returns and their ability in claims payment.

Keynotes: Gross Domestic Product (GDP), Total Insurance Premium (TPR), Total Insurance Claim (TIC), Total Insurance Investment (INV) and Inflation Rate (INTR)

INTRODUCTION

Insurance as a financial intermediary plays a significant role in economic growth of any country (Srijana & Fatta, 2017). Insurance stimulates business activities to operate cost-effectively (Ibegbulem, 2021). The Nigeria Insurance Industry is one of the key sectors of the Nigerian economy and plays a very vital role in the nation as a whole (Agbamuche, 2012). According to Ubom (2012), the primary aim of insurance is to provide customers with safeguards against risks that may result in significant losses, such as job or income loss, inability to maintain social amenities and a decline in purchasing power. The reinstatement of the business after a major loss through insurance serves to prevent these adverse outcomes. Also, premium from the insurance constitute a large segment of the capital market which may be difficult for an individual to produce. Thus insurance generate large fund to the capital market from the premium paid by all individuals insured. The importance of insurance cannot be overemphasized considering the role of the capital market to the economy. Insurance in the nonbanking sector provides additional capital to finance economic activities toward the desired growth.

Due to the neglect of the insurance industry in Nigeria, carrying out business in Nigeria today is very risky considering the rate of insecurity in the country. Because of the uncertainty experienced in the country, the level of growth and economic advancement that should correspond with the country's

enormous potential has not been achieved yet even in other developing countries. One of the indices for measuring the progress of any economy is the size and maturity of its insurance industry. Insurance industry acts as the absorber of the risk and uncertainty associated with economic activities, and its absence can significantly reduce the growth of economic activity (Cristea, Marcu & Carstina, 2014). Most Nigerians especially the rural dwellers are ignorant of significant of the insurance industry. The essential contribution of the insurance industry in mitigating unforeseeable and disastrous events, consequently promoting economic advancement, is of significant importance (Guochen, 2012; Lee, Lin & Zeng, 2016). Among its benefits, one of which is that it allows the insured to stabilize their income every time a negating event happens, or on the state in which such an incident does not take place, and this is done through the fee of premium and the receiving of compensation (Indemnity), in the case of misfortune (Seyed, Farahnaz, Yaser, Omid & Abass, 2010; Olulekan, & Akinlo, 2013). In light of the above, this study will take a step forward to examine the impact of insurance in economic growth in Nigeria and the specific objective is to analyse the impact of total insurance premium on economic growth in Nigeria; determine the impact of total insurance claim on economic growth in Nigeria; investigate the impact of total insurance investment on economic growth in Nigeria and evaluate the impact of inflation rate on economic growth in Nigeria.

LITERATURE REVIEW

CONCEPTUAL REVIEW

INSURANCE

Dickson (1960) in Oke (2012) opined that insurance is designed to protect the financial wellbeing of an individual, company or other entity in case of unexpected loss. According to him, some forms of insurance are required by law; while others are optional. Agreeing to the terms of an insurance policy creates a contract between the insurer and the insured. Gollier (2003) argued that insurance involved the transfer of risk from one individual to another, sharing losses on an equitable basis by all members of the group. The group, known as insurance company, must increase its hold on the premium and widen its profit margin to cope with the demand of their customer.

The role of insurance in Nigeria economy

Insurance keeps assets and life under guarantee. Insurance plays a great role both in developed and developing countries' economies. Insurance provides safety and security: Insurance always provides financial support and decreases dangers in economic and social life. For example, we can say that in the case of life insurance financial assistance guarantee to the family of the insured on his death: Insurance makes financial resources: As economic category insurance, which is part of the financial system, is the foundation and utilization process of the targeted finance funds established to eliminate the damage from the sudden accidents and emergency, to provide financial support to the citizens in the accidents connected with their private lives (Bosworth & Triplett, 2004; Catalan, Impavido & Musale, 2000; des Assurances, 2007). Insurance always protects people from loss, from danger. Many people know that danger can occur every time. For this reason, a person, which wants to ensure his property, pays some insurance premium to the insurance company. So his property is guaranteed by the insurance company. Whenever a loss occurs, it is compensated out of funds of the insurer. With this process, insurance spreads risk in life. In addition to eliminating risk for the individual through transfer, the insurance device reduces the aggregate amount of risk in the economy by substituting certain costs for uncertain losses (Beck & Webb, 2003; Jafarova, 2021; Hartono, Suparto & Hassan, 2021).

Economic growth

Economic growth refers to an increase in the country's production in terms of gross domestic production, over a period of time. The economic growth theory focuses on improvement in the quality life of people with an increase in productive capacity (Adamopoulos, 2010). Endogenous growth theory shows that economic growth is primarily the result of endogenous and not external forces. The theory holds that economic growth is possible if investment in human capital, innovation, and knowledge are made. The theory also primarily holds that the long run growth rate of an economy depends on policy measures. Under endogenous growth model, the development of financial development can affect economic growth by increasing the productivity of investments, reducing the transaction cost thus increasing the share of savings which channelled into productive investments and improving the liquidity of investments (Pagano, 1993).

Theoretical Review

Kaldor's Model

The Kaldor model is an endeavor to render the savings-income ratio a dynamic component of the mechanism of economic expansion. According to Kaldor (1966), the interpretative worth of this model lies in its conceptualization or treatment of investment, or the I/Y ratio, as an autonomous variable. "Mongale and Tafadzwa (2018) posit that an increase in the level of investment would result in an upsurge in demand levels, prices, and income. "

Empirical Review

Lyndon's (2019) study explored the relationship between Nigeria's insurance industry and economic growth from 2001 to 2017. This study used descriptive stats and multiple regression for analysis. Insurance investment, premium, and claims positively impacted GDP. The insurance sector has greatly aided Nigeria's economic advancement. Mandatory insurance policies recommended for individuals and businesses. Encourages investment, protects investors, promotes steady growth. Regulators should enforce transparent fund management by insurers. Insurers should diversify investments to boost returns and pay claims.

Nwanli and Omankhanlen (2019) analyzed insurance receivables' impact on Nigerian economic growth from 2008-2017. This study used panel data analysis to investigate the correlation between insurance industry indicators (life premium, non-life premium, and insurance investment) and economic growth. The study showed that life premium and economic growth related positively yet insignificantly, and non-life premium related negatively but insignificantly with economic growth. Insurance investment had no effect on economic growth. Nigerian insurance industry has little impact on economy. Policy makers should tackle insurance industry challenges from government and public. With policies and awareness, the industry can achieve its potential.

Chizoba et al. (2018) studied the effect of inflation on insurance penetration in Nigeria from 1985 to 2016. Study used regression analysis and found inflation has a small positive impact on insurance penetration in Nigeria. The study recommends measures to reduce inflation in Nigeria, which will increase insurance penetration in the industry.

Adedokun, Nwude, and Sergius (2018) linked insurance and economic growth in Nigeria from 1996 to 2015. This study used OLS estimation. Insurance in Nigeria boosts economic growth. Gov't should boost insurance industry with economic policies. Enforce insurances, enhance industry reputation with education campaigns.

Research Method

This study modifies Lyndon's (2019) model for empirical analysis. The model is expressed below as:

GDP = f(TPR, TIC, INV, INFR)……...1

Where;
GDP = Gross Domestic Product (GDP) growth rate
TPR = Total Insurance Premium
TIC = Total Insurance Claim
INV = Total Insurance Investment
INFR = Inflation Rate
f = functional notation
μ = Error term
β_0 = constant Parameter
β_1-β_3 = Coefficients of Regression

DATA ANALYSIS

The study examined the impact of insurance on economic growth in Nigeria from 1986 to 2022 with the use of short run ordinary least square (OLS) to assess the short run impact on economic growth. In line with the research model used for the study, Gross Domestic Product (RGDP) was used as a proxy for economic growth which is dependent variable while Total Insurance Premium (TPR), Total Insurance Claim (TIC), Total Insurance Investment (INV) and Inflation Rate were used as the explanatory variables.
However, it is worthy of note to state that the interpretation of results will begin from the Unit Root Test rather than the classical Ordinary Least Square (OLS) result as a result of the ARDL technique used because it also embraces the short run result which the OLS technique aim to present. In light of this, this part of the study is exclusively reserved for the analysis and interpretation of the research findings.

Data presentation.

The raw and log-linearized data used in the study were secondary data spanning from 1986 to 2022 culled and analyzed and is duly presented as shown in table A (1 &2) in the appendix

Test for Stationary of Variables (Unit Root Test)

The Augmented Dickey Fuller Unit Root test as duly presented in table D is summarized in table 1 and 2 below

Table 1: Result of ADF Unit Root Test at Level

Variables	ADF Statistical Value	Mackinnon Critical Value @ 5%	H_0	H_1	Remarks
LNGDP	-4.208867	-2.951125	Reject	Accept	Stationary
LNTPR	-1.282639	-2.951125	Accept	Reject	Non-Stationary
LNTIC	-1.527169	-2.998064	Accept	Reject	Non-Stationary
LNINN	-0.914749	-2.991878	Accept	Reject	Non-Stationary
LNINFR	-3.076874	-2.957110	Reject	Accept	Stationary

Source: Author's Computation (2022)

The table 1 above revealed that of all variables under consideration, Gross Domestic Product (GDP) and Inflation Rate (INFR) was found to be stationary before it first differencing as their ADF statistics value was higher than Mackinnon critical value at 5%, hence, for variable GDP and INFR the null hypothesis is rejected while the altermative hypothesis is accepted. However, since other variables were found to be non-stationary at level, there is need to proceed to first differencing to achieve stationarity of the variables. Hence, the result of the first difference as duly presented below:

Table 2: Result of ADF Unit Root Test at First Difference

Variable	ADF Statistical value	Mackinnon Critical value @ 5%	H_0	H_1	Remarks
LNTPR	-4.917798	-2.954021	Reject	Accept	Stationary
LNTIC	-5.696909	-2.998064	Reject	Accept	Stationary
LNINV	-4.695576	-2.998064	Reject	Accept	Stationary

Source: Author's Computation (2022)

From the table 2 above, it was revealed that Total Insurance Premium (TPT), Total Insurance Claim (TIC) and Total Insurance Investment (INV) were found to be stationary at first difference as a result of the ADF statistics which is greater than Mackinnon critical value at 5% in absolute terms. Hence, the null hypothesis is rejected for the variables while the alternative hypothesis is accepted for the variables.

Table 3: Summary of Order of Co-integration

The summary of the Augmented Dickey Fuller (ADF) unit root test is presented in the table below

Variable	Order of Integration
LNGDP	I(0)
LNTPR	I(1)
LNTIC	I(1)
LNINV	I(1)
LNINFR	I(0)

Source: Author's computation (2022)

Hence, considering the mixed order of integration, it is necessary to proceed to the Auto Regressive Distribution Lag (ARDL) model to examine the long run relationship among the variables rather than the co-integration test which should only be used when variables are co-integrated in same order.

The Augmented Dickey Fuller Test Equations

The result of the ADF test equation carried out on each variable is presented below alongside their respective level of stationarity and lagged period with the corresponding co-efficient of multiple determination.

Co-Integration Result

F-Statistics	Lower Bound (5%)	Upper Bound (5%)
0.840868	2.86	4.01

Source: Author's Computation (2022)

Therefore, considering the results specified above, it can be deduced that there are no long run equilibrium relationship among variables as the null hypothesis is accepted because the F-Statistics was found to be less than upper bound at 5% critical value. Hence, the ordinary least square (OLS) short run relationship is presented below

Short-Run Results

The short run result of the model obtained through the use of the ARDL technique as presented in table 6 is summarized below:

Table 6: Short Run Result of the Model

Dependent Variable: GDP

Variable	Co-efficient	Std. Error	T-Statistics	Prob.
LNINFR	0.013609	0.065431	0.207990	0.8390
LNINV	0.208432	0.113668	1.833687	0.0939
LNTIC	0.103526	0.057528	1.799581	0.0994
LNTPR	0.587646	0.130157	4.514886	0.0009
C	-0.088593	0.379935	-0.233181	0.8199

Source: Author's Computation (2022)

From the table 6 above, the short run equation specifying the short run relationship among the variables can be presented below as:

GDP = -0.088593 + 0.013609INFR + 0.208432INV - 0.103526TIC + 0.587646TPR +μ
(0.379935) (0.065431) (0.113668) (0.057528) (0.130157)

Note: The standard error statistics are those stated in parenthesis

From the short run equation above, the coefficient of the constant parameter was found to be -0.088593 which means that if all variables are held constant in the short run, GDP which is the explained variable will decrease by -0.088593 units. Also, Total Insurance Premium (TPR) was found to be positively related to GDP to the tune of 0.587646 units which means that a unit increase in Total Insurance Premium will increase GDP by 0.587646 units in the short run. Moreover, it was discovered that there exists a significant positive association between Total Insurance Claim (TIC) and Gross Domestic Product (GDP), where an incremental increase of 0. 103526 units in GDP is observed with every unit increase in Total Insurance Claim in the near term. However, Total Insurance Investment (INV) was found to be positively related to GDP by 0.208432 units which means that a unit increase in Total Insurance Investment will improve GDP by 0.208432 units in the short run. Conversely, Inflation Rate (INFR) was found to be positively related to GDP by 0.013609 units which means that a unit increase in Inflation Rate will increase to GDP by 0.013609 units in the short run.

Summary of the Research Findings

The objective of the study is to empirically investigate the impact of insurance on economic growth in Nigeria. The test for the stationary of the variables was carried out using the Augumented Dickey Fuller Unit Root Test revealing that Gross domestic product (GDP) and Inflation Rate (INFR) were stationary at level except Total Insurance Premium (TPR), Total Insurance Claim (TIC) and Total Insurance Investment (INV) that were stationary at first difference. Hence, the mixed integration of the variables at different stationarity points necessitated the need for the use of the Auto Regressive Distributed Lag (ARDL) method to estimate the short and long run equilibrium relationship among variables. Meanwhile, the ARDL Bounds testing approach to co-integration revealed that there exists no stable long run relationship among variables.

Evidence from the short run model carried out through the ordinary least square (OLS) methodology revealed that LNINFR, LNINV, LNTIC and LNTPR were found to be positive related to gross domestic product in the short run, also, LNINFR, LNINV and LNTIC were found to be positive and exhibit insignificant relationship with gross domestic product in the short run while LNTPR was

found to be positive and exhibit a significant relationship with gross domestic product. Hence, the findings of the study can be relied on for proper recommendations and decision making.

Implication of Research Findings

The objective of this study is to examine the impact of insurance on economic growth in Nigeria. The Auto Regressive Distributed Lag (ARDL) model result revealed that there are no long run relationship among variables, therefore the short run relationship was revealed among variables and ordinary least square (OLS) was interpreted.

In the present study, the results indicate a statistically significant and positive relationship between total insurance premium and short-term economic growth. Moreover, the observed variables were found to align with the a-priori expectation, consistent with prior research conducted by Lyndon (2019), which similarly demonstrated a substantial association between total insurance premium and economic growth within the Nigerian context. Moreover, it was determined that the overall insurance claim displayed a positive and insignificant correlation with the advancement of the economy, coinciding with the findings of Lyndon's (2019) investigation. In consonance with the a-priori expectation, Total insurance Investment was found to be positively related to economic growth in the short run. This implies that increase the Total insurance Investment will improve economic growth. On the other hand, as expected in conformity with theoretical expectation, Total insurance claim, Total insurance premium, Total insurance investment and Inflation rate were found to be positively related to economic growth. This means that an increase in Total insurance claim, Total insurance premium, Total insurance investment and Inflation rate will improve economic growth.

CONCLUSION AND RECOMMENDATIONS

The study examined the impact of insurance on economic growth in Nigeria. The study used Gross Domestic Product (GDP) as the dependent variable and also used Total Insurance Premium (TPR), Total Insurance Claim (TIC), Total Insurance Investment (INV) and Inflation Rate as independent variables. The study used the Ordinary Least Square (OLS) approach for analysis to reveal the short run relationship among variables. The study was carried out from 1986 to 2022.

In summary, it was discovered that insurance firms indices has a positive impact on economic growth in the short run and recommended that insurance policies be made mandatory for individuals and business organizations to encourage and protect investors as well as ensure sustained economic growth; the regulatory authorities should put in place policies to enforce transparent and efficient management of funds by insurers and lastly, Investors should diversify their portfolio of investments to boost returns and their ability in claims payment.

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THE EFFECTS OF CREDIT RISK MANAGEMENT ON THE DEPOSIT MONEY BANK'S PERFORMANCE IN NIGERIA

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ABSTRACT

The study investigated how credit risk management affected Nigerian deposit money banks' performance over a 15-year period (2005 to 2019). The macroeconomic variables considered include the total bank loan, the loan to asset ratio, the loan to deposit ratio, and profit after tax. The long-term link that exists among the variables under consideration was examined using OLS regression techniques, pairwise granger causality tests, Johansen- Fisher co-integration tests, and Kao Residual Co-integration tests. The analysis revealed that, with the exception of total bank loans (TBL), all independent variables had a negative association with the dependent variable (PAT). This meant that the loan to asset ratio had a negative relationship with PAT of (-0.844290). The results also showed that the loan to deposit ratio (LDR) has a statistically insignificant connection with the dependent variable (PAT), with a slope of (-1.571297). The study came to the conclusion that credit risk has a short-term, considerable negative impact on bank performance. The loan-to-deposit ratio LDR was also found to be statistically insignificant and to maintain an inverse relationship with the dependent variable (PAT) by -1.571297%, according to the findings. The study came to the conclusion that credit risk has a negative and significant short-term impact on bank performance. The study concluded that the dependent and independent variables may have a long-term equilibrium relationship based on the estimated results of various co-integration tests. The study suggested that banks should, among other things, follow prudent and stringent credit policies to reduce the number of non-performing loans. In order to reduce the likelihood of a bank's failure and ensure that banks appropriately manage their credit risk, regulators must increase supervision at the macro level.

Keywords: Loan to Asset Ratio, Loan to Deposit ratio, Total Bank Loan, DMBs' Profitability

Introduction

Banks that accept deposits and other types of financial organizations are crucial for transferring money from savers to borrowers. According to Campbell (2007), they offer financial services such as the creation of money in various forms, taking deposits of money, lending money, processing transactions, and creating and managing credits. The most lucrative asset for deposit money banks is the creation of new credit, which is a core banking activity. In order to minimize credit risk and link surplus and deficit units in the economy, banks' operations in the economic environment are crucial to the growth of the economy (Kolapo, Ayeni, & Oke, 2012). Ineffective credit policies, fluctuating interest rates, poor management, ineffective laws, low capital and liquidity levels, insufficient credit assessment, insufficient loan underwriting, and lax loan assessment are a few of the major sources of credit risk (CBN, 2013). Instability in the economy makes it more difficult for borrowers to

repay loans due to decreased real wages and an excessive concentration in certain portfolios claim (Chen & Chen, 2012). This has a huge effect on banks' credit management as a result of loan default.

According to Jane, Kennedy, and Willy (2016), risk management is a human activity that entails acknowledging risk, evaluating risk, developing methods to manage it, and reducing chance using administrative resources. It is impossible to overstate how important credit risk is to bank executives and how important it is to the advancement cycle as a whole. In order to protect the bank from the negative effects of credit risk, the credit risk management board regulates bank risk and changes risk pace of return by maintaining recognize risk openness (Campbell, 2007). The board for credit risk is the identifying evidence, assessment, checking, and control of risk arising from the potential for advance reimbursement default (Coyle, 2016). Banks often extend credit with the understanding that the borrower or borrowers would pay back their loans. Despite this, the risk of failure from such expanded loan might result in a notable decrease in banks' remuneration because of the need for arrangements for such advances. When store cash banks don't know to what extent their borrowers would fail, income will change in line with that, putting the banks at an additional risk of inconsistent benefit payments (Onyiriuba, 2009).

When credit isn't properly redirected, managed, and regulated, it has a significant negative impact on banks, reducing their production and causing greater hurt and disappointment (Berger and Christa, 2009). Poor credit management and insufficient credit administration, according to Alalade, Binuyo, and Oguntodu (2014), are the main reasons why Nigeria's banking industry is having trouble. For financial institutions to survive and expand, it is essential that credit risk be managed effectively. Credit risk management is an organized method of handling uncertainties through risk assessment, plan formulation, and risk reduction using managerial resources. Some of the options include transferring to a new party, avoiding the risk, limiting its negative impacts, and accepting some or all of a certain risk. This study focuses on the profitability of Nigerian banks and the key elements that contribute to the risk of bank default. The main goal is to look at the relationship between credit risk management and the loan-to-asset ratio, loan-to-deposit ratio, total bank loan, and profitability of the deposit money bank in Nigeria.

2. Literature and Empirical Reviews

As indicated by Odawo, Makokha and Namusonga (2019), risk management has gotten broad consideration from both the corporate world and the scholarly community, in light of the fact that, as Oduro, Aseidu and Gadzo (2019) expressed it, it is the existence blood of each and every association and corporate officials to manage it definitively any place it shows up. According to Ndubuisi and Amedu (2018), risk management is an organized method for identifying and evaluating the pure loss exposure that a business has as well as choosing the best strategy to address such exposure. In their research, Philip and Abisola (2019) described risk management as a set of coordinated actions that are intended to reduce the negative effects of uncertainty surrounding potential losses. The process of risk management, from the forgone, entails identification, measurement, administration of certain approaches, and control. Researchers such as Fatemi and Glaum (2000), Ejoh, Okpa, and Egbe (2014), Akotey and Abor (1998), and Fatemi and Glaum (1998) highlighted the benefits of managers paying close attention to risk management. This is so that an organization can achieve its goals, which may include minimizing foreign exchange losses, lowering the volatility of cash flow, protecting earnings from fluctuations, and promoting the survival of the business through

growth and profitability. Credit risk, market risk (which includes foreign exchange risk, liquidity risk, and interest rate risk), operational risk, which occasionally includes legal risk, and most recently strategic risk are the different types of risk associated with the banking industry (Asare-Bekoe, 2010; Cooperman, Mills & Gardner, 2000). This essay tries to add to the study, assessment, and management of credit risks in Nigerian deposit money institutions. We are particularly interested in determining whether there is a correlation between the financial success of Nigerian DMBs and their credit risk management practices. Credit risk is the probability that a borrower will either fail to make payments on time or at all (Sinkey, 2002). Due to loan delinquency or borrower default, there is a chance that the actual return on a loan portfolio will differ from the predicted return (Conford, 2000). Loan defaults suggest non-payment, whereas loan delinquencies indicate late payments, and the former, if left unchecked, leads to the latter (Onaolapo, 2012).

According to certain empirical data, credit risk management can forecast a bank's overall performance and profitability. For instance, non-performing loans, a sign of credit risk, can lower a bank's value and weaken the financial system (Agu, 1998). According to Padmanabham (1998), loan failure lowers a bank's resource base for additional lending, degrades employee morale, and lowers borrower trust. The expense of handling past-due loans is frequently quite high, which can lower a bank's profitability levels. Occasionally, the cost of past-due loans is transferred to other clients or borrowers in the form of a high interest margin levied on new loans. The effect of credit risk on the financial performance of Nigerian cash store banks was discussed in a paper written by Folajimi and Dare in 2020. In order to analyze the data, the review engaged in exhibition facto research and used inferential measures. In the study, the following variables were identified: the capital adequacy ratio, the loan loss provisions loan to deposit ratio, and the control variables of bank size. The financial performance (dependent variable) surrogated with return on capital employed (ROCE), the credit risk proxy with non-performing loans (independent variable), and the capital adequacy ratio. According to the study, credit management had a good and considerable influence on the MDB's financial performance. According to the assessment, the credit board has an effect on how much money Deposit Cash Banks in Nigeria show.

In a study of the Kenyan banking sector, Kithinji (2010) showed that non-performing loans, an indication of credit risk, and profitability had a symbiotic relationship. Other empirical research outside of Africa have discovered a strong and substantial link between bank performance and credit risk. For instance, research by Achou and Tengnuh from 2008 showed that better credit risk management enhances bank performance. To secure the bank's assets and safeguard the interests of investors, they conclude that banks must exercise appropriate credit risk management. According to Achou and Tengue, banks with sound credit risk management practices often have reduced net interest revenue and loan default (i.e., impaired loans). Achou and Tengue's findings are corroborated by comparable Swedish research conducted by Hosna and Manzura (2009).

Jane, Kennedy and Willy (2016) examined how credit risk impacted the financial performance of Kenyan commercial banks between 2005 and 2014. Credit risk was calculated using return on equity (ROE), weighted resources, resource quality, credit loss arrangement, credit and advance proportions, and financial execution. Panel data were used to analyze endogeneity risks and remove time-invariant unobserved firm-specific effects using fixed effects estimation and the generalized method of moments (GMM). The findings indicate a negative relationship between bank profitability and credit risk. It was advised that

Kenyan commercial bank management develop their skills in credit analysis and loan administration. There should be developed clear credit standards and lending guidelines.

3. Methodology

The data in this paper are gathered from a variety of secondary sources and span 15 years, from 2005 to 2019. An empirical model based on the modification of Jane, Kennedy, and Willy (2016) in Kenya was used to capture the effect of credit risk management on the performance of Nigeria's five deposit money banks as a case study.

$ROE = f(CRWAR, LLPR, AQR, LAR)$……3.0

Profit after tax (PAT) was chosen as the dependent variable in this study because it was seen to be a suitable indicator of financial success along with loan to deposit ratio, total loan, and loan to total asset ratio. The study made the assumption that there was a general multiplicative Cobb Douglas functional connection between the independent variables and the dependent variable, as indicated in model 3.1.

Thus, the following is provided as the study's model:

$PAT = f(\text{LDR, TBL, LAR})$……. (3.1)

The econometric form is as follows:

$$PAT = \beta_0 + \beta_1 LDR + \beta_2 TL + \beta_3 LAR + \mu \text{ ……..... (3.2)}$$

Table 3.1: Data Description and Sources

Variables	Symbol	Description	Source
Profit after tax	PAT	It is regarded as the net profit following the deductibility of all costs and taxes. PAT is the metric that most immediately reflects the health of the bank since it represents the amount that may be kept as retained profits or distributed as dividends to owners.	Annual Rep.
Loan to deposit ratio	LDR	It is a frequently employed metric for determining the credit risk of banks. It is calculated by subtracting the bank's total deposits from its total loans.	CBN Bulletin
Bank Total loan	TBL	This includes all performing and non-perforating loans that the bank grants each year in terms of loans and advances.	Annual Rep.
Loan to Total Asset ratio	LAR	Loan match is a ratio that gauges how much the bank is exposed to credit risk. Credit risk exposure is greater for banks with larger loan to total asset ratios.	Annual Rep.

Sources: Authors' compilation

This current study in its bid to examine the dynamic relationship and direction of causality between the variables in the model, it employs the OLS regression techniques and pairwise granger causality test. It is expected '*apriori'* that

$\frac{\partial PAT}{} < 0; \quad \frac{\partial PAT}{} > 0; \quad \frac{\partial PAT}{} >< 0;$

∂LDR ∂TL LAR

4. Results Presentation and Interpretation

Table 4.1: Descriptive Analysis

	PAT?	TBL?	LAR?	LDR?
Mean	31996699	4.36E+08	41.07686	65.55643
Median	15310352	3.07E+08	43.42500	70.18000
Maximum	1.85E+08	1.99E+09	65.44000	85.66000
Minimum	501515.0	177303.0	14.48000	37.97000
Std. Dev.	37906456	4.96E+08	11.21178	14.28126
Skewness	2.068842	1.364751	-0.258742	-0.666032
Kurtosis	7.552558	4.115695	2.366597	2.352241
Jarque-Bera	110.3848	25.36029	1.951219	6.399129
Probability	0.000000	0.000003	0.376962	0.040780
Sum	2.24E+09	3.05E+10	2875.380	4588.950
Sum Sq. Dev.	9.91E+16	1.70E+19	8673.583	14072.86
Observations	70	70	70	70

Source: *E-View*

Due to the nature of the data, a total of 70 observations were used, as shown in Table 4.1. The average LDR in Nigerian deposit money institutions during the past 15 years, according to the mean result, was 65.56% with a standard deviation of 14.3%. The value of LDR ranged from 38% to 85.66%, showing that loans and advances are dependent on the total deposits made by the consumers. The TBL value represents the total loans and advances that deposit money institutions anticipate making to commercial enterprises. From the table, it can be seen that TBL maintains an average of 436%, with lowest and highest values of 177% and 199%, respectively. This demonstrates that Nigerian banks comply with the Central Bank of Nigeria's requirements for loan provisions. Additionally, with minimum and greatest values of 14% and 65%, respectively, the average LAR of Nigerian banks was 41%, indicating that banks should focus on lending to businesses, which is among other possibilities more risky but offers larger returns. According to the Skewness statistic, all the variables were favorably skewed, with the exception of LDR and LAR. Because all the variables have values larger than 1, the Jarque-Bera statistic's probability value demonstrated that all the variables were regularly distributed.

Hausman Test

In econometrics, a statistical hypothesis test known as the Durbin-Wu-Hausman test—also known as the Hausman specification test—is named for James Durbin, De-Min Wu, and Jerry A. Hausman. The test measures an estimate's consistency in relation to a different, less effective estimator that is previously known to be consistent. It aids in determining if a statistical model matches the data. In panel data, the Hausman test may be used to distinguish between fixed effects models and random effects models. The random effect model will be accepted as the null hypothesis if the probability value associated with the Chi-Sq. Statistics of the Hausman test is more than 5% significance; otherwise, it will not be accepted.

Table 4.2: Hausman Test

Chi Sq. Statistics	**Chi-Sq. d.f.**	**Prob.**
0.334860	3	0.9533

Source: *E-View*

Given that the probability value associated with the Hausman test is more than 5% significant value, it can be inferred from table 4.2 that the random effect model is the appropriate model for the research. As a result, the random effect model will receive all of the attention in this study.

Table 4.3: Random Effect Model

Dependent Variables: PAT

Variables	Coefficient	Std. Error	T-Stat.	Prob.
C	34316798	20295431	1.690863	0.0956
TBL?	0.057269	0.007193	7.961277	0.0000
LAR?	-220190.2	260799.3	-0.844290	0.0416
LDR?	-278013.4	176932.4	-1.571297	0.1209
Random Effects (Cross)				
_ACCESS—C	-19255937		**_FBN—C**	28671343
_FCMB—C	-16091987		**R-squared**	0.542433
_STANBIC—C	-13377142		**Adjusted R-squared**	0.521634
_GTB--C	20053722		**F-statistic**	26.08038

Source: *E-View*

The correlation between the dependent variable (PAT) and the independent factors is shown in Table 4.3. If all variables are maintained constant, PAT will increase by 34316798 units, according to the coefficient of the constant parameter, which has a positive value of 34316798 units. Also in accordance with theoretical expectations, Total Bank Loan (TBL) showed a positive connection with Profit After Tax (PAT) of 0.057269 units, which suggests that a rise in Total Bank Loan will improve PAT by the same amount of units. Contrarily, it was also discovered that the Loan to Asset Ratio (LAR), in accordance with theoretical predictions, was adversely associated to PAT by (-220190.2) units, which implies that a unit rise in the LAR will result in a unit drop in profitability. In a similar vein, the loan to deposit ratio (LDR) was discovered to be negatively correlated with PAT by (-278013.4) units, meaning that a unit rise in the loan to deposit ratio will cause a corresponding unit drop in PAT. The analysis found that all the variables were statistically significant, taking into account the probability value of the coefficient, with the exception of the loan to deposit ratio (LDR), which has a p-value larger than 5% significant level. The Adjusted R2 coefficient of multiple determination, which has a value of 0.521634, indicates that on the short run, all three explanatory variables (LDR, TBL, and LTA) together can account for about 52% of the behavior of the PAT in the Nigerian deposit money bank, with the remaining 48% being explained by other factors in the model.

The probability is used to test the validity and importance of the research model used for this investigation. The entire model is statistically significant in explaining the behavioral changes in PAT since the probability value of the F-statistics is less than 0.05. However, a glance at the data reveals that Access Bank, FCMB, Stanbic Bank, GTB, and FBN had cross-sectional variability with coefficients of (-19255937, -16091987, -13377142, 20053722, and 28671343, respectively). This demonstrates that First Bank and GTB, with the exception of FCMB, Stanbic Bank, and Access Bank, have a propensity to see increases in the dependent variable (profit after tax).

Long Run Relationship Tests

Table 4.4: Kao Residual Co-integration Test

	t-stat.	**prob.**
ADF	-0.391482	**0.0477**
Residual variance	2.43E+14	
HAC variance	1.77E+14	
RESID?(-1)	-3.310220	**0.0015**
Observations	70	

Source: E-views

The findings of the Kao Residual Co-integration Test, which we calculated using no deterministic trend as the trend assumption, automated lag length selection based on SIC with lags of 3, automatic bandwidth selection using the Newey-West algorithm, and Barlett Kernel are presented in Table 4.4. The findings indicate that at a 5% level of significance taking the value of ADF into account and a 1% level of significance taking the value of RESID(-1) into account, we have sufficient data to reject the null hypothesis of no co-integration.

Table 4.5: Johansen Fisher Panel Co-Integration Test

Unrestricted Co-integration Rank Test (Trace and Maximum Eigenvalue)

Hypothesized No. of CE(s)	Fisher Stat.* (from trace test)	Prob.	Fisher Stat.* (from max-Eigen test)	Prob.
None	224.8	0.0000	200.0	**0.0000**
At most 1	94.55	0.0000	60.82	**0.0000**
Observations	70			

Source: E-views

Table 4.5 shows the results of the Johansen- Fisher co-integration test, which was calculated using the asymptotic Chi-square distribution and the quadratic deterministic trend as the trend assumption and lags interval (in first differences). The findings show that, at the 1% level of significance, the null hypothesis of no co-integration may be rejected. This shows that there is a significant long-term equilibrium link between the variables. The study concluded that there is a very likely long-run equilibrium link between credit risk management and deposit money

banks performance in Nigeria based on the estimated findings from multiple panel co-integration tests.

5. Conclusions

It was clear from the results of the descriptive study, which was one of several tests on the impacts of credit risk management on the performance of deposit money banks in Nigeria, that there was an excessive dependence on loans being provided on total deposits by banks. The report also demonstrates that Nigerian banks provide the necessary loan provisions as outlined by CBN. Nigerian banks focused on lending, which is among the alternatives more riskier and offers greater return. A random effect has the best effects that the study can rely on, according to the Hausman test results. More importantly, the outcome showed that indicators for credit risk management may influence banks' performance in concert. The findings demonstrated that indicators of credit risk management had an effect on the profitability of Nigerian banks. At a 5% level of confidence, LAR and TBL were not statistically significant. Additionally, there is a significant negative correlation between the loan to total asset and loan to deposit ratios and the performance of deposit money banks (PAT). The fact that there is a negative correlation between the factors and bank profitability suggests that their profitability is declining. The loan to deposit ratio was discovered to be unimportant and negative. Credit risk exposure is greater for banks with larger loan to deposit ratios.

Due to various income streams for the banks, such as bank fees, high interest rates on loans and advances, low interest rates on deposits, and other sources, it has a negligible influence on the profitability of banks that accept deposits. LDR may not appear to pose a danger to bank profitability in Nigeria as a result, but caution should still be used as the negative correlation is small. Additionally, the outcome demonstrated that bank profitability (PAT) and total bank loans continue to have a positive, substantial association. Taking into account their respective P-values, all the variables were statistically significant, with the exception of LDR and the dependent variable. According to the findings analysis, all variables—with the exception of total bank loan—were adversely connected to the dependent variable (PAT) at the random effect stage. The variables that were discovered to have a substantial influence on profit after taxes were the loan to asset ratio and total bank loan.

This is sufficient evidence to draw the conclusion that credit risk management has a short-term, considerable negative impact on deposit money institutions' performance (PAT). With an estimated 0.521634, the coefficient of multiple determinants (Adjusted R2) produced from the random effect demonstrates the model's strong fit. This shows that the explanatory factors may account for 52% of the behavior of the dependent variable (PAT) of the tested deposit money institutions, with the remaining percentage of behavior being explained by the existence of the error term. This demonstrates that the factors used to explain the dependent variable have captured the behavior of the endogenous variable up to 52% in a suitable manner. According to empirical evidence, total bank loans have a positive but considerable influence on profit after taxes, which is consistent with Li and Zou's (2014) research. In conclusion, the loan to deposit ratio and the loan to assets ratio continue to have a substantial inverse association with the dependent variable (PAT), in keeping with the research of Odawo, Makokha, and Namusonga (2019). The F-statistics p-value is less than 0.05, indicating that the whole model is statistically significant in explaining the behavioral fluctuations in profit after tax. Additionally, the Durbin Watson graph demonstrated that the model does not exhibit autocorrelation. Finally, it was determined that factors related to

credit risk management have a significant role in determining deposit money banks' profitability in Nigeria. In other words, the profit after tax has responded to the lending policies of Nigerian banks.

5. Recommendations

The results have significant ramifications for decision-makers, academics, and development partners who are supporting the development of Nigeria's banking and financial sector. This is because one of the functions of the banking sector is to mobilize savings, distribute resources, and diversify risks. A more effective banking system could have a positive effect on financial development and economic growth given that the banking system makes up a significant portion of Nigeria's financial systems, particularly if banks are able to effectively fulfill their role as financial intermediaries (i.e. convert collected deposits into loans for investments). If there is a very strong credit risk environment and management, as well as judicial and legal backing, among other factors, they can achieve this. In addition to the mentioned ramifications, the advice is as follows:

1. In order to boost profitability and credit availability for the deficit units of the economy, deposit money banks in Nigeria should exert enough effort to mobilize deposits.

2. The government should establish proper legislation and provide enough oversight through the central bank and parliaments. Banks must create a portfolio of assets (loans and securities) that diversify the degree of risk in order to control the credit risk that is inherent in both the overall portfolio as well as in individual credits or transactions.

3. Deposit money banks should improve their ability to conduct credit analyses, appraisals, and loan administration; they should also develop clear credit rules and lending standards; and management must ensure that the terms and conditions of loan approval are followed.

4. By boosting competition in the financial sector, a stronger securities market will benefit the banking industry's overall growth. When there is a broad variety of portfolio options, investors may evaluate the returns and security of their investments across banks and securities market participants. Thus, there is still some pressure on banks to strengthen their financial stability.

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IMPACT OF FOREIGN DIRECT INVESTMENT ON CAPITAL MARKET CAPITALIZATION IN NIGERIA

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ABSTRACT

The study investigates the impact of foreign direct investment on capital market capitalization in Nigeria. It makes use of secondary data spanning through 34 years (1986-2020). The study employed ordinary least square (OLS), Johansen co-integration and Error correction model. The result of the study revealed that all variables except FDI maintain positive/direct relationship with the dependent variable (MC). The long run model revealed that only money supply (M2) was negatively related to market capitalization (MC) while the remaining variables (FDI, SPI and INF) maintained positive relationship with market capitalization (MC). From the short-run analysis, the R^2 revealed that the short-run model which envelopes (FDI, INF, SPI and M2) account for 97% of the changes that occur in market capitalization (MC), while the remaining 3% is accounted for by other unexplained variables outside the research model. Meanwhile, the R^2 of the over-parameterized ECM model is 0.963946≈0.96. This implies that in the long run, about 96% of the slight difference of MC explained by all the exogenous variables together with the lagged variables. Based on the findings, the study showed that there are short-run and long-run relationships between the dependent and the independent variables. Therefore, the study recommended that since foreign direct investment is a significant determinant, efforts should be made by government and monetary authority to encourage foreign direct investment into Nigeria.

Keywords: Money Supply (M_2), Inflation (INF), Share Price Index (SPI)

1.0 Introduction

Nigeria's over-dependence on oil as the only source of revenue, in addition to her persistent negative trade balance which is due to the import dependent nature of her economy has contributed significantly to the volatile nature of the economy (Saksouk & Pires, 2007). The Nigeria economy benefited immensely from the oil boom in the early 70's in terms of cash inflow to the economy, but this seems not enough contribution to improve investment and infrastructural development that will support the growth and development of the Nigeria economy. Therefore, the mono-product nature of the Nigeria economy, the low per capita income level, trade imbalances, continuous fiscal deficits, low productivity, unemployment situation and the attendant low savings level, demands that substantial level of foreign investment, either in the form of foreign direct investment or foreign portfolio investment is needed to grow the economy and create employment (Idenyi, Ifeyinwa, Obinna & Promise, 2016).

Kolapo and Adaramola (2012) pointed out element of control and define it as an investment in a foreign country where the investing party that is, corporations, firms, and so on retain control over the investment. According to International Monetary Fund (IMF, 1977), foreign direct investment is defined as investment that is made to acquire a lasting business in an enterprise's operation on economy other than that of the investor, the investor's purpose being to have an effective voice in the management of the enterprises.

The importance of foreign investment either by private, public or portfolio agencies in promoting growth and development of market capitalization in a country cannot be overemphasized. That is why countries all over the World see FDI as a catalyst to growth and development. Foreign investment is expected to complement domestic investment in order to ensure development and improve the worth of stock market (Adaramola & Obisesan, 2015).

Stock market is an aspect of financial market that deals with the mobilization and channeling of long term funds for investment purposes bringing together economic units requiring funds and economic units that are willing to part with funds for a longer period of time.

It is a framework of institutions that arrange for long term financial instruments which includes shares, debentures, stocks and mortgages (Adeusi, 2000). Some of the most important functions of stock market includes, the promotion of liquidity and safety of financial assets in order to bring about saving and investment, ensuring a more robust allocation of resources by equating the demand and supply of loanable funds, enabling the transfer of funds from one sector or country to another for economic or commercial growth and, enhancing successful implementation or monetary and indigenization policy (Adeusi, 2000).

There are array of factors that affect stock market performance, this includes; economic, political, international, and company-specific issues. When it comes to the overall index performance then, the domestic economy's National Income (NI), Gross National Product growth (GNP), Purchasing Power Parity (PPP), Monetary issues, Political Stability, International Relations, Balance-of-Payment situation, etc. comes into consideration.

One of the aims of establishing capital market is to serve as a facility for investment in government and firms' financial securities such as options, futures, and other derivatives traded for improved specialization that supports growth and to act as the space where those who have a demand are matched with the supply (Saksouk & Pires, 2007). Donwa and Odia (2009) remarked that investment expands productive capacity, which is also a major explanation of the contributory factor to long run growth in the economy. Some studies such as Adaramola and Obisesan, (2014), and Sulaiman and Mohammed, (2015) have shown a significant and positive relationship between FDI and stock market development.

The debate on how important the FDI is still ongoing in the finance literatures because, many research works on the same topic, most especially those that were conducted in Nigeria, have failed to make use of data during the resent dispensation where a number of investors had reportedly left the country due to so many reasons, among and prominent is the issue of insecurity. Therefore, the results concerning foreign direct investment and stock market capitalization are mixed, which prompt this present study to shift its centers of attention towards the impact of Foreign Direct Investment variables on Nigerian capital market development using a unique set of macroeconomic variables, Viz: market capitalization (MC), foreign direct investment (FDI), share price Index (SPI), The study investigated the relationship that occurs between foreign direct investment and stock market capitalization, and analyzed the impact of share price index on stock market capitalization.

2.0 **Literature Review**

Capital market is viewed as a market for long-term financing, especially, long-term investment. The main dealers in this market are development banks, building societies,

insurance companies, merchant bank, investment, savings bank and the stock exchange. The main instruments used in the market are stocks and shares, company bonds and government bonds, industrialization and economic development which led to the increase in the demand for shares hence, the development of capital market to meet the demand of the market (Papaioannou & Duke, 1993). These markets are the products, not only those that are being demanded domestically, but also of international investors. Indirectly, capital inflow towards the new markets, capital markets are not only embryonic in development and same in characteristics, but some operate under the changes of economic and political instability. The early markets, which were dominated by low liquidity, high volatility and reduced efficiency have become highly attractive in the market due to increase in the types and volume of securities they offer, more stable government mandated macroeconomic policies and decreased regulation that allows easy access of investment information (Papaioannou & Duke, 1993).

2.1.1 Role of Capital Market

The capital has demonstrated its ability to make financial resources available through equity and debt, thereby contribution to all economic sectors. Alike and Anao (1986) limited that, the capital market which is required to operate the huge industrial and commercial corporation can be raised in such competitive terms (cost, condition, length of negotiation). Okereke (1959) described capital market as a major for long term commitment on the part of the lenders and long term needs on part of the borrowers. The borrowing side of the market is represented by the industry, commerce and government through their increasing sums of capital to meet public needs. The supply side as represented by individual and institutional investment.

Peter (1985) saw capital market as a framework of institutions that arrange for long-term financial assets such as shares, debentures, stock and mortgages. Kamioukor (1985) defined capital market as a network of specialized financial institutions unique and ways to bring together the issuers of capital and the suppliers of capital.

2.2 Empirical Review

Idenyi, Ifeyinwa, Obinn and Promise (2016) examined the impact of foreign direct investment on stock market growth in Nigeria from 1984 to 2015. The study employs co integration, vector error correction model and pair wise granger causality econometric process in the estimation of the variables specified in the regression model. The findings from the VECM indicated that FDI and EXPT has negative relationship with stock market growth both in the long and short run while IMP and GCF was found to have a positive relationship with stock market growth both in the short and long run periods. The result of the pair wise granger causality indicated no causality between FDI and stock market growth. A unidirectional causality however was found running from MCAP to GCF, IMP to MCAP and FDI to GCF. The study recommends among others that government should as a matter of urgency and national interest ensure that foreign investors sourcing for investment funds in Nigeria are encouraged to go through the Nigeria stock market in raising their funds.

Isaac, Sylvanus and Santeli (2016) examined the impact of foreign direct investment on economic growth in Nigeria. Data were collected from secondary source spanning through a period of 13 years. That is from 2002 to 2014. The (OLS) was adopted and, the findings revealed that foreign direct investment has significant relationship with economic growth in

Nigeria. Other result revealed that FDI contributes to GDP, reduces interest rate and improve employment rate in Nigeria. The study meanwhile recommended that the government should allow the FDI inflows into the country since its statistically contributes to the growth of the economy through improvement in GDP and creation of employment opportunity.

Abel and Nikki (2011) investigated the impact of financial development, macroeconomic and institutional factors on the flow of foreign direct investments to the Sub-Saharan African region. Panel data from 1995 to 2008 were drawn from 30 Sub-Saharan African countries. The study revealed that financial development, the countries' market size, and corruption among others adversely affect FDI in the region. That means, the absence of infrastructure, trade openness and financial development discourage foreign direct investment in the region.

Nsofor (2016) examined the impact of investment on stock market development in Nigeria from 2001-2010. Investment was proxy by gross fixed capital formation and stock market development proxy by market capitalization. The study made use of secondary data gotten from the CBN statistical bulleting and the data were analysed using Ordinary least square regression (OLS) technique. The study revealed positive and significant effect on stock market development within the period covered. The study recommends that government should therefore formulate some interesting policies that will attract more investment inflow into the stock market.

Okafor, Ezeaku and Eje (2015) examined effect of foreign investment inflows on economic growth in Nigeria. The study divided foreign investment into foreign direct investment and portfolio investment in other to realize the stated objectives of the study using data spanning through 1987 to 2012, and employed OLS and granger causality econometric procedures to analyze the data. The results indicate that FDI and FPI have significant positive impact on economic growth in Nigeria. The study recommended that government should pursue policies that will encourage foreign investors to bring their investment into the country.

Okwuchukwu (2015) examined the impact of exchange rate volatility, stock market performance and foreign direct investment in Nigeria. Ordinary least square technique was used to analyze the data sourced. The result indicated a significant negative effect on FDI inflow to Nigeria. This means that the FDI inflow into the country is so minimal. It was concluded that a stable and well developed capital market will attract FDI to Nigeria.
Uwazie, Igwemme and Nnabu (2015), examined the causal relationship between foreign direct investment and economic growth in Nigeria from 1970 to 2013. The author sees the motivation to carry out the study due to the inability of several empirical studies to reach a consensus on the subject matter. The study made use of vector error correction model method of causality analyses to estimate the variables specified in the model. The result of the analyses indicate an equilibrium long run relationship between FDI and economic growth, while the causality test carried out indicates that both FDI and economic growth correlate significantly in the short and long run periods in Nigeria. The researchers relying on the outcome of the result suggested the pursuance of aggressive policy reforms to boost investor's confidence and promote qualitative human capital development to attract foreign capital inflow into the Nigeria economy.

Sulaiman and Mohammed (2014) reviewed stock market development, foreign direct investment and macroeconomic stability using evidence from Nigerian stock market. Johansen co-integration and the error correction mechanism (ECM) techniques were used to examine the FDI impact on the level of development of the Nigerian stock market from 1981

to 2010.The result showed that FDI has a positive but insignificant effect while the exchange rate has a significant and negative relationship with the stock market performance.

Odita and Oghoghomeh (2013) examined the resource mobilization for long term economic development, an insight into the role of the Nigerian capital market. The study modeled the effect and importance of the Nigerian capital market, as a veritable source of medium and long term development. The data collected were from the Central Bank of Nigeria statistical bulletin and the Security and Exchange Commission spanning through 2001 to 2010. The SPSS statistical tool was used to analyze the data. The economic development was proxied by gross domestic product (GDP), while the capital market variables considered included the annual market capitalization (AMC) and the total volume of transactions (TVT). Findings revealed that there was a positive relationship between the capital market activities and gross domestic product, although the relationship was not statistically significant. The study recommended that the more fundamental issue of building investor confidence must be addressed through transparency, fair trading transactions, political stability and social security; stringent requirements for entry into the market should be relaxed and adequate publicity should be given to the activity of the capital market.

In the word of Uwazie, Igwemme and Nnabu (2015), the study believed that consensus has not been reached by a number of empirical works on how important is the FDI to the economic and stock market development of Nigeria. Sulaiman and Mohammed, (2014), Odita and Oghoghonah, (2013) believed that foreign direct investment has a positive but insignificant effect on the development of Nigeria stock market. Their recommendations centered on positive government policies, giant infrastructural drive by the government, political stability, adequate security, among others that can attract foreign investors.

It is on this backdrop that the study looked into impact of foreign direct investment on capital market capitalization in Nigeria as a result of the recent improvement in the infrastructure drive of the government, favourable government policies such as banning of importation and the efforts of the Nigeria government in improving the level of insecurity to improve the influx of foreign investors which has been a difficult issue in the past.

3.0 Methodology

To capture the impact of foreign direct investment on capital market performance, this study employed an empirical model based on the modification of Sulaiman & Mohammed (2013). The Model for this study is given as:

$MC = f(FDI, SPI, M2, INF, \mu)$……..…… (3.1)
Which it's written in econometric form as:
$MC = b_0 + b_1FDI + b_2SPI + b_3M2 + b_4INF + \mu$..... (3.2)
Where:
MC = Market Capitalization, representing the dependent variable;
FDI = Foreign Direct Investment,
SPI = Share Price Index,
M2 = Broad Money Supply
INF = Inflation Rate
μ = White Noise
f = Functional Notation
b_0 = Constant Parameter

b_0, b_1, b_2, b_3, b_4,; are regression coefficients or parameters;
From equation 3.2, the research model can further be stated in time series form as:
$(MC)_t = b_0 + b_1(FDI)_t + b_2(SPI)_t + b_3(M2)_t + + b_4(INF)_t$
μ……(3.3)
Where:-
t = Time Lag

In testing for the existence of long run equilibrium relationship, the error correction model (ECM) i.e. equation can be conducted by placing some restrictions on estimated long run coefficient of variables.

4.0 Interpretation of Results and Findings

Table 1: Result of ADF Unit Root Test at level

Variables	ADF Statistics Value	Mackinnon Critical Value @ 5%	H_0	H_1	Remarks
MC	0.444363	-2.957110	Accept	Reject	Non- Stationary
FDI	-2.791410	-2.957110	Accept	Reject	Non- Stationary
SPI	-1.595709	-2.957110	Reject	Accept	Non- Stationary
M2	1.106019	-2.967767	Accept	Reject	Non- Stationary
INF	-2.710740	-2.957110	Reject	Accept	Non- Stationary

Source: E-View version 20

The table above shows that all the variables are non-stationary before their differencing because all variables shows a value less than 5% Mackinnon critical value (at absolute value). In order to ensure data stationarity of data for all the variables that were found to be non-stationary at level, we proceed to test for stationarity at first difference.

Table: 2 Result of ADF Unit Root Test at First Difference

Variables	ADF Statistics Value	Mackinnon Critical Value @ 5%	H_0	H_1	Remarks
MC	-5.734695	-2.960411	Reject	Accept	Stationary
FDI	-6.564665	-2.963972	Reject	Accept	Stationary
SPI	-5.716237	-2.963972	Reject	Accept	Stationary
M2	-3.632193	-2.963972	Reject	Accept	Stationary
INF	-4.920936	-2.971853	Reject	Accept	Stationary

***Source*: -** *E-view version 20*

It could be revealed that all the variables (MC, FDI, SPI, M2 and INF) were obtained as stationary at first difference. This is because their respective ADF test statistics value is greater than Mackinnon critical value at 5% and at absolute term.

Summary of Ordinary Least Square (OLS) Result

Dependent Variable: - MC

Independent Variables	Regression Coefficients	T- Statistics	Probability Value
FDI	-3.11005	-0.295285	0.7700
SPI	0.152628	6.879364	0.0000
M2	0.721668	17.13325	0.0000
INF	11.89961	0.878227	0.3873
C	-1276.657	-2.407085	0.0229

R^2 = 0.974613 **Adjusted R^2**= 0.970987 **F-Stat** = 268.7358 **DW-Stat**= 1.138341

***Sources:* -** OLS result computed

From the table above, it can be affirmed that the research model for short-run dynamic relationship between market capitalization and four other explanatory variables respectively can be expressed mathematically below as:

$$\mathbf{MC} = -3.11005_{FDI} + 0.152628_{SPI} + 0.721668_{M2} + 11.89961_{INF} - 1276.657 + \mu$$

Evidence from the results of the Ordinary Least Square (OLS) as depicted above revealed that the constant parameter is inversely related to market capitalization (MC). The Constant parameter (B_0) has a negative coefficient of -1276.657. This implies that when all the explanatory variables are fixed at zero level i.e. they are held constant in the short-run, it will decrease the level of the explained variable (MC) by 1276.657 units.

The coefficient of Money Supply (M2) is 0.721668. This implies that the value of the coefficient of M2 shows that in the short run, a positive relationship exists between MC and M2. A unit increase in M2 i.e. volume of money supply in circulation will lead to increase in MC by 0.721668 units.

Similarly, the coefficient of Inflation Rate (INF) also appeared positive. This indicates a direct relationship occurred between INF and MC in the short run. The short run equilibrium relationship exists between MC and INF. The relationship shows that a unit increase in INF will cause MC to rise by 11.89961 units.

The coefficient of share price index (SPI) showed a positive figure of 0.152628, this implies that the variable exhibits a direct relationship with the dependent variable (MC). It therefore typifies that a unit increase in the prices of SPI will result into 0.152628 units increase in the value of the market capitalization in the Nigeria capital market. This dynamic relationship exists between SPI and MC.

Conversely, the coefficient of foreign direct investment was obtained as -3.11005. This implies that in the short run, FDI is inversely related to the dependent variable (MC). This relationship portends that as FDI increases by a unit, MC will also decrease in the same proportion, therefore reducing the value of MC by 3.11005 units.

Meanwhile, the coefficient of multiple determination denoted as R^2 with a value of 0.974613 which implies a 97% explanation of the behaviour of the market capitalization in the Nigeria stock exchange by the totality of the explanatory variables (FDI, SPI,M2 and INF) on the

short-run while the remaining 3% is being explained by the stochastic / random variable in the research model. After series of adjustment, the adjusted R^2 revealed a value of 0.970987, shows that 97.1% of the total variation of market capitalization behaviour can be explained by all the explanatory variables put together while the remaining 2.9% behaviour attributed to other unexplained variables outside the research model otherwise referred to as the error term/white noise.

Presentation of Johansen Co-Integration Result

Eigen Value	Trace Statistics	5% Critical Value	Probability Value	Hypothesised No of (CE_s)
0.857511	120.3454	69.81889	0.0000	None *
0.639193	59.94216	47.85613	0.0025	At most 1 *
0.417368	28.34037	29.79707	0.0729	At most 2
0.311327	11.59420	15.49471	0.1775	At most 3
0.001017	0.031529	3.841466	0.8590	At most 4

Source: -E-view 20

Evidence from the table above reveals that long-run relationship (co-integration) exist among market capitalization and it identified monetary fundamentals' determinants; foreign direct investment, share price index, inflation rate and money supply. This is reflected in the Trace Statistics (likelihood ratio) of the first two rows of the table that which shows a value greater than that of the 5% critical value in the table respectively.

The Long Run Model

From the Johansen co-integration result in the test conducted above for the existence of a long-run relationship, it could be inferred that there is the presence of long-run relationship among the dependent and the explanatory variables in the research model adopted for the study. This however prompted the need for the establishment of a co-integration model. The co-integrating equation in this study was chosen based on log likelihood ratio. This is derived from the Johansen co-integration result from which the equation with the lowest log-likelihood ratio was chosen when all equations obtained are positively signed. But the researcher chosed the equation with highest log likelihood ratio, if all equations obtained are negatively signed. Since all the co-integrating equations obtained in the result are negatively signed, the decision is that the equation with the highest log-likelihood ratio which also simultaneously appeared as though the first normalised equation with the corresponding value of -1404.122 is chosen. It is therefore presented below:

$$\underset{}{\mathbf{MC}} = \underset{}{0.000120_{FDI}} + \underset{}{0.180203_{SPI}} - \underset{}{0.522244_{M2}} + \underset{}{2.450226_{INF}}$$
$$\underset{}{\mathbf{(0.00011)}} \quad \underset{}{\mathbf{(0.03232)}} \quad \underset{}{\mathbf{(0.04386)}} \quad \underset{}{\mathbf{(0.15409)}}$$

Note: The Standard Error Statistics are those stated in parenthesis.

From the long run equation above, the coefficient of FDI as a panorama variable is 0.000120 which implies a direct relationship exist between FDI and MC in the long run. A unit increase in FDI will cause an increase in MC by 0.000120 units. The coefficient of INF is 2.450226.

The coefficient is positively signed showing that in the long run, INF and MC are directly related and that a unit increase in the value of INF by a unit will increase the value of MC by 2.450226 units. The study also confirmed from the results of the long run model, that MC will decrease in the long run by 0.522244 units if M_2 increases by a unit. Meanwhile, INF on its own has a coefficient of 2.450226. It can be deduced that in the long run, if INF should increase by a unit; it will cause MC to increase by 2.450226 units.

Moreover, key explanatory variable provided opposite relationship with MC in the long run to what was obtained in the regression equation provided by the short run results.

Error Correction Model (ECM)

The error correction mechanism is the speed or degree of adjustment, that is, the rate at which the dependent variable adjust to changes that occur in the independent variables. In line with the result obtained in the unit root test, the error correction mechanism showed that the ECM is stationary at level, therefore, an over-parameterized error correction model is required in this analysis and was obtained by using the lag length to ensure that the dynamics of the model is not compromised and properly captured. The result of the over-parameterized error correction model (ECM1) is presented below

Result of the Over-Parameterized Model (ECM 1)

Dependent Variable = D (MC, 2)

Variable	Coefficients	Standard Error	T-Statistics	Probability Value
D(MC(-1),2)	-0.612533	0.141667	-4.323750	0.0003
D(FDI,2)	-0.000103	5.062305	-2.043324	0.0544
D(FDI(-1),2)	-0.000134	5.312405	-2.529217	0.0199
D(SPI,2)	0.186023	0.018894	9.845447	0.0000
D(SPI(-1),2)	0.174767	0.034997	4.993726	0.0001
D(M2,2)	-0.306492	0.389157	-0.787580	0.4402
D(M2(-1),2)	-0.093698	0.380155	-0.246473	0.8078
D(INF,2)	5.270377	6.780592	0.777274	0.4461
D(INF(-1),2)	-0.271494	6.141484	-0.044207	0.9652
ECM(-1)	-0.594542	0.147247	-4.037729	0.0006

R-squared = 0.963946 **Durbin-Watson Stat** = 1.607926

The summary of the over-parameterized ECM results reveals that the coefficient of the error correction term is significant with the negative sign i.e. the (–) sign justifies its significance. This means that it will be effective in the correction of any deviations from the long-run equilibrium. The coefficient of ECM is -0.594542, indicating that, the speed of adjustment to long run equilibrium is approximately 59% when any past deviation will be corrected in the present period.

However, in order to attain effectiveness of the research model there is a need to simplify the research model into a more interpretable and certainly more parsimonious model. The parsimonious model would be developed by estimating the equations of only those variables found to be significant in the over-parameterized model i.e. those that have the least probability value, with the lead and lagged value of the dependent variable being inclusive. The table below shows the result of the parsimonious model estimated.

Research Findings

In the study, not only that the analysis of the study in the short run revealed that all variables except FDI maintain positive/direct relationship with the dependent variable (MC) but also that all the explanatory variables except FDI conforms to the prior expectation of the study. The long run model, on the other hand revealed that only money supply (M2) was negatively signed with market capitalization (MC) while the remaining variables (FDI, SPI and INF) maintained a positive relationship with market capitalization (MC). Evidence from the long run model portends that all variables (FDI, INF, SPI and M2) conformed to the prior expectation of the study in the long run. That is, there is a positive relationship between the independent variables (FDI, SPI and INF) and the dependent variable (MC), except M_2 which returned a negative relationship.

5.0 Conclusion

The study revealed that on the long-run, foreign direct investment (FDI) has a positive and significant impact on market capitalization. Therefore, this study have been done in its best possible and objective manner to serve as good starting point for further research by both academicians and practitioners who may want to undertake same study for future development in the subject matter, through objective contribution of this nature.

The study hereby recommends that, since foreign direct investment has positive and significant relationship with market capitalization, efforts should be made by government and monetary authority to encourage foreign direct investment into Nigeria. It is also suggested that emphasis should also be laid on foreign direct investment as a way of stimulating long term growth in the developing nation like Nigeria. Government should create public awareness to encourage investors' cash inflow into the stock market investment. Also, policy makers in Nigeria should formulate some investor's friendly policies like making efforts in reducing inflation rate to single digit in order to facilitate Nigeria's market growth and development. It is also suggested that the infrastructures stride of the government should continue unabated to boost the investor's confidence in the country. It is believed that these measures, if given adequate attention, will attract more investors to stock market in Nigeria.

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EFFECTS OF RISK CONTROL TECHNIQUES ON SMES' PERFORMANCE IN EKITI STATE, NIGERIA

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ABSTRACT

Financial risk control is a critical element of a resilient future. Risk management Mechanism is an essential metrics employ to safeguard lives and property. Therefore, this study targeted at evaluating the effects of financial risk control techniques on business performance, with specific allusion to the selected small and medium sizes enterprises in Ekiti State, Nigeria. The study adopted a cross- sectional survey research design using simple regression as the statistical technique employed. The study confirms the position of financial risk control techniques in business performance of selected SMEs operators in Ekiti, Nigeria and suggested that insurers in Nigeria have to make the insurance services attractive and affordable to SMEs' operators/ owners in order to improve on their behavioral risk approaches.

Keywords: *Financial risk control techniques, risk diversification, risk transfer, business performance, SMEs*

INTRODUCTION

The need for risk control technique is embedded in the fact that risk management is essential managerial system that should be established for any business that would succeed in the market and in operations, risk entails uncertain events and outcomes that can influence desirably or undesirably the expected result, objective or goals designed by the small and business enterprise. Therefore, if an enterprise would achieve desired result concerning investment in the business operation and other resources it engaged, there should be an appropriate risk management system to address associated risk in order to minimize loss or maximize the returns or optimize return and loss simultaneously. In line with this, Jinadu (2022) opined that risk management involves identifying, analyzing and controlling risks with the tendency of having adverse effect on the enterprise. However, the effectiveness of risk management system in controlling risk tends to be dependent on the appropriate techniques designed and adopted to mitigate risk. Hence, there is importance in focusing on the risk control technique in any business enterprises.

Small and medium size enterprises should be able to make adequate decision on the risk control technique, especially as they are in competition with other enterprises which are large in scale. Risk control technique has been identified by many scholars to include risk transfer, risk diversification, risk avoidance, risk retention among others. Aduloju and Akindipe (2022)

stated that there are different categories of risk control techniques, but categorized under risk retention, risk avoidance, risk reduction (optimize and mitigate), and risk transfer. However, there are different aspects of business activities and these are equally associated with different forms of risks to be addressed (Jinadu, 2022). Therefore, different forms of risk control technique may be designed and implemented simultaneously in the business operations based on the nature of risk factors identified and the extent to which this risk could adversely affect the business, if it eventually occurred. Hence, the need to capture how different forms of risk control techniques influence any objective maximization of small and medium size enterprise and the most important approach to evaluate the objective of enterprise is the performance of these enterprises. This lies in the fact that performance can enhance growth and development of profit oriented businesses, such as the small and medium size enterprises. Performance has to do with the level at which the objectives of the business are accomplished or the degree to which resources combined accomplished objective. Performance is very essential to the enterprises because it can covers' the focus or desire of all stakeholders, e.g. owners, managers, employees, creditors, and customers among others. With higher level of performance, owners reward, profit increases, employee salaries and other benefits and refund to creditors can be guaranteed, and the product offered in the market can be designed to satisfy customers (Aduloju & Akindipe, 2022). Nevertheless, explained that performance of enterprise is determined by the capacity of the enterprise to grow returns which in turn is also subjected to the ability to mitigate or control risk.

Many small and medium size enterprises in Ekiti state, tends to shut down due to different challenges which are associated with poor level of performance, due largely to lack of control or some risk both in the business activities or environment of operation. Most of the businesses could not withstand the performance problems associated with government policies and regulations, bureaucratic procedures, lack of adequate preparation for entrepreneurial experience, inadequacy of business environment and financial resources among others (Egele, Muhammad & Mutenyo, 2018). These had however contributed to the discouraging level of growth and development of the state, since small and medium size businesses are supposed to contribute to the growth and development, but they suffered to make profit and achieve other objectives while the market is not adequately attractive to new entry, due to the uncertainties associated with operating in the state.

Although studies had been conducted in Nigeria closely related to the subject matter of this study, precisely, risk control technique and performance, most focused broadly on the influence that risk management pose on firms performance (Zoghi, 2017; Afolabi & James, 2018; Egele, Kibuka & Mutenyo, 2018; Ojubanire & Dawodu, 2021; Poon, Roslan, Othman, Anuar & Nejad, 2022), even when small and medium size enterprises were the nature of business considered. Nevertheless, there were studies (Aduloju and Akindipe, 2022 among others) which considered impact of risk control technique, but had not delved into the representative variables for risk control technique. It is also noted that most of these studies had centered on some certain states in Nigeria such as Kano state, Osun state and Lagos state (Afolabi & James, 2018; Egele, Kibuka & Mutenyo, 2018; Ojubanire & Dawodu, 2021), but Ekiti state had not been really explored. Therefore, this study attempts to examine the effect of risk control techniques on SMEs performance in Ekiti state of Nigeria. Hence, the specific objective are to ssess the effect of risk transfer on SMEs performance in Ekiti state Nigeria and investigate the effect of risk diversification on SMEs performance in Ekiti state Nigeria

LITERATURE REVIEW

Risk can be described as the probable existence of exposure to consequence of uncertainties. According to Chapman and Cooper (2016), risk represent the possibility of economic or financial losses or gains which may arise from the uncertainty associated with s specified event or action. In the same vein, Cretu and Steward (2012) addressed risk any uncertainty which by its occurrence can have undesirable effect on the expected outcome of an activity or projects in an organization. Risk control technique is the set of methods by which enterprises evaluate risk, in order to take appropriate actions which could be to reduce or eliminate or transfer or diversify such risk (Jinadu, 2022). Risk control is also regarded as the aspect of risk management which utilizes information attainable from risk assessment.

Risk control techniques involve proactively designed methods needed to address the risk after identification of factors of potential risks in the business, in both the technical and non-technical dimension of its operations. The risk control technique include risk transfer, risk diversification, risk avoidance, risk retention and risk reduction (Jinadu, 2022; Aduloju & Akindipe, 2022). Risk avoidance involves eliminating risk, withdrawing from activities associable to risk, or non-participation in activities related to the risk identified. Risk transfer involves sharing of risk between the enterprise and other stakeholders or complete shifting of risk to the stakeholders. Risk diversification involves the process in which enterprise can combine different investment in a portfolio to help reduce the level of exposure to the adverse effect of risk.

SMEs Performance can be described is the measure of the outcome embedded in the ability of small and medium size enterprises to generate returns on factors or inputs utilized in the business, such as materials, money and man (labour service). (Ntare, Shau & Ojwang, 2022)). However, the performance for the purpose of simplicity, are viewed oftentimes by comparing returns or outcome with a specific kind of resources of the business. Even at that, performance has been measured by different scholars in terms of either quantitatively or quantitatively. The financial measures (quantitative measures) of performance considered, especially in empirical studies, so far were among others profit, return on sales, return on asset, return on investment, sales growth, and growth of market share (Chiliya, Rungani, Chiliya & Chikandiya, 2015). The non-financial measures (qualitative measures) engaged in studies also include customer satisfaction, market coverage, employee satisfaction, competitive position and success rate in new product introduced to the market (Egele, Muhammad & Mutenyo, 2018; Aduloju & Akindipe, 2022; Madembu, Namusonge & Sakwa, 2015; Lukianchuk, 2015; Ntare, Shau & Ojwang, 2022).

THEORETICAL REVIEW

Agency theory was developed by Jensen and Meckling (1976) based on the recognition that there possibility of conflict of interest in an organization due to delegations and representations. The theory acknowledged the operation in the limited liability companies wherein owners (shareholders) engaged the service of person(s) to operate the management affairs of the organization on their behalf. The manager(s) are meant to concern themselves with profitability and performance of the firm but as they are rational persons with certain self-goals and objectives that may differ from that of shareholders, such that in coordinating the affairs of the firms, the level at which firms are exposed to risk may be higher or lower, depending on their views on the circumstances as well as their main. Feinman (2016) reiterates that balance

response is required in dealing with false swearing principles when focusing on agency problem and opportunism concerning the parties in an insurance contract.

EMPIRICAL REVIEW

In a Nigeria study, Egele, Kibuka and Mutenyo (2018) assessed the effect of entrepreneurial risk taking on performance of small and medium size enterprises, specifically in Kano state. The study engaged data collected from three hundred and ninety three owners, managers and employees of small and medium size enterprises and data were analyzed with descriptive statistics and regression estimation technique. Result indicated that entrepreneurial risk taking significantly influence performance. Hence, the study recommended among others that properly consider the opportunities associated with risk before taking it.

With focus on Osun state of Nigeria, Ojubanire and Dawodu (2021) studied association between risk management and financial performance of MSMEs. The study utilized data collected from two hundred and seventy three respondents and analyzed the data with descriptive statistics and regression analysis. Result then indicated that risk management had significant effect on performance in Osun state and then recommended the need for managers and owners to intensify risk management practices in order to enhance their performance.

In the same vein, Afolabi and James (2018) also assessed the effect of risk management on performance of small and medium size enterprises in Osun state of Nigeria. The study employed data of three hundred and forty respondents and data were analyzed with ordinary least square regression estimation technique which revealed significant influence risk management had on performance of small and medium size enterprise in Osun state. Therefore, recommended that there is need for SME owners and managers to design cost-effective measures that would facilitate effectiveness of risk management in enhancing performance

Another study conducted by Zoghi (2017) examined the relationship between risk management practices and small and medium size enterprises in Turkey. Data were obtained from one hundred and ninety two respondents and was analyzed using descriptive statistics and Chi-square; the study revealed that the risk management practice is not sufficient in the small and medium size enterprises. Hence, suggested that organization culture, structure and management system should be enhanced in order to ensure proper risk management.

Poon, Roslan, Othman, Anuar and Nejad (2022) investigated the influence of enterprise risk management implementation on SMEs performance in Malaysia. The study identified eight dimensions of enterprise risk management which are objective setting, event identification, control environment, risk assessment, risk response, control activities, information and communication, monitoring and SME performance. The study utilized data collected from three hundred and twelve respondents and data were analyzed with descriptive statistics and ANOVA which showed that enterprise risk management had positive significant effect on performance. Therefore, the study suggested that adequate and appropriate risk management practices would improve performance of small and medium size enterprises in Malaysia.

Kafigi (2020) evaluated the effect of risk taking on performance of small and medium enterprises in Tanzanian bakeries by considering risk planning, risk controlling and strategic risk initiative as proxies for risk taking, then engaged data collected from one hundred and sixty one respondents and data were analyzed with regression estimation technique. Result revealed that risk planning; risk controlling and strategic risk initiative had significant effect on

performance of small and medium size bakeries. Therefore, the study suggested that these bakeries need to put in more effort to enhance risk management initiatives in their operations.

Kinyua, Ogollah and Mburu (2015) assessed the effect of risk management strategies on project performance of small and medium information communication technology enterprises in Nairobi using data collected from ninety six respondents in ICT SMES and data were analyzed with regression estimation technique, which showed that risk management practices had positive significant influence on project performance. Hence, the study suggested that ICT SME should ensure proper risk management in order to effectively optimize performance.

Mbuva, Rambo and Oketch (2018) examined the effect of risk assessment on performance of SME projects in Machakos county of Kenya. The study engaged data collected from two hundred and sixty five respondents and data were analyzed with ANOVA> Result indicated that organizational goals, risk identification and prioritization, as well as managing change had positive effect on financial and non-financial performance. Result also showed that risk identification and prioritization had significant effect on performance. Therefore, the study suggested that owners and managers should enhance the effectiveness of risk assessment.

Yakob, Hafizuddin, Yakob and Raziff (2019) checked the influence of enterprise risk management on SME performance. The study engaged data collected from three hundred respondents and data were analyzed with regression estimation technique which revealed that objective determination had significant influence on performance SMEs. Result on the other hand showed that risk assessment, risk events, risk response, activity control, information and communication, and monitoring had insignificant effect on performance. Therefore, the study suggested that take risk management as important components in the business.

Ntare, Shau and Ojwang (2022) checked the effects of enterprise risk management on performance of small and medium size enterprises. The study engaged data collected from three hundred and thirty five respondents and data were analyzed with regression estimation technique which showed that internal environment, event identification, risk response and risk assessment had significant effect on performance of small and medium size enterprises in Tanzania. However, it was suggested in the study that there is need for more risk management variables to be considered in empirical analysis, in order to facilitate broad analysis of risk so as to ensure effective impact on performance.

Lukianchuk (2015) assessed the impact of enterprise risk management on firm performance of small and medium enterprises. The study engaged data collected from two hundred and eight respondents and data were analyzed with regression analysis method which indicated that auditor fees, quality score, male/female board of director proportion, and board structure had positive significant effect on return on asset. However, the study suggested that management qualification, average age of board, and international experience of CEO can be considered as additional proxies of risk management in future studies.

Aduloju and Akindipe (2022) checked the effect of risk control technique on organizational performance of selected firms in Lagos state. The study utilized data obtained from three hundred and eighty seven respondents and data were analyzed with ANOVA regression estimation technique which showed that physical risk control technique had significant effect on performance. Result on the other hand showed that financial risk control had significant effect on performance. Hence, the study suggested that firms should ensure the adoption of risk control strategies in order to facilitate performance.

Madembu, Namusonge and Sakwa (2015) checked how risk management affects financial performance of small and medium size enterprises in Nigeria. The study identified enterprise risk management, strategic risk management and financial risk management as explanatory variables of the study with financial performance as dependent variable of the study. Data were collected from the financial statement of one hundred small and medium enterprises. The study was however base on descriptive method and revealed that risk management practices has influence on performance of small and medium enterprises. Therefore, it was recommended in the study that small and medium enterprises should formulate and adopt appropriate risk management practices as this will help in improving their performance.

Chiliya, Rungani, Chiliya and Chikandiva (2015) assessed impact of risk on the financial performance of small medium enterprises in the construction industry in Eastern cape, South Africa. The study used data collected from eighty two respondents and data were analyzed with descriptive statistics which showed that risk awareness and use of risk management methods had significant influence on performance of small and medium size enterprises. Therefore, the study suggested that government and owners/managers of these firms, among many other related bodies, should work together to promote risk awareness and utilization of risk management technique.

Jinadu (2022) examined the impact of physical risk control technique on corporate risk management in Nigeria. The study utilized data collected from two hundred and fifty respondents and data were analyzed with ordinary least square regression estimation technique which indicated that physical risk control had significant influence on corporate risk management. Therefore, the study recommended that corporate entities should design strategies that would facilitate effectiveness of risk control techniques in order to enhance risk management outcome.

RESEARCH METHOD

This study adopted survey research design of the cross sectional type in which selected representatives will be taken from the selected small and medium size enterprises, to draw necessary information needed for the empirical analysis of this study.

The population target of this study covers the owners and managers of the 1039 small enterprises and medium enterprises in Ekiti state of Nigeria (SEDAN, 2021). For the sample size, four hundred (400) copies of questionnaire were administered among cell phone dealers at Ajilosun Market popularly called Fayose Market Ado Ekiti, out of which 284 copies were properly filled, useful, and relevant for data analysis, making 71 percent response rate

The data instrument adopted a Likert scale measurement of ‘strongly agree’, ‘agree’, ‘undecided’, ‘disagree’, and ‘strongly disagree’. These responses, according to Pallant (2011), were accorded values as follows: strongly agree = 5, agree = 4, undecided = 3, disagree = 2, strongly disagree = 1.

The model in this study involves performance as the dependent variable with risk transfer and risk diversification as explanatory variables. Hence, the model is specified as thus:

$PERF = \propto + \beta_0 RDIV + \beta_1 RT + u$

Where

PERF= Performance

RDIV= Risk Diversification

RT= Risk Transfer

This study model is then analyzed with the inferential analysis approach, specifically, the Analysis of Variance to capture the effect of risk control techniques on performance in Ekiti State.

Data Analysis and Results

4.1. Descriptive Analysis

Table 4.1. Respondents' Perceptions of Bio-Data of the Business

Variables	Options	Responses	Percentages
Gender	Male	153	53.9
	Female	131	46.1
Ages	18 <30	51	18.0
	30 < 40	90	31.7
	40 < 50	89	31.3
	50 < 60	38	13.4
	60 & above	16	5.6
Education	BSc/HND	151	53.2
	MSc.	34	12
	Ph.D.	13	4.6
	Professional Certificate	35	12.3
	Others	51	17.9
Business Size Classification	Small	113	39.8
	Medium	142	50
	Large	29	10.2
Risk Control Guidelines	Yes	73	25.7
	No	211	74.3

Source: Field Survey, 2023

The analysis of Table 4.1 reveals that 53.9% of the respondents were male, while 46.1% were female. While the majority of the respondents' ages were both 31.7% and 31.3% for ages 18 years but less than 30 and 40 years but less than 50 respectively, those respondents of 18 years but less than 30 recorded 18.0% while aged 50 years but less than 60 were 13.4%, 5.6% was recorded for respondents aged 60 years and above. For education qualification, 53.2%represented those respondents with B.Sc./HND. While 17.1% was for others, 12.3% was recorded for professional certificate holders. While 12% claimed to have Master degree, 4.6%were said to be doctoral degree holders. The business size classification of the SMEs' operators shows that majority were medium, representing 50%. While 39.8% are recorded for small business, 10.2% were said to be large business. As for the risk control guidelines, majority of the business investigated revealed that no risk guidelines on their part.

4.2. Test of Hypotheses

Table 4.2: Risk Diversification vs. SMEs' Performance

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.471[a]	.221	.218	2.573	.221	23.970	1	283	.000
a. Predictors: (Constant), Risk diversification									

ANOVA[a]						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	158.682	1	158.682	23.970	.000[b]
	Residual	1595.425	283	6.620		
	Total	1754.107	284			
a. Dependent Variable: SMEs' Performance						
Predictors: (Constant), Risk diversification						

Coefficients[a]								
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	13.482	1.251		10.780	.000	11.018	15.946
	Risk diversification	.157	.032	.301	4.896	.000	.094	.220
a. Dependent Variable: SMEs' performance								

Source: *Researcher's computation, 2023*

The results of the regression analysis presented in table 4.2 revealed a positive relationship between risk diversification and SMEs' performance. The result also shows that risk diversification is responsible for only about 22.1% of variation in SMEs' performance meaning that 77.9% variation in SMEs' performance enjoyed are caused other factors. The Adjusted R square indicate that true 21.8% of the variation in SMEs' performance is expounded by risk diversification which makes the result to be close to reality since there is little difference between R Square and Adjusted R Square. The result of the ANOVA in table 4.2 is statistically significant at (p-value = 0.157) since the result is less than 0.05 confidence interval as used in the study.

Table 4.3: Risk Transfer Techniques vs. SMEs' Performance

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.760[a]	. 577	.513	4.205	. 577	17.416	1	283	.000
a. Predictors: (Constant), Risk transfer									

ANOVA[a]					
Model	Sum of Squares	Df	Mean Square	F	Sig.

1	Regression	118.216		1	118.216	17.416	.000[b]
	Residual	1635.891		283	6.788		
	Total	1754.107		284			
a. Dependent Variable: SMEs' Performance							
a. Predictors: (Constant), Risk transfer							
Coefficients[a]							
Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B
		B	Std. Error	Beta			Lower Bound / Upper Bound
1	(Constant)	13.949	1.353		10.312	.000	11.285 / 16.614
	Risk transfer	.373	.089	.260	4.173	.000	.197 / .549
a. Dependent Variable: SMEs' Performance							

Source: *Researcher's computation, 2023*

There is positive but low relationship between risk transfer and SMEs' performance as shown in the result of regression analysis in table, 57.7% of the variations experienced by the dependent variable (SMEs performance) is explained by the independent variable (risk transfers) meaning that other factors are responsible for the 42.3% variation experienced by SMEs performance). At 51.3%, the Adjusted R square indicates the result is close to reality. The result of the ANOVA show a statistically significant (p-value = 0.373) since it is not up to the 0.05 confidence interval as specified in the study.

5.0. Conclusion and Recommendations

The results revealed that positive and significant relationship exist between financial risk control techniques and SMEs performance in Ekiti State, Nigeria which negate all null hypotheses and they are hereby rejected at 0.05 level of significance. The feedback from the respondents confirmed that if financial risk control techniques are implemented effectively, SMEs will operate at enhance to a moderate extent. Thus, as recommended by Chiliya, Rungani, Chiliya and Chikandiva (2015) insurance providers in Nigeria need to pay needed attention to risk management proxies to improve on the buying behaviour of the SMEs owners/operators, also insurance education and agressive awareness on the importance of insurance to managing business risk should be taken as seriously to chnage peoples' psychological and sociological pespectives of risk management.

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THE EFFECT OF LOAN DEFAULT ON THE GROWTH OF COOPERATIVE SOCIETIES IN NIGERIA

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ABSTRACT

This study examined the effect of loan default on the growth of cooperative societies in Nigeria. Specifically, the study focused on establishing the association between loan management procedure, loan diversion and loan size and its association with the growth of cooperative societies in Nigeria. A total number of five (5) cooperatives were purposively selected for this study using the cross-sectional survey method of research design. Cooperative Society Growth is the dependent variable while Loan Management Procedure, Loan Diversion, and Loan Size as independent variables. The results affirmed that loan management procedure exerts positive insignificant effect on growth of cooperative societies in Ekiti State with coefficient estimate of 0. 619080 (p=0.0751>0.05); loan default exerts negative effect on growth of cooperative societies in Ekiti state with coefficient estimate of -0.479062 (p=0.0522=0.05); and loan size has positive insignificant relationship with growth of cooperative societies in Ekiti State given the coefficient estimate of 0.179562 (p=0.0802>0.05) and concluded that Loan default has remained a dominant issue that has discouraged most cooperative societies from granting loan to members while other cooperatives that has continuously disbursed loan to members have not performed soundly as they have remained stagnated per time. Therefore, recommended that Cooperative credit supervisor should evaluate records of credit officer to ascertain that loan policies are consistently observed; this would strongly establish loan procedures of cooperatives and enhance members commitment to loan repayment; Adequate training on financial management and business training should be carried out for members of cooperative towards aiding the profitability of their businesses and consequent payment of loan; Management of cooperative societies should ensure that loan requests are either declined or granted rather than approving an insignificant amount of loan application which encourages members to default; Loan approved should be based on the past record of the members; Creating channels that will make the loanee able to pay the loan at a convenient time before the exceeding period e.g Loan Applications for the members.

Keywords: Cooperative Society Growth, Loan Management Procedure, Loan Diversion Loan Size

INTRODUCTION

In the course of time, the increasing of poverty in most developing economies has necessitated the need for urgent intervention which primarily concerns the provision of huge and urgent financial alternatives for rapid and sustainable development aimed at improving the standard of living of individuals from different walks of life (Kassegn & Endris, 2020). Lending refers to the trust that gives one party a cause to provide resources to another party

where the other party does not refund the money transferred immediately to the first party, but rather makes arrangement to pay the principal amount with interest (if applicable) at a pre-determined date (Nyaga, 2014). Cooperative societies have from the days of old to the present time have consistently encouraged development across the globe especially in emerging economies providing its members with the economic aids in the form of loan in the bid to cause improved standards and business prosperity for its members (Ajayi, Dada & Folorunsho, 2021). Adesina (1998) posits that cooperative society describes a set of people with the same mindsets and drive, whose passion is to cause the availability of the financial provisions that their members would find helpful. Contemporary researchers posited that it is an independent set of individuals who willingly joined force with other persons with similar interest to reach ordinary economic and social benefits through an organization jointly owned and managed democratically by a set organized member (Obasi, 2013). The usual failure of banks with regard to provision of loan to individuals either with or without adequate collateral security necessitated the need for social enterprise that ensures complete support for individuals with urgent economic and social needs; the basic intention was to amass economic resources of members and redistribute appropriately to members with extreme needs improving access of needy individuals to socioeconomic resources especially financial resources (Ajayi *et al*., 2021; Obasi, 2013). Notwithstanding these challenges and the adverse effect that it exerts on the operational performance and consequent prosperity of these organizations, the growth of cooperative society's remains measured with savings mobilization of the cooperative society (Abdullahi, 2016). Although, the issues of loan default are not solely caused by borrowers, lenders of financial resources play a crucial role in indulging borrowers as a result of not keeping proper records of loan disbursement and repayments. Bad loan management system has contributed significantly to the default issues thus making loan default unending with formal and most importantly informal financial institution (Baidoo, Yusif & Ayesu, 2020).

Nigeria has remained a low-income country where a good number of its citizens feed on less than US$1 per day with the generality of the populace living below the poverty line (Onafowokan, 2012). In fact, formal financial service providers have habitually shown preference to large and medium size businesses to the neglect of the teeming population of artisans, market men and women and small business operators. This has necessitated the need for the creation of cooperative societies that targets individuals with the same peculiarities and providing them with loans, which has become a viable option for aforementioned informal sector operators and salary earners (Ajayi et al., 2021). The causal factor has been attributed to several issues which have been affirmed severally in literature; managerial capacity of most cooperative societies remains a weakness that has marred its operations, this is evident in the poor loan processing and collection procedure that has contributed critically to loan default of cooperative members (Munyua, 2016). Again, members in their bid to fulfil other commitments different from the basic essence of obtaining the loan tend to use the loan obtained for another purpose which often include business opportunities that does not guarantee the realization of the principal amount invested or return on investment at least in the short term thus making default in repayment of the loan inevitable (Oluwakayode, Ogunmuyiwa, Aladegoroye, Akerele & Olabisi, 2020). Similarly, cooperative society indulge in multiple borrowing, that is, providing inadequate loan size to members giving less consideration to their prospect of paying back; consequently, this shoots up the number of loan defaulters which looking forward constrain the organization from achieving its basic objectives effectively which ultimately threatening its growth and survival (Munyua, 2016).

In fact, most of the loans disbursed by cooperative societies eventually become non-performing loans which has per time affected the sustainability of cooperative institutions; this menace could be associated with loan management procedures which appears to be poor thus making loans incompetently managed and due diligence are almost not observed. Thus, has encouraged high loan default as members severally fail to repay their loans as and when due (Oluwakayode et al., 2020). Also, loan disbursed to members to pursue productive investments are most likely directed to unproductive investments which may include residential building projects which guarantees no income generation; this makes poor repayment inevitable and further hinders the growth of cooperative societies in Nigeria (Zohair, 2013). In a similar way, cooperative societies appear to relatively low loanable funds compared to the mounting loan requests of members; in effect, the loan size disbursed to members often fall short of the amount requested. The implication is diversion of funds received to another cause thereby increasing loan default which drags down the performance and growth of cooperative societies (Tundui & Tundui, 2013)

Considering the peculiarity of cooperative society and its contribution to the development of the economy, numerous studies have over time given focus to its growth and performance. Evidently, studies that established the association of loan default and the prosperity of cooperative society remains relatively low thus making this study worthwhile; again, effect of loan default on the growth of cooperative societies have not recently been considered as evident in the studies reviewed in this study; the growth of cooperative societies should be the basic concern of studies considering the significance of these organizations which qualifies them to grow on a consistent level so that their advantage can be fully harnessed. It is based on this premise that this study sets out to examine the effect of loan default on the growth of cooperative societies in Nigeria. The specific objective of this study is to evaluate the effect of loan management procedure on the growth of cooperative societies in Nigeria; examine the relationship between loan diversion and the growth of cooperative societies in Nigeria and investigate the effect loan size on the growth of cooperative societies in Nigeria.

LITERATURE REVIEW

Cooperatives Societies

Cooperative comes from the verb “operate” meaning to work and a prefix - Co‖ meaning together and merging the two gives the word Cooperative (Apata & Yusuf, 2020). In its broadest sense it means any two or more persons working together to achieve some aims. There exists no universally acceptable definition for cooperative societies as several meaning have been attached to the concept. Cooperative societies are self-regulated, self-funded microfinance institutions and often noticeable in communities as they are meant to service the local dwellers where the possibility to reach a formal banking system is almost impossible (Simkhada, 2004). Cooperatives are financial groups established and managed by members, providing savings and credit facilities to their members in the community (Sharma, et al., 2005). They are a kind of microfinance institutions owned by a set of people who are the members and they make available small scale financial services particularly savings and loans to their members. The concept of cooperatives differs completely from the formal microfinance institutions, for example microfinance banks (MFBs) in Nigeria which are focused on servicing the public (Oluyombo, 2012).

Basic Principles of Co-operative Societies

Cooperatives worldwide generally operate using the same principles as adopted in 1995 by the Intern Cooperative Alliance. The principles are part of a cooperative statement of identity, which also includes the definition of a cooperative as opine by Kareem, Arigbabu, Akintaro & Badmus (2012) includes: Voluntary and Open Membership, Democratic Member Control, Member Economic Participation, Autonomy and Independence, Education, Training and Information, Cooperation among Cooperatives and Concern for Community.

Cooperative Credit Facilities

A cooperative is simply an association of persons who pool their resources together on mutual basis to solve specific socio-economic problems, including income generating activities (Nwankwo, Ogbodo & Onwuchekwa, 2019). Cooperative societies constitute an avenue through which cheap credit is channeled to the rural areas and especially when it is supported by international donors and governments (Abdullahi, 2018). Kyazze, Nsereko and Nkote (2020), define credit as the power or ability to obtain goods or services in exchange for a promise to pay later. Credit, therefore, is the power or ability to obtain money by the borrowing process, in return for a promise to repay the obligation in the future (Katula & Kiriinya, 2018) Credit facility is a type of agreement that is made with the bank along with the person or organisation in terms of taking credit (Wasinda, 2019). Trade credit is the loan extended by one trader to another when the goods and services are bought on credit. Trade credit facilitates the purchase of supplies without immediate payment. Trade credit is commonly used by business organisations as a source of short-term financing (Lee, Wang & Ho, 2020).

Mobilization of savings by Cooperative Thrift and Loan Societies

Raising of venture capital is usually the responsibility of the owners of business while the employees render services and produce goods which are procured by the organization's customers. There are different sources of capital usually open to cooperatives including credit cooperative. These sources are grouped as owned and borrowed capital. Amahalu (2007) states that owned capital is obtained within the cooperative complex and borrowed capital is obtained outside the cooperative complex. Outside the cooperative complex is otherwise known as third party. Cooperative complex refers to the members of the cooperative and the cooperative business enterprise. Owned sources include; shares, reserves etc. sources of reserves include; retained annual shared capital, lapsed patronage grants and gifts, special earnings from assumption of member's liabilities to private outside lenders, manipulation of valuation etc. external sources of finance include borrowed fund from members of the cooperative, borrowed fund from the government, borrowed fund from financial institutions (commercial banks, micro fiancé banks, development banks etc) borrowed fund from other cooperative financial institutions, trade credit, etc. Ogbonna (2006) identified internal financing of cooperative to include entrance fee, share capital, savings deposit, admission fee and the external financing to include loans, deposits, overdraft, grants and aids.

Loan Default and Its Implication on Cooperative Growth

Default occurs when a debtor has not met his or her legal obligations according to the debt contract, e.g. has not made a scheduled payment, or has violated a loan covenant (condition) of the debt contract (Nicholas, 2010). A default is the failure to pay back a loan. Default may

occur if the debtor is either unwilling or unable to pay his or her debt. This can occur with all debt obligations including bonds, mortgages, loans, and promissory notes. Defaulting on debt obligation can place a company or an individual in financial trouble. Loan repayment performance is an important concept for all the lending institutions. It is a measure of whether loans are settled up in full according to the loan contract or not. The higher loan repayment performance leads to the higher probability of the collecting interest revenues and lower loan losses in a lending institution (Kinyondo & Okurut, 2009). On the other hand, the poor loan repayments have a harmful impact on institutions capital, earning as well as in realizing its objectives and may even lead to a financial institution collapse. For instance, failure to manage loan repayment performance results in losses and high delinquency management costs (Ledgerwood, 2000). The higher expenses are for closer monitoring, more frequent portfolio and legal fees for pursuing seriously delinquent loans. Such costs adversely affect the generated income, and, in general, the operations of the lending institution, thus, the institution becomes unsustainable (Njanike, 2009).

RESEARCH METHOD

The model of Salaton, Gudda and Rukaria (2020) which explored the effect of loan default rate on financial performance of savings and credit cooperative societies Innarok, county Kenya was followed in this study. Notwithstanding that the study formed part of the few studies that established the association between loan default and performance of cooperative societies; it ignored the growth of cooperative societies which appears to be relatively significant. The need to ascertain the association between loan default and growth of cooperative has become necessary considering the role played by the organization; particularly the cause that they have taken which is to contribute noticeably to the development of the economy. However, the simple regression model of Salaton *et al* (2020) as provided in the study is demonstrated below:

$Y = \alpha + \beta_1 X_1 + e$ …….. 3.1

Where:

Y = A measure of Financial Performance based on ROA and ROE α = Constant term

β = Beta coefficient; X1 = Loan default rate (Amount of loan dispersed, amount of loan defaulted and default rate)

e = Error term.

Return on Asset = Total Profit/Total Assets

Return on Equity = Total Profits/Total Equity

Loan default rate = Non-performing loan/total loan advance

This study based on established arguments modifies the model of Salaton *et al* (2020) to reflect loan management procedure, loan diversion and loan size as basic proxies of loan default and its effect on growth of cooperative societies. Hence, the modified model is presented below for clarity:

COSG = *f* (LMP, LOD, LOS)……..……. 3.2

$COSG = \alpha_0 + \alpha_1 LMP + \alpha_2 LOD + \alpha_3 LOS + \mu$ ……..…..……... 3.3

Where:

OSG = Cooperative Society Growth

MGP = Loan Management Procedure

LOD = Loan Diversion

LOS = Loan Size

μ = Stochastic Error Term

$\alpha_0, \alpha_1, \alpha_2, \alpha_3$ are parameter estimates corresponding to constants term

RESULTS AND DISCUSSION

Descriptive Results

Table 1: Demographic Characteristics of Respondents

S/N	Demographics		Frequency	Percent	Valid Percent	Cumulative Percent
1	Sex	Male	64	64.0	64.0	64.0
		Female	36	36.0	36.0	100.0
		Total	100	100	100	
2	Age	21-30	57	57.0	57.0	57.0
		31-40	20	20.0	20.0	77.0
		41-50	12	12.0	12.0	89.0
		50 and Above	11	11.0	11.0	100.0
		Total	100	100	100	
3	Marital Status	Single	10	10.0	10.0	10.0
		Married	71	71.0	71.0	81.0
		Divorced	7	7.0	7.0	88.0
		Separated	12	12.0	12.0	100.0
		Total	100	100	100	
4	Education Qualification	First Degree	14	14.0	14.0	14.0
		Master Degree	73	73.0	73.0	87.0
		Doctorate Degree	13	13.0	13.0	100.0
		Total	100	100	100	

5						
	Period of Membership	Below 3 Years	30	30.0	30.0	30.0
		3-5 Years	39	39.0	39.0	69.0
		6 Years & Above	31	31.0	31.0	100.0
		Total	100	100	100	

Source: Author's Computation, 2022

The demographic details of the respondents selected across leading cooperative societies with sound operation in Ekiti State - the study area is reflected in the above Table 1. The table demonstrated that 64% of the participants of the study are male while 36% are female; this indicates that male dominate the respondents of the study and also suggests that there was no gender bias. Also, it is evident from the Table 1 that 57% of the respondents falls within the age range of 21-30 years, 20% are within the age bracket of 31-40 years; while 12% aged between 41-50 years, 11% ages 50 years and above. In addition, the distribution of respondents regarding marital status indicates that 10% of the respondents are single, 71% are married, 7% are divorced and 12% are separated. Again, the educational qualification distribution displayed above indicated that 14% of the participants of the study has a First Degree, 73% are Masters holders while others - 13 % has Doctorate Degree; we can establish that respondents who took part of this study has adequate level of education. Furthermore, from the result revealed in Table 4.1 above, it is ascertained that 30% of the study's respondents has been with their cooperative for 3 years' experience, 39% has spent 3-5 years' with their cooperatives while 31% has spent over 6 years' with their cooperatives; hence affirming that the respondents that participated in this study has gathered satisfactory experience in the course of time. This result also implies that the respondent's demographics satisfy the demographic qualities required by the researcher in eliciting useable information for the study.

Correlation Analysis

Table 2: Correlation Matrix

	COSG	LMP	LOD	LOS
COSG	1.0000			
LMP	0.3155	1.000000		
LOD	0.5602	0.4821	1.0000	
LOS	0.4102	0.2052	0.4163	1.0000

Source: *Field Survey (2022)*

Table 2 presents correlation coefficient for pairs of variables adopted in the study. Specifically, the table reported correlation statistics of 0.3155, 0.5602 and 0.4102 for COSG and LMP, COSG and LOD, COSG and LOS respectively. The result shows that there is positive relationship between pairs of variables used in the study. The correlation result connotes that loan management procedure, loan diversion and loan size move in the same direction with cooperative society growth as reported in the table above. This gives a reflection of the interconnection between the pairs of variables adopted in the model of the study.

Multicollinearity Test

The presence of strongly correlated variables in a model tends to create a multicollinearity problem. Therefore, the Variance Inflation Factor (VIF) test can be used to confirm the existence of multicollinearity among the explanatory variables of loan default amongst cooperative societies. Based on the rule of thumb, the VIF must be less than 10 to confirm that the estimates of the regression would not be biased due to the presence of multicollinearity.

Table 3 Result of Multicollinearity Test

Variable	VIF
LMP	1.302
LOD	1.509
LOS	1.209

Sources: Author's Computation, (2022)

Table 3 shows that all the variables have a VIF value of less than 10, thus implying that there is no strong evidence of collinearity among the explanatory variables of loan default amongst cooperative societies in Ekiti State.

Regression Analysis

Table 4: Regression Estimation Result

Influencing Variable: COSG

Variable	**Coefficient**	**Std Error**	**t-statistics**	**Prob.**
C	5.589366	5.226325	1.069464	0.2970
LMP	0.619080	0.213860	0.289477	0.0751
LOD	-0.479062	0.232817	2.057679	0.0522
LOS	0.179562	0.162003	1.108389	0.0802

R-Squared=0.8543

Adjusted R-Square=0.7621

F-statistics=3.84

Prob (F-statistics) = 0.0244

Result of the regression estimate in table 4 revealed the coefficient estimate of 0.619080, 0.479062 and 0.179562 for loan management procedure, loan diversion and loan size respectively. The result of the analysis shows that loan management procedure of cooperative societies in Ekiti State exerts positive insignificant effect on growth of cooperative societies; loan diversion exerts negative and insignificant impact growth of cooperative societies while health loan size exerts positive insignificant effect on growth of cooperative societies. In specific terms, improved loan management procedure of cooperative societies would command noticeable increase in growth of cooperative societies; result also established that

reduction in loan diversion would lead to increased growth cooperative societies in Ekiti State. Evidence further obtained from the result that demonstrated that loan size maintains positive relationship with growth of cooperative societies which suggests that increasing loan size will culminate into an increase the growth of cooperative societies.

Specific estimates and probability values reveals that loan management procedure of cooperative societies in Ekiti State has a positive significant relationship with growth of cooperative societies with coefficient estimate of 0. 619080 (p=0.0751>0.05), loan diversion of members of cooperative societies in Ekiti State maintains negative insignificant relationship with growth of cooperative societies with coefficient estimate of -0.479062 (p=0.0522=0.05) while loan size disbursed by cooperative societies in Ekiti State has positive significant relationship with growth of cooperative societies given the coefficient estimate of 0.179562 (p=0.0802>0.05). R-square statistics reported in table 4.3 stood at 0.7621 which connotes that about 76% of the systematic variation in the growth of cooperative societies in Ekiti State can be significantly explained by loan management procedure, loan diversion and loan size. F-statistics and probability values reported in table 4.3 reflect that the model is a good fit, with the probability value of the reported statistics less than 0.05.

Post Estimation Test

Post estimation test conducted in the study include linearity test Normality test (using Jarque-Bera test) and heteroscedasticity test (using Breusch-Pagan Godfrey test). Summary of the aforementioned post estimations are presented in table 4.5 below:

Table 5: Post Estimation Test Result

Normality Test		
Statistics	*Values*	*Probability*
Jarque-Bera Stat	22.5164	0.0000
Heterogeneity Test		
Statistics	*Values*	*Probability*
F-statistic	0.3691	0.7760

Source: *Field Survey (2022)*

The estimates Jarque-bera statistics and probability values of the estimation conducted in the study reflect a coefficient estimate of 22.5164 and probability value of 0.0000. This estimate indicates that alternative hypothesis is well demonstrated and following the probability being less than 0.05 (0.0000<0.05), we affirm the normal distribution of the error term of the study's model.

Also, the heteroskedasticity test which assessed the heterogeneity of the variables reported f-statistics and probability values of 0.3691 and 0.7760 also describes that there is no justification to rejecting the null hypothesis of constant variance of the error term (homoscedasticity). Therefore, the test determined the lack of issue as regards heteroscedasticity in the error term of the models demonstrated in the study.

Discussion of Findings

The most consistent and efficient estimation result shown in table 4 suggests that loan management procedure exerts positive insignificant effect on growth of cooperative societies in Ekiti State thus implying that as loan management procedures improves, growth of cooperative societies also heightens. The series of approach adopted by management of cooperative societies to control the loan from the point of disbursement to the point when the loan has been completely paid (Agada, Iheanacho & Ogbanje, 2018; Gebeyehu, 2002; Kinyondo & Okurut, 2009; Njanike, 2009; Nsengiyumva, & Harelimana, 2020). At every stage of loan management cycle, adequate management is expected; peculiar approach is adopted from the pre-qualification stage to the loan disbursement stage thus guaranteeing the selection of members that would stay committed to the repayment of disbursed loan. This in effect ascertains that the cooperative would sustainably possess the resource required to persistent in providing loan to members; this consequently gives members a cause to remain active thus enhancing its growth of the society.

Again, the height of economic uncertainties across all states in Nigeria including Ekiti State, and the effect it has on the wealth of individuals and households significantly contributes to the failure of business projects and other ventures where funds are pooled by cooperative members towards making profit. Most times, the failure of these ventures or the uncompletion of other projects are envisaged by cooperative members thus causing the diversion of loan obtained to other ventures which may hinder the repayment of such loan as most of these ventures may not guarantee return on investment in the shortest time as promised by cooperative members; this contributes to the increased height of loan default which consequently drags down the growth of cooperative societies in Ekiti state. This results of loan diversion which could lead to loan default and it conforms to Baidoo, *et-al* findings (2020).

Lastly, loan size has positive insignificant relationship with growth of cooperative societies in Ekiti State which implies that as loan size increases, growth of cooperative societies also increases. Cooperative societies generates interest income from loan disbursed to members which suggests that the disbursement of relatively large loan which gives the society the chance of maintaining higher revenue which is deployed to financing of projects which includes building projects, business ventures amongst other economic activities that the organization embarks on. Although the disbursement of loan in large sizes may contribute to loan default, but it bolsters the earning capacity of the society; in fact, part of the interest income are retained and distributed to members thereby providing them with funds to execute other smaller projects, this influences rate of cooperative membership which translates to the growth of the society. This conforms with the study of Kassegn and Endris (2020).

SUMMARY AND RECOMMENDATIONS

Loan default has remained a dominant issue that has discouraged most cooperative societies from granting loan to members while other cooperatives that has continuously disbursed loan to members have not performed soundly as they have remained stagnated per time. In establishing the cause for the menace, the results obtained in this study revealed that loan default has an association with growth of cooperative societies in Nigeria. Specifically, the study established that loan management procedure exerts positive insignificant effect on growth of cooperative societies in Ekiti State, hence we conclude that loan management procedure of cooperative societies in Ekiti State appears ineffective and has contributed to

relatively low growth of cooperatives in the state. Loan default exerts negative effect on growth of cooperative societies in Ekiti state thus we conclude that cooperative members have increasingly defaulted loan terms and this has dragged cooperative growth in Ekiti State. Loan size has positive insignificant relationship with growth of cooperative societies in Ekiti State, hence we establish that loan size exerts noticeable effect on the growth of cooperative societies in Nigeria.

Based on these findings, it is thereby urgent that the following suggestions be made:

i Cooperative credit supervisor should evaluate records of credit officer to ascertain that loan policies are consistently observed; this would strongly establish loan procedures of cooperatives and enhance members commitment to loan repayment

ii Adequate training on financial management and business training should be carried out for members of cooperative towards aiding the profitability of their businesses and consequent payment of loan.

Iii Management of cooperative societies should ensure that loan requests are either declined or granted rather than approving an insignificant amount of loan application which encourages members to default.

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FINANCIAL INNOVATION MECHANISMS AND ECONOMIC PROGRESS: A REVIEW OF LITERATURE

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ABSTRACT

This paper provided a comprehensive review of literature on the relationship between financial innovation mechanism and its implication on economic growth in Nigeria. The study examines the factors that have facilitated financial innovation in Nigeria. The paper presents a critical analysis of the literature and identifies gaps that require further research. The findings from the literature reviewed showed that financial innovation mechanisms such as digitalization, number of fintech start-ups, introduction of new financial products, and efficiency of financial innovation have the potential to stimulate economic growth in Nigeria. However, challenges such as poor infrastructure, low levels of financial literacy, and weak regulatory frameworks have limited the impact of financial innovation on economic growth. The study suggests on the need for policymakers to develop a comprehensive strategy that promotes financial innovation, strengthens regulatory frameworks, and improves infrastructure to support the growth of the financial sector and the broader economy in Nigeria.

Keywords: Financial Innovation, economic growth, Mobile Banking, e-payment systems, peer-to-peer lending, regulatory frameworks, financial inclusion.

1.0 INTRODUCTION

Financial innovation has been a topic of significant interest in the field of finance and economics. In the research domain, the impact of financial innovation on economic growth has been the subject of extensive research in recent years, with scholars exploring the mechanisms through which financial innovation can promote economic growth and the potential risks and challenges associated with financial innovation as well. Financial innovation is mainly concerned with the creation and development of new financial products, processes, and institutions, which can lead to greater efficiency, productivity, and competitiveness in the financial sector (Hu et al., 2018).

Financial Innovation plays a significant role in driving economic growth in both developed and developing countries over the past few decades. Financial innovation has a connectivity with economic growth in several ways. For instance, financial innovation engenders the development of new financial products that can better meet the needs of consumers and businesses. For example, the introduction of credit cards, online banking, and mobile payments has made it easier for consumers to access credit and manage their finances, which in turn can lead to increased consumer spending, promotes economic activities and economic growth (Gomber et al., 2018). Similarly, financial innovation has the potential to improve the efficiency of financial intermediation, which can reduce financial market frictions like transaction costs, agency cost,

information asymmetry and increase the availability of credit, consequently lead to increased investment, job creation, and economic progress (Levine, 2020). A possible positive side effect of financial innovation is that it can enhance the resilience of the financial system by creating new risk management tools and reducing the likelihood of financial crises in an economy, reduce the probability of economic downturns, thus contributing to long-term economic growth (De Nicolò et al., 2019).

One of the key mechanisms through which financial innovation promotes economic acceleration is increase in access to finance, particularly for small and medium-sized enterprises (SMEs) and other underserved populations. Financial innovations such as mobile banking and peer-to-peer lending have been shown to increase access to credit and other financial services, which can help to spur entrepreneurship, job creation, and overall economic growth (Acharya et al., 2016). A good potential mechanism through which financial innovation can promote economic growth is by improving the efficiency and stability of financial markets. For example, the development of new risk management tools such as credit default swaps and collateralized debt obligations, no doubt has allowed financial institutions to better manage and transfer risk, which can reduce the likelihood of financial crises and promote long-term economic growth (Claessens et al., 2018).

The most effective fundamental channel through which financial innovation can effectively drive economic growth in a country is financial inclusion. Improving financial inclusion by way of enhancing access to financial services and products for underserved populations is crucial for driving financial innovation. This can be achieved through the use of technology and mobile banking solutions. According to the World Bank's Global Findex database (2021), Nigeria has made progress in improving financial inclusion, with the number of adults with a bank account increasing from 30% in 2014 to 40% in 2017.

Moreover, financial inclusion do enhance financial innovation by providing access to financial services to previously underserved populations. For example, the introduction of microfinance has enabled millions of people to access credit and savings services, which has contributed to poverty reduction and economic growth in many developing countries (Beck et al., 2018).

Financial innovation is an instrument to increase the efficiency of financial intermediation. Efficiency of financial intermediation can be achieved by reducing transaction costs, lowering information asymmetries, and improving risk management. This can lead to increased investment, job creation, and economic growth (Rajan, 2015). Financial innovation contributes to economic growth by facilitating technological innovation; and financial innovation helps to finance research and development, and also provide the necessary funding for the commercialization of new technologies. This can lead to increased productivity, competitiveness, and economic growth (Bariviera et al., 2017; Alimi & Olubusoye, 2018).

However, there are also potential risks associated with financial innovation, particularly in the areas of systemic risk and consumer protection. The proliferation of complex financial instruments and the increasing use of algorithms and artificial intelligence in financial markets have raised concerns about the potential for systemic risk and the need for effective regulatory oversight (Haldane, 2019). Additionally, some financial innovations such as payday lending as peculiar to Wema bank and other banks in Nigeria and high-frequency trading have been criticized for their potential to harm consumers and undermine financial stability (Karlsson et al.,

2019). Despite these challenges, many scholars remain optimistic about the potential for financial innovation to promote economic growth. For example, Beck et al. (2018) noted that countries with more developed financial systems tend to experience higher rates of economic growth, suggesting that financial innovation can play an important role in promoting economic performance where there is effective and developed financial system. Albeit, the implication of financial innovation in promoting economic progress in developing countries like Nigeria is yet to gain ascendancy on both theoretical and empirical fronts.

Nigeria is the largest economy in Africa, and over the past decade, the country has experienced significant financial innovation. For instance, Nigeria has experienced a significant amount of financial innovation in recent years, particularly in the areas of mobile banking, payment systems, and digital currencies. For example, the Central Bank of Nigeria introduced the Cashless Nigeria Policy in 2012, with the aim to reduce the amount of cash in circulation and promote the use of electronic payment systems. Since then, the use of mobile banking and other digital payment systems has increased significantly, particularly among younger Nigerians (Olorunfemi, 2019). In addition, there has been a growing interest in digital currencies, particularly Bitcoin, among Nigerian investors and consumers (Ali & Adeoye, 2019). All these are further increasing and promoting financial inclusivity, effectiveness of the financial system, market and economic vibrancy in the Nigeria clime.

Again, financial innovation no doubt has some implications for the economy of Nigeria. For instance, financial innovation tends to reduce transaction costs in the Nigerian economy, particularly in the areas of remittances and international trade. Nigeria is one of the largest recipients of remittances in Africa, with over $23 billion received in 2018 (World Bank, 2019). However, the high transaction costs associated with remittances adversely affects the amount of money that is received by the recipient, and therefore limit the impact of remittances on economic growth. Financial innovation, such as the use of blockchain technology and digital currencies, are instruments to reduce transaction costs and increase the amount of money that is received by the recipient (Ali & Adeoye, 2019; Adetiloye et al. 2019). These innovative financial instruments are currently being traded by many young Nigerians and this has induced self-employment and drastically reduce unemployment, social- vices and improve the level of economic activities. In the same vein, the overall implication, particularly in the context of Nigeria and other developing countries, is that financial innovation remained a good instrument in the reduction of transaction costs in international trade, increase exports and promote economic growth.

While financial innovation is important on an economy, there is inadequate comprehensive review on how financial innovation mechanisms like digitalization, number of Fintech start-ups, The introduction of new financial products, and efficiency of financial innovation drive the economic progress of a developing country like Nigeria. It is this gap in literature the paper tried to fill in literature. Following this, the specific research questions, and objective guiding the study are indicated thus:

1.2 Research Questions

i How does digitalization drive the economic progress of a developing country like Nigeria?
Ii What is the impact of number of Fintech start-ups on the economic progress of a developing country like Nigeria?
iii. Is there a relationship between the introduction of new financial products and the economic progress in Nigeria?
iv. Does the efficiency of financial innovation drive the economic growth of Nigeria?

Objective of the Study

The main objective of the paper is to comprehensively assess the effect of financial innovation on economic progress in a developing country like Nigeria. However, the specific objectives of the paper are to:

i Assess how digitalization drive the economic progress of a developing country like Nigeria;
ii. Ascertain the impact of number of Fintech start-ups on the economic progress of a developing country like Nigeria;
iii. Examine the relationship between the introduction of new financial products and the economic progress in Nigeria;
iv. Asees if the efficiency of financial innovation drive the economic growth of Nigeria.

1.0 LITERATURE REVIEW

Financial Innovations

Financial innovation has long been recognized as a catalyst for economic growth. It refers to the development and implementation of new financial products, services, and technologies that aim to improve the efficiency, accessibility, and effectiveness of financial systems. The relationship between financial innovation drive and economic growth is a topic of extensive research and analysis. Financial innovation refers to the development and application of new financial products, services, technologies, and processes in the financial sector. It can include innovations in payment systems, lending practices, investment vehicles, risk management tools, and more. Several measures have been suggested as indicators of financial innovations. Some of these measures include patent application, new financial products, investment in research and development, digitalization, number of Fintech start-ups, innovation efficiency and number of patents filed by non-financial firms. The number of patent applications in the financial industry can be used as a measure of financial innovation (Hu, Zhang, & Yuan, 2018). The introduction of new financial products, such as exchange-traded funds (ETFs), is a good measure of financial innovation (Gallagher & McGahan, 2017). The amount of investment in R&D in the financial industry can be used as an indicator of financial innovation (Bariviera et al., 2017). The degree of digitalization in the financial industry, such as the use of blockchain technology or mobile payments, can be used as a measure of financial innovation (Gomber et al., 2018). The number of fintech startups, as well as their funding levels, can be used as a measure of financial innovation (Böhme et al., 2019). The efficiency of financial innovation can be measured by comparing the cost and benefits of innovation (Koijen et al., 2018). The number of patents filed by non-financial firms that are related to the financial industry can be used as a measure of financial innovation (Beck et al., 2018).

Digitalization and the Economic Progress of Nigeria

Digitalization has the potential to drive the economic progress of developing countries like Nigeria in numerous ways by promoting economic growth and diversification, creating jobs, enhancing financial inclusion, empowering SMEs, and improving public service delivery. Digitalization can spur economic growth by diversifying Nigeria's economy beyond traditional sectors like oil and agriculture. The World Bank reports that digital technologies can contribute up to $300 billion (over 9% of GDP) to Nigeria's economy by 2025. This growth will be driven by sectors such as e-commerce, fintech, software development, and IT-enabled services.

Digitalization can create employment opportunities, especially for the youth population, thereby foster economic progress in Nigeria. A report by the International Finance Corporation (IFC) estimates that digital technologies can create over 9 million jobs in Nigeria by 2030, particularly in sectors such as e-commerce, digital services, and software development. Digitalization a a key component of financial innovation can significantly and enhance financial inclusion in Nigeria, where a large portion of the population remains unbanked. The Central Bank of Nigeria's National Financial Inclusion Strategy aims to leverage digital technologies to ensure that 95% of Nigerian adults have access to financial services by 2024. Initiatives such as mobile banking, digital payments, and agent banking are playing a crucial role in achieving this goal already these days in the Nigerian clime.

Digitalization is a potent financial innovation tool that can empower SMEs in Nigeria by providing them with new market opportunities and access to technology-driven tools. The Nigeria Digital Economy Diagnostic Report highlights the role of digital platforms in promoting SMEs' growth, connecting them to larger markets, and facilitating access to finance and business support services. Digitalization can also streamline government processes, enhance transparency, and improve service delivery to citizens. The Nigerian government has been implementing digital initiatives such as the National Identity Management System, e-Government Master Plan, and various online platforms to automate processes, reduce corruption, and enhance public sector efficiency.

Number of Fintech Start-ups and Economic Progress in Nigeria

It is important to note that the impact of fintech startups on Nigeria's economic progress may vary depending on various factors such as government regulations, infrastructure development, cybersecurity, and consumer adoption. However, fintech startups have had a significant impact on the economic progress of Nigeria in recent years. Some of the key areas that fintech startups have had a significant impact on the economic progress of Nigeria are identified as follow:

Financial Inclusion: Fintech startups have played a crucial role in expanding financial inclusion in Nigeria. Traditional banking services were limited to urban areas, leaving a large portion of the population unbanked or underbanked. Fintech companies have leveraged technology to provide financial services to previously underserved individuals and small businesses, facilitating greater access to banking, payments, and other financial products.

Access to Capital: Fintech startups have created new avenues for accessing capital, especially for small and medium-sized enterprises (SMEs). Through innovative solutions like peer-to-peer lending platforms, crowdfunding, and digital wallets, these startups have enabled easier access to credit and investment opportunities for entrepreneurs, thereby stimulating economic growth and entrepreneurship in the country.

Job Creation and Economic Growth: The growth of fintech startups has contributed to job creation in Nigeria. These companies require a skilled workforce in areas such as software development, data analytics, and digital marketing. As fintech startups expand, they create employment opportunities and contribute to overall economic growth.

Increased Efficiency and Transparency: Fintech solutions have improved the efficiency and transparency of financial transactions in Nigeria. Mobile banking, digital payments, and blockchain technology have reduced the reliance on cash transactions and enhanced the speed and security of financial operations. This increased efficiency promotes business growth and fosters trust in the financial system.

Innovation and Competition: Fintech startups have driven innovation in Nigeria's financial sector, forcing traditional banks to adapt and offer more user-friendly digital services. This increased competition has led to improved financial products and services, benefiting consumers and promoting economic development.

Introduction of New Financial Products and Economic Progress in Nigeria

The introduction of new financial products can contribute to economic progress in Nigeria by increasing financial inclusion, expanding access to credit, developing the capital market, managing risks, and leveraging technology-driven efficiency.

Financial Inclusion: New financial products can help increase financial inclusion by providing access to banking and financial services for previously underserved populations. This can empower individuals and small businesses to participate more actively in the economy, leading to increased economic activity and growth. For example, the introduction of mobile banking and digital payment platforms in Nigeria has expanded financial inclusion, allowing people to access financial services through their smartphones, thereby promoting economic progress (Olawale, 2020).

Access to Credit: Innovative financial products can facilitate easier access to credit for individuals and small businesses. This can stimulate entrepreneurship and investment, leading to job creation and economic development. For instance, the introduction of online lending platforms and peer-to-peer lending in Nigeria has increased access to credit for small businesses and individuals who may have been excluded from traditional banking channels (Nwosu, 2021).

Capital Market Development: The introduction of new financial products can contribute to the development of the capital market in Nigeria. For instance, the introduction of Real Estate Investment Trusts (REITs) and Exchange-Traded Funds (ETFs) in recent years has provided new investment opportunities for individuals and institutional investors, leading to increased liquidity and depth in the capital market (Ajide, 2020). This, in turn, attracts domestic and foreign investors, which can boost economic growth.

Risk Management: New financial products, such as insurance and derivatives, can help individuals and businesses manage risks effectively. By providing mechanisms to hedge against unforeseen events, these products can encourage investment, entrepreneurship, and innovation. The introduction of microinsurance products in Nigeria, for example, has helped individuals and small businesses protect themselves against various risks, fostering economic resilience (Mgbame et al., 2019).

Technology-Driven Efficiency: The introduction of new financial products often leverages technology to enhance efficiency in financial transactions and processes. This can reduce costs, improve speed, and enhance transparency, leading to overall economic progress. The adoption of blockchain technology in Nigeria's financial sector, for example, has the potential to streamline processes, reduce fraud, and improve the efficiency of transactions, thereby promoting economic growth (Eze et al., 2020).

Efficiency of Financial Innovation Drive and Economic Growth of Nigeria.

The relationship between financial innovation and economic growth is a complex and dynamic one. Financial innovation refers to the development and implementation of new financial products, services, and technologies that enhance the efficiency and effectiveness of the financial system. In the case of Nigeria, the efficiency of financial innovation can play a crucial role in driving economic growth. However, it is important to note that the specific impact can vary depending on various factors such as the regulatory environment, infrastructure, and overall economic conditions. Efficiency in financial innovation can contribute to Nigeria's economic growth in several ways:

Improved Access to Finance: Financial innovation can help expand access to finance, particularly for underserved populations and small and medium-sized enterprises (SMEs). By introducing new financial products and technologies such as mobile banking, digital payments, and microfinance, financial services can reach a wider segment of the population, leading to increased economic activity and growth.

Enhanced Efficiency and Productivity: Financial innovation can improve the efficiency of financial intermediation and reduce transaction costs. By streamlining processes, automating tasks, and introducing more efficient payment systems, financial institutions can allocate capital more effectively, facilitate investments, and enhance overall productivity.

Increased Financial Stability: Well-designed financial innovations can contribute to the stability of the financial system, which is crucial for sustainable economic growth. For example, innovations in risk management tools, such as credit derivatives and securitization, can help manage and distribute risk more efficiently, reducing the likelihood of financial crises and disruptions to economic activity.

Development of Capital Markets: Financial innovation can promote the development of capital markets by introducing new financial instruments and mechanisms. This can facilitate the mobilization of savings, encourage investment, and provide alternative sources of financing for businesses, leading to increased economic growth and development.

Financial Innovations and the Role of Regulatory Framework in Nigeria

The role of regulatory frameworks in financial innovation towards promoting economic growth in Nigeria cannot be overemphasized. Regulatory frameworks are essential for promoting financial innovation as they provide a conducive environment for innovation while also ensuring that consumer protection and systemic stability are maintained. Adelowokan et al. (2018) posited that regulatory frameworks play a critical role in promoting financial innovation by establishing clear rules and regulations that encourage innovation while mitigating risks. A well-designed regulatory framework provides guidance and support to financial institutions and FinTech companies, enabling them to develop and introduce innovative financial products and services. Regulatory frameworks enhances economic growth by promoting financial inclusion and deepening the financial sector. Financial inclusion is critical for economic growth as it enables more people to access financial services and participate in the economy.

Presence of effective regulatory frameworks helps to promote financial inclusion by removing barriers to entry, encouraging competition, and ensuring that financial services are accessible and affordable to all (Ogbuabor & Odo, 2018). Furthermore, effective regulatory frameworks deepens the financial sector by encouraging the development of new financial products and services that cater to the needs of various segments of the economy. This then assists to promote economic growth by creating new business opportunities, increasing access to finance, and driving innovation (Ezeoha & Udegbunam, 2020). However, it is important to note that regulatory frameworks must strike a balance between promoting innovation and protecting consumers and systemic stability. Overly strict regulations can stifle innovation, while weak regulations can lead to market failures and systemic risks (Ogbuabor & Odo, 2018). Therefore, setting up effective regulatory frameworks in a developing nation like Nigeria requires taking into account the unique characteristics and challenges of the Nigerian financial sector.

Strategies to Influence Financial Innovation on Economic Growth in Nigeria

There are several steps and processes in promoting financial innovations and economic growth in Nigeria. The first step is through encourage financial literacy and education. Financial literacy and education are crucial for promoting financial innovation and economic growth. Nigeria can promote financial literacy and education by investing in programs that educate individuals, businesses, and the general public about the benefits and risks of financial products and services. According to Alimi and Oladeji (2015), financial literacy programs can enhance the adoption of financial innovation and improve the overall financial well-being of individuals.

The second step is to strengthen the regulatory environment. A strong regulatory environment is essential for promoting financial innovation and economic growth. Nigeria can strengthen its regulatory environment by establishing clear and transparent regulations that promote innovation while protecting consumers. According to Beck et al. (2018), well-designed regulatory frameworks can encourage innovation and create a level playing field for all participants in the financial sector.

The third step and procedure towards promoting financial innovation for a favourable impact on the economy of Nigeria is to develop infrastructure. Nigeria can develop the necessary

infrastructure to support financial innovation by investing in technology and creating an enabling environment for financial technology (FinTech) companies. This can be achieved by establishing a dedicated regulatory sandbox to test and pilot new financial products and services. According to Gomber et al. (2018), technology and infrastructure are essential for driving financial innovation.

The fourth step to take is to encourage collaboration between stakeholders. Collaboration between stakeholders is crucial for promoting financial innovation and economic growth. Nigeria can encourage collaboration between financial institutions, FinTech companies, regulators, and other stakeholders to create a vibrant and innovative financial ecosystem. In the view of Böhme et al. (2019), collaboration can drive innovation, create new business opportunities, and promote economic growth. The next step is to encourage investment in research and development. Investment in research and development is critical for promoting financial innovation and economic growth. Nigeria can encourage investment in research and development by creating incentives for financial institutions and FinTech companies to invest in innovative products and services. Bariviera et al. (2017) averred that investment in research and development can enhance the efficiency and effectiveness of financial innovation. Fostering a culture of innovation is another step to promote financial innovation on the economy of Nigeria. Fostering a culture of innovation is essential for promoting financial innovation and economic growth. Nigeria can foster a culture of innovation by encouraging creativity and risk-taking, promoting entrepreneurship, and investing in human capital. According to Gallagher and McGahan (2017), a culture of innovation can drive economic growth and create new business opportunities.

Another good step to take in promoting financial innovation on economic growth is to foster collaboration and partnerships. Collaboration between financial institutions, fintech companies, and regulators is essential to promote innovation. Encouraging partnerships can facilitate knowledge sharing, promote the adoption of new technologies, and create an enabling environment for innovative solutions. The Central Bank of Nigeria (CBN) has been actively promoting collaboration and partnerships through initiatives such as the Regulatory Sandbox Framework, which allows fintech startups to test innovative products in a controlled environment (CBN, 2020).

Implementing supportive regulatory frameworks are important in driving financial innovation on economic growth in Nigeria. Creating a regulatory environment that supports financial innovation while ensuring consumer protection is crucial. Regulations should balance the need for innovation with risk management and regulatory compliance. The CBN introduced the Payment Service Bank (PSB) framework in 2018, which permits non-traditional players such as telecom companies to offer financial services, promoting innovation in the sector (CBN, 2018).

Encouraging fintech ecosystem development is very key in promoting financial inclusion on economic growth in Nigeria. Supporting the growth of the fintech ecosystem through incubators, accelerators, and funding initiatives can nurture innovative startups and provide them with the necessary resources to thrive. In 2021, the Nigerian government launched the Nigerian Fintech Industry Sandbox, which provides fintech startups with a platform to test their innovative solutions, attracting investment and fostering growth in the sector (NITDA, 2021).

Enhancing cybersecurity and consumer protection is another strategy in promoting financial innovation on economic growth in the context of Nigeria. Ensuring the security of financial transactions and protecting consumer rights are vital for building trust in innovative financial solutions. Robust cybersecurity measures and consumer protection regulations must be in place. The Nigerian Data Protection Regulation (NDPR) was introduced in 2019 to safeguard personal data and protect the rights of individuals. This regulation helps build trust in digital financial services and fosters innovation (NITDA, 2019).

By implementing these strategies, Nigeria can foster financial innovation and drive economic growth. It is important to note that these recommendations are based on recent references up until September 2021, and it's always advisable to consult up-to-date sources for the most current information on financial innovation in Nigeria.

Theoretical Framework

This research hinges on theories Schumpeterian growth theory, endogenous growth theory, institutional theory and resource- based theories to examine the nexus between financial innovation and economic progress. According to Schumpeterian growth theory, financial innovation leads to economic growth by promoting technological progress and increasing the rate of productivity growth (Asemota, 2019). This theory posits that financial innovation, such as the introduction of new financial instruments or the development of new financial markets, can increase investment in research and development (R&D) and facilitate the commercialization of new technologies, which in turn leads to higher productivity and economic growth.

Endogenous growth theory suggests that financial innovation can promote economic growth by increasing the availability of credit and reducing the cost of capital (Ibi, 2018). According to this theory, financial innovation can lead to increased investment and entrepreneurship, which in turn leads to higher productivity and economic growth. Institutional theory posits that the institutional environment, including the legal and regulatory framework, is an important determinant of financial innovation and economic growth (Okodua & Eze, 2019). This theory suggests that a well-functioning financial system with clear property rights, efficient contract enforcement mechanisms, and effective regulation can facilitate financial innovation and lead to economic growth. Resource-based theory suggests that financial innovation can lead to economic growth by enhancing the efficient allocation of resources (Ogunrinola & Adegbite, 2020). This theory posits that financial innovation can help to identify and allocate resources to their most productive uses, thereby increasing efficiency and economic growth.

Empirical Review of Literature

Several studies have explored this relationship and provided insights into the potential impacts of financial innovation on economic growth. Several studies have investigated the relationship between financial innovation and economic growth in both developed and developing countries. While there is no clear consensus on the impact of financial innovation on economic growth, it is clear that financial innovation can have both positive and negative effects, and that appropriate regulation is necessary to ensure that financial innovation contributes to economic growth and stability.

Ross Levine (2004) examined the relationship between financial development, including financial innovation, and economic growth. The authors argue that a well-developed financial system, characterized by efficient financial intermediation and widespread access to financial services, fosters innovation and enhances economic growth. Levine, Loayza, and Beck (2010) found that financial innovation has a significant positive effect on economic growth, particularly in countries with well-developed financial systems. Akinboade and Alimi (2010) examine the relationship between financial innovation and economic growth in African countries. They find that financial innovation, particularly in the form of mobile banking, has a positive impact on economic growth in these countries.Barth, Caprio, and Levine (2013) analyzed the impact of financial innovation on economic growth across a sample of countries and found that the effect is positive and significant, with the most innovative countries experiencing the highest levels of economic growth.

Zoltan (2015) study investigates the relationship between financial innovation and economic growth in the European Union countries. It analyzes the impact of various financial innovation indicators on economic growth and finds evidence of a positive relationship, suggesting that financial innovation contributes to economic growth. Zhang and Li (2016) investigated the relationship between financial innovation and economic growth in China and found a positive and significant relationship between the two variables. Olayinka and Onakoya (2016) found that financial innovation positively impacts economic growth in Nigeria. A study by Demirgüç-Kunt and Levine (2016) found that countries with more developed financial systems, which allow for greater financial innovation, have higher levels of economic growth. They argue that financial innovation can facilitate the flow of capital to productive investments, leading to increased economic activity. Karavias and Koutsomanoli-Filippaki (2016) paper provided an overview of the existing literature on the impact of financial innovation on economic growth. The study synthesizes empirical findings from various studies and discusses the mechanisms through which financial innovation affects economic growth, including increased capital allocation efficiency and enhanced risk management.

Other studies, however, have highlighted potential risks associated with financial innovation. For instance, financial innovations such as mortgage-backed securities were a contributing factor to the 2008 financial crisis (Acharya, 2017). This highlights the potential negative effects of financial innovation, such as increased systemic risk and financial instability. Additionally, some studies have highlighted the importance of regulation in ensuring that financial innovation does not lead to negative consequences. Du and Li (2017) studied the impact of financial innovation on economic growth in emerging markets and found that financial innovation positively affects economic growth in these countries. Aggarwal et al. (2018) argue that appropriate regulation is necessary to ensure that financial innovation contributes to economic growth, rather than causing instability. Huang et al (2018) study analyzes the impact of financial innovation on economic growth in European countries. The authors find that financial innovation, particularly in the form of new financial instruments, has a positive impact on economic growth in these countries. Alimi and Olubusoye (2018) found that financial innovation positively affects economic growth in Nigeria, and that the effect is more pronounced in the long run..

Zhang and Chen (2019) examined the impact of financial innovation on economic growth in the Asia-Pacific region and found that financial innovation has a positive effect on economic growth in these countries. According to Adetiloye et al. (2019), the introduction of mobile money

services has enabled more Nigerians to access financial services. Giannellis and Papadopoulos (2019) empirical study investigates the relationship between financial innovation and economic growth using panel data from European countries. It employs dynamic panel techniques to examine the long-run relationship between financial innovation and economic growth, and finds evidence of a positive and significant impact of financial innovation on economic growth. Chen and Liao (2020) studied the impact of financial innovation on economic growth in China's banking industry and found that financial innovation has a significant positive effect on economic growth.

Chakraborty and Ray (2021) analyzed the impact of financial innovation on economic growth in India and found that financial innovation has a positive and significant effect on economic growth in the country. Wang and Tan (2021) study focuses on the case of China and examines the relationship between financial innovation and economic growth. It employs a dynamic panel data model and finds a positive and significant impact of financial innovation on economic growth in China, highlighting the importance of financial innovation for the country's economic development. Ben Ali and Walid Ben Amar (2022) in a study examines the relationship between financial innovation and economic growth in the context of Islamic finance. The authors find that Islamic finance, particularly in the form of Islamic banking and sukuk, has a positive impact on economic growth in Muslim-majority countries.

CONCLUSION AND RECOMMENDATIONS

The aim of this research paper was to comprehensively assess the implication of financial innovation on economic progress. The analysis of literature, several pertinent findings were observed. The finding showed that the impact of financial innovation on economic growth is a complex and multifaceted issue, with both potential benefits and risks. While financial innovation can increase access to finance and improve the efficiency of financial markets, it also presents challenges in terms of systemic risk and consumer protection. It was observed in literature that financial innovation can have a positive impact on economic growth by facilitating the development of new financial products, improving the efficiency of financial intermediation, and enhancing the resilience of the financial system. The paper ascertained that financial innovation can contribute to economic growth through several channels, including enhancing financial inclusion, increasing the efficiency of financial intermediation, and facilitating technological innovation. Financial innovation has the potential to significantly impact economic growth in Nigeria, particularly by increasing access to credit for SMEs and reducing transaction costs. However, it is important to note that financial innovation also carries risks, particularly in the areas of cybersecurity and financial stability.

The research paper therefore recommends that policymakers should therefore encourage financial innovation by creating a supportive regulatory environment, promoting competition, and providing funding for research and development. Policymakers and financial regulators in Nigeria must take a balanced approach to financial innovation, promoting innovation while also ensuring that risks are adequately managed. By doing so, Nigeria can leverage financial innovation to promote economic growth and development. Promoting financial innovation and economic growth in Nigeria requires a comprehensive approach that involves financial literacy and education, a strong regulatory environment, infrastructure to support financial innovation, collaboration between stakeholders, investment in research and development, and fostering a

culture of innovation. By implementing these steps, Nigeria can create a vibrant and innovative financial ecosystem that promotes economic growth and development. Further research is needed to fully understand the impact of financial innovation on economic growth and to develop effective regulatory frameworks that promote innovation while mitigating potential risks.

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CRYPTO CURRENCY RISK AND RETURN: A PORTFOLIO APPROACH

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ABSTRACT

This study explored the relationship between risk and return of selected crypto currencies. Four most traded crypto currencies which are bitcoin, ethereum, binance coin and ripple were selected and treated as portfolio in this study. Monthly data on crypto currencies were obtained from Coin Codex Exchange from January 2018 to March 2023 for this study. Result from trend analysis established the high volatility of crypto currencies. Also the result of the correlation analysis revealed the existence of a positive and significant relationship between portfolio risk and return in the crypto currency market. The study therefore recommended that investors frequently monitor price movement of crypto currencies, take advantage of newly introduced crypto and diversify the investments in their portfolio.

Keywords: crypto currency, Bitcoin, Binance coin, Ripple, Ethereum, correlation, portfolio

INTRODUCTION

Money has been transformed over the years from being commodity, coins, paper and electronic money to digital currency. This most recent form of money is known as digital currency which was made possible by the advancement in technology as supported by Keller and Scholz (2019) in their argument that innovation in information technologies, has made the financial industry experience a disruptive fintech revolution that crypto currency into limelight as a means of payment in the future. Ajayi, Oloyede and Oluwaleye (2022) described digital currency as the latest form of money which is referred to as crypto currency. It is a peer-to-peer version of electronic cash with aided by cryptography. Satoshi Nakamoto in 2008 launched the first crypto currency known as Bitcoin and since then, there are over fifteen thousand crypto currencies across the world.

Investment in crypto currencies have experienced remarkable increase over the years despite the high volatility rate and restrictions from the central banks of most countries of the world with global market capitalization of about $1.19 trillion in the first quarter of 2023 (Coin Codex 2023). The highest aggregate value of global crypto currency markets was over $3 trillion and fell below $1 trillion in 2022. This substantial declines in the price of crypto currency were experienced between 2011 and 2018 (Coin Codex 2023).

Returns on crypto currency can only be gotten from increase in price unlike other assets such as bonds or stocks. Hence, investment in crypto currency is based on speculations which are revealed by the volatility of the exchange rate (Kristoufek 2013). Also, Partanen (2018) argued that crypto currencies are not currency in the real sense but their values are gotten from real currencies. Investors in crypto currencies are exposed to more risk due to their high volatility nature. This volatility stems partly from the fact that many crypto currencies are decentralized,

limited in supply, and difficult to value, and partly from the observation that most are treated as speculative investment vehicles (Yermack 2015; Dong, Fang & Lin 2023). Whereas, Singh and Mattackal (2022) referred to the volatility in crypto currency market as crypto winters and categorized them in five before 2017 and three in 2021 meaning the period when crypto currency prices and investor sentiment are low with no evidence of systemic risk. (Liu & Tsyvinski 2021). However, Dong, Fang and Lin (2023) argued that the high volatility in the crypto currency prices may be due to factors like supervisory opinion on crypto currencies, high participation by retail investors can lead to more unpredictable price movement in crypto markets which may just be noise instead of cause of the risk.

Tremendous efforts have been made by scholars in the last decade to provide empirical studies on crypto currencies but more still need to be done in the area of risk and return of crypto currency especially in angle of portfolio.

LITERATURE REVIEW

In theoretical literature, the risk-return tradeoff plays a crucial role in the portfolio theory pioneered by Markowitz (1952). The modern portfolio theory assumed that investors are risk-averse and as such hold well diversified portfolios instead of putting all their eggs in a basket. Hence, the risk and return of the portfolio is considered rather than individual asset risk and return. The framework for the valuation of risky asset is referred to as capital market pricing model (CAPM) familiarized by William Sharpe in 1964. CAPM explained the relationship between risk and asset returns with an argument that the level of systematic risk or ß of stock determines their expected returns. At equilibrium, asset return is the sum of the risk free rate plus beta multiply by the excess return. The sensitivity of individual securities return to the market index return (beta) is the only way to measure risk of that stock. Arbitrary pricing theory (APT) was later developed by Ross (1976) to cater for the deficiencies of the CAPM. The Arbitrage Pricing Theory was seen as potential substitute for investment decision makers since it uses multiple factors to describe the relationship between risk and expected return instead of the single market index. According to Pandey (2010), the crucial logic about APT is that investors always embrace arbitrage anytime they find differences in the returns of assets with similar risk features.

Empirically, Abusharbeh and Sous (2016) examined the relationship between risk and return of the listed stocks in Palestinian exchange market and investigated the validity of capital assets in Palestinian stock market. The study employed Ordinary least square for data analysis. Result from the study showed that the intercept term of individual companies is insignificantly different from zero plus a slope that is equal to the excess of beta. Implying a significant relationship between risk and return. Also, by employing multiple linear regression to analyzed the monthly data gathered from largest market caps in Indonesia through 2020 to 2021, Ilham, Sadalia, IIrawati and Sinta (2022) investigated the risk and return on crypto currency in Indonesia. Results from the study revealed that crypto currency beta, inflation rate, and currency exchange have negative and significant impact on crypto currency returns. Furthermore, Vaziri and Adham (2015) studied the impact of operational risk on the expected returns on Tehran stocks. Correlation and logit regression test were used for data analysis. Findings revealed that the enterprises with high operational risk have low expected returns and low prices volatility on their

stocks. Chania, Sara and Sadalia (2021) also investigated the risk and return on ethereum with the aim of comparing LQ45 share prices and ethereum prices prior to and post Corona virus in Indonesia. The Kruskall-Wallis test and the Paired Sample t-test were used to analyze the data. Findings revealed that no significant difference between ethereum return and LQ45 stocks, while there was significant difference between ethereum risk and LQ45 stocks. Finally, there exist a significant difference between ethereum price and LQ45 shares with decrease in ethereum price with a decrease in average price of ehtereum and LQ45 shares after covid-19.

Meanwhile, the factors that influence crypto currency returns was examined by Liu and Tsyvinski (2021) by building a network of factors in relation to usage and invention factors of crypto currencies. Results from the study showed that crypto currency returns are affected by a combination of factors but not crypto currency production factors. They concluded that returns on crypto currency have little exposures to traditional asset classes. Keller and Scholz (2019) also examined the influencing factors of behaviours of crypto currency investors. ARDL was employed to analyze the data. Findings revealed that indicators like market sentiments, crypto currency-related and macro-financial fundamentals influence the behavior crypto currency investors. The study concluded that behaviour of traders in Bitcoin differ from others due to their arbitrary nature. While, the effect of the fluctuation in the geopolitical risk index on crypto currency return was investigated by Long, Demir, Będowska-Sojka, Zaremba and Shahzad, (2022) by employing cross-sectional return predictability via geopolitical beta. It was revealed that crypto currencies with the lowest geopolitical beta perform better than the ones with high geopolitical beta. They concluded that risk-averse investors must be motivated to invest in crypto currencies with low and negative geopolitical betas through additional reward. In addition, the co-movement between crypto and stock markets was investigated by Dong, Fang and Lin (2023) using granger causality tests and impulse response functions. Results from the study showed an increase in return correlation between crypto currency and the S&P 500 index in March 2020 which may be due to Fed's covid-19 response. Also, slight evidence of transmission of crypto shocks to share with a significant volatility spillovers in the opposite was observed in the study. The study concluded that institutional investors may be responsible for the high crypto-stock co-movement after the pandemic due to their sensitivity to changes in the monetary policies. Finally, Kyriazis (2021) scrutinized the optimal methods of measuring returns and volatility of crypto currencies using an integrated survey of GARCH approaches on 67 crypto currency studies. Variations in the volatility of crypto currencies were better described by GARCH models that are highly sophisticated. Investors in crypto currency especially Bitcoin are found to be highly speculative which has improved the trade-off between risk–return their portfolios.

Evidence from the literature showed that majority of studies on risk and return of crypto currencies adopted different approaches and techniques to estimates the risk and return of crypto currencies however, this study treated crypto currency as portfolio of investment. This unique dimension gives room for the application of Markowitz portfolio theory in crypto currency.

RESEARCH METHOD

Monthly data on crypto currencies were obtained from Coin Codex Exchange from Jan. 2018 to March 2023 for this study. Four most traded crypto currencies (Bitcoin, Ethereum, Binance Coin and Ripple) were selected for this study and treated as Portfolio.

Model Specification

Modern portfolio theory (MPT) is a mathematical framework for calculating the expected return of portfolio while the portfolio risk is calculated by the variance of the portfolio.

$E(R_p) = W_X E(R_X) + W_Y E(R_Y)$……...1

Where:

$E(R_p)$ = Expected return on portfolio

W_X = Weight of Security X

$E(R_X) =$ Expected return Security X

W_Y = Weight of Security Y

$E(R_Y)$ = Expected return Security Y

The portfolio risk is calculated using

$\sigma_p^2 = w_X^2\sigma_X^2 + w_Y^2\sigma_Y^2 + 2w_X w_Y \sigma_X \sigma_Y p_{XY}$……2

Where:

σ_p^2 = variance of portfolio

σ_X = standard deviation for security X

σ_Y = standard deviation for security Y

p_{XY} = Pearson correlation between asset X and asset Y

Therefore, the model for this study is:

$E(R_p) = W_{\mathrm{BTC}} E(R_{\mathrm{BTC}}) + W_{\mathrm{ETH}} E(R_{\mathrm{ETH}}) + W_{\mathrm{BNB}} E(R_{\mathrm{BNB}}) + W_{\mathrm{XRP}} E(R_{\mathrm{XRP}})$…….3

Where:

BTC = Bitcoin

ETH= Ethereum

BNB = Binance Coin

XRP = Ripple

The risk of the crypto currency is:

$$\sigma_p^2 = w_{\text{BTC}}^2\sigma_{\text{BTC}}^2 + w_{\text{ETH}}^2\sigma_{\text{ETH}}^2 + w_{\text{BNB}}^2\sigma_{\text{BNB}}^2 + w_{\text{XRP}}^2\sigma_{\text{XRP}}^2$$

$$4w_{BTC}w_{\text{ETH}}\, w_{\text{BNB}}\, w_{\text{XRP}}\, \sigma_{BTC}\sigma_{ETH}\sigma_{BNB}\sigma_{XRP}p_{BTC,ETH,BNB,XRP} \ldots..4$$

Estimation Techniques

This study will adopt trend analysis to examine the movement in the prices of crypto currencies, descriptive and correlation analysis to examine the relationship between portfolio risk and return. Monthly actual returns on crypto currency can be calculated by this formula:

R = (CP – OP) / OP

100…….5

Where:

R = actual return

CP = monthly closing price of crypto currency

OP = monthly opening price of crypto currency

RESULTS, CONCLUSION AND RECOMMENDATIONS

Trend Analysis

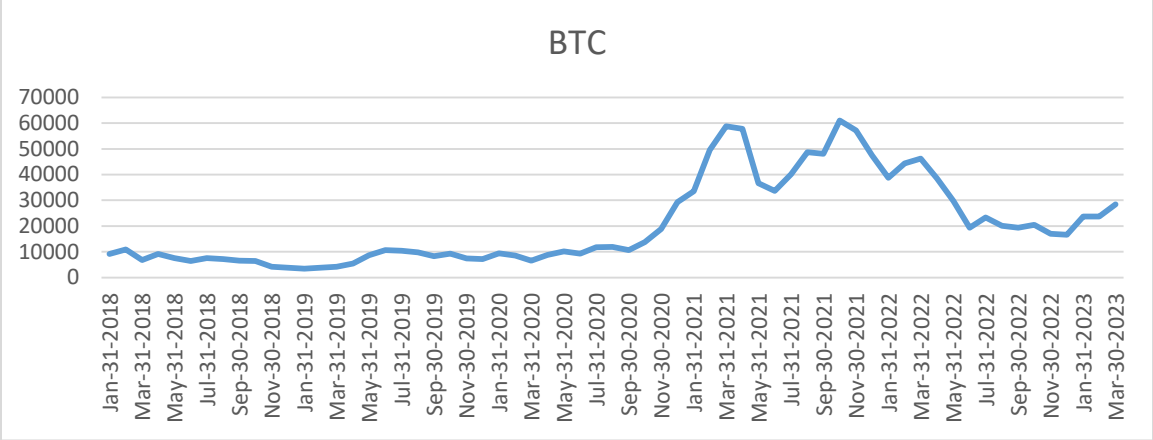


Figure 1.0 shows the Movements in the Price of Bitcoin from 2018 to 2023

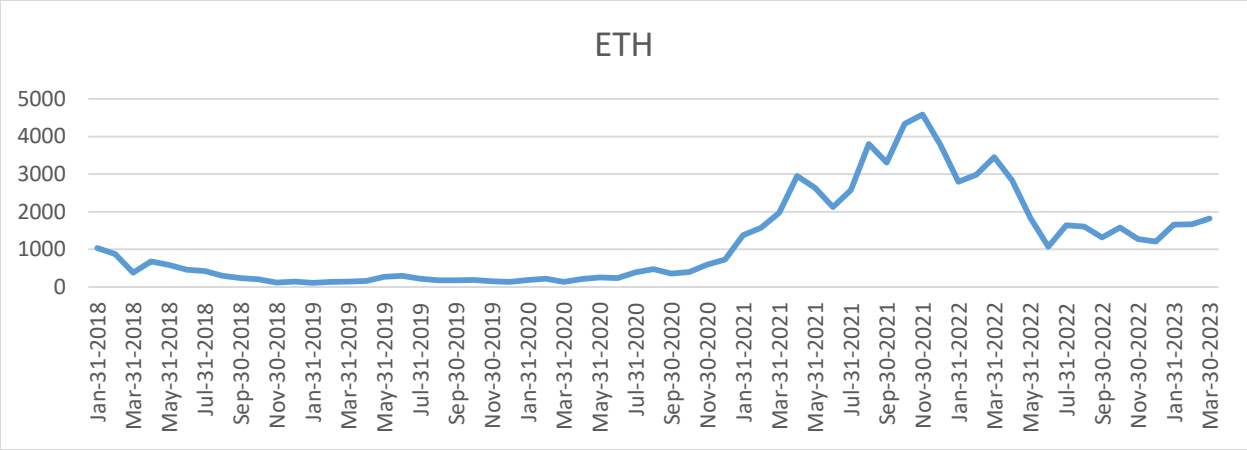


Figure 2.0 shows the Movements in the Price of Ethereum from 2018 to 2023

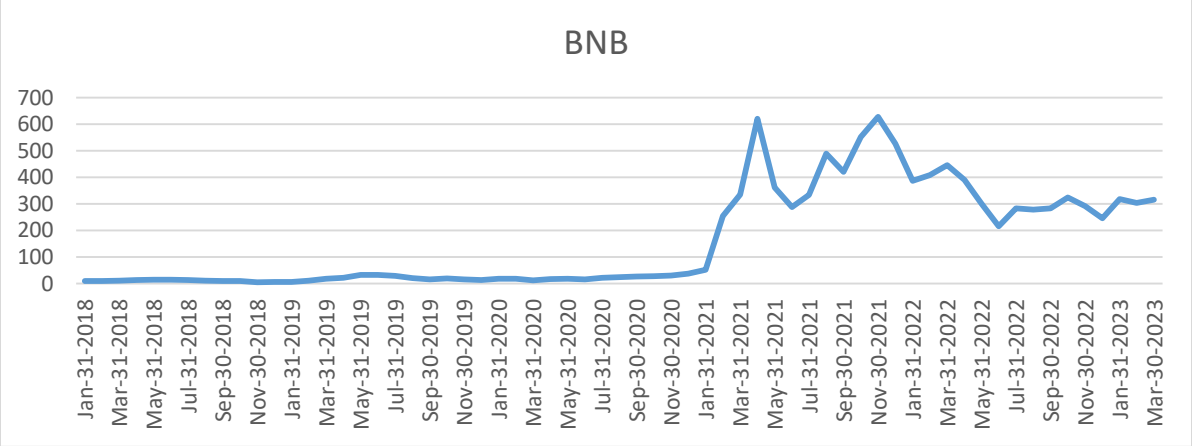


Figure 3.0 shows the Movements in the Price of Binance Coin from 2018 to 2023

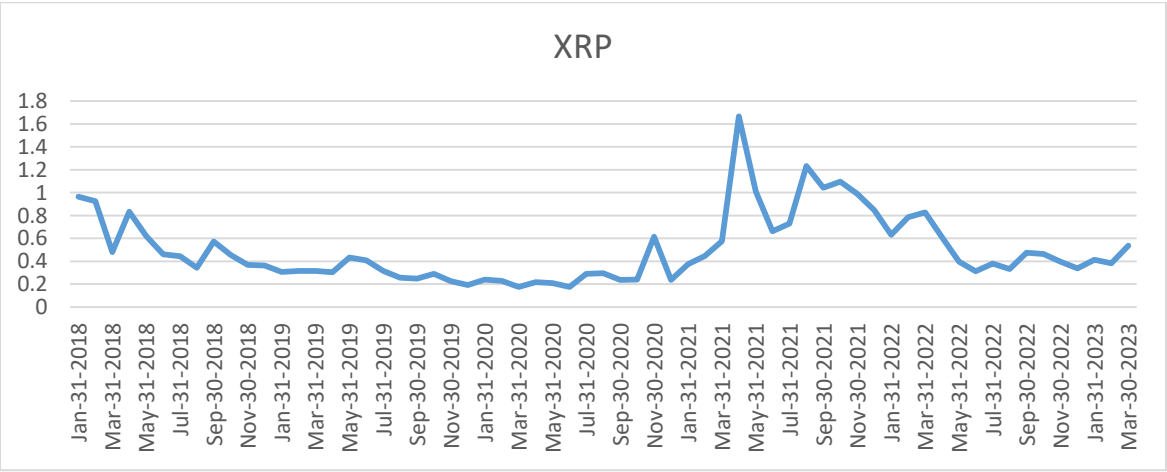


Figure 4.0 shows the Movements in the Price of Ripple from 2018 to 2023

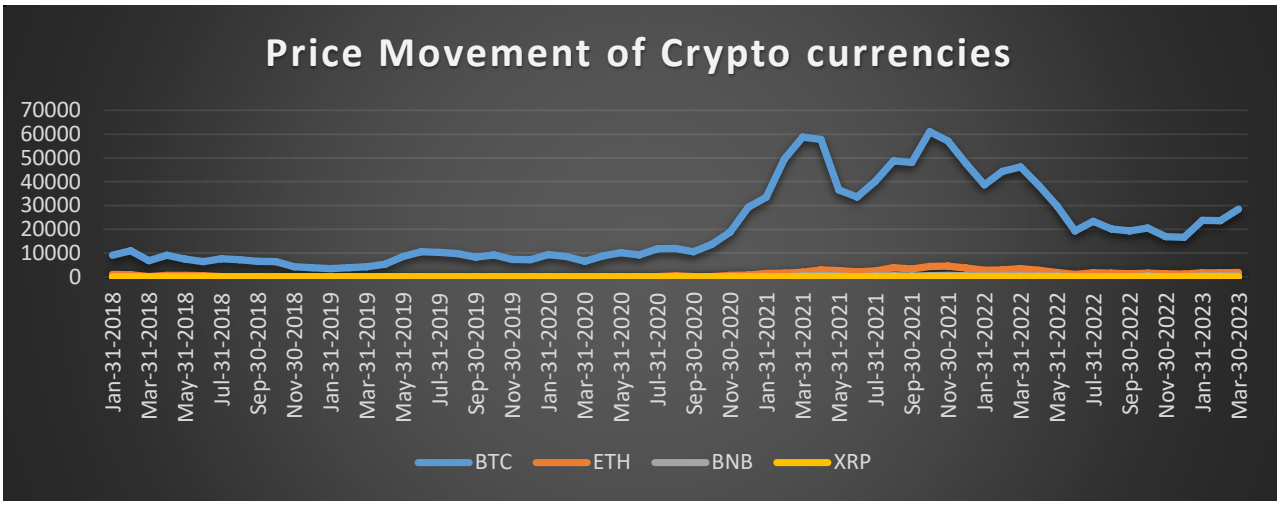


Figure 5.0 shows the movements in the prices of crypto currencies from 2018 to 2023

The figures above show the movements in the prices of crypto currencies from January 2018 to March 2023. In figures 1.0 to 5.0 above, the movement in the prices of bitcoin, ehtereum, binance coin and ripple exhibited slight upward and downward movements from 2018 up to 2020 with a dramatic upward movement in early 2021 up and dropped drastically toward the end of first quarter of 2021. It then begging to fluctuate up to March 2022 before another major fall was experienced in May 2022 and continue to fluctuate up to 2023. This movement in price depicts that crypto currency is highly volatile and the all experienced fluctuations almost the same period of the year.

Portfolio Result

This section examines the characteristics of the specified variables based on their mean, minimum/maximum values, standard deviation, skewness, kurtosis and Jerque Bera statistics. The results obtained based on these descriptive statistics are reported in Tables 4.1.

Table 4.1: Descriptive Statistics

Statistics	RETURN	RISK
Mean	0.681849	0.910067
Median	0.523540	0.793595
Maximum	2.815311	1.475797
Minimum	-0.672602	0.638639
Std. Dev.	1.473268	0.328326
Skewness	0.456910	1.231368
Kurtosis	1.821656	2.920143
Jarque-Bera	0.463242	1.264884
Probability	0.793247	0.531293

Source: Author's Computation, (2023)

The results depicted in Table 4.1 show that the average values of return and risk of the portfolio for the study period January 2018 to December 2022 are 0.681849 and 0.910067 respectively. It is overt that return has the lowest average value just about 68 percent while the risk displays the highest average value. The risk ranges from 0.638639 to 1.475797. This implies that the combination of the portfolio are both defensive and aggressive in nature. Return has a minimum value of -0.672602 meaning that there are tendencies of making loses on the portfolio from the market and the maximum value of return is 281.5311 percent which indicates that there is presence of active securities in the portfolio. The values of standard deviation on the table indicate that the return of the portfolio is more volatile than risk. Furthermore, it is shown that both return and risk are positively skewed but they are platykurtic. The values of skewness as indicated in the table are significantly different from zero. The probability values of Jerque Bera statistics for the risk and return are larger than 5 percent and this means that the variables are not normally distributed. The study proceeds to show the trend of the return and risk of the portfolio from 2018 to 2022.

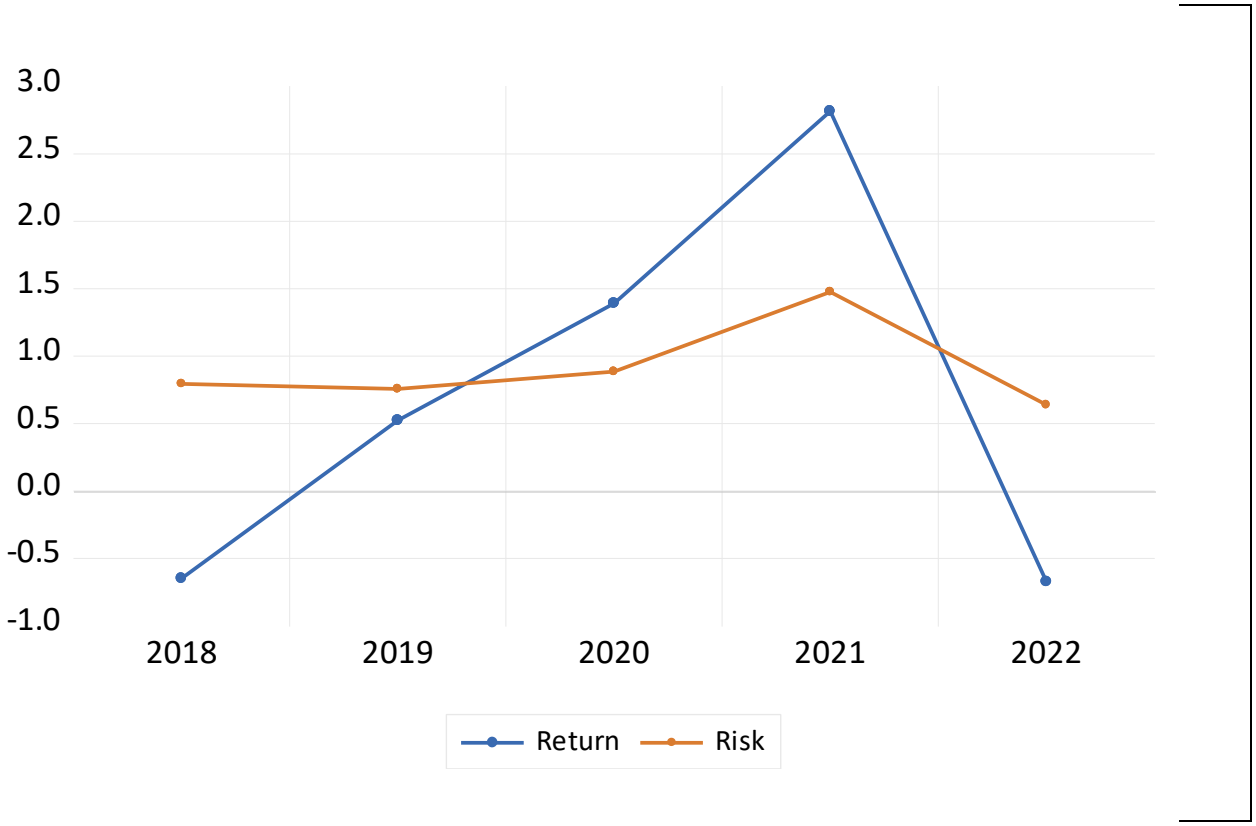


Figure 4.1 Trend Movement of Portfolio Risk and Return

The figure above shows the trend of movements in relation to return and. A visual examination reveals that return of the portfolio is more volatile than risk of the portfolio since the graph of the return fluctuate than the graph of risk. Moreover, the figure displays higher positive return in 2021 with a corresponding higher positive risk. This indicates that portfolio is very active in the year 2021 and this may increase the investor's net worth. On the other hand, the figure indicates that in the year 2018 and 2022, the return of the portfolio are negative and this indicates that the portfolios were inactive for the years. This means that there are incidences of loses bedeviling

the market. Having described the characteristics of risk and return, the study proceeds to establish the relationship between the risk and return of the portfolio. The result is presented in the Table 4.2.

Table 4.2: Dependent Variable: Return

Variable	Coefficient	Std. Error	t-Statistic	Prob.
RISK	4.025290	1.144868	3.515942	0.0390
Constant	-2.981435	1.094808	-2.723250	0.0724
R-squared	0.804711			
F-statistic	12.36185			
Prob(F-statistic)	0.039031			

Source: Author's Computation, (2023)

The result shows that portfolio risk has positive and significant effect on portfolio return in crypto currency market. This means a unit change in in the portfolio risk has significantly increase the portfolio return by 4.025290. Thus, this implies that the crypto currency market compensate investors for taking risk. The coefficient of determination shows a value of 0.804711 and it indicates that 80.71 percent variation in portfolio return could be explained by portfolio risk while the remaining 19.29 per cent variation in portfolio return could be explained by other factors which were not included in the study. In addition, the model is significant because the probability values linked with F-statistic were less than 0.05 and it proposed that a valid generalization could be brought out from the model estimation. It is established that the model was fit and it conformed to *apriori* expectation.

Discussion of Findings

It has been established that portfolio risk has a positive and statistically significant relationship with portfolio return in the crypto currency market. This validates the proposition of an investment theory by Markowitz (1952) that hypothesized a positive relationship between risk and return, implying that the higher the risk, the higher the return which is also in tandem with the convectional principle of Markowitz (1952). The implication of this is that the goal of an investment is to maximize return, and most investors demand high returns as an inducement to invest in high risky assets, which is why less risky investments are acceptable at lower rates of return. Thus, high return is the economic justification for high risky assets. In line with this finding, several studies document a positive and significant relationship between risk and return including but not limited to Abusharbeh and Sous (2016), who documented a positive and significant relationship between risk and return. Similarly, Liu and Tsyvinski (2019) found a positive and significant relationship between return and risk in the crypto currency in US and China. As a result of this, there is a positive and significant relationship between risk and return in crypto currency market, which is consistent with empirical findings and theoretical submissions in previous literature.

Conclusion and Recommendations

The study investigates the relationship between risk and return of crypto currency treating them as portfolio. Four most traded crypto currencies which include bitcoin, ethereum, binance coin and ripple are used for the study. Result from trend analysis established the high volatility of crypto currencies. There was upsurge in the price crypto currency in the first quarter of year 2021 with various degree of fluctuations. The findings of this study established a positive and statistically significant relationship between portfolio risk and portfolio return in the crypto currency market portfolio return in the crypto currency market. This study therefore recommended that investors in the crypto currency market should keep abreast of the movement in the price of crypto currency market. Most traded crypto currencies tend to be more volatile than the newly introduced crypto in which investors can take advantage of in the market. Diversification has been the best way of reducing portfolio risk, therefore investors can embrace it.

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KNOWLEDGE MANAGEMENT STRATEGY AND PERFORMANCE OF NIGERIAN SMALL AND MEDIUM ENTERPRISES

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ABSTRACT

The study examines the effect of knowledge management strategies on performance of firms in the small and medium scale sector in Nigeria. Previous researches have demonstrated growing concern on knowledge management and performance discourse but the benefits of knowledge management adoption are not fully exploited by small firms in emerging economies, particularly in Africa. For this reason, to explore our understanding in this area, the present study was conducted in the Nigerian small and medium scale enterprises sector. The data were collected through a survey of 798 registered firms in southwest geopolitical zone of the country. The data collected was subjected to editing and coding and was analysed using structural equation modeling method. The results of the study indicate a negative but statistically significant impact of knowledge management on the performance of SMEs. It is concluded that knowledge management elements do not have direct influence on the performance of firms in the small and medium sized enterprises sector

Keywords: Knowledge management, strategy, performance, SMEs, structural equation modeling

Introduction

One common objective for operating business whether large or small is to succeed in level of competitiveness and improve performance. The driver of firm performance and sources of sustained competitive advantage have been at the core of strategic management research over many decades ago. Specifically, Venkatramma (1989) and Morgan and Strong 2003) asked the question of what is the business practice and strategy that lead to superior performance? The answer proposed by Theodosiou, Kehagias and Katsika (2012), Hilman and Kaliappen (2014) and Masa'deh *et al* (2015) is that firms which make strenuous efforts to formulate and implement effective strategies that exploit opportunities in the market place while capitalizing on available resources and capabilities, will witness performance improvement. To this end, Lenz (1980) and Hansen and Wernerfelt (1989) identified firm resources as influencing firm performance and that firm performance is depended on the fit between its resource position and strategic position (Cool & Schendel, 1988). Furthermore, Peteraf (1993) affirms the importance

of resources and capabilities of organisations to obtain competitive advantage as not only an end to greater performance but account for differences in performance of competing firms.

Resource based perspective stipulates that the fundamental sources and drivers of competitive advantage and superior performance are chiefly associated with the attributes of resources and capabilities which are valuable (Barney, 1991). Furthermore, Johannessen and Olsen (2003) and Martinez-Costa and Jimenez-Jimenez (2009) assert that knowledge among other operant resources remains dominant through its inimitability characteristics. Thus, business that strive to remain competitive ought to put more efforts on the management of its knowledge resources which are necessary to its increased profits, sales growth, market share and customer satisfaction (Byukusenge, Menene & Orobia, 2016). Essentially, firms that use knowledge management strategies enhance their capabilities which lead to improve business performance (Seba & Rowley, 2010). According to Audretsch and Thurik (2004), knowledge management (KM) is the best business strategy for improving competitive level and organisation that use it improves its performance and ensures its long-term viability in the business environment of its operation (Malhotra, 2001). An efficient use of knowledge not only lead to competitive advantage, but also will contribute to the sustainable development of enterprises (Storey & Barnett, 2000;).

The significance of knowledge management in terms of organisational performance has been established and its adoption is now widely practiced in diverse industry (Gholami, Asli, Nazari-Shirkouhi & Noruzy 2013; Yang *et al*., 2014).

Despite the growing concern on knowledge management and performance discourse as a scholarly field of research, the attention given to the discourse has not been strongly emphasized in SMEs considering their vital role in industrialising national economies. According to Marra, Ho and Edwards (2012), the benefits of knowledge management adoption are not fully exploited by SMEs in emerging economies, particularly in Africa. Besides, many of the studies already conducted are grounded in the context of advanced nations while solid empirical evidence in emerging economies like Nigeria has been sparse. It is therefore, misleading to assume the generalisability of results of knowledge management adoption in different national context. Therefore, this study aims to shrink this gap. It is hoped that the study will enable firms in the small and medium scale enterprises sector to make their employee learn and execute acquired knowledge for increased level of competitiveness, cost effectiveness and bring about change that will create customer value.

Literature Review and Theoretical Background

Increased attention has been focused on the concept of knowledge as the basis to explain differences that exists in performance among firms even when they operate within the same environmental conditions. The fact that knowledge is one way firms remain competitive and attain prosperity has increased in awareness among organizations for its proper management. This is because valuable and knowledgeable employees are not sufficient to outperform competitors until they are managed and controlled in a way that enables the firms to implement its chosen strategy (Barney, 1991). KM as a line of research has some definitional ambiguities, to the extent that Marques and Simon (2006) note that it is still today has no common conceptualisation in the extant literature. As such, many terminologies have been used to define

KM. However, Dahiya, Gupta and Jain, (2012) define it as a management strategy aimed at developing, transferring, transmitting, storing and implementing knowledge to enhance competency and efficiency of employees. KM is a business strategy that creates, accumulates, organize and utilize knowledge to enhance organisational performance (David & Wendy, 2009). KM may be seen as a process-oriented model that reflects strategies used to acquire or create knowledge, distribute, and store and apply within the firm. Chang and Lee (2008) consider it as a valuable process that impact organisational performance in different segments. It is a systematic and integrated management strategy that develops transfers, transmits stores, and implements knowledge so that it can improve efficiency and effectiveness of firms operations (Dahiya et al., 2012). Knowledge management is often seen as a multidimensional concept which includes knowledge acquisition, knowledge conversion, knowledge storage and knowledge use (Gold *et al* 2001; Alavi & Leidner, 2001; Lee & Choi, 2003; Darroch, 2005; Lee *et al*., 2013).

Knowledge acquisition refers to the processes of creating, generating, developing, building and constructing knowledge. Knowledge acquisition is improved use of existing knowledge and effectively producing new knowledge through active conversation and externalized and distributed as new knowledge (Hung *et al*. 2006). This practice encompass the process of acquiring and learning appropriate knowledge from various internal and external resources, such as experiences, experts, relevant documents, plans and so forth. Interviewing and hiring of new employees, laddering, process mapping, concept mapping, observing, research and development, strategic alliances, seminars, educating and training are the most familiar techniques for knowledge acquisition (Gholami et al., 2013).

Knowledge transfer or conversion refers to integrating specialised knowledge of many individuals by converting them into firm knowledge, thus, making individual knowledge useful to the firm (Gold *et al*. 2001). It is an important process of knowledge management in organisational settings which deals with the transfer of knowledge to locations where it is needed and can be used (Novak, 2017). Knowledge conversion is a process through which personal and organisational knowledge is exchanged by conveying from one person to another, from group to group and from persons to group and from organization to organisation (Frappaolo, 2006). Knowledge conversion is made possible through the processes and activities of synthesis, refinement, integration, combination, coordination, distribution, and restructuring of knowledge. Kimaiyo, Kapkiyai and Sang, (2015) identified four commonly cited mechanisms for facilitating integration are rules and directives, sequencing, routines, and group problem-solving and decision-making.

Knowledge storage or protection refers to organising and retrieving organisational knowledge and use the information by the individuals (Karadsheh, Mansour, Alhawan, Azar & El-Bathy, 2009). Protection of knowledge asset is an essential task in the organization's knowledge management implementation. Security is always the major concern in any organisation's management of information systems. Protecting corporate knowledge requires clear but detailed policies to ensure the knowledge asset is in its safe state at all times. Knowledge protection is necessary for effective functioning and control within organisations (Kimaiyo et al., 2015). Knowledge application or utilisation refers to the process of the actual use of knowledge. It is the application of existing and new knowledge for decision-making, on the services, processes and products of the organisation for improving performance and achieving goals (Gholami et al.,

2013). It refers to the degree to which the firm applies the knowledge resources that are shared across functional boundaries. The application of knowledge enables organisations to continuously translate their expertise and capability into embodied products to create commercial value since knowledge can only be realised when it is applied to solve problems (Gold et al., 2001). Bhatt (2001) asserts that applying and sharing knowledge means making it more active and relevant for the organisation in creating values. Knowledge application also helps a firm to enhance its business performance by having up-to-date information and knowledge (Kimaiyo *et al*., 2015). It is through knowledge utilization that acquired knowledge can be transformed from being a potential capability into a realised and dynamic capability that impacts organisational performance (Seleim & Khalil, 2007).

KM is one of the resources and capabilities possessed by firms and have been identified as a source of competitive priorities in the activities of any organisation (Barney, 1991; Gold et al, 2001). The resource based view of the firm provides the theoretical framework for this study. The theory according to Mahoney and Pandian (1992), Barney (1991) and Wernerfelt (1984) argues that firms success can be explained in terms of the resources and capabilities possessed by an organization, and that organization is a bundle of resources, and thus, a single resource does not create competitive advantage. It proposes that the firm's internal resources are the direct predictors of superior performance (Wernerfelt, 1984). Barney (1991) argues that internal resources in the possession of an enterprise which are scarce, unique, valuable, and costly to imitate and are not easily substituted can provide source of competitive advantage if well utilised. The resource based perspective maintained that firms perform well and create customer value when they formulate and execute strategies that exploit their internal resources and capabilities (Barney, 1991). This is due to the fact that within the firm there are unique and particular competencies and capabilities that can be leveraged to influence strategic goal options. Therefore, firms that possess and tap these resources obtain competitive advantage and above average returns on investments.

Firm Performance

Performance in organisation has been an important concept to scholars in academic as well as to business practitioners. Despite its importance, the construct is viewed by researchers as not only multi-dimensional but, also context driven. Firm performance deals with the ability of an enterprise to achieve performance compared to goals and objectives as high profit, quality product, increased market share, good financial breakthrough, and survival at pre-determined time using relevant strategy for action (Koontz & Donnell, 1993).

Firm performance has been measured in terms of profits growth, sales growth, and market share (Venkatraman, 1989). This means that most surveys of firm performance have used the approach of aggregating financial and non-financial measures (Kaplan & Norton, 1992; Lee & Choi, 2003). The financial and non-financial outcomes are distinct constructs with regard to the impact that KM may make in firm operations (Simonin, 1997). The most popular measurement of this type is the balanced scorecard (Kaplan & Norton, 1992).

Knowledge Management and Firm Performance

Knowledge management has been examined as essential to attain firm sustained competitive advantage and increased performance because knowledge is a strategic resource which enables firm to attain high level of competitiveness (Chirico, 2008). Barney's (1991) opinion is that knowledge leads to performance improvement when well managed. Empirical studies suggest that firms which use suitable knowledge management strategies might enhance their capabilities to move them to the next level of higher performance. For example, Marques and Garrigo-Simon (2006) confirmed that firms obtain better results than their competitors when they adopt knowledge management practices. Noruzy, Dalfard, Azhdari, Nazari-shirkouhi and Razazadeh (2012) sampled 106 manufacturing firms in their investigation of knowledge management influence on organisational performance. The results indicated a positive relationship. Rehman, Ilyas and Asghar (2015) cited in Ali *et al*., (2021) suggested that knowledge sharing, KM strategy and performance are found to be significantly related except explicit knowledge sharing practices. Yang (2010) assesses KM strategy-performance relationship and found that knowledge management strategy and performance connection is contingent on both performance-driven strategies and knowledge management-based competencies. Choi, Poon and Davis (2008) suggest that firms could benefit from KM by executing external-oriented, internal-oriented strategy. Beside, combining tacit-internal-oriented and explicit-external oriented KM strategies are complimentary of each other that possess synergistic effects of KM and performance. Torabi and El-Den's (2017) study of KM and productivity in Iran showed that employee intention to share and consequently the sharing of tacit knowledge has direct positive impacts on productivity as well as employee innovative contributions increased as a result of exposure to others' knowledge, expertise and experiences.

Furthermore, study like Aliyu (2015) on KM and manufacturing SMEs in Nigeria showed a significant and positive relationship between KM and business performance. Gholami et al's (2013) investigation of KM practices on organisational performance revealed that knowledge acquisition, storage, creation, sharing and implementation have significant factor loading on KM; productivity, financial performance, staff performance, work performance and customer satisfaction have significant factor loading on organisational performance. The results showed further that KM practices directly influence the performance of SMEs. McKeen, Zack and Singh (2006) revealed that all KM practices are directly related to organisational performance which in turn was directly related to financial performance. The results further indicate that different sets of KM practices were associated with specific value disciplines such as customer intimacy, product development and operational excellence. Based on the reviewed of extant literature, the study proposes the following null hypothesis:

There is no significant and positive relationship between KM strategies and SMEs performance in Nigeria.

Materials and Methods

The research design is cross sectional descriptive because the study seeks to describe the effect of knowledge management on performance of small and medium scale enterprises sector in Nigeria. The study sample consists of 1,078 respondents from a population of 73,082 out of

which 798 responses were found usable. The questionnaire used was based on relevant literature review. The validity as well as reliability of the research instrument was carried out. The owner/managers of SMEs in six States of the southwest geopolitical zone were targeted. The survey lasted or four months. The variables of Knowledge management measurement was adapted from Wang et al. (2009) in Yewoh (2021), while organizational performance which is the dependent variable was measured through Balanced Score Card which comprises both financial and non-financial measures (Hernaus *et al*.,2002). Data collected were subjected to analysis using descriptive and inferential statistical techniques

Results and Discussion

Results

Effects of Knowledge Management on Performance of SMEs

This section presents the data analysis of the Effects of knowledge management on performance of SMEs. Structural equation model was used to achieve the objective. The results cover the confirmatory factor analysis, and the path analysis through the structural equation modeling (SEM).

Confirmatory Factor Analysis of KM on performance of SMEs

This section presents the regression estimates of the effects of knowledge management on performance of SMEs using SEM. Prior to the estimation of the effects, the general goodness of fit, using confirmatory factor analysis, is presented in Table 1. Confirmatory factor analysis is used to determine the acceptance or rejection of the assumption of the measurement model. Different index such $\square^2$ /degree of freedom, root mean square error of approximation (RMSEA), relative fit index (GFI) and comparative fit index (CFI). The results confirmed the appropriateness of the model specifications. Each of the indices fit the data having fell within the acceptable range of the basic benchmark. For instance, the acceptable fit for $\square^2$/df is < 5 while the model value is 3.124. The value of the RFI is 0.922 which is above the basic specification. Similarly, all other index such as comparative fit index (CFI = 0.97), incremental fit Index (IFI = 0.90) and RMSEA of 0.07 are suitable for the specification of the model. This signifies that analysis of knowledge management as the causal factor of performance in SMEs is appropriate.

Table 1: Model fit index for the measurement model

	Acceptable fit	Model
x^2/df	< 5	3.124
RFI (Relative Fit Index)	> 0.90	0.922
CFI (Comparative Fit Index)	> 0.90	0.97
IFI (Incremental Fit Index)	> 0.90	0.98
RMSEA	< 0.08	0.07

The path analysis (SEM) of KM and SMEs Performance

The regression model is presented in Figure 1 and Table 2. The results in figure 1 show the intercepts of the model, the regression estimates of each of the constructs of KM and the variance estimate of the model. The intercept of the model which corresponds to the weighted average of the constructs show that knowledge acquisition variable is the least with the value of 2.93. The remaining constructs are high as they are approximately equal to 4 out of the 5 possible values based on the specification. This indicates that generally, knowledge acquisition among the SMEs is low. The results confirm the existence of knowledge conversation, application and protection among the SMEs. However, the regression model through the path analysis to examine the influence of KM on SMEs performance shows that out of the four variables that are specified as measurement of knowledge management, knowledge application and conversation are the items with the significant effect (Table 2) on performance of SMEs.

The coefficient of knowledge application is negative but significant for the SMEs (path coefficient = -0.155, CR = -2.207, P < 0.05). The result indicates inverse relationship between knowledge application strategies and performance of the SMEs. Since knowledge application enables firms to increase their efficiency and reduce costs, the result implies that the SMEs may be experiencing lower efficiency level and challenges associated with cost management. The negative but significant coefficient of the variable also implies existence of reduced level of value creation through knowledge application among the SMES.

The coefficient of knowledge conversation is negative but significantly related to the performance of SMEs (path coefficient = -0.338, CR = -5.306, P < 0.05). The negative but significant coefficient of the construct suggests that the SMEs are unable to directly utilize the advantage inherent in knowledge conversation to drive the performance of the firms. The negative sign on the variable suggests indirect effect of the variable on SMEs performance. This further indicates that the path way to ensuring a direct influence of knowledge management constructs on SMEs performance is yet to manifest among SMEs in Nigeria.
Results in Figure 1 show that the knowledge management constructs have different contributions to the performance level of SMEs. Knowledge acquisition contributes the lowest to the performance level of SMEs at an average level of 2.93. This is followed by knowledge conversation and knowledge protection at the average level of 3.95. Knowledge application is highest with an average value of 4.20. This suggests that driving SMEs performance through knowledge application is critical to boosting the performance of SMEs.

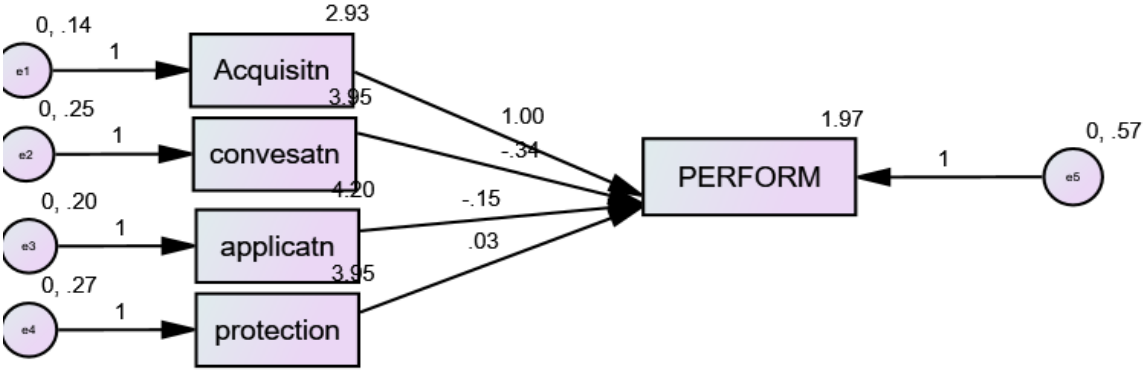


Figure: 1 Regression model (SEM) of knowledge management and SMEs performance from SEM

Table 2: Regression model of KM and SMEs performance from SEM

			Estimate	S.E.	C.R.	P
Perform	<---	Protection	.033	.061	0.533	.594
Perform	<---	Application	-.155	.070	-2.207	.027**
Perform	<---	Conversation	-.338	.064	-5.306	***
Perform	<---	Acquisition	1.000			

Source: Data Analysis

Discussion on influence of Knowledge Management on Firm Performance

The purpose of this study is to investigate the impact of knowledge management on the performance of SMEs. It contributes to the literature by identifying the role of knowledge management indicators on firm performance in small and medium size enterprises (SMEs). Knowledge management has a positive and significant impact on the performance of SMEs in Southwest Nigeria, according to the regression model presented in figure 1 and table 2.

The findings revealed that the value of virtually all knowledge management strategies was extremely high. According to the results of the path analysis, knowledge application or use, as well as knowledge conversion, have a significant impact on the performance of SMEs. This means that knowledge application and conversion will make it easier to make decisions in order to maximize productivity and achieve exceptional performance (Edvardson, 2008). The findings of this study are consistent with those of previous studies that have looked into the relationship between knowledge management and performance. As an example, Marque and Simon (2006), McKeen et al (2013), and Harlow (2008) discovered that firms that adopt knowledge management practices outperform their competitors in terms of financial performance. Torabi and El-Den (2017) added that knowledge sharing will not only increase the productivity of firms, but it will also increase employee innovative contribution, which will enable the introduction of new products and services, as a result of their exposure to knowledge experiences, expertise, and exposure to other employees in the organisation. Consequently, managers must manage their firm's resource potentials by emphasizing not only the sharing and communicating of knowledge but also the ability to use that knowledge in order to increase efficiency and reduce costs in order to maximize performance and maximize profits (Gold et al., 2001). It is the opinion of Davenport and Prusak (2000) that the sharing of knowledge must begin at the human level in order to produce positive results when combined with technology.

Conclusion and Recommendations

In today's business environment, one of the most significant challenges for businesses is figuring out how to devise strategies for gaining a competitive advantage over competitors while still meeting bottom-line objectives. This is made possible, however, by the ability to learn about customers' needs and preferences in order to provide them with unique products that meet their needs and preferences. On the other hand, the lack of agreement among past researchers on how

knowledge is managed and its effects upon firm outcomes leads to a search for an organisational practice that may act as a mechanism through which value can be created to satisfy customers in order to increase the effectiveness of the firm. This is the purpose of the study, which is to investigate how knowledge management strategies affect the performance of SMES in Nigeria.
The findings of the study support the hypothesis that knowledge management strategy has an inverse and statistically significant impact on the performance of SMEs. This negative sign indicates that the variables have an indirect impact on the success of SMEs. The consequence is that the mechanism that will ensure that knowledge management frameworks have a direct impact on the performance of SMEs has not yet manifested itself.

It is recommended that there is need to increase the level of knowledge resource investment in SMEs which more likely will help gain desirable outcomes. This is so because more knowledge experience will lead to efficiency and performance. Besides, SMEs operators need to deploy methods of managing knowledge that ever before particularly on how they apply knowledge because the negative but significant coefficient of knowledge management strategies imply the existence of reduced level of value creation through knowledge application.

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IMPACT OF FINANCIAL INCLUSION ON BANK'S PERFORMANCE IN NIGERIA.

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ABSTRACT

Financial inclusion is seen as a solution to solve the problem of poverty and income inequality. In many developing countries like Nigeria, mortgage banks are seen as the traditional channel for bringing the unbanked into the formal financial system. The increasing diversity of customer demands and technological changes are expected to have a significant impact on the management of the bank in order to retain and attract potential customers and investors in the banking sector. However, with the increase in income levels, location and number of banking branches, the management of banks has to identify banking services to improve their banking performance (return on assets). Therefore, this study examines the impact of financial inclusion on the performance of banks in Nigeria. Specifically, the study examines how banking performance is affected by ATMs, branch network, number of bank accounts and location of sales terminals. The study used all DBMs in Nigeria between 2013 and 2018 using data compiled on the basis of least squares. The results of the study show that the effect of ATMs, banking location, towers, performance of bank depository (ATM, BET and POS on ROA of DBMs) in Nigeria is positive and significant by 0.05. It is concluded that FI applications have proven to have a significant impact in improving customer satisfaction and bank profitability. It is recommended that to ensure that DMB services reach and serve the poor, financial institutions should not only upgrade their processes (using technological innovations), but also develop process and reasonable procedures to evaluate potential customers and ensure fairness in the selection process.

Key Words: Financial Inclusion, Bank's Performance in Nigeria, Deposit Money Banks

1. INTRODUCTION

Deposit Banks Money (DMBs) plays an important role in the economy by performing the basic functions of accepting deposits, lending and providing money transfer services. This enables the supervisory banks to efficiently allocate economic resources or intermediate funds from the units to the less efficient units. The banking-deposit activities have great

effects on the financial sector and on the economy in general; this is a matter of major concern for all players in the banking industry. Although financial innovations (FI) are becoming a topic on the global political agenda for sustainable development, financial inclusion is still in its infancy. Custodian banks must be able to integrate their services through financial inclusion, which means that financial services are available and accessible to everyone. Therefore, the bank attracts more savings and increases its profits to the point where profits can be used to cover unexpected future losses. Financial inclusion is considered a key factor in reducing poverty, improving living standards and creating jobs. The World Bank's goal of achieving financial inclusion by 2020 is the foundation for economic growth and poverty reduction. Access to financial services enables the poor to save and borrow, allows the acquisition of real estate and investments in education, and enables small and medium enterprises to promote opportunities for growth. However, the ability to access financial services, especially credit, is very important to promote economic growth and well-being. Financial inclusion is increasingly recognized around the world by policy makers, research and development agencies due to its importance as a tool for economic development, particularly in reducing extreme poverty, creating jobs, creating wealth and livelihoods. World progress in general. Financial inclusion is a process that ensures easy access, availability and use of financial services by the entire economy.

According to a study done in Nigeria (2008) by the development finance company, it shows that about 53.0% of adults withdraw from business. The global pursuit of investment as a driver of economic growth is having a positive impact on Nigeria as the rate of withdrawal from 53.0% in 2008 to 46.3% in 2010, as reported in CBN 2015. Being encouraged by this positive development, Central. The Bank of Nigeria, in collaboration with partners, launched the National Financial Inclusion Strategy on October 23, 2012 which aims to reduce the exclusion rate to 20% by 2020. In particular, older Nigerians who have access to financial services fees will increase from 21.6. % in 2010 to the age of 70. % in 2020, while those with access to security are expected to increase from 24.0% to 60%; and credit from 2% to 40%, Insurance from 1% to 40% and pensions from 5% to 40%, at the same time. Many banks continue to innovate and create in an effort to meet changing customer needs. Bank customers benefit from investment by reducing transaction costs, easy access to services and a high level of efficiency. Money affects banking services (Nthambi, 2015). A more complicated form of banking is to accept deposits and use them to make loans. From a global point of view, according to the Government Certified Auditing Professional CGAP (2018), statistics show that 2 billion working-age adults, more than half of the total elderly population, do not have regular accounts in the company's finances. Investment efforts aim to ensure that all businesses and households have access to and use financial services, regardless of income level. Digital payments are an important part of investment around the world. The Central Bank of Nigeria (CBN)'s investment reform in 2012 in partnership with various others plans to reduce the withdrawal rate to 20% by 2020. Most Nigerian banks have adopted the Representative Banking, Tiered Know-Your - Customer Requirements. (KYC),

Customer Protection, Credit Enhancement Program (Nigerian Lending Risk Sharing System (NIRSAL).

The general objective of this study is to determine the impact of financial inclusion on banks' performance in Nigeria. The specific objectives are to:

i Assess the effect of bank embranchment on financial performance of banks.
ii Investigate the effect of bank accounts on financial performance of banks.
iii. Evaluate the effect of number of ATMs on financial performance.
iv. Determine the number of active POS terminals on financial performance of banks.

Households' access to financial services has long been a topic of policy debate in emerging and developing economies such as Nigeria (World Bank, 2018). A developing economy like Nigeria is basically aided by investments and the like to raise the standard of living of its people.

In addition, financial services provided by banks can help promote the growth of any economy. These projects help people escape poverty by supporting investments in their health, education and business. Most of the poor in the world, including Nigeria, do not have financial services that can access these services, such as bank accounts, branch numbers, ATMs and electronic cards, but the value of the bank depends on the entry of banks (FI), ATM and POS terminals, etc., which will attract people to invest. Since the banking sector of any country is one of the main determinants of economic development, neglecting such a study as banking would be as bad as neglecting the economy itself. Gross domestic product as an indicator of standard of living in any developing economy.

2. Conceptual Framework

2.1.1 Financial Inclusion

Financial inclusion is multidimensional, encompassing access to use of and capability in relation to a range of financial services. The Centre for financial inclusion provides a somewhat all-encompassing definition. The center defines financial inclusion as a state in which anyone can use them to get a complete financial service, which is provided in an affordable place, in a good way and in a way that respects the customers. It is a state where financial services are provided by various agencies, most of which are private companies, reaching all those who can use them, including the poor, the disabled, the rural and the marginalized. Isolated (Central Bank of Nigeria, 2013). The importance of financial inclusion as a factor in economic growth and development cannot be overstated. Financial inclusion is recognized as the right of all citizens to participate in society; better life and amenities and empowerment of the poor in the community.

The World Bank (2014) defines financial inclusion as the means by which the financially deprived people have access to a wide range of financial services without any discrimination. It is a system that ensures that people's internal savings increase, control the budget, and they can make informed choices by accessing basic financial services (Financial Inclusion Strategy, 2009). Hariharan and Marktanner (2012) define financial inclusion as a process that seeks to increase the number of people in society who have access to regular financial services. Chibba (2009) conceptualized financial inclusion as a financial inclusion strategy that aims to overcome the market challenges that hinder the poor and the disadvantaged from accessing financial services. In the work of Aduda and kingoo (2012), financial inclusion is defined as the provision of various financial services such as savings, insurance services, credit, mortgage and payment services.

Aduda and Kalunda (2012) see financial inclusion as a process of providing many financial services, at the right price and in the right place, without any kind of discrimination against all members from the service provider. Although Chakravatry (2013) views "financial inclusion as a process that ensures access to appropriate financial products and services by all sections of the society, including the vulnerable as the weaker sections and one money. Low wages and cheap prices in a fair and transparent manner by mainstream institutional players" In summary, IF is a financial service where all members can get good financial products and services for the effective management and control of their assets; get the resources they need

to support their business; and the financial ability to take opportunities that lead to increased income. Also, focus in Nigeria, CBN (2012) emphasized that investment is successful when Nigerians grow up having easy access to various financial services that meet their needs at affordable cost. CBN (2013) also asserted that financial inclusion is a state where financial services are provided by various agencies, especially private companies, to reach all those who can use them.

2.1.2. Bank's Performance

The Nigerian banking industry has grown tremendously over the years. This information is based on the number of banks and bank branches, their total income and the value of the company. Ayadi and Ellouze (2015) said that working in banking is above all about improving value for money. It is therefore defined as the ability to achieve a goal while minimizing costs (performance and efficiency). Performance and effectiveness are key words in monitoring and measuring business performance, but the challenge is to correct past performance and effectiveness. The first is linked to the methods used and the results obtained, as the second, it is linked to the objectives and results. Cicea and Hineu (2009) stated that DMB represents the principal or credit for the economy of any country. On the other hand, credit is a mechanism involved in the transfer of money that determines the economic growth and development of a country. For this reason, each work of the DMB project must submit an evaluation plan of the investment work that corresponds to its situation and its needs and this evaluation must be carried out at the same time to ensure the achievement of the objectives of the investment -money. Banking and knowledge of the general structure of banking. The practice of investing in the past and therefore predicting the future (Ngumi, 2013). Profit is one of the most common performance measures (Ahmed, 2009). It provides insight into the bank's ability to take risks and grow its operations. There has been much discussion about the optimal profit margin for financial performance.

Hahel et al. (2010) argue that return on equity (ROE) can be used to discourage business, leading to negative surprises. Banks can start financial planning to improve ROE performance temporarily and mask the deteriorating performance of business fundamentals. Therefore, they conclude that ROA is a good measure of financial performance as it takes into account all assets used to support business activities. Using ROA as a key performance metric quickly focuses management on the assets needed to run the business. ROA is a statistical measure that measures a company's ability to manage its assets to generate profits (Van Horne, 2005). It helps both management and investors see how the company can convert its investment in assets into profit.

2.2 Theoretical Review

Diffusion of new theory was developed by Roger (1962), is a process of how, why, and how quickly new ideas and technologies spread across cultures, making them with everyone level and stable / wealth. According to Rogers (2003), this is based on four factors; innovation, time, communication channels and the role of social systems as a result of specific innovations. Rogers (1995) further explained that the critical factors that determine the acceptance of innovation at a general level are value, compatibility, complexity, experimentation and awareness. Marginal value indicates the extent to which an innovation (the introduction of an ATM) is perceived to provide value over its predecessor. This results in increased productivity, economic benefits and improved quality (Monyoncho, 2015).

Previous studies have concluded that the value of an innovation is closely related to the rate of adoption. When the user perceives the benefits or value of the new technology they adopt (Roberts and Amit, 2003) Consistency refers to the extent to which the activity is considered to be consistent with the values, current and past beliefs, can convert its investment in assets into profit. (Chen et al, 2004). Relevance is an important aspect of innovation because compatibility with customers' lives leads to faster adoption rates (Roger, 2003). The complexity (how easy it is to use) of the technology will also affect its adoption. If the use of technology requires a lot of training, it must be that the user lends himself (Monyoncho, 2015). The objective of the innovation describes the extent to which the innovation is visible to the members of the society (including the bank) and the value (the bank's profit) can be easily seen and communicated (Roger, 2003). Moore and Izak (1991) simplified the first construct by focusing on two constructs: visibility (the number of bank accounts or the number of bank account holders) and visibility (the value and banking wealth). According to Ram, Kagan and Lingam (2008), testability is defined as the extent to which new things can be tried and tested (investment income) before adoption. Beneficiaries who are allowed to try the innovation will be more comfortable with it and more likely to adopt it.

In the context of this study, this hypothesis shows that the extent to which bank employees accept new technologies/innovations (ATMs, electronic cards, bank accounts and banks) depends on the desires of individuals, groups and other technologies based on the interest of the bank, borrowers quickly turn the response to profit. Abdullai and Nyaoga (2017) show that the concept views innovation as passing through certain channels over time and in social contexts. Individuals are viewed as having differences in preferences, so the number of people who receive the rehabilitation is assumed to be approximately equal to the distribution of usually over time. This process is important for this study because it helps to explain how innovation spreads from one part of the economy to another or from one sector to another in to make an organization / bank.

2.3 Empirical Review

Study of Cicchiello, Kazemikhasragh, Monferrá and Giron (2021). Investment and development in Asia and Africa. The purpose of this study is to examine the relationship between investment and growth change in developed countries in Asia and Africa using annual data from 42 countries for the period 2000-2019. A pooled regression model and a panel data analysis technique were used to examine this relationship. The results of this study can lead to the development and empowerment of vulnerable groups in the countries studied. To improve conditions for development, policymakers should consider policies that increase literacy, eliminate gender inequality, and strengthen gender equality. On the other hand Ahmad, Green and Jiang (2020). Mobile money, investment and development: a focus on sub-Saharan Africa. We use taxonomic, descriptive and research methods to assess the state of knowledge in the field. We examine how mobile technology in general can contribute to economic development and financial inclusion in theory and in practice. The study also discusses the marketing, pricing and regulatory framework of mobile money. The study concludes by identifying issues that require further research: mobile phone costs; mobile money and investment; transition from mobile money to real money; and regulation for

mobile money service providers. Similarly, another study by Anyaogu (2020) was conducted. Investment and Productivity: Empirical Evidence from Nigeria. Using time series data collected from the Central Bank of Nigeria Statistical Journal for the period 1992 to 2018. Correlation, Causality, Unit Root and Least Squares Test were conducted. The results of the unit root test show that all variables are initially different. On the other hand, productivity records a significant positive relationship with bank deposits but an insignificant relationship with loans and advances. The study suggests that the Central Bank of Nigeria and the Commercial Bank should encourage investment as it has been shown to have a significant impact on productivity. Also, banking services, if extended to remote areas, will not reduce the deficit but will increase economic activity.

The work of Shidadeh, Hannon, Guan, Haq and Wang (2018) found the relationship between the activities of FIs and banks in the Jordanian economy using annual data from 13 depository banks from 2009 to 2014. To see and the power of reason , The research has used the number of ATMs, the number of ATM services and credit cards that represent the FI while the performance is measured by the amount of money and the return on assets growing the bank. The study reveals the significant impact of FI on the performance of trust funds in Jordan. Kondo (2017) investigates whether the branch/expansion of the banking network of Japanese regional banks affects their management performance at a time when the management environment of regional financial institutions becomes more challenging due to population decline. and the decline of the local economy. Therefore, through the analysis of the panel data, it is found that the creation of more branches is effective in increasing the total amount of loans and the cost of each bank is reduced because the local bank has more branches can get in contact with more customers, which leads may they be more profitable. Obiekwe and Anyanwaokoro (2017) specifically studied the impact of automated teller machines (ATM, point of sale (POS) and mobile payment (MPAY)) on the profitability of deposit banks in Nigeria. A total sample of five (5) banks was Consider it. period from 2009 to 2015 and the entire research adopted the Panel Least Square (PLS) analysis method as its research tool. The banks used in the study, the results showed that the automatic teller machine (ATM) and mobile phones had a significant effect. and profitability of deposit banks in Nigeria. However, Point of Sale (POS) has an insignificant effect on the profitability of deposit banks in Nigeria. profitability of depository banks in Nigeria) Nigeria. Aliabadi, Gheysari and Ahmadian (2016) analyzed the effect of different e-banking systems such as ATMs, POS and return on assets (ROA) using a panel model (data of we mix and time). The results of the study show that the effect of the cost of ATMs, POS and ROA of the selected banks is positive and significant. India in the period 2006-2014. The results of the study show a positive effect of the increase in the number of ATMs and profitability with no significant relationship between the number of branches and profitability of the bank.

Amu and Nwezeaku (2016) study the relationship between the electronics industry and the Nigerian DMB project. Electronic banking services are financed by retail transaction costs while deposit services are financed by customer deposits. The Engle-Granger correlation method is used to analyze the data for the simple period from 2009 to 2013. The results show that the POS limit is not related to both deposits and deposits, but that is related to the deposit requirement. Ali and Emenike (2016) analyzed the impact of ATM on banking service

delivery in Nigeria using descriptive and regression analysis on ATM transaction costs and customer deposit patterns for the research period from 2009 to 2013. The results of the descriptive analysis are show and secret The money. The deposit section is distributed in the system of personal deposit, but the deposit amount is not transferred to the cash of the ATM. The regression results show that ATM transactions positively and significantly affect corporate deposits in Nigeria, but not personal deposits and personal deposits. Adelowotan (2016) investigated the impact of branch involvement on bank performance. The study used all the banks in Nigeria between 1981 and 2013 using Ordinary Least Squares (OLS) data. Variables include the number of bank branches in rural and urban areas and the number of foreign branches, while growth in total assets is measured as the dependent variable. The results of the study show that there is a positive relationship but not a correlation between the number of financial institutions of assets, perhaps because a bank considers the extent of network activity of their sector as part of general plan that includes both core and foundation. non-branch services. -based work.

Mostak and Sushanta (2015) analyzed the effect of mergers with liquidity on the quality of each bank. Using a unique Business Intelligence database that compiles a collection of investments for 87 countries over the period 2004-2012, the study found that a higher level of investment leads to increased banking stability. Financial bank branch network, although the number of ATMs is increasing significantly. The study further revealed that many banks offer credit cards to their customers, set minimum or zero balance requirements for certain types of accounts, have customer protection measures in place, and participate in many plans to increase financial inclusion. Jegede (2014) studied the impact of ATMs on the performance of Nigerian banks using interview responses from a qualitative sample of 125 employees from five selected banks in Lagos state with social networks. The results show that the introduction of ATMs has improved banking services in Nigeria due to the alarming number of ATM frauds. A study by Oyewole, Abba and El-maude et al (2013) investigated the impact of e-banking on banking performance in Nigeria. A panel date with annual financial information of eight banks that adopted online banking services and set their bank scores between 2002 and 2010 and changes in financial management to study the impact of online banking services and ROA, ROE and net. the internet. limit. (NIM). The results of the combined OLS statistics show a positive contribution of electronic banking to bank performance over a two-year ROA and NIM period, while a negative effect is observed in the first year of adoption.

Ahiwe (2011) analyzed the impact of ATM on banking services in Nigeria. The field survey method was used and the data was analyzed using chi-square (X2). Based on the hypothesis tested, deployment of ATM in banks has improved bank services in the area of time- savings, risk minimization, increased market shares. Ebiringa (2010) study is based on primary data collection from users of ATMs and total of 1,141 user of ATM were sampled. The study used weighted score of the responses to success factors identified in the literature that were analyzed using the factor analysis simulation model. The study concluded that the provision of adequate infrastructure such as power is critical for effective integration of the Nigerian banking system to the global network of electronic payment via ATMs. Agboola (2001), in his study on information and communication technology (ICT) in banking operation in

Nigeria using the nature and degree of adoption of innovative technologies; degree of utilization of the identified technologies; and the impact of the adoption of ICT device on banks, found out that technology was the main driving force of competition in the banking industry. During his study he witnessed increase in the adoption of ATMs, EFT, smart cards, electronic home and office banking and telephone banking. He indicates that adoption of ICT improves the banks' image and lead to a wider, faster and more efficient market. He asserts that it is imperative for bank management to intensify investment in ICT products to facilitate speed, convenience, and accurate services, or otherwise lose out to their competitors. ved bank services in the area of time- savings, risk minimization, increased market shares. Studies by Shawkey (1995) investigate on the contribution of automated teller machines (ATMs) on banks' profitability. I was revealed that investment in ATMs increases both the volume and value of deposit accounts, reduces banking transaction costs, reduces the number of staff and the number of branches and consequently improves banks' profitability.

3. Methodology

3.1 Model specification

In order to construct the model, this study will apply the method that was proposed in Hsiao (2014) as regard the panel data methodology, since it establishes the way to analyze information from a sample and in turn provides multiple time horizons (2012-2019).

The functional relationship between ATMs, bank embranchment, POS, number of bank account and banks' performance is mathematically expressed as: Bank performance=*f* (Financial Inclusion)……3.1
ROA=f(Number of ATMs deployed, Bank embranchment, Number of Bank account, Point of Sales terminal)..……..…….3.2
This is expressed econometrically as follows;

$$ROA_{it} = \beta_0 + \beta_1 ATM_{it1} + \beta_2 BET_{it2} + \beta_3 LnNBA_{it3} + \beta_4 LnPOS_{it4} + \mu i \ldots\ldots 3.3$$

Where:
ROA = Country's banking system return on assets.
ATM=Automated Teller Machines
BET= Bank Embranchment
NBA=Number of Bank Account
POS=Point of Sales
μ= Error term
β_0=Intercept coefficient/ Constant
A priori expectation = $\beta_0>0$, $\beta_1>0$, $\beta_2>0$, $\beta_3>0$, $\beta_4>0$

3.1.1. Source of Data

To achieve the objective of the study, the secondary data used in the study have been extensively sourced from World Bank database, Central Bank of Nigeria (CBN), Nigerian interbank settlement system (NIBSS) and Nigeria Bureau of Statistics (NBS) and annual

financial report of deposit money banks at the same time, a hybrid of data was used where necessary as required during the research.

3.1.2. Population of the Study and sampling Technique

The population of this study comprises all the deposit money banks in Nigeria. The study adopted a census approach hence is no need for sampling.

3.1.3. Research Design.

The study employed Ex-post facto Research design. The Ex-post facto research design was chosen because groups with qualities that already exist are compared on some dependent variable. The Ex-post facto research design examines past occurrences in order to understand a current state.

3.1.4. Method of Data Analysis

A balance panel data set is constructed because the data set contains all elements observed in all time-frame and static panel data regression analysis is used as the estimation technique because data set for the study is a collection of multi-dimensional data set observed over multiple time periods.

4. Interpretation and discussion of result

Table 4.4: Random-effects GLS regression

ROA	Coefficients	Standard Error	T	P>t
ATM	0.11	0.22	0.51	0.01*
BET	0.56	0.79	0.71	0.03**
NBA	0.11	0.44	0.25	0.02*
POS	0.18	0.28	0.65	0.01*
Constant	22.41	28.34	0.79	0.04*

SOURCE: Researcher's analysis results 2021
*indicates significance at 1%, **indicates significance at 5%

Table 4.4 shows the random-effect linear relationship between banks return on asset ratio and its determinants. The results obtained from the model indicate that all independent variables such as automated teller machine, Bank Embranchment, Number of Bank Account and point of sale are found to have significant influence return on asset ratio of the firms as indicated by their respective p-values.

Table 4.5: Fixed-effects (within) regression

Fixed-effects (within) regression

Group variable: Banks Number of groups = alldmb

R-sq: within= 0.6727

ROA	Coefficients	Standard Error	T	P>t
ATM	0.56	0.79	0.71	0.03**
BET	0.18	0.28	0.65	0.01*
NBA	0.32	0.14	2.29	0.00*
POS	0.21	0.23	0.91	0.04**
Constant	33.12	18.45	1.80	0.02*

SOURCE: Researcher's analysis results 2021

*indicates significance at 1%, **indicates significance at 5%

Table 5 shows the fixed effect (within) linear relationship between return on asset ratio and its determinants. The results obtained from the model indicates that the overall coefficient of determination R-squared (R^2) shows that the equation has a good fit with 67% of systematic variations in ROA ratio as explained by the variables for the signs and magnitudes of the determinants, all independent variables such automated teller machine, Bank Embranchment, Number of Bank Account and point of sale are found to have significant influence on ROA as indicated by their respective p-values.

4.1 Discussion of Findings

Additionally, in the overall model statistics, as shown in the F statistics, it was found that the overall model is significant since the calculated F value of 28.14 is greater than the critical F value of 5.0 at the level of 5%, which means. This shows that there is a significant linear relationship between the independent and dependent variables in the study and that all the variables support each other and the bank will benefit more and the branchless bank deposits if they use a multi-channel system instead of it sustain a channel plan.

Based on individual statistics, Table 4.5 further explains the impact of the variables (GAB, BET, NBA, and POS) on the dependent variable (ROA). The research shows a positive relationship between ROA and the explanatory variables (GAB, BET and POS) with 0.1847, 5.4912 and 3.4567 as number and prob. Values of 0.0087, 0.0008 and 0.0000 are significant at 1% and 5%. The explanatory variable (NBA) with a coefficient of 0.0128 and a p-value of 0.0856 is not significant at 1% and 5%, but at 10%. Findings on the impact of ATMs on bank performance are consistent with previous studies by Shidadeh (2018); Okon (2018); Nader (2014) who suggested that ATM has a direct effect on ROA. The study also found that BET has a significant impact on ROA and the results are also in Hirtle (2017); Kondo (2017); Nader (2014) stated that BET is strongly linked to ROA. However, the research results show that the NBA has a positive but non-significant effect on ROA at the 5% significance level, which is not consistent with Nkuna's (2018) findings in the same variable. Also, in POS, the results of this study are consistent with the study by Akhisar (2015).

5. Conclusion and Recommendations

From the summary of the work, it is clear that the banking sector occupies an important place in the economy and therefore its work will be under constant scrutiny and investigation. The small success of the banking sector which is shown in the project can be achieved through cooperation and goal setting among the leaders.

Findings on the impact of ATMs on banking performance are consistent with previous studies by Shidadeh (2018); Ocean (2018); Nader (2014) who suggested that ATM has a direct effect on ROA. The study also found that BET has a significant impact on ROA and the results are also found in Hirtle (2017); Condo (2017); Nader (2014) said that BET is strongly linked to ROA. However, the research results show that NBA has a positive but non-significant effect on ROA at the 5% level, which is inconsistent with the findings of Nkuna (2018) in the same variable. Also, in POS, the results of this study are consistent with the study by Akhisar (2015).

Based on the results, the study can conclude that the increase in financial services infrastructure encourages individuals and businesses to use financial services, thus improving the profitability of the bank. In conclusion, the study suggested that the management of the guardian bank should put more ATMs in accessible areas so that customers can be served faster and better.

In line with the objective of the study to examine the impact of investment on banking performance in Nigeria, the following recommendations are made.

i. Additional facilities such as point of sale services should be properly provided to increase investment and improve the profitability of the bank.
ii. ii. More bank branches can be opened even if there are enough incentive programs to finance with more poor people.
iii. iii. Similarly, while it is clear that there is a strong link between financial depth and economic growth, from there, learning how to interpret the ratio and how increasing liquid debts will benefit the premium is still a matter of territory.

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CAPITAL MARKET DEVELOPMENT AND ECONOMIC GROWTH OF WEST AFRICAN COUNTRIES.

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ABSTRACT

This study seeks to examine the effect of capital market development on economic growth in ECOWAS countries using annual data spanning from 1980 to 2019; sourced from World database. Using the Panel Auto regressive Distributed Lag model, the result shows that Gross capital Formation (GCF), and Foreign Direct Investment (FDI) contribute significantly to Anglophones economic growth while only Gross Capital Formation significantly affects growth of Francophone economies. This implies that for Anglophones, the combination of Foreign and Domestic investment contributes immensely to economic growth while the growth of Francophone economies is strongly determined by the level of domestic investment. Therefore, the study recommends that government should provide safe and conducive investment climate to attract foreign multinational companies and domestic investment for economic development.

Keywords: Foreign Direct Investment, Anglophone, Francophone, Domestic Investment

Introduction

Capital markets are the largest sources of financing in several economies including the United States, United Kingdom and South East Asia where the market capitalization to GDP ratio is well over 90% (African Development Bank, 2019). They provide investment opportunities for pension funds, among many other investors. However, the report by the World Bank (2019), notes that the six of the fastest growing economies in 2018 are in Africa and two countries out of these six are in West Africa namely; Ghana (8.3%) and Cote dvoire (7.2%) yet they lag behind in terms of development. This slow pace of development brings on high level of unemployment, wide spread poverty, low level of industrialization and poor standard of living (World Bank 2019). The West African countries had also been facing crises such as political crises, insecurity and corruption, lack of quality regulation and inadequate investment on infrastructural facilities to attract foreign capital flows (Azeez & Obalade, 2019). This foreign capital flows are highly important to West African economy to boost capital market which is immensely inadequate compared to other countries (Osei, 2005). These challenges encountered by West African countries have incapacitated the objective of financial sector reforms to mobilize and allocate credit to the private sector for investment and growth which will in turn tackle problem of under-development and poverty.

Furthermore, despite various efforts made by the governments of West African countries to unite and integrate capital market for market access and wider market, the relic of colonialization that

split the region into Anglophone and Francophone countries has been a great issue (Aboudou, 2010). This approach to integrate the English and French speaking countries has been abortive due to the problem of currency convertibility among West African countries and language challenges. Hence, the efforts to adopt common currency unit which may ultimately bring genuine integrated capital market have failed to work effectively (Aboudou, 2010). Besides, there is limited capital in West African countries where only five capital markets are serving fifteen (15) countries. Also, the market is mostly equity oriented while debt markets and corporate bonds listed are very small. This has made the market capitalization / GDP ratio to be small compared to the advanced and emerging markets (Emenike, 2021).

On empirical grounds, there have been numerous studies on the relationship between capital market development and economic growth both in developed and developing countries. Studies like Agu (2018); Kabeer, Amir, Najaf and Khakan (2016); Chigbu (2014); Atoyebi, Ishola, Kadiri, Adekunjo and Ogundeji (2013); Ismail and Akinola (2013); Brasoveanu, Dragota, Catarama and Semenescu (2015) and Mihovil, Drago and Ivan (2016). These authors revealed divergent results in their findings and concentrated on country-specific analysis of the nexus between capital market development and economic development.

On this premise, this study investigates the effect of Capital Market Development on Economic growth of Anglophone and Francophone countries of West African region with a view to make a comparative analysis.

Literature Review

There are several theoretical and empirical evidences that show the relationships that exist between capital market and economic performance of West African Countries.

Theoretically, one of the earlier studies on the relationship between capital market and economic development is Harrod-Domar theory of Growth presented in the seminal paper of Harrod in 1939 and Domar in 1946. The proponents proposed that for any significant growth to be evident in any economy, there is need for the mobilization of national saving in order to generate sufficient investment to accelerate economic growth. Other theories include Solow-Swan growth theory (1956), Calderson –Rossell theory developed in 1991, Endogeneous growth theory and so no.

Considering Anglophone countries, empirical evidences in the works of Acquah and Salami (2014) on the effects of capital market development on economic growth in Ghana, shows that GDP growth is linearly related to capital market. The study employed multiple linear regression based on quarterly time series data spanning from 1991 to 2011. In Nigerian context, Taiwo, Adedayo and Evawere (2016) discovered that though Nigerian capital market has the potentials of inducing growth but has not contributed meaningfully to its economic growth. The contribution of Odo, Anoke, Onyeisi and Chukwu (2017) to the existing literature, unambiguously determined the short run and long run effect of capital market on Nigerian economy between 1986 and 2016. The result of the ARDL showed that, in the short run, market capitalization has a positive significant relationship with economic growth while stock traded total value indicated a negative insignificant link with economic growth. The results further showed that, in the long-run, both market capitalization and stock traded total value had an

insignificant negative link with economic growth. This result confirms the discovery of Taiwo, Adedayo and Evawere (2016) that capital market has not contributed significantly to Nigerian Economy.

Still on Nigerian economy, Agu (2018) also delved into the responsiveness of economic growth and capital market development in Nigeria. Specifically, the study determines the impact of market capitalization , value of shares and total number of issues on Real Gross Domestic Product in Nigeria. Using ordinary least square , the result of the study showed that market capitalization was found to have negative relationship with Real Gross Domestic Product (GDP) in Nigeria. The study also reveals that there is limited contribution of the capital market to the development of industrial sector. Contrary to the works of Taiwo, Adedayo and Evawere (2016) , Odo, Anoke, Onyeisi and Chukwu (2017) and Agu (2018), some authors also had a divergent view to the relationship that exist between capital market. For instance, Osakwe and Anawude (2017) and Nwamuo (2018) concluded that the effect market capitalization exert on Nigerian economic growth is positive from 1981 to 2016 while total listed equity and volume of transaction have a negative impact on the economic growth in Nigeria in the short run.

Sequel to the observation that the research on Nigerian economy is over flooded, Ismaila (2022) focused his study on Gambian economy by investigating the relationship among domestic credit availability to the private sector, financial development and Gambian Economic growth from 1967 to 2020. The result shows that financial development has a direct impact on the changing amount of domestic credit available for the private sector which also had a spillover effect on economic growth in the Gambia. For comparative purpose, Esso (2009) investigates the finance-growth relationship with focus on ECOWAS countries (Burkina Faso, Mali, Cape Verde, Cote d'Ivoire, Ghana, Liberia and Sierra Leone). The study reveals that financial development precedes economic growth in Ghana and Mali, growth leads finance in Burkina Faso, Cote d'Ivoire and Sierra Leone, and finance and growth cause each other in Cape Verde and Liberia.

With focus on francophone countries, Herve, Chanmlai and Shen (2011) investigated the role of macroeconomic variables on stock prices movement in Cote d'Ivoire. They utilize the stock price index *(SPI)* to represent Cote d'Ivoire stock market and some relevant macroeconomic variables such as industrial production index *(IPI)*, consumer price index *(CPI)*, domestic interest rate *(IR)*, real exchange rate *(EXR)* and real money supply *(M2)*. Their findings revealed there is cointegration between macroeconomic variables and Stock prices in Cote d'Ivoire indicating long-run relationship. Teixeira, Vieiara and Ferreira (2021) investigated the effects of government debt securities on the liquidity risk and profitability of deposit money banks in Cape from 2000 to 2017 . The results show that government debt securities has a positive impact on assets' profitability of banks, in the long run.

From the review of related studies it is observed that there are sufficient country- specific studies on the relationship between capital market development and economic growth in West Africa. Hence, the need to delve into combination of both Anglophone and Francophone for better comparative analysis and policy making is crucial.

3.0 Model Specification

This study adapts the model of Osakwe and Anawude (2017) by incorporating more independent variables as proxies for capital market development. The model of Osakwe and Anawude (2017) states thus:

GDPGRt = f(MKTCRt, SVTRt)

Where: GDPGRt = Gross Domestic Product,

MKTCRt = Market Capitalization Ratio to Gross Domestic Product

SVTRt=Stock Value Traded Ratio to Gross Domestic Product.

Thus, the model for this study is re-specified as follows:

$$RGDP = f(MC, STR, TR, GCF, FDI, INF)$$----------1

Explicitly, the model can be re- stated as follows:

$$RGDP_{it} = \beta a_0 + \beta_1 MC_{it} + \beta_2 STR_{it} + \beta_3 TR_{it} + \beta_4 GCF_{it} + \beta_5 FDI_{it} + \beta_6 INF_{it} + U_t$$------2

For the sake of reducing heteroscedacity and to convert the research data from rates and absolute terms into the same numerical structure, the above equation is log- linearized as below:

$$lnRGDP_{it} = \beta_0 + \beta_1 lnMC_{it} + \beta_2 lnSTR + \beta_3 lnTR_{it} + \beta_4 lnGCF_{it} + \beta_5 lnFDI_{it} + \beta_6 InINF_{it} + U_{it} + \text{ví}$$

$$+ \varepsilon_t$$----------3

Where

RGDP= Real Gross Domestic Product; MC =Market Capitalization; STR = Stock Traded Ratio;

TR = Turnover Ratio; GCF= Gross Capital Formation; FDI= Foreign Direct Investment;

INF = Inflation Rate; *ln*= Natural Logarithm; ί = entity or country; t = time or year;

= Error terms or stochastic terms and $\beta_0 - \beta_6$= coefficients or parameters.

It is expected that:

$$\frac{\partial GDP}{\partial MC} > 0, \frac{\partial GDP}{\partial STR} > 0, \frac{\partial GDP}{\partial TR} > 0, \frac{\partial GDP}{\partial GCF} > 0, \frac{\partial GDP}{\partial FDI} > 0, \frac{\partial GDP}{\partial INF} < 0$$

Estimation Techniques

The study used Panel ARDL model to explore the long-run relationship between capital market development and economic growth in ECOWAS countries and investigates the comparison of the relationship between the two variables in Anglophone and Francophone countries of West Africa. This study relies on secondary data which were sourced from World Bank Development Indicator, National bureau of statistics and Central Bank of various West African countries statistical bulletins. For the Purpose of Analysis, four countries were examined to represent ECOWAS countries namely; Nigeria, Ghana, Cote'divoire and Cape Verde. Precisely, two countries each from Anglophone (Nigeria and Ghana) and Francophone (Cote'divoire and Cape Verde) were selected on the premise that only these countries have Stock Exchange market. The period of study is between 1980 and 2021.

Results and Discussion of Findings

Table 1: Descriptive Analysis for Anglophone

Variables	Observation	Mean	Standard deviation	Minimum	Maximum
RGDP	200	1.932936	2.025728	-0.581357	6.167856
MC	200	1.003575	1.275347	0.0000	3.552091
STR	200	-0.307437	0.6112943	-2.677718	1.840288
TR	200	0.563610	0.8315447	-0.0266329	3.549195
GCF	200	2.818391	0.6972339	-1.228027	4.492966
FDI	200	0.7441733	1.469724	-4.160539	4.637999
INF	200	2.400729	0.7492784	-0.8980511	4.811163

Source; Author's computation (2021)

Presented in the Table 1 is a descriptive statistic of variables used which includes their mean, standard deviation, minimum and maximum values respectively. As reported in the Table 1, the result of the estimated mean recorded highest of 2.818391 for gross capital formation (GCF) while stock traded ratio (STR) has the lowest mean value of (-0.307437). Another relevant observation is the standard deviation that measures the variability of data, all the standard deviation values are positive. Variables like real gross domestic product (2.025728), foreign direct investment (1.469724) and market capitalization (1.275347) have a very high standard deviation which showed high variability while other variables such as turnover ratio (0.8315447), inflation (0.7492784), gross capital formation (0.6972339), and stock traded ratio (0.6112943) have very low standard deviation with low variability.

Table 2: Correlation Analysis for Anglophone

Variables	RGDP	MC	INF	FDI	STR	TR	GCF
RGDP	1.000						
MC	0.8566	1.000					
INF	0.3050	0.4600	1,000				
FDI	-0.1752	-0.3540	-0.2414	1.000			
STR	-0.4616	-0.5125	-0.3788	0.1470	1.000		
TR	0.8347	0.7606	0.1913	-0.1655	-0.2195	1.000	
GCF	0.4543	0.3410	0.2116	0.1741	-0.3324	0.2356	1.000

Source; *Author's computation (2021)*

As reported in the Table 2, the result shows positive relationship between MC, INF, TR, GCF and RGDP while there is negative relationship between FDI, STR and RGDP. In the same vein, the result also affirms positive relationship between INF, TR, GCF and MC while there is negative relationship between FDI, STR and MC. More so, there is positive correlation between TR, GCF and INF while FDI, STR exert negative correlation with INF. It was revealed that STR and GCF have positive relationship with FDI. Overview of the reported correlation coefficient or statistics showed that there is no likelihood of presence of multi-co linearity amidst the explanatory variables as reflected by the weak magnitude of the inter-relationship between Pairs of variables used in the study.

Table 3: Panel Unit Root Test

Variables	LL Chin Statistics	P-values	Order of integration	Im-Peseran and Shin Statistics	P-values	Order of integration
RGDP	-9.28163	0.0000	I(1)	-11.5919	0.0000	I(1)
MC	-2.1786	0.0149	I(0)	-2.55846	0.0053	I(0)
GDPgr	-7.39481	0.0000	I(0)	-9.67765	0.0000	I(0)
INTR	-4.92132	0.0000	I(0)	-5.19397	0.0000	I(0)
INF	-4.09907	0.0000	I(0)	-5.11824	0.0000	I(0)
EXCR	-2.28030	0.0113	I(0)	-2.28626	0.0111	I(0)
FDI	-3.54570	0.0002	I(0)	-3.84487	0.0001	I(0)
STR	-2.63449	0.0042	I(0)	-3.35944	0.0004	I(0)
TR	-2.90816	0.0018	I(0)	-2.61999	0.0044	I(0)
GCF	-2.63466	0.0042	I(0)	-3.53729	0.0002	I(0)

Source: Authors' computation (2021)

Table 3 presented results of Levin-Lin-Chin (LLC) and Im-Peseran-Shin(IPS) panel unit root test conducted in the study, both at level and first difference for selected countries of West Africa. As reported in the Table 3 above, the result revealed that all the variables are stationary at level

except real gross domestic product (RGDP) that was made stationary at first difference. This implies that the panel unit root for the models of the study are of integration of different orders of zero and one.

Table 4: Mean group Panel ARDL estimation result for both Francophone and Anglophone

LONG-RUN ESTIMATES

ANGLOPHONE			FRANCOPHONE		
Variables	Coefficient	P-Values	Variables	Coefficient	P-Value
MC	0.320447	0.334	MC	0.020745	0.317
STR	-0.3446962	0.302	STR	-0.0362643	0.317
TR	0.389977	0.259	TR	-0.0146805	0.317
GCF	0.114799	0.741	GCF	1.801571	0.586
FDI	0.3247079	0.049**	FDI	-3.0481479	0.223
INF	-0.0381563	0.868	INF	-0.4815035	0.334
SHORT RUN ESTIMATES					
C	0.3885844	0.166	C	-0.0173756	0.798
MC	0.0070897	0.629	MC	0.0015069	0.317
STR	-0.0026936	0.862	STR	-0.0013069	0.317
TR	0.0022235	0.897	TR	-0.0005748	0.317
GCF	0.0467602	0.010***	GCF	-0.461785	0.035**
FDI	-0.0078953	0.496	FDI	-0.0017757	0.660
INF	-0.0074809	0.825	INF	-0.0012222	0.568
ECT	-0.569291	0.001***	ECT	-0.0200053	0.043**

Source; Authors Computation (2021)

Table 4 reports that for Anglophones, MC, TR, GCF and FDI exert positive impact on RGDP in the long run while only STR and INF have negative effects. Most importantly, in all of the variables only FDI has a significant long run relationship with RGDP. However in Francophone only MC and GCF had positive effect on RGDP while all the variables have an insignificant long run relationship with RGDP.

In the Short run, only MC, TR and GCF reveal a positive relationship with RGDP while only GCF proves statistically significant at 1% significant level in explaining the effect of capital market on economic growth in Anglophone countries. In Francophone, all variables exert negative effect on RGDP except MC while only Gross Capital Formation also proves significant at 5% significant level in explaining the effect of capital market on economic growth in short run. The error correction technique (ECT-1) reflects that about 57% and 2% of the short run inconsistencies is corrected and incorporated into the long-run with significant probability value of 0.001 and 0.043 in Anglophone and Francophones countries respectively.

Discussion of Findings

The results of the mean group ARDL estimation for Anglophone countries reveal that in the longrun , market capitalization, turnover ratio, gross capital formation and FDI have positive relationship with economic growth while only FDI exerts significant effect. The implication is that MC which is a strong indicator of capital market development has little contribution to the growth of West African economic performance. The direction of the effect of market capitalization on economic growth is in tandem with the works of Nwamuo (2018). This also indicates that the place of Foreign Direct investment cannot be undermined in the place of development of any economy. It also implies that the rate of foreign investment would lead to rapid growth in Anglophone countries through the capital market. The result also shows that inflation rate and Stock trade ratio impede the growth of Anglophone countries though insignificant in both long run and short run. This is in consonance with the works of Odo, Anoke, Onyeisi and Chukwu (2017). The result of the short run estimate reveals that only gross capital formation has significant impact on the growth of Anglophone countries. This also implies that domestic investment would result to economic growth in Anglophone countries if adequately encouraged.

In francophone countries, only market capitalization and gross capital formation exerts positive impact on economic growth in the long run while all the variables remain insignificant. Its interesting to also note that in the short run, Gross capital formation had significant impact on economic growth of francophone countries. This is similar to the result of Anglophone countries. This, therefore, implies that the level of domestic investment in both Anglophone and francophone countries would determine the level of their economic development.

For the purpose of comparison, it is evident that Market capitalization, Stock trade ratio and inflation rate exert similar magnitude of effect on economic growth in West African countries. However, the insignificant negative effect of STR and inflation may be attributed to the fact that the rate of inflation in West African economies is galloping which is highly inimical to growth. It is also noteworthy that the significant effect of Gross Capital formation is positive and negative in Anglophone and Francophone respectively in short run. The most surprising result is that in Anglophone countries, FDI exerts significant positive relationship with growth in the long run while FDI in Francophone countries exerts insignificant negative impact on RGDP in the long run. The reason behind these results in francophone is that the investment climate of West Africa is highly poor and unfriendly to attract both local and foreign investors.

Notably, the result of the Anglophone countries is better, more reliable and valid than Francophone because some of the indicators of capital market and that of macroeconomic variables are more positive and significant in Anglophone countries than Francophone economies. Also most of the results for Anglophone countries are in tandem with the Aprior expectations of this study. This is an indicator that the impact of capital market development is more significant and efficient in Anglophone countries than francophone economies.

5.0 Conclusions and Recommendations

The study investigates the impact of Capital Market development on Economic growth of Anglophone countries (Nigeria and Ghana) and Francophone Countries (Cote'divoire and Cape Verde) from 1980-2021. It was borne out from the result that only FDI and Gross Capital Formation significantly exert effect on the growth of ECOWAS countries. Comparatively, in all of the capital market indices employed, only the impact of FDI is significant in the longrun in Anglophone countries while they all prove insignificant in Francophone countries. However, in the short run, only Gross Capital Formation proved significant in both Anglophone and Francophone countries. Based on the findings of this study, it was concluded that capital market has limited contribution to the economic growth of West African economies. Also, capital market in Anglophone countries are performing better than that of Francophone countries as a result of enabling environment provided for both foreign and domestic investmnt. Therefore, the study recommends that government should provide a safe and conducive investment climate to attract foreign multinational companies for economic growth and development most especially in the francophone countries.

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THE ROLE OF SMALL AND MEDIUM SCALE ENTERPRISES IN UNEMPLOYMENT REDUCTION IN NIGERIA

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ABSTRACT

This study investigated small and medium-sized businesses' (SMEs) role in reducing unemployment in Nigeria. Secondary time series data was obtained for the study. Estimation methods used in the study's analysis includes descriptive statistics correlation analysis, ARDL co-integration, parsimonious error correction model and other post estimation tests. Discoveries from the study revealed that SMEs contribution to export pose positive insignificant impact on unemployment reduction in Nigeria in the long run and a negative insignificant impact on industrial growth in short run; Deposit Money bank (DMB) credit to SMEs pose positive significant impact on industrial growth in the long-run and a positive significant impact on industrial growth in the short run; SMEs contribution to gross domestic product pose positive significant impact on industrial growth in the long run and a negative insignificant impact on industrial growth in the short run. According to the study, the government should foster an environment that is favourable to SMEs, DMBs ought to give the SMEs loans with reasonable terms, and the government should also offer incentives to SMEs.

Keywords: Deposit money banks, Small and medium scale enterprises, unemployment, industrial growth

INTRODUCTION

Unemployment of both educated and uneducated individuals in Nigeria has become a major issue in recent times, with 60-65% of graduates of tertiary institutions facing long periods of unemployment and underemployment. Federal Ministry of Labor and Productivity Report (2008) explained that Nigeria has the highest level of youth unemployment, with 1.6 million graduates being produced every year, but 3.8 million youths who are determined to possess no formal education or have finished the primary or secondary education and dropped out from tertiary institutions also join the queue of unengaged laborers annually in the Nigerian labour market. This has reduced productive Nigerian youths to small scale businesses in their bid to attain daily bread, but the experience of low economic status and standard of living and poverty rate have been reduced with this move.

Small and medium scale businesses (SMEs) are important in tracking socioeconomic issues such as unemployment, poverty and unimpressive economic growth (Ogunjimi, 2021; Abubakar & Yahaya, 2013). Statistics as at 2010 revealed that the total number of persons engaged in the SMEs sector is over 32 million, which buttresses the significance of the sector and its capacity to

captivate economic issues such as kidnapping, child trafficking, smuggling and robbery. However, despite the significance and penetration of SMEs, poverty rate as well as unemployment rate has been on the increase. This has led numerous government in Nigeria to occasion several polices aimed at encouraging SMEs in Nigeria and by implication reduce unemployment and poverty rate in the country. However, the failure of these policies have over time increased the doubts of citizens as to the readiness and sincerity of the government towards implementing the several policies aimed at developing the SME sector (Abubakar & Yahaya, 2013).

Before and after the worldwide pandemic, Nigeria as a nation experienced a high degree of unemployment, poverty, and economic distress (Zhang, Sindakis, Dhaulta & Asongu, 2023). SMEs have the potential to promote social and economic development, but they are hindered by macroeconomic issues, making it difficult to reduce unemployment and poverty. They also have other advantages such as improving economic activities, providing infrastructural facilities, and increasing standard of living.

Nigeria's labour market is rife with unemployment and underemployment, despite numerous programmes implemented by the government and other economic resources. The SMEs sector has failed to reduce unemployment and poverty, in spite of efforts to increase exports and improve the living standard of Nigerians. (Akinmulegun, 2014). The development and expansion of the economy have not been aided by SMEs, denying the country of the values it needs (Onugu, 2015). The Nigerian government has made efforts to boost SME performance through financial provisions and supportive policies, but these efforts have not provided a positive impact on Nigeria's ability to create employments. It is against this backdrops that this researched intends to inspect the small and medium scale enterprises' role in unemployment reduction in Nigeria over the period 2002-2020 by specifically examining the impact of their contributions to export and gross domestic product as well as the impact of commercial bank credit to small and medium scale enterprises on unemployment reduction.

2 LITERATURE REVIEW

SMEs in Nigeria is defined as any business with a labour force size of 11 to 100 or an overall value less than N50 million, minus the cost of the land but including working capital (Adigwe, 2012). The United Nations Industrial Development Organisation (UNIDO) established fifty definitions of small-scale businesses in 75 different nations based on factors such as installed capacity utilisation, production, employment, capital, type of country, or other criteria. According to USAID (2004), enterprises are smaller, unofficial firms that use local labour and other unpaid employees. Medium-sized businesses have between 21 and 50 employees, whereas small businesses, which operate in the formal sector, have between 5 and 20 employees. Since its independence, Nigeria has held a number of seminars, studies, and workshops to help SMEs get started and remain viable. With the introduction of the structural adjustment programme (SAP) in 1986, focus was switched away from large-scale industries and towards small and medium-sized businesses, which have a significant potential for creating domestic links for efficient growth and long-term industrial development. The organised private sector (OPS) was subsequently given more responsibility and given greater learning to lead earlier industrialisation programmes.

The word "unemployment" describes a state of not having a job or employment. It is a significant concern for the Nigerian economy since the majority of urban, semi-skilled, and unskilled labourers find refuge in the unorganised sector (Lawal, Usman, & Muhammad, 2023). Due to government initiatives to address the issue through programs to reduce poverty, unemployment rates significantly decreased in 2003, falling to 2.3%.

According to Olubukola (2013), the country's unemployment rate has risen quickly, raising serious concerns since employable individuals and school graduates are having trouble finding work or are being let go from their jobs for a variety of reasons. According to Akin (2013), there are several obstacles to long-term youth employment, such as a lack of accountability and transparency in governance, social, political, and cultural concerns, high costs of governance, a lack of resources to promote work possibilities, and weak economic, social, and political conditions, jobless economic growth, etc.,

In 2022, the unemployment rate in Nigeria is expected to reach 33%. This percentage was anticipated to be 32.5 percent last year. Chronological data show that unemployment in Nigeria has been rising consistently over the past few years. In contrast to the year before, 2020, the unemployment rate stayed almost the same in 2021, at 9.79 percent. Nevertheless, the unemployment rate in Nigeria peaked in 2021 at 9.79 percent, and as of the second quarter of 2020, it was 27.1%, meaning there were around 21,764,614 million Nigerians' job seekers.

The total rate of underemployment and unemployment in Nigeria was around 28.6% and 55.7% for the second quarter of 2020. This information may be found in a report on the state of the labour market that the National Bureau of Statistics has produced. The percentage of unemployed people in Nigeria climbed by 4% points between the third quarter of 2018 and the second quarter of 2020, reaching 23.1% in Q3 2018.

2.2 Theoretical Review

This study's theoretical underpinnings include Supply Leading Hypothesis, Financial Repression Hypothesis and Endogenous Growth Theory.

Supply Leading Hypothesis was used in establishing the association between finance and economic growth by Schumpeter in 1911. According to Schumpeter's supply-leading notion, financial sector expansion spurs growth in the real sector via savings accumulation, project appraisal, risk management, management control, and financial institutions. This may encourage technology advancements and boost the real estate market. The supply-leading theory submit that economic expansion does not provide a positive feedback loop to finance. Mckinnon (1973) and Shaw (1973) argue that a well-developed financial sector minimizes transaction and monitoring costs and asymmetric information, thus improving financial intermediation. The supply-leading hypothesis presumes that the economy responds to growth in the real sector facilitated by financial development.

The Financial Repression Proposition states that the economy should be regulated through the use of high reserve requirements, as well as regulated interest rates, quantitative limitations on credit distribution. However, initial censure arose against the theory as McKinnon (1973) and Shaw (1973) argued that financial suppression interacts with price inflation and restricts the supply of bank lending. Large reserve demands limit bank lending as fixed credit programs skew credit distribution. This results in investment suffering not just in terms of amount but also in terms of quality, since lenders do not allocate available money in accordance with the marginal productivity of investment, resulting in stagnation rather than

progress.

The Endogenous Growth idea put out by Romer (1986) and Lucas (1988) assumes that the determinants of growth are endogenous in nature. Froyen (2009) argues that an increase in capital investment spurs economic growth, while technological improvement is an endogenous factor. Arrow (1962) and Rebelo (1991) assumed that the endogenous nature of the growth process is revealed in the connection between investment and technology diffusion. This model assumes that output increases with an increase in capital, labour and technology, with the assumption that these factors can exhibit either increasing or constant returns to scale.

2.3 Empirical Review

Edoko, Agbasi and Ezeanolue (2018) examines the effect of SMEs on Nigeria economic growth using an ordinary least square (OLS) economic regression model. It was found that SMEs, government expenditure to SMEs, employment generations, commercial bank credits, and lending rates to SMEs positively impact economic growth in Nigeria. Although all the explanatory factors have a major impact on economic growth, corruption has a detrimental effect on it.

Al-Tamini and Mohammad (2019) examined the SMEs' role in lessening Jordan joblessness crunch. The qualitative and quantitative method was used in the study to gather primary data and estimate the impact of SMEs on reducing unemployment in Jordan. The findings suggest that SMEs are crucial to the development of the economy, providing the majority of new jobs opportunities and producing much of the creativity that leads to economic progress.

Adebayo, Clement and Clement (2020) examined how small and medium-sized enterprises have helped Nigeria's economy grow. Secondary data sources from the World Bank Group, Index Mundi, and the Bulletin of Statistics from the Central Bank of Nigeria were utilised. Findings of this study revealed that small and SMEs, account for 72% of the variation in employment growth, are clearly correlated with the creation of jobs. Small and medium-sized enterprises have a positive influence on the decline in poverty, and they account for around 60% of the variation in the pace of decline.

Using yearly time-series data from World Development Indicators, Ogunjimi (2021) assessed how well SMEs were doing in addressing unemployment in Nigeria. The employment that is created in the SMEs subsector has a large beneficial influence on unemployment, but not enough to completely resolve the unemployment problem, according to the results.

Ilori and Ayedun (2022) explores how entrepreneurship training and the self-employment skills needed by graduates might lower the unemployment rate in Nigeria. The study used a snowball/chain referral approach to conduct a survey of self-employed Nigerian graduates from certain higher education institutions. According to the research, there is a strong link between self-employment abilities and entrepreneurship education. The efficacy of entrepreneurship education, entrepreneurial skills, and its delivery at our institutions may all be improved, on average, reduce the unemployment rate for graduates.

Lawal, Usman and Mohammed (2023) looks at how the informal sector helped Katsina state's three senatorial zones reduce unemployment. The research employed primary data that was gathered via structured questionnaires that were distributed in Katsina, Daura, and Malumfashi. To examine the data gathered for the research, descriptive and basic percentage methods were used. The outcomes indicated a substantial positive association between the informal economy and unemployment.

3 METHODOLOGY

This study made use of time series data taken from the Central Bank of Nigeria's statistics report. The choice of the research era is distinctive in that it included the pandemic-tainted time period. The study modified the model of Edoko, Agbasi, and Ezeanolue (2018), which looked at how small and medium-sized businesses affect job creation in Nigeria. The authors' model was modified due to its uniqueness to the research era, a time when many citizens lost their white collar jobs and had to rely on their own initiative for survival. Although the Autoregressive Distributed Lag model (ARDL) developed by Pesaran Shin (1997) and Pesaran, Shin, and Smith (2001) was used in this work, parsimonious error correction model was used to keep track of the short run effect.

The model's variables' short-run and long-run relationships will be simultaneously estimated. The model is described below:

Functional Form

$IG = (SMECE, CSME, SMEGDP)$ −−−−−−−−−−−−−−−−−−−−−−− 3.1

Linear Form

$IG = \alpha 0 + \alpha 1SMECE + \alpha 2SCME + \alpha 3SMEGDP + U$ −−−−−−−−−−−−−−3.2

Where:
IG = Industrial Growth
SMECE = Small and Medium Scale Enterprises Contribution to Export
CSME = Commercial Bank Credit to SMEs
SMEGDP = SMEs Contribution to Gross Domestic Product
U= Stochastic Error Term
α0, α1, α2, α3= parameter estimates corresponding to constants term.

4. Result and Discussion

Table 1. Descriptive Statistics

	IG	SMECE	CSME	SMEGDP
Mean	63247.42	176.2016	12410.41	5279.412
Median	62980.40	153.5500	10660.07	4527.450
Maximum	121253.2	397.3600	27345.48	9653.980
Minimum	11332.25	66.86000	930.4900	1127.230
Std. Dev.	36766.95	94.83016	9201.333	3294.393
Skewness	0.016950	0.742222	0.157491	0.106279
Kurtosis	1.552678	2.512739	1.620077	1.291810
Jarque-Bera	1.659247	1.932455	1.586025	2.345783
Probability	0.436214	0.380516	0.452480	0.309471
Sum	1201701.	3347.830	235797.7	100308.8
Sum Sq. Dev.	2.4323410	161869.7	1.526709	1.953408
Observations	19	19	19	19

Source: *Authors Computation, (2022)*

Table 1 provides descriptive statistics of observation-based variables that were gathered. The average industrial growth for the period under study is 63247.42 million naira, with minimum and maximum values of 11332.25 million naira and 121253.2 million naira respectively. Skewness statistics reported in table 4.1 are 0.016950, 0.742222, 0.157491 and 0.106279 for industrial growth, small and medium scale enterprises contribution to export, commercial bank credit to SMEs and SMEs contribution to gross domestic product respectively.

Kurtosis statistics are reported at 1.552678, 2.512739, 1.620077 and 1.291810 for industrial growth, SMEs contribution to export, commercial bank credit to SMEs, and small and SMEs contribution to gross domestic product respectively. Jarque-bera statistics are reported at 1.6592 for industrial growth, 1.9324 for small and medium scale enterprises contribution to export, 1.5860 for commercial bank credit to SMEs, and 2.3457 for SMEs contribution to GDP. All variables are normally distributed.

Table 2. Correlation Matrix

	IG	SMECE	CSME	SMEGDP
IG	1.000000			
SMECE	0.901420	1.000000		
CSME	0.984656	0.885807	1.000000	
SMEGDP	0.985516	0.863370	0.969700	1.000000

Source: *Authors' Computation, (2022)*

Correlation estimation results showed that industrial growth has a positive correlation with other independent variables such as export, commercial bank credit, and gross domestic product. Correlation estimates are positioned at 0.901420 for IG and SMECE, 0.984656 for IG and CSME, 0.985516 for IG and SMEGDP, 0.885807 for SMECE and CSME, 0.863370 for SMECE and SMEGDP, and 0.969700 for CSME and SMEGDP respectively.

Table 3. Summary of Unit Root Test Result

	At Level			**At First Difference**			
Variables	**ADF Statistics**	**1% critical value**	**5% critical value**	**ADF statistics**	**1% critical value**	**5% criticalvalue**	**Order of integration**
IG	0.646239	-3.857386	-3.040391	-3.982552	-3.959148	-3.081002	I(I)
SMECE	1.027219	-3.920350	-3.065585	-6.003208	-3.886751	-3.052169	I(1)
CSME	-0.293694	-3.857386	-3.040391	-3.901878	-3.886751	-3.052169	I(1)
SMEGDP	-4.366334	-3.920350	-3.065585	-2.555324	-3.920350	-3.065585	I(0)

Source: *Authors' Computation, (2022)*

Table 3's unit root test results showed crucial values at 1% and 5% significant levels with Augmented Dickey-Fuller Fuller (ADF) test data. The outcome shows that all variables are not

stationary at level, but the majority of them become stationary after the first difference, suggesting that the difference is stationary and integrated of order one I(1). All the variables included in the study were shown to only hold onto novel shocks for a brief length of time before letting go. The findings demonstrated that the presence of a unit root prevents an equilibrium connection between the variables in the short run, but that a long-run equilibrium relationship is likely if the variables co-integrate. The results of a Johansen co-integration test that was used to determine if the set of variables co-integrate are shown in the next section.

Table 4. Results of the Johansen Co-integration Test

Series: IG SMECE CSME SMEGDP

Hypothesized No of CE(s)	Trace Statistics	5 Percent Critical Value	Probability	Eigen Value
None *	82.88047	47.85613	0.0000	0.909622
At most 1 *	42.01661	29.79707	0.0012	0.767014
At most 2 *	17.25141	15.49471	0.0269	0.624914
At most 3	0.581221	3.841466	0.4458	0.033612

** indicates that the hypothesis was rejected at a 1% level of significance. One co-integrating equation is shown by the trace test at the 0.05 level.*

Source: *Authors computation, (2022)*

The results of the co-integration test are summarised in table 4 above. According to trace statistics, there is substantial support for three co-integration equations at the 5% level of significance, rejecting the null hypothesis that there is no co-integration. This shows that while there is not an equilibrium link between proxies for small and medium-sized businesses in the short run, there is one in the future. The co-integration regression result shown in Table 5 below indicates a long-term association that has been noticed.

Table 5. Co-integration Regression Result

Series:

Variables	Coefficient	Std. Error	T-statistics	Probability
C	5891.111	2498.642	2.357725	0.0324
SMECE	48.57839	22.93960	2.117666	0.0513
CSME	1.534012	0.488296	3.141559	0.0067
SMEGDP	5.636805	1.254309	4.493953	0.0004

IG SMECE CSME SMEGDP
R^2=0.9887, *Adjusted* R^2=0.98864, Durbin-Watson Stat=0.7697
Source: *Authors' Computation, (2022)*

According to the estimation results shown in table 5, small and medium scale enterprises contribution to export pose positive insignificant impact on industrial growth, with reported coefficient estimate of 48.57839(p=0.0513>0.05), commercial bank credit to SMEs pose significant long-run positive influence on industrial growth, with 1.534012(p=0.0067<0.05) reported estimate. Results revealed that on the long-run SMEs contribution to gross domestic product pose significant positive impact on industrial growth, with 5.636805(p=0.0004<0.05) reported coefficient estimate. The reported R-square statistic was 0.9886, indicating that, when other factors are held constant, the contributions of SMEs to export, commercial bank credit to SMEs, and the contribution of SMEs to the gross domestic product can collectively account for about 99% of the systematic variation in industrial growth.

Error Correction Model (ECM)

Table 6 Parsimonious ECM ResultSeries:

Variables	**Coefficient**	**Std. Error**	**t-statistics**	**Probability**
D(IG(-2))	0.019310	0.235925	0.081846	0.0399
D(IG(-3))	1.483824	0.440958	3.365002	0.0436
D(SMECE)	23.01683	9.868941	2.332250	0.0019
D(SMECE(-1))	21.77124	7.422502	2.933141	0.0608
D(CSME)	0.496301	0.408516	-1.214887	0.0113
D(CSME(-1))	-0.871665	0.473508	-1.840868	0.0629
D(CSME(-2))	-0.970359	0.370349	-2.620125	0.0790
D(SMEGDP)	-0.906745	1.871434	-0.484519	0.0612
D(SMEGDP(-1))	4.213889	2.344318	1.797490	0.1701
D(SMEGDP(-2))	-4.520269	2.717671	-1.663288	0.0948
ECT	0.563071	0.162145	3.472649	0.0403
C	80.38864	1699.756	0.047294	0.0653

IG SMECE CSME SMEGDP
R-square=0.9590, *Adjusted R-square*=0.8088, Durbin-Watson=1.4032

According to the results of the parsimonious error correction model estimation shown in Table 6, on the short-run, SMEs' export contributions have a positive significant impact on industrial growth, with a coefficient estimate of 23.01683 (p=0.00190.05) and commercial bank credit to SMEs having a coefficient estimate of 0.496301 (p=0.01130.05). A stated coefficient estimate of -0.906745 (p=0.0812>0.05) of the effect of SMEs' contributions to GDP on financial deepening was also demonstrated by the results. With a probability value of 0.0653 and a coefficient of 0.80, the one period delayed error correction term provided in Table 6 indicates that about 80% of the short-run inconsistencies are yearly considerably adjusted and integrated into the long-run dynamic. R-square statistics of 0.8088 reported in table 6 revealed that SMEs' contribution to export, commercial bank credit to SMEs, and small and SMESs' contribution to gross domestic product can explain approximately 81% of the systematic variation in industrial growth.

Table 4.7 Post Estimation Result

Linearity Test		
Statistics	***Values***	***Probability***
T-statistic	3.212200	0.0063
F-statistic	10.31823	0.0063
Likelihood Ratio	10.49121	0.0012
Normality Test		
Statistics	***Values***	***Probability***
Jarque-Bera Stat	0.5739	0.7505
Serial Correlation LM Test		
Statistics	***Values***	***Probability***
F-statistic	2.5402	0.1172
Heteroscedasticity Test		
Statistics	***Values***	***Probability***
F-statistic	1.2613	0.3231

Source: *Authors' Computation, (2022)*

The results of the Ramsey test are shown in Table 4.7. The likelihood ratio was 10.4912 (p=0.00120.05), the t-statistics were 3.2120 (p=0.00630.05), and the f-statistics were 10.3182 (p=0.00630.05), indicating that there is not enough information to rule out the null hypothesis that the model is correctly specified. The computed models' error term has a Jarque-Bera statistic value of 0.5739 (p= 0.75050.05). The outcome demonstrated that, given the probability value, there is not enough support to reject the null that the error term of the estimated model is normally distributed, so verifying that the error term is normally distributed.

The results of the Breusch-Godfrey serial correlation LM test are shown in table 7, with the probability and f-statistics values being 2.5402 and 0.1172, respectively. The statistics revealed that there is insufficient evidence to disprove the null hypothesis that there is no serial connection between the consecutive error term values of the estimated models. Consequently, serial autocorrelation is not an issue in the estimated models. There is no issue with heteroscedasticity in the error term of the calculated models, according to the f-statistics and probability values of 1.2613 and 0.3231.

Conclusion and Recommendations

The study found that SMEs' contribution to export, commercial bank credit, gross domestic product have a positive impact on industrial growth in Nigeria in the long-run and a negative insignificant impact on industrial growth in the short-run. These findings suggest that SMEs have a positive relationship with unemployment reduction in Nigeria. These suggestions become essential in light of the study's conclusions: the government should create an enabling business environment for small and medium-scale businesses to improve productivity and export. Commercial banks should provide loans with fair conditions, which will enhance the performance of the businesses and attenuate unemployment in Nigeria. Additionally, government should offer incentives to encourage performance of the sector and its contribution to economic output.

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ASSESSING THE DETERMINANTS OF ECONOMIC GROWTH IN HEAVILY INDEBTED POOR COUNTRIES

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ABSTRACT

The research analyzed the factors that influence economic growth in 39 countries that are heavily indebted and poor, commonly referred to as HIPCs. The study utilized eight sets of data pertaining to economic indicators, education, and population from the years 1980 to 2021. The study employed the auto-regressive distributed lag (ARDL) technique to analyze the impact of various factors, including export volume, inflation, foreign aid, foreign direct investment, agricultural output, population growth, industrial sector output, foreign direct investment, and secondary school enrolment, on the economic growth of a group of 39 countries in both the short and long terms. Among the eight eco-social variables analyzed, only export volume and inflation demonstrate a significant impact on the economic growth of the nations. From the analysis, both in the short and long periods, export volume has a favorable impact on economic development (short run: coefficient = 0.601183, p = 0.0212; long run: coefficient = 0.488446, p = 0.0205). Both in the short and long periods, inflation has a detrimental impact on economic growth (short run: coefficient = -0.184358, p = 0.0385; long run: coefficient = -0.149787, p = 0.0542).. Further, it was found that exports granger caused GDP growth, while the latter itself granger caused inflation and secondary school enrolment. It was recommended that governments of HIPCs put in place more export boosting strategies, significantly reduce inflation and control population growth. Governments in the affected countries need to focus on the growing of the real sector of the economy through effective utilization of domestic savings and foreign financial aid to develop the sector.

Keywords: Highly indebted poor countries, economic growth

1.0 INTRODUCTION

The resource gap in most developing and poor countries push them to borrowing. The investment – savings gap in the domestic economies need huge capital to fill (Yogo, 2017). The neo-classical growth model posits that individual countries should attain steady capital for meaningful economic growth to take place. This, however, has been a tall dream for most less developing countries (LDCs) over the years (Beyene & Kotosz, 2020), The LDCs resort to borrowing, the effect of which may be destabilizing on the domestic economy, especially when such borrowings are not efficiently utilized to aid economic growth.

De-Rugy and Salmon (2020) stated that the global financial crisis during the last decade, especially between 2007 and 2008 as well as the sovereign debt crisis in Europe in 2009 spurred renewed interest in the debt – real economic growth relationship. Reference in this regard can be made to the work of Reinhart and Rogoff (2010) in their discuss on how countries can grow in the times of debt.

Theoretically as noted by De-Rugy and Salmon (2020), rising public debt can have a devastating effect on the accumulation of capital stock and economic growth as it can elicit prolonged rise in interest rate, distorting tax policy, rising inflation and constraints on countercyclical fiscal policies. Against the Ricardian growth (equivalence) theory which posits that household savings increase as government borrowing increases, high debt level can cause dissaving in the private sector. Saungweme et al., (2019) believed that high debt can create uncertainty leading to low economic growth for poor countries as investors may avoid investing in the stock market or other productive investment opportunities. The author asserted that high debt-to-GDP ratio can take its toll on government expenditure (especially in terms of debt servicing) and foreign exchange. this is apart from the re-direction that debt gives the government from productive investments to the pursuit of debt reduction. (Johnny & Johnnywalker, 2018).

As far back as 1998, the IMF and World Bank have recognized the difficulty in addressing the debt burdens of extremely poor countries. Such countries are characterized by low per capita income, inadequate human capital, low literacy level, low life expectancy, civil and political unrest and high dependence on foreign assistance (NSAID, 2015).

In their research, Yusuf and Mohd (2021) found that governments borrow money whenever tax collections fall short of spending. When it's tough to increase taxes and cut expenditures, public debt becomes a crucial instrument for governments to support public spending. As a result of this method, most countries now have enormous debts. This rising debt profile may be reasonable if efficiently utilized to fund infrastructure development needed for local production but will become unreasonable if it turns out to create distorting and depleting effects on the economy (Joy & Panda, 2020).

The classical economists, as stated by Domar (1944) posited that financing government expenditures with debt does not totally remove the negative effect of crowding out problem in of private investment. Debt, therefore, can elicit interest rate spikes, liquidity problem and economic downturn. On the contrary, the "crowding-in effect" was proposed by the Keynesian economists to argue that financing government expenditure with debt brings about a direct positive multiplying effect the economy. The "law of increasing state activity" theory, postulated by the Keynesian economists, states that when government finances its activities through debt, the private investment sector receives a crowding-in effect, a kind of performance boost (Ncanywa & Masoga, 2018). The crowding-in effect manifests such that although public debt reduces fund availability to the private sector, the same fund is somehow re-injected into the economy by increasing aggregate demand through salaries, wages and capital expenditures.

According to Salmon (2021), the levels of indebtedness, in the belief of the Keynesians, does not pose much concern since debt interest rates have been lower than the rate of economic growth in many

countries. Boskin (2020) has, however, observed that in recent years, increasing debt-to-GDP ratio may lead to increased tax rate, falling incomes and "intergenerational inequity".

The question of what factors influence economic growth in heavily indebted countries, Anyanwu (2014) stated that, there are several economic, political, social, legal and technological factors that can significantly influence economic growth in HIPCs. For example, Hilton (2021) opined that running a surplus government budget might be difficult hence a country may have to borrow to finance its economy. Nevertheless, unsustainable debt profile can stifle domestic economic growth. Therefore, this study was carried out to assessing the determinants of economic growth in heavily indebted poor countries between 1980 and 2021. The research also examined the existence and direction of causation between economic growth and the chosen macroeconomic factors.

1.0 Literature Review

Conceptual Review

Highly Indebted Poor Countries (HIPC)

The concept of "heavily indebted poor countries" (HIPC) was developed by the International Monetary Fund (IMF) and the World Bank in 1996 as an initiative to address the development finance gap in developing countries. The countries classified as HIPC by the IMF are 39 with 37 fully qualified and two in the process of being qualified (IMF, 2022). These countries are in the highly poor group (Table 2.1) with high debt burden. These countries need much of external intervention to be able to develop their domestic economy. The HIPCs have the privilege of debt reliefs such as rescheduling or outright cancellation occasioned by their unsustainable debt overhang which they cannot effectively manage.

Table 2.1 contains the list of countries in the HIPCs.

Table 2.1: Countries Qualified as HIPCs as at Feb. 2020

Post-Completion-Point Countries (37)		
Togo	Uganda	Comoros
Benin	Zambia	Côte d'Ivoire
Bolivia	Burkina Faso	Rwanda
Mali	Central African Republic	Tanzania
Burundi	Guyana	Ethiopia
Niger	Haiti	Democratic Republic of Congo
Somalia	Chad	Sierra Leone
Mauritania	Liberia	Afghanistan
Nicaragua	Republic of Congo	Ghana
Malawi	Cameroon	Guinea-Bissau
The Gambia	Honduras	Guinea
Madagascar	São Tomé & Príncipe	

Mozambique	Senegal	
Pre-Decision-Point Countries (2)		
Sudan	Eritrea	

Source: IMF (2022).

The IMF specified some conditions precedent before a country can be classified as a HIPC. These conditions include eligibility to borrow from the World Bank IDA (International Development Agency) and the Poverty Reduction and Growth Trust of the IMF with zero interest rate and subsidized rates respectively. Such countries must also be faced with unsustainable debt overhang which the traditional debt relief processes cannot address. The majority of HIPCs are located on the African continent (IMF, 2022) and are required to have in place a track record of solid monetary and fiscal policies as defined by the IMF as well as a well-developed Poverty Reduction Strategy Paper (PRSP) via a broad-based participatory process in the nation.

1.1 Empirical Review

Owing to the much interest generated by the challenges faced by highly indebted and poor countries, there have been several studies aimed at researching into what factors contributed to their high indebtedness, poverty level and economic underdevelopment. Th study of De-Rugy and Salmon (2020) aimed to review a wide range of previous research on the topic of the connection between high levels of debt and the economic development of HIPCs.

Anyanwu (2014) listed such factors as domestic investment, exports, imports, technology, reforms, official development assistance (ODA), inflation, private sector credits (PSC), oil prices (for HIPCs), foreign direct investments, urban population, government expenditures, government efficiency and secondary school enrolment as determinants of economic growth in HIPCs. Out of these factors, however, the author found that domestic investment, ODA, inflation and population have significant effect on economic growth of the HIPCs.

Henri (2019) examined the effects of the IMF's HIPC debt relief on African countries economic growth and stability from 1990 to 2015. Panel regression showed that the HIPC's initiative debt relief positively and significantly affected economic growth in the long run while it did not have significant effect on economic growth in the short run in Africa during the period. Debt relief did not significantly affect inflation but reduced the continent's balance of trade deficit. The study identified political stability, corruption, education, regulatory framework are the main factors that determine Africa's economic growth. The study advocated improved education, good governance and reduction in corruption as necessary conditions for better economic performance.

De-Rugy and Salmon (2019) had reported that studies in America, a less indebted country, a threshold of between 75% and 100% of the gross domestic product was found in the debt – growth linkage. It was also stated by the authors that most of the studies found a negative relationship between high indebtedness and economic growth (in the present and the future). The authors predicted that as America continues to go on her existing fiscal route, massive economic losses to about $5 trillion in GDP and $13,000 in per capita in 2049.

Karadam (2018) has a research that investigated the effect of various forms of debt on the economic development of 134 nations between the years 1970 and 2012. The findings point to a link that is not linear between debt and economic expansion. According to the results of the research, there is a link between debt and economic growth that experiences a transition from positive to negative as a certain threshold, which is generally referred to as the GDP-Debt ratio, is gradually reached. The shift from positive to negative occurs when a particular threshold is progressively crossed.

Caner et al (2019) conducted a study on the impact of public and private debts on the economic growth of 29 countries that are members of the Organization of Economic and Cooperative Development (OECD). The study utilized a "endogenous panel threshold model" to analyze a dataset spanning the years 1995-2014. The findings of the analysis indicate that a noteworthy negative impact of the interplay between public and private debt is observed when the debt level reaches approximately 137% of the Gross Domestic Product (GDP). As the magnitude of the debt increased, so did its adverse impact. Chudik and colleagues (2017) have previously established that a universally accepted threshold for the correlation between public debt and economic growth has not been identified. The authors' study entailed an analysis of data from 40 countries, revealing a significant negative effect of public debt on economic growth.

Lim's (2019) research investigated the influence of debt accumulation on economic growth across a sample of 41 nations. The researcher employed a "panel vector autoregression" (PVAR) approach to examine data that covers the period from 1952 to 2016. The research conducted by the authors indicates that the amassing of debt had an adverse impact on the progression of the economy. The findings suggest that a rise of one standard deviation in debt was associated with a reduction of roughly 0.2% in economic growth. Jacobs et al (2020) conducted a study with the objective of exploring the plausible causal correlation between the ratio of debt-to-GDP and the growth of economy in 31 countries belonging to the European and OECD regions. The study's results indicate that there is no statistically significant causal relationship between public debt and economic growth. Nonetheless, the research has established a causal correlation that originates from the expansion of the economy towards the accumulation of public debt.

A study was conducted by Swamy (2019) on 152 countries, utilizing a dataset that encompassed the years 1960 to 2009. The purpose of the study was to assess the causal connection between debt and economic growth. The findings of the study indicate that the accumulation of government debt has a detrimental effect on the economic growth of nations. Based on empirical data, it can be inferred that a rise of 10% in the ratio of debt-to-GDP is linked to a reduction of roughly 0.23% in the mean rate of growth of GDP. Hilton's (2021) research sought to investigate the correlation between public debt and economic growth. The present study employed a dynamic autoregressive distributed lag (ARDL) causality model to examine the data obtained from the Ghanaian economy over a period of 40 years, from 1978 to 2018. The author's study has determined that there is no causal connection between the expansion of Gross Domestic Product (GDP) and public debt in the immediate period. There exists a unidirectional relationship of long-term nature from public debt towards GDP. A reciprocal causal association can be observed between investment and GDP, whereby a negative causal effect is evident in the short-term, while a positive causal effect is evident in the long-term. Currently, there exists no discernible causal linkage between government expenditure and consumption in the short run. In the long run, a unidirectional causal association exists between government expenditure and consumption. Yusuf and Mohd (2021) have conducted research which indicates that debt can have both beneficial and detrimental effects on economic growth in the long and short run, respectively.

How public debts affect economic growth has a been a concern for researchers, policy makers and practitioners. If developed and emerging countries are taking drastic steps to significantly reduce their debt burdens in recent years (De-Rugy & Salmon, 2020), researching into factors that determine economic growth in HIPCs should be a continuous exercise. HIPCs countries also need to expand and update their knowledge of likely negative effects of high indebtedness on economic growth and development. Empirical studies have recorded varied outcomes (Hilton, 2021). However, studies that specifically capture the determinants of economic growth in heavily indebted and poor countries are rare, to the best the researcher's knowledge. Apart from examining the effect of eight important economic and educational indicators on economic growth of the HIPCs, the study further examined whether there exists causal relationship between the dependent and each of the explanatory variables.

2.0 Research Methodology

We used secondary data extracted from the World Bank Database on heavily indebted and poor countries (HIPC). A dataset for GDP growth rate, agriculture production, exports volume, foreign aid, foreign direct investment, industrial output, inflation, population growth and school enrolment were extracted for the period 1980 to 2021. The study model expresses the linear relationship between economic growth and some selected macroeconomic variables in a functional form:

GDPG = f(AGRI, EXPO, FAID, FDIV, INDU, INFL, POPU, SCHE) …… 3.1

Expressing the adapted equation (3.1) in longitude and econometric form, it becomes:

$$lnGDPG = \delta + \Theta_1 lnAGRI + \Theta_2 lnEXPO + \Theta_3 lnFAID + \Theta_4 lnFDIV + \Theta_5 lnINDU + + \Theta_6 lnINFL + \Theta_7 lnPOPU + \Theta_8 lnSCHE + \varepsilon \quad \ldots\ldots 3.2$$

where

GDPG = Gross domestic product growth
AGRI = Agriculture output
EXPO = Exports volume
FAID = Foreign aid to HIPCs
FDIV = Foreign direct investment
INDU = Industrial sector output
INFL = Inflation rate
POPU = Population growth rate
SCHE = Secondary school enrolment
ln = Natural logarithm
δ = Regression intercept
Θ_1 …… Θ_8 …….. Regression coefficients
ε = Stochastic error term

The data collected was subjected our dataset to four preliminary tests so as to ascertain the statistical properties of the variables and the most appropriate techniques used for inference purposes. We check descriptive statistics, correlations, stationarity (ADF-Fisher unit root test), and co-integration (Bound test). Based on early experiments, we employed the auto-regressive distributed lag (ARDL) long run and error correction model to determine how chosen explanatory factors affected HIPC economic

development. The Granger causality test was performed to determine causation between economic growth and each explanatory variable in the nations. We thereafter, for robustness check, subjected the results to some residual tests, namely, Jarque-Bera normality, serial correlation, heteroscedasticity and recursive tests.

4.0 Data Analysis and Discussion

4.1 Preliminary Tests

(a) Descriptive Statistics

Table 4.2 contains the statistical properties of all the variables used in the study. Emphasis is placed on the mean of the variables, coefficients of skewness, kurtosis and the Jarque-Bera (JB) statistics and probabilities for all the variables. other parameters are self-explicit.

Table 4.2: Descriptive Statistics

	GDPG	AGRI	EXPO	FAID	FDIV	INDU	INFL	POPU	SCHE
Mean	3.396796	28.10031	21.60876	2.36E+10	1.08E+10	21.86907	8.175962	2.829172	0.818547
Median	3.860811	25.92196	21.78179	1.72E+10	4.65E+09	21.45158	7.693302	2.822880	0.801160
Maximum	6.079075	36.52114	28.13689	4.42E+10	3.52E+10	26.1039	25.06204	3.097734	0.917360
Minimum	-0.750245	21.78627	15.45549	6.57E+09	-15811822	17.57609	2.049498	2.587509	0.737900
Std. Dev.	2.028603	4.758008	3.444043	1.32E+10	1.20E+10	2.148738	4.290609	0.117123	0.060251
Skewness	-0.541477	0.396956	0.009253	0.344202	0.785263	0.157494	1.534874	0.278435	0.436471
Kurtosis	2.041391	1.752600	2.112017	1.513956	1.983335	2.089635	7.422861	3.464989	1.703843
Jarque-Bera	3.311891	3.461647	1.249022	4.246860	5.541915	1.469304	45.89299	0.833337	3.866578
Probability	0.190912	0.177138	0.535523	0.119621	0.062602	0.479672	0.000000	0.659239	0.144672
Sum	129.0783	1067.812	821.1329	8.98E+11	4.09E+11	831.0248	310.6866	107.5085	31.10480
Sum Sq. Dev.	152.2635	837.6297	438.8731	6.40E+21	5.29E+21	170.8318	681.1450	0.507562	0.134315
Observations	38	38	38	38	38	38	38	38	38

Source: Author's (2022)

As revealed in Table 4.2, the mean of GDPG, AGRI, EXPO, FAID, FDIV, INDU, INFL, POPU and SCHE is 3.396796, 28.10051, 21.60876, 2,360,000,000, 10,800,000,000, 21.86907, 8.175962, 2.829172 and 0.818547 respectively. These means represent the central tendencies of the variables. Only the dependent variable (GDPG) is asymmetrically skewed to the left of the mean (-0.54147) while the explanatory variables, AGRI, EXPO, FAID, FDIV, INDU, INFL, POPU and SCHE are all asymmetrically skewed to the right with coefficients 0.396956, 0.009253, 0.344202, 0.785262, 0.157494, 1.534874, 0.27435 and 0.436471 respectively. EXPO in particular lies around its mean value. The kurtoses for GDPG, AGRI, EXPO, FAID, FDIV, INDU and SCHE are all platykurtic as they are less than the 3-point benchmark (2.041391, 1.752600. 2.112017, 1.5133956, 2.089635 and 1.70384 respectively). INFL and POPU are leptokurtic as they are above the 3 benchmark (7.422861 and 3.464989 respectively).

Given the JB statistics and their probabilities, only INFL is not normally distributed with probability of 0.00000. GDPG, AGRI, EXPO, FAID, FDIV, INDU, POPU and SCHE are all normally distributed (with probabilities 0.19091, 0.177158, 0.535523, 0.119621, 0.062602, 0.479672, 0.659239 and 0.144672 respectively). There are 38 observations in all.

(b) Pearson's Correlations Coefficients

Table 4.3 contains the rate and direction of co-movement between GDPG and the explanatory variables.

Table 4.3: Correlations of GDPG with Explanatory Variables

	GDPG	AGRI	EXPO	FAID	FDIV	INDU	INFL	POPU	SCHE
GDPG	1								
AGRI	-0.762932	1							
EXPO	0.777335	-0.827034	1						
FAID	0.654403	-0.773890	0.785976	1					
FDIV	0.627094	-0.806902	0.731125	0.928821	1				
INDU	0.687061	-0.843202	0.780625	0.919808	0.893880	1			
INFL	-0.589103	0.632387	-0.364569	-0.518056	-0.606160	-0.570023	1		
POPU	-0.148139	0.175253	-0.048430	0.116072	-0.053634	0.127724	0.296312	1	
SCHE	0.658121	-0.848764	0.722204	0.956981	0.959969	0.942830	-0.622932	0.058817	1

Source: Author's (2022)

Three of the variables, AGRI, INFL and POPU have negative correlation with GDPG given their coefficients -0.762932, -0.589103 and -0.148139 respectively. This implies that the variables move in opposite direction to the movement of GDPG. While AGRI and INFL have relatively high correlation coefficients, POPU has a low negative correlation. EXPO, FAID, FDIV, INDU and SCHE have positive and direct high correlation with GDPG with 0.777335, 0.654405, 0.627094, 0.687061 and 0.658121 respectively.

(c) Test of Variable Stationarity

All the variables are tested for their order of stationarity using ADF-Fisher unit root test. Tables 4.4 contains the results of ADF-Fisher unit root test.

Table 4.4: ADF-Fisher Stationarity Test

Null Hypothesis: Unit Root Exists					
Variable	At Level		At first Difference		Decision
	ADF- Fisher Statistics	Probability	ADF- Fisher Statistics	Probability	
GDPG	-2.697949	0.0832	-8.227650	0.0000	1(1)
AGRI	-0.575960	0.8645	-5.500513	0.0000	1(1)
EXPO	-1.406389	0.5696	-4.938607	0.0002	1(1)
FAID	-0.550243	0.8698	-3.080438	0.0366	1(1)
FDIV	-0.511507	0.8783	-5.952703	0.0000	1(1)
INDU	-1.484378	0.5306	-6.430101	0.0000	1(1)
INFL	-3.263941	0.0235	-	-	1(0)
POPU	-0.753609	0.8185	-3.542448	0.0129	1(1)
SCHE	-0.520740	0.8762	-5.840516	0.0000	1(1)

Source: Author's (2022)

A variable is stationary (without unit root) in the order at which the probability of its ADF statistic is less than the selected level of significance (0.05). Apart from INFL which has a probability less than 0.05 at level, all the other variables have their probabilities less than 0.05 in the first difference. Hence, while INFL is stationary at level 1(0), GDPG, AGRI, EXPO, FAID, FDIV, INDU, POPU and SCHE are stationary at first difference 1(1). These conditions, coupled with the results of Bound co-integration test, provide the basis for using the ARDL for estimation and inference.

(d) ARDL Bound Co-integration Test (F- Statistic and t-Statistic)

The study tested whether long-run relationship between GDPG and other variables using the ARDL Bound co-integration test. Table 4.5 shows the results of this test

Table 4.5: Test of Co-integration

Null Hypothesis: No co-integration				
Test Statistic	Value	Significant	Lower Bound 1(0)	Upper Bound 1(1)
F-Statistic	3.115945	10%	1.92	3.06
K	8	5%	2.22*	3.69
		2.5%	2.48	3.7
		1%	2.79	4.1
t-Statistic	-4.660914	10%	-2.57	-4.4
		5%	-2.86	-4.72*
		2.5%	-3.13	-5.02
		1%	-3.43	-5.37

*co-integration exists. Source: Author's (2022)

While the F-Statistic at k = 8 degree of freedom is 3.115945 (greater than the critical value of F at 5% significance level at the lower bound – 2.22), the t-Statistic is -4.660914 (greater than the critical value of t which is -4.72 at the upper bound). These imply that there is long-run relationship (co-integration) between the dependent and independent variables.

4.2 Short and Logn-run Effects and Causality Test Results

The ARDL technique was utilized to determine the short- and long-term relationships between all explanatory variables and GDPG. To determine whether the variables have a causal relationship with the dependent variable, the Granger causality test was administered.

(a) Determinants of Economic Growth in HIPCs

The results for the ARDL short and long-run effect of selected variables on economic growth in the HIPCs are tabulated in Table 4.6.

Table 4.6: ARDL Short and Long-run Results

Dependent Variable = GDPG Period: 1981-2021, Null Hypotheses: No Significant Effect						
Variable	Short-run Effect			Long-run Effect		Decision
	Coefficient	Probability	Decision	Coefficient	Probability	

AGRI	0.122651	0.5655	Insignificant	0.099651	0.5630	Insignificant
EXPO	0.601183	0.0212*	Significant	0.488446	0.0205*	Significant
FAID	-7.62E-11	0.4937	Insignificant	-6.19E-11	0.4849	Insignificant
FDIV	-1.05E-10	0.2551	Insignificant	-8.52E-11	0.2724	Insignificant
INDU	-0.012514	0.9750	Insignificant	-0.010167	0.9750	Insignificant
INFL	-0.184358	0.0385*	Significant	-0.149787	0.0542*	Significant
POPU	-0.618405	0.8404	Insignificant	-0.502438	0.8423	Insignificant
SCHE	33.67865	0.3851	Insignificant	27.36306	0.3867	Insignificant
Conit.Eq	-0.812475	0.0000	-	-	-	-
R-squared	0.500388		R-squared	0.747142		
F-Stat	36.05594		F-Stat	9.192668		
Prob (F-Stat)	0.000001		Prob (F-Stat)	0.000003		
DW Stat	2.021289		DW Stat	2.021289		

*Significant.

Source: Author's Computation (2022)

From Table 4.6 in the short-run, AGRI and SCHE have positive but insignificant effect on GDPG coefficient 0.122651 (prob. 0.5655) and 33.67865 (prob. 0.3851) respectively. EXPO has a significant positive effect on GPDG with coefficient 0.601183 (prob. 0.0212). furthermore, FAID, FDIV, INDU and POPU have negative but insignificant effect on GDPG with coefficients -7.62E-11, -1.05E-10, -0.1024358, and -0.618405 and probabilities 0.4937, 0.2551, 0.9750 and 0.8404 respectively. INFL has a significant negative effect on GDPG with coefficient -0.184358 and probability 0.0385. About 81% (-0.81247) of previous year's deviations is corrected back to equilibrium in the present year. The coefficient of determination (R^2) of 0.500388 implies that about 50% of the variations in GDPG is explained by the selected dependent variables while another 50% is explained by other variables outside the short-run research model. The F-Statistic calculated (36.05594) and its probability (0.000001) connote that the short-run research model is significant and reliable. The Durbin-Watson (DW) statistic also reveal that the research variables do not have autocorrelation problem as it is 2 (acceptable benchmark).

The same results trend in the short-run also occur in the long-run with AGRI and SCHE having insignificant positive effect on GDPG, EXPO having a positive significant effect, FAID, FDIV, INDU and POPU having negative but insignificant effect and INFL having a significant effect on GDPG. In the long-run, the R^2 of 0.747142 shows that about 75% of the behaviour of GDPG is explained by the independent variables. The F-Statistic calculated (9.192668) and its probability (0.000003) connote that the long-run research model is significant and reliable. The Durbin-Watson (DW) statistic also reveals that the research variables do not have autocorrelation problem as it is 2 (acceptable benchmark).

(b) Causality between Economic Growth and Selected Variables in HIPCs

The research also looked at whether economic growth and certain growth indicators in the HIPCs are significantly correlated. Table 4.7 contains the Granger causality test findings.

Table 4.7: Causality Test Results

Pairwise Granger Causality Tests
Date: 11/25/22 Time: 18:24
Sample: 1980 2021
Lags: 2

Null Hypothesis:	Obs	F-Statistic	Prob.
AGRI does not Granger Cause GDPG	38	1.35265	0.2725
GDPG does not Granger Cause AGRI		0.63845	0.5345
EXPO does not Granger Cause GDPG	39	4.35396	0.0207
GDPG does not Granger Cause EXPO		0.00476	0.9953
FAID does not Granger Cause GDPG	38	2.13405	0.1344
GDPG does not Granger Cause FAID		0.96188	0.3926
FDIV does not Granger Cause GDPG	39	0.02463	0.9757
GDPG does not Granger Cause FDIV		2.00824	0.1498
INDU does not Granger Cause GDPG	37	0.18540	0.8317
GDPG does not Granger Cause INDU		0.31916	0.7290
INFL does not Granger Cause GDPG	39	1.80439	0.1800
GDPG does not Granger Cause INFL		6.03661	0.0057
POPU does not Granger Cause GDPG	39	1.83626	0.1749
GDPG does not Granger Cause POPU		2.52242	0.0952
SCHE does not Granger Cause GDPG	38	2.80418	0.0750
GDPG does not Granger Cause SCHE		3.37216	0.0465

Source: Author's (2022).

The decision rule on whether two variables granger cause each other is hinged on whether the calculated value of F-Statistic is greater than its critical value or whether its probability (*p* value) is less than the selected level of significance. Using the latter rule, AGRI and GDPG do not have significant causal relationship given their *p* values being greater than the 0.05 significance level. EXPO significantly granger causes GDPG ($p = 0.0207$) while FAID and GDPG and FDIV and GDPG have no significant causal relationship. On its part, GDPG significantly granger causes inflation ($p = 0.0057$) but POPU and GDPG do not have significant causal relationship between them. Finally, GDPG also granger causes SCHE (*p* 0.0465). Among the selected determining variables, the null hypothesis of no significant causality cannot be accepted for EXPO, INFL and SCHE.

Table 4.8 gives a summary of serial correlation and heteroscedasticity tests. The tests follow a standard F-distribution criterion (statistics and probability).

Table 4.8: Serial Correlation and Heteroscedasticity Tests

Test	F-Statistics	Probability	Decision
Breusch-Godfrey Serial Correlation LM Test	0.207488	0.8140	No serial correlation
Breusch-Pagan-Godfrey Test of Heteroscedasticity	1.277789	0.3035	Heteroscedastic

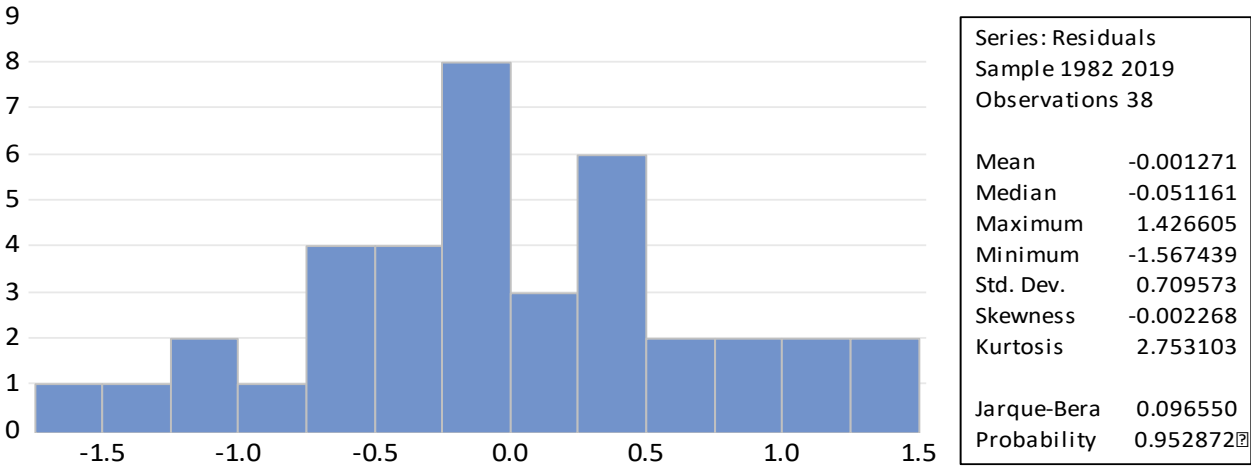
Source: Author's (2022)

In the context of serial correlation testing, the null hypothesis posits that the variables under study do not exhibit any issues with serial correlation. Based on the outcome of the Breusch-Godfrey serial correlation test, the F-Statistic and its corresponding probability (F-Stat = 0.207488; p = 0.8140), it can be concluded that the null hypothesis, which states that the variables do not exhibit any serial correlation issue, is accepted. Furthermore, it is important to note that the null hypothesis for a heteroscedasticity test posits that the variables under consideration exhibit homoscedasticity. Hence, the Breusch-Pagan-Godfrey test of heteroscedasticity result shows that the variables are homoscedastic ((F-Stat = 1.277789; p = 0.3035).

4.3 Post Estimation Tests

For robustness' sake, we subjected our results to selected post-estimation tests including, the test of residual normality, serial correlation, heteroscedasticity and the CUSUM test which shows the extent to which our research model drifts away from the mean, that is the degree of stability of regression coefficients.

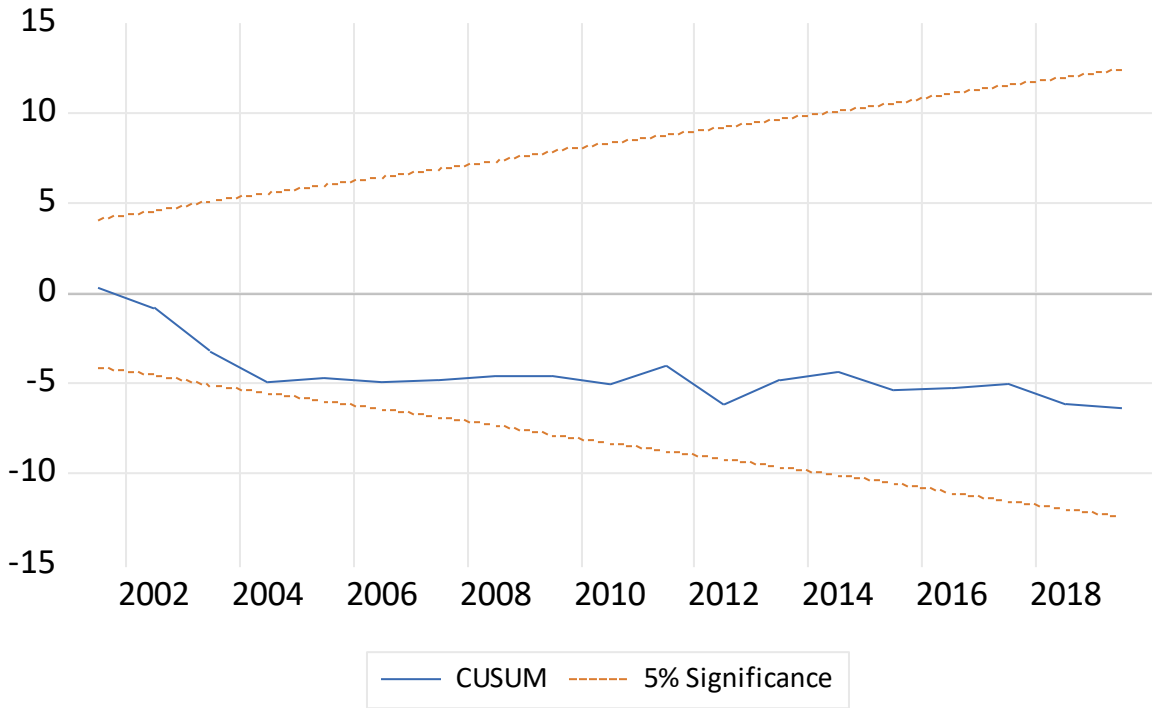
Figure 4.1 depicts the result of the Jarque-Bera (J-B) of residual normality. Generally, the residual is normally distributed if the probability of J-B statistics (Prob. J-B Stat.) is greater than the selected level of significance (that is p > Prob. J-B statistics). In this case, the p value of J-B statistic is 0.952872 which is far higher than the 0.05 level of significance, signifying that the residuals are normally distributed. This position is further buttressed by the coefficient of skewness (-0.001271, hovering around the mean) and kurtosis of 2.753105 (approximately 3 – the benchmark for normal distribution).



Source: Author's (2022)

Figure 4.1: Test of Residual Normality

Figure 4.2 is the result of the CUSUM (recursive) test. It shows that the research model does not drift away from the mean and that regression coefficients are stable over time.



Source: Author's (2022)

Figure 4.2: Result of CUSUM Test

4.3 Discussion and Implication of Findings

This study set out to achieve two major objectives. First, it assessed the effect of selected macroeconomic and social indicators on the growth of the economies of the 39-member group of heavily indebted and poor countries in the world. Secondly, the study also examines whether past changes in these variables significantly caused present changes in the GDPG more than the past changes in GDPG caused in itself.

First, agricultural production has a favorable impact on economic development in the short- and long-term, although the influence was negligible throughout the research period, according to the findings of the ARDL used to evaluate the impact of the variables chosen on economic growth in HIPCs. This contradicts the expectation of the effect of the agricultural sector on the economic growth of the HIPCs as a portion of the debts ought to be channeled to revamping the sector. This result suggests that the HIPCs need to strategically deploy available financial resources to develop the agricultural sector since it is one sector that ought to spur growth in the economy.

Secondly, the volume of exports has a significant positive effect on economic growth in the shirt- and long-run. This is expected as more exports attract more foreign exchange earnings which are used to

finance domestic economic growth in terms of purchasing of raw materials, importation of machines and expertise and productivity operations in general. Without doubt, exports promote economic growth, especially in poor countries but lack of it means that there will be no foreign exchange resources to finance importation of raw materials, machines and expertise from abroad.

Surprisingly and against the fundamental theoretical expectations, foreign aid, foreign direct investment and industrial sector output have negative effect on economic growth of the HIPCs in both short and long-runs. Although the effect is insignificant, the fact that it is negative calls for concern. For countries that are poor and heavily indebted, it is expected that these three economic indicators will exert significant positive effect on economic growth. For foreign aid to affect economic growth negative could mean that development assistance and grants given to the HIPCs are not channeled to productive uses that could grow their economies. These findings agree with those of Chudik et al (2019) and Hilton (2021).

Expectedly, inflation has a significant negative effect on the economic growth of the HIPCs. Inflation worsens the precarious economic position of heavily indebted and poor countries essentially because it leads to increased cost pf production, reduction in the value of domestic currency and general price rise. It them means that inflation control should be a major concern for economic managers and policy makers in the HIPCs.

The effect of population growth, though insignificant, is negative in both short and long runs. Usually, it is characteristic of many poor countries to have growing population, a chunk of which does not contribute positively to the overall economy. Malthus population theory posits that a geometrically growing population can result into more poverty for already poor countries because of its crowding-out effect on available resources. Population growth not directly channeled towards productive engagement becomes a burden for HIPCs.

Finally, the number of secondary school enrolment has positive effect on economic growth in both short and long runs, however, the relationship between them is insignificant. This also contradicts the theoretical expectation of the relationship between education as a social indicator and economic development. This insignificant positive effect also calls for attention as it portrays that HIPCs, despite the borrowing opportunities and acquisitions available to them, were yet to translate education to economic growth significantly. Nonetheless, the positive effect implies that the possibility of significant desirable effect on economic growth is very high.

Next, the presence and direction of causality between economic growth and the selected economic and educational indicators in the HIPCs was tested. The results of Granger causality reveal that agricultural output, foreign aid, foreign direct investment, industrial sector output and population growth do not have significant causality with economic growth. This position also agrees with the short- and long-run effects of these variables on economic growth and studies conducted by Henri (2019), Swamy (2019) and Anyanwu (2014). However, the absence of causality portends grave consequences for the economies of the HIPCs. Adjustments and development in these variables ought to cause positive changes in the GDP growth if the economies are to witness any meaningful growth. The reverse is the case in the HIPCs as revealed by this study.

Expectedly, the exports volume has significant causal effect on GDP growth. It Granger caused GDP growth during the study period ($p = 0.0207$). This result also tallies with the short- and long-run effects

of the former on the latter. The importance of exports and foreign exchange earnings in promoting domestic economic growth cannot be overemphasized as we had earlier pointed out and that it Granger causes GDP growth in the HIPCs further brings to the fore the need for these countries to constantly take steps to improve on their exports so as to earn more foreign exchange for domestic economic growth.
GDP growth significantly Granger caused inflation ($p = 0.0057$). It means that previous changes in GDP growth caused rise in present inflation. It also reflects that part of the increases in GDP growth would probably have been due to general price level increase or the presence of large liquidity volume in the economy which fuels inflation.

Finally, GDP growth significantly Granger caused number of secondary school enrolment in the HIPCs ($p = 0.0465$). The causal effect is most likely hinged on the fact that GDP growth should affect the education sector positively thereby leading to greater enrolment in schools. Given these results, we conclude that there exists significant causal relationship between GDP growth and its determinants in the HIPCs. The null hypothesis that there is no causal relationship between these variables cannot be accepted.

5. Conclusion and Recommendations

This study assessed the determinants of economic growth in 39 heavily indebted and poor countries as a group between 1980 and 2021. The study estimated the impact of eight economic, social, and demographic variables on the economic growth of a group of 39 countries. The variables included export volume, inflation, foreign aid, foreign direct investment, agricultural output, population growth, industrial sector output, foreign direct investment, and secondary school enrollment. The estimation was necessary due to the unavailability of certain data. The study employed the Autoregressive Distributed Lag (ARDL) methodology to assess the short-term and long-term effects of the mentioned factors on the Gross Domestic Product (GDP) growth. Furthermore, the study utilized the Granger causality test to establish the causal connection between the selected variables and economic growth. According to the study, there is no statistically significant impact on economic growth from certain factors, including agricultural output, foreign aid, foreign direct investment, industrial sector output, population growth, and secondary school enrolment. According to the analysis, there is a notable positive correlation between the volume of exports and the economic growth of Highly Indebted Poor Countries (HIPCs). Conversely, the inflation rate has a significant negative impact on the economic growth of these countries. The researchers also find that whereas exports granger caused GDP growth, the GDP growth itself granger caused inflation and secondary school enrolment during the study period.

We conclude that in terms of effect, export volume and inflation have been the significant determinants of economic growth in the HIPCs group. In terms of causality, however, export volume, inflation and secondary school enrolment have had significant causal relationship with GDP growth. This study observes that against expectations, agriculture, foreign aid, foreign direct investment, industrial sector output, population growth and secondary school enrolment have not significantly impacted the economies of the HIPCs over time. To worsen the situation, inflation has continued to significantly impair the economies. Only exports volume has aided the HIPCs' economies. We strongly recommend, in the light of these findings, that more export boosting strategies should be put in place by the government of the affected countries. They should formulate policies that will significantly reduce inflation and control population growth through education and advocacy. Governments in the affected countries need to focus on the growing of the real sector of the economy (agriculture and industry) by effectively utilizing domestic savings and foreign financial aid to finance the sector.

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EMPLOYEE RETENTION STRATEGIES AND ORGANISATIONAL PERFORMANCE AMONG ACADEMIC STAFF OF SELECTED PRIVATE UNIVERSITIES IN OSUN STATE NIGERIA

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ABSTRACT

The study examined the relationship between employee retention strategies and organizational performance of academic staff in selected private universities in Osun State, Nigeria. The strategies for retaining highly qualified staff in the universities in relation performance were reviewed. The study used a survey research design. The questionnaire was administered to three hundred and eighty-seven (387) respondents while only three hundred and fifteen (315) were completed and returned. For data classification, descriptive statistics of tables and percentages were used as well as inferential statistics of ordinary least square (OLS) in hypothesis testing. The results revealed that opportunities for advancement, competitive compensation plan and good work-life balance positively affect the performance of academic staff in the selected private universities. The study recommends that the management of private universities should invest heavily in the areas of opportunities for advancement, competitive compensation plan and good work-life balance for their employees in other to reduce labour turnover.

Keywords: Employee retention strategies, Opportunities for advancement, Competitive compensation plan and Good work-life balance and Performance

1.0 INTRODUCTION

In today's business environment, increasing employees' turnover has become a serious challenge. This has caused Human Resources Managers and employers of labour to worry about the negative impact of employee turnover (the number of workers leaving their job over time) on business. The Department of Human resources departments is concerned with the number of people who voluntarily quits their jobs (Okafor, Ifekwem & Adeyi, 2019). Therefore, Human Resources Managers is looking for another method to reduce the turnover of employees, considering it is necessary for performance and finding a competitive advantage (Michael & Chipunza, 2009). The involvement of people plays an important role in the performance and effectiveness of the organizational goals, in fact, it is their knowledge, skills and abilities that determine whether an organization will be able to survive in the dynamic competitive environment.

Many organisations have realized that promoting and retaining talented employees serves as an important part of the business management process. This increased the level of competition in all industries; therefore, all organizations (public and private) need to know the process that will help to retain quailed employees. Employee Retention is defined as the ability of an organization to retain its employees. It is also seen as a process, in which employees are motivated and

encouraged to stay in the organization for a long time, thereby, ensuring stability of the organization (Gorde, 2019).

The ultimate goal of employee retention is to keep both parties i. e. the employees and the employer happy. This helps loyal employees to stay with the company for a long time, which the managers. Employee retention is the main factor leading to competitiveness and productivity of a company.

According to Okafor, Ifekwem and Adeyi (2019) employee retention strategy is defined as policy put in place, supported by actions taken by the organization to prevent the organization's skilled employees from leaving their jobs. By implication, it can be thought of as the practice that an organization uses to retain its employees throughout their career. Effectively implementing employee retention strategies increases loyalty, engagement and reduces employee turnover rates (James and Mathew, 2012). A better understanding of why employees leave or want to leave the organization informs the effective retention strategies to be adopted (James and Mathew, 2012).

Many studies conducted on employee retention strategies and organizational performance use training and Development, reward management, job rotation, work environment, job security, etc as proxies for employee retention strategies with positive and significant results in their various location and that most of the methodology employed in the previous studies were faulty while some are qualitative based in nature (Taplin & Winterton, 2007; Michael & Chipunza, 2009, and Okafor, Ifekwem & Adeyi (2019). However, there are other strategies of employee retentions which have not been well-dealt with in the previous studies considered. Notable among these are: opportunities for advancement, competitive compensation packages and good work/life balance. Thus, this study will contribute to body of knowledge by evaluating the effects of these three employee retentions strategies on organizational performance among academic staff of selected private universities in Osun State, specifically, Osun East Senatorial District.

2.1 Review of Literatures

2.1.1 Opportunities for Advancement and Retention

An advancement opportunity is an opportunity to step into new position in a company. Horwitz et al., (2003) found in the study that the importance of retention is personal as well as professional development and that it is the promotion opportunities that increase employee performance and change performance results. Illeris (2003) emphasized the learning organization strategy model through which the employees' best learning in the work environment actually happens. Kroon (2013) identified that development opportunities can improve employee commitment to retain employees in organizations. Adewoye, Abioro, and Adele (2017) concluded in a study that improving employee career advancement in the organization has a significant impact on performance and as such, management should invest in employee's development to enable employee turnover and performance improvement. In addition, research by Nagarathanam, Venkitasamy and Attiah (2018) shows that job opportunities and improved services within a company will also lead to long-term employees working with the organization and contributing to organizational improvement.

2.1.2 Competitive Compensation Plan and Retention

Many studies have explored the relationship between compensation and retention. Some studies have a positive impact of compensation on retention and others do not. Tremblay et al., (2006) in a study conducted by a group of researchers found that work-related activity is an important factor in the decision to quit. Milkovich and Newman (2004) discussed that monetary pay is an essential factor in keeping the employee. Hytter (2007) concluded that there is a correlation between reward and retention. Some studies have some negative impact on pay with retention. Hausknecht et al, (2009) found in the study that compensation and benefits contribute to retention. Daniel (2010) conducted a study among Nigerian civil servants and concluded that to retain skilled workers for the job, proper incentives must be provided. Pitts *et a*l., (2011) identified that compensation predicts turnover of employees. Onyango (2014) found a positive correlation between direct & indirect financial rewards and employee retention.

2.1.3 Good Work/Life Balance and Retention

The balance between the professional life and personal life is one of the factors of employee retention. Hyman and Summers (2004) stated in their study that work that requires interventions into employees' personal life will overwhelm them emotionally and lead to high employee stress. Noor and Maad (2008) found that satisfaction with work-life balance leads to lower turnover intentions. Deery (2008) offers retention strategies that help balance personal and professional life, for example, flexible working hours, flexible working arrangements, providing adequate resources, training opportunities, correct workload, providing adequate breaks in a day, vii. permission to take leaves and so on.

Branch (2011) argued that to improve employee retention, encouraging a good work-life balance was not the only way to retain employees, but a good compensation system within the competitive range, performance opportunities and development and some other factors also have an effect on it. Additionally, it is important to have a balance between personal and professional work that will bring commitment to the organization.

Khairunnezam Mohd Noor (2011), in this study correlational analysis and mediation analysis were performed. In correlational analysis, it was found that perceived work-life satisfaction has negative impact with the intention to leave. In simple mediation analysis which resulted that job satisfaction & organizational commitment are partial mediators in proving the relationship between work-life balance and intention to leave among academics.

2.1.4 Employee Retention Strategies and Organizational Performance

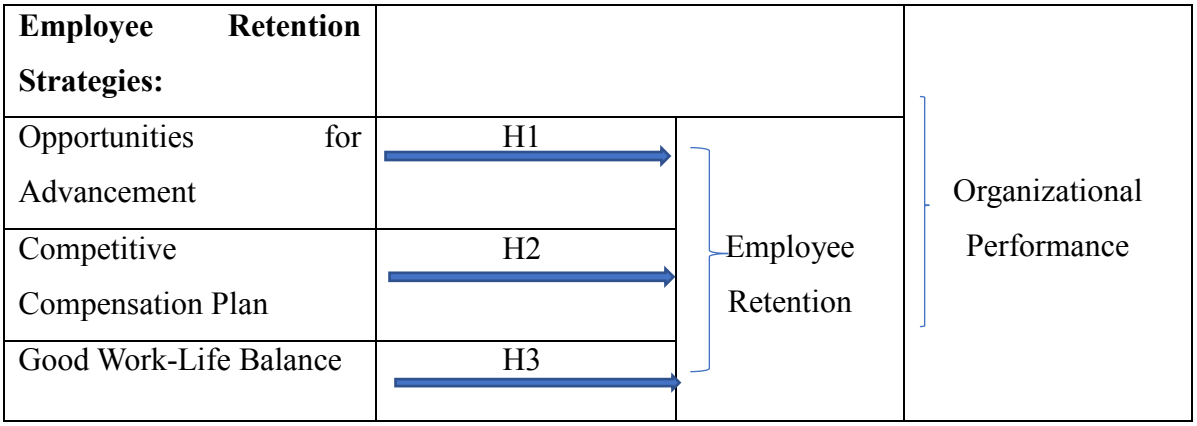
Retaining key employees is important because it improves customer satisfaction, increases sales, fosters working relationships, improves employee-supervisor relationships and creates valuable succession planning. In such a system, the knowledge and learning of the system are successfully stored and improved. Failure to retain key employees is costly for any business. Gordon and Meredith (2001) pointed out that a company must invest in employee retention to be successful. Furthermore, the creation and preservation of knowledge has become a key tool for accelerating competitiveness and improving organizational capabilities to respond to market changes. Bringing talented people into the organization facilitates achievement of their organizations vision which meet the goals that are innovative and can ensure global competitiveness.

Ananthan and Sudheendra (2011) studied the dynamics of retention towards practices and strategies in Multinational companies and Indian firms. The study revealed that there are no observed differences between MNCs and Indian firms on retention strategies. The study concluded that perception towards retention strategies was significantly higher in employees' side than the management side. Additionally, employees scored higher than the management on policies such as organizational strategies, employee benefit strategies, rewards and recognitions strategies and ideas and suggestions strategies. It was suggested in the study that integration of human resource practices to match with the organizational as well as individual needs would be an effective strategy to improve job motivation and retention.

Kate *et al*. (2011) presented some strategies for attracting and retaining employees in the Australian Resources Sector. They classified three types of strategies in terms of organizational context, employment practices and community and social concerns. Strategies with respect to company reputation, excellent work environment, high quality leadership, quality people, good communications and high ethics and professional standards are discussed in organizational context. Competitive remuneration, bonuses, training and development opportunities, benefit packages/workplace benefits, challenging work, career opportunities (international), rostering, permanent work and secured contract are discussed in employment practices.

Tripathi *et al.* (2011) concluded in the study that retention strategies for faculties irrespective of their level of their renumeration. It is discussed that there are several steps must be taken to develop retention strategies. First step is assessment of the existing situation and measure the turnover rates in organization. The second step is to create designations/positions in organization e.g. Officer for Recruitment & Retention. The next step is building a programme for comprehensive retention management which would provide a correct data about how many employees are leaving and the reasons their leaving and without this accurate information, the facts behind leaving cannot be found out. Finally, organizations with a view to retain employees must conduct interviews and exit interviews.

Figure 2.1: **Conceptual Framework on Employee Retention Strategies and Organizational Performance**



Source: Authors' Idea (2023)

2.2 Theoretical Framework

2.2.1 Equity Theory of Employee Retention

This theory considers the relationship between their reward and the rewards of other people. If one implements this theory in an organizational context, it can be concluded that employees compare their efforts such as qualification, experience, performance, competence, and skills - and rewards such as appraisal, promotion, bonuses, salary increase, and recognition to other employees' efforts and rewards. When employees perceive disparities or differences in the rewards that they are receiving relative to other employees, conflict is created. These employees have a difficult time receiving their expected or perceived fair reward (Reichheld, 1996, & Hirschfeld, 2000). Equity theory is based on the following three main components or assumptions; (i) people perceive rewards as fair or equitable according to their own beliefs or expectations for their efforts, (ii) people compare their reward with the reward of other employees according to their perception of their contribution, and (iii) when people realize that their contributions or efforts are not equitable compared to those of other people, they act to contribute more or to improve their performance.

This theory helps managers to create a good relationship between the performance and rewards of employees. According to this theory, we can assume that employee who leaves an organization due to biased, unfair, and inequitable treatment develops these feelings when they do not receive a fair reward for their contributions or efforts (Muray, 1999, Sokoya, 2000, & Al-Aameri, 2000).

1.0 Methods

The study adopted a descriptive research design. This is a type of research in which the explanatory variables cannot be manipulated. This is acceptable due to the nature of the explanatory variables in this study. The population is the total group that the researcher wants to study. The people of the study are the entire staff of selected private universities in the three senatorial districts of Osun State, namely: Fountain University, Osogbo (Osun Central), Bowen University, Iwo (Osun West) and Joseph Ayo Babalola University, Ikeji-Arakeji (Osun East). Oduduwa University was not selected as it was not listed in the National Universities Commission (2019) where other selected private universities were sourced. Therefore, the research population is six hundred and ninety-seven (697) employees as obtained by National Universities Commission, 2019 and Statistical Bulletin, 2022.

Table 1: Population of the Study

SN	Universities	Academic Staff Strength
1	Bowen University, Iwo	417
2	Fountain University, Osogbo	76
3	Joseph Ayo Babalola University, Ikeji-Arakeji	204
	Total	697

Source: Statistica, 2022 and National Universities Commission, 2019

Studying the whole population would be impossible, for reasons such as the evolution of the characteristics of the population to be measured, the cost, the space-time and the reliability of the measurements. Accordingly, a total sample size of 387 (one hundred and eighty-seven academic staff) was obtained for this study through Cochran's 1977 sample method. Additionally, the total study sample was divided proportionally among the three selected private universities to ensure that each member of the population has the appropriate participation based on the population of each selected university. The allocation is made according to the Monte Carlo method proposed in table 2 below:

Table 2: Proportional Sampling of Academic Staff

Tertiary Institution	Population ($\boldsymbol{N_i}$)	Sample size for each institution $\mathbf{N} = \frac{\boldsymbol{P_1}}{\mathbf{n}} \times \boldsymbol{n_1}$	Sample ($\boldsymbol{N}$)
Fountain University, Osogbo	76	$\frac{76}{697} \times 387$	42
Bowen University, Iwo	417	$\frac{417}{697} \times 387$	232
Joseph Ayo Babalola University, Ikeji-Arakeji (Osun East)	204	$\frac{204}{697} \times 387$	113
TOTAL	697		387

Source: Field Survey, 2023

The questionnaire copies were distributed and administered to the respondents with the use of simple random sampling technique method to all the selected academic staff of the institutions. This sampling technique was selected due its unique ability to give all the respondents in the population equal chance of being selected.

3.2: Method of Data Analysis

To achieve the objectives of this study and test the hypotheses formulated, both descriptive and inferential statistics was employed. The descriptive statistics employed included percentages and frequency tables while inferential statistics such as ordinary least square (OLS) was used to ascertain either the rejection or acceptance of the null hypothesis at 0.05 level of significance using SPSS Version 19.0. For the purpose of this study, the model below was formulated:

OP = *f*(OA, CCP, GLB) ---------- (i)

This is explicitly expressed as:

$OP = \alpha_0 + \alpha_1 OA + \alpha_2 CCP + \alpha_3 GLB + \mu$ ---------- (ii)

Where:

OP = Organizational Performance (Dependent Variable),

OA = Opportunity for Advancement,

CCP = Competitive Compensation Plan

GLB = Good Work/ Life Balance

α_0 =Intercept

α_1 -α_3 = slopes or coefficients of the explanatory variables

μ = Stochastic Error or Disturbance

4. 0. Result and Interpretation

4.1.1: Analysis of the Administered Questionnaire

Table 3: Analysis of the Administered Questionnaires

Questionnaires	Responses	Percentage (%)
Number of filled	315	81.4%
Number of Unfilled	0	0%
Number Not Returned	72	18.6%
Total	387	100%

Source: Field Survey, 2023

Interpretation

The result above reveals that out of the 387 questionnaires that were administered, 315 representing 81.4% were filled, while 72 representing 18.6% were not returned by the respondents. This is an indication that the analysis of the items on the questionnaires were based on 315 respondents, being the number of the questionnaires duly and adequately filled and returned.

4.1.2: Analysis of the Background Information of the Respondents

Table 4 showed the demographic information of the respondents of this study. It was revealed that none of the respondents was within the age range of 25 to 30years. 28 of the respondents (8.9%) were within 31 to 35years old, 159 of the respondents (50.5%) were within 36 to 40years, 31 of the respondents (9.8%) were within the age range of 41 to 45 years while those within the range of 46years and above were 97 (30.8%). By implication, majority of the respondents were within the age range of 36 to 40years.

Also, the gender statistics of the respondents as shown in the table revealed that 207 of the respondents (65.7%) were male while the remaining 108 (34.3%) were females. This is an indication that the respondents consist of more male than female. Furthermore, it was shown by the table that 29 (9.2%) of the respondents were single, 283 (89.9%) were married, those who are divorced among the respondents were 3 (0.9%). No count was recorded for those who are widowed. This implies that majority of the academic staff are married.

Similarly, the table revealed that 35 (11.1%) of the respondents are Bachelor degree holders, 204 (64.8%) were Master's degree holder while 76 (24.1%) were Doctorate degree holders. This implied that most of the respondents of this study were Master's degree holders. Finally, the table

has two (2) respondent (0.6%) earning below N100,000 income level, 92 (29.2%) were between N100,000 to N150,000. Moreso, 197 respondents (62.5%) have their income level between N150,000 to N200,000 while those above N200,000 were 24 (7.6%) of the respondents. This is an indication that majority of the respondents were within the income level of between N150,000 to N200,000.

Table 4: Background Information of the Respondents

Demographical Factors	Description	Frequency	%	Valid %	Cumulative %
Age	25 – 30	0	0.0	0.0	0.0
	31 – 35	28	8.9	8.9	8.9
	36 – 40	159	50.5	50.5	59.4
	41 – 45	31	9.8	9.8	69.2
	46 and above	97	30.8	30.8	100.0
Gender	Male	207	65.7	65.7	65.7
	Female	108	34.3	34.3	100.0
Marital Status	Single	29	9.2	9.2	9.2
	Married	283	89.9	89.9	99.1
	Divorced	3	0.9	0.9	100.0
	Widowed	0	0.0	0.0	100.0
Highest Level of Education	Bachelor's degree	35	11.1	11.1	11.1
	Master's degree	204	64.8	64.8	75.9
	Doctorate degree	76	24.1	24.1	100.0
Income Level	Below N100,000	2	0.6	0.6	0.6
	Between N100,000 to N150,000	92	29.2	29.2	29.8
	N150,000 – N200,000	197	62.5	62.6	92.4

Source: Field Survey, 2023

4.1.2: Analysis of the Research Hypothesis

Hypothesis 1

$H0_1$: Opportunities for Advancement have no significant effect on Organizational Performance of Academic Staff of Selected Private Tertiary Institutions in Osun State

Table 5a: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
1	0.689[a]	0.452	0.431	1.34086

a. Dependent Variable: OP (Organization Performance)

b. All requested variables entered. (Opportunities for Advancement)

Table 5b: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant) OA[1] (Opportunities for Advancement)	7.635 .374	.993 .035	 .425	8.781 8.342	.000 .000

a. Dependent Variable: OP (Organization Performance)

Table 5a indicated the R Squared which measured the goodness of fit of the overall model is given to be 0.452 (45.2%) while the adjusted R Squared is 0.431 (43.1%). This implies that 45.2% variation in the dependent variable OP (Organization Performance) can be explained by the independent variable OA (Opportunities for Advancement). Table 5b further revealed the coefficient of the independent variable (OA) is .374 which indicates that a percentage increase in the independent variable, will lead to .374 increase in the level of organization performance. Additionally, it was revealed from the table that model is statistically significance (.000) at 5% significant level, therefore, the null hypothesis of opportunities for advancement having no significant effect on organizational performance of academic staff of selected private universities in Osun State is rejected.

Hypothesis 2

$H0_2$: Competitive compensation plan have no significant effect on organizational performance of academic staff of selected private universities in Osun State

Table 6a: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
2	0.739[a]	0.694	0.652	1.47940

a. Dependent Variable: OP (Organization Performance)
b. All requested variables entered. (Competitive Compensation Plan)

Table 6b: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant) CCP[1] (Competitive compensation plan)	8.739 .583	.892 .086	 .472	9.496 8.573	.000 .020

a. Dependent Variable: OP (Organization Performance)

Table 6a indicated the R Squared which measure the goodness of fit of the overall model is given to be 0.694 (69.4%) while the adjusted R Squared is 0.652 (65.2%). This implies that 69.4% variation in the dependent variable OP (Organization Performance) can be explained by the independent variable CCP (Competitive compensation plan). Table 6b further revealed the coefficient of the independent variable (CCP) is .583 which indicates that if there is an increase in the independent variable, it will lead to a .583 increase in the level of organization performance. Additionally, it was revealed from the table that model is statistically significance (.020) at 5% significant level, therefore, the null hypothesis of competitive compensation plan have no significant effect on organizational performance of academic staff of selected private tertiary institutions in Osun State is rejected and the effect which competitive compensation plan have on organizational performance becomes apparent.

Hypothesis 3

$H0_3$: Good work-life balance have no significant effect on organizational performance of academic staff of selected private universities in Osun State

Table 7a: Model Summary

Model	R	R Squared	Adjusted R Squared	Std. Error of the Estimate
3	0.582[a]	0.491	0.473	0.85271

a. Dependent Variable: OP (Organization Performance)

b. All requested variables entered. (Good work/life balance)

Table 7b: Coefficients[a]

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	4.726	.752		7.681	.000
GLB[1] (Good work/life balance)	.378	.091	.396	8.631	.041

a. Dependent Variable: OP (Organization Performance)

Table 7a indicated the R Squared which measure the goodness of fit of the overall model is given to be 0.491 (49.1%) while the adjusted R Squared is 0.473 (47.3%). This implies that 49.1% variation in the dependent variable OP (Organization Performance) can be explained by the independent variable GLB (good work-life balance). Table 7b further revealed that when the independent variable is held constant, the coefficient of OP is 4.726 while the independent

variable (GLB) exerts a coefficient of .378 which indicates that if there is an increase in the independent variable, it will lead to a .378 increase in the level of organization performance. Likewise, it was revealed from the table that model is statistically significance (.041) at 5% significant level, therefore, the null hypothesis of good work-life balance have no significant effect on organizational performance of academic staff of selected private universities in Osun State is rejected.

5.0 Discussion of Findings

The overall result of the hypothesis is positive which means that the alternative hypothesis is accepted and the null hypothesis is rejected. It is clear that employee retention strategies affect their performance. Looking at opportunities for advancement and its impact on the performance of academic staff, the analysis shows that the model is statistically significant (0.000) at the 5% significance level. This confirms research by Nagarathanam, Venkitasamy, and Attiah (2018) that job opportunity and service improvement within a company results in long-term employees working within the organization, thus improving the organizational cycle.

Additionally, the study shows the coefficient of the independent variable of the Competitive compensation plan (CCP) as 0.583, indicating that if there is an increase in the independent variable, it will lead to an increase of 0.583 in the performance level of the employee. In the organization. This shows that the model is statistically significant (0.020) at the 5% significance level, thus accepting the alternative hypothesis. This result is consistent with the result obtained in a study by Hausknecht et al, (2009) which shows that compensation and benefits contribute to employee retention.

6.0 Conclusions and Recommendations

This study examines the impact of staff retention strategies on organizational performance among academic staff of selected private universities in Osun State, Nigeria. From the results obtained in the inferential statistics, it appears that all employee retention strategies (opportunity for advancement, competitive compensation plan and good work-life balance) have positive and significant effect established at the significance level of 0.05. However, a competitive compensation plan has a higher priority.

Alternatively, in order to minimize the problem of staff turnover in all organizations and to ensure the long-term retention of employees, the study recommends paying more attention to opportunities for advancement, a system of competitive compensation plan and a good work-life balance because they are of greater importance of organizational performance.

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THE IMPACT OF COMPANY INCOME TAX ON THE DIVIDEND POLICY OF QUOTED DEPOSIT MONEY BANKS IN NIGERIAN STOCK MARKET

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Abstract

This study examined the impact of company income tax on the dividend policy of quoted deposit money banks in Nigeria. Specifically, the study sought-after the relationship between companies income tax and dividend per share of deposit money banks in Nigeria; investigated the impact of education tax on dividend per share of deposit money banks in Nigeria; assessed the effect of profit after tax on dividend per share of deposit money banks in Nigeria and determined the direction of causality between companies income tax and dividend per share of deposit money banks in Nigeria. The study adopted the ex-post facto research design. Panel data sets spanning 2012-2020 was pooled for five (5) quoted deposit money banks. Data obtained was estimated using pooled OLS regression analysis, fixed effect and random effect panel analysis, panel granger causality test alongside post estimation was carried out. Findings from the study indicated that companies income tax exerts negative significant impact on dividend per share of deposit money banks (DMBs) in Nigeria -.0053184 (p=0.046<0.05); education tax exerts negative significant impact on dividend per share of deposit money banks in Nigeria -.0563712 (p=0.017<0.05); the impact of profit after tax on dividend per share of deposit money banks in Nigeria was positive with 0.936993 (p=0.014<0.05), a bidirectional causal relationship exists between dividend policy, company income tax and education tax while a unidirectional causal relationship exists between dividend policy and profit after tax. Premised on these findings, the study suggested that government should implement standardize tax audit and investigation practices as well as demonstrate caution with the use of penalties on defaulters; management of deposit money banks should harness other investment alternatives with relatively low tax rates and maintain good dividend policy and management of deposit money banks should exert increased effort on the expansion of their operational scope and also explore tax policy initiatives including tax relief, tax holiday and tax amnesty to legitimately reduce tax liabilities.

Keywords: Company Income Tax, Education Tax, Profit After Tax, Dividend Policy, Quoted Deposit Money Banks.

1. Introduction

The issue of dividend policy of corporate firms is an elaborate and critical discourse in corporate finance; it is concerned with the decisions associated with dividend payout and retention. Dividend policy describes the portion of profit to be withheld by the company for re-investment and that to be shared amongst the owners of the business (Uwuigbe & Olusegun, 2013). The essence of dividend is to influence shareholders wealth; albeit, the

pattern of dividend policy that firms should adopt in attaining this aim has remained a contentious issue (Obayagbona & Ogbeide, 2018). Brealey, Myers & Marcus (2008) averred that dividend policy and factors that drives it forms part of the ten complicated issues in finance. Yet, the issue has been consistently debated as it is a decision that is very significant in improving the stock price, performance, capital structure, firm value and ascertaining the amount of taxes to be paid by shareholders; this is despite taxes being a determinant of dividend as tax is paid before dividend is disbursed (Obayagbona & Ogbeide, 2018).

Tax is a levy made compulsory and charged by government on the inflows of individuals and corporate firms in the bid to cause optimal responsiveness of the government to social welfare and economic development of the nation (Abiahu & Amahalu, 2018). Agbo (2014) averred that tax refers to a compulsory contribution imposed by the government; He further maintained that tax payers especially corporate citizens might not merit any direct benefit to their business for the payment but they are sure to have a safe, healthy, educated and most importantly developed society which indirectly aid the survival of their business (Agbo, 2014). Hence, it is expected that every corporate firm pays tax as it suggests an enviable corporate citizenship and responsibility to the government and the society; tax in itself is just a means for government to accumulate resources but it has a noticeable role in the attainment of equal distribution of social and economic needs (Samuel & Inyada, 2010).

Numerous arguments have stemmed from the association between taxes including companies' income tax and dividend policies of corporate forms. Modigliani and Miller (1961) in the dividend irrelevance theory posited that in a perfect capital market, a firm's dividend policy has no effect on its value which is formed by continuous its performance as only the investment modalities matters. Albeit, varying suggestions and assumptions have been laid concerning the relationship between corporate taxes paid and approach of dividend payment. Onwuka (2019) maintained that corporate tax is envisaged to distort dividend payout policy as well as financing decisions and since almost consistent change in tax policy by the government is obtainable in Nigeria considering its poor tax structure, volatile dividend payment is practically inevitable hence suggesting uncertainty as regards dividend payment which ultimately exert adverse effect on shareholders' value.

Financial scholars including Bennan (1970) in Hamid, Hanif, Shahzada & Wasimullah, (2012) and Masulis and Truceman (1988) in Hamid *et al.* (2012) affirmed that taxes affects firms' corporate dividend policy very noticeably. However, the Nigerian tax system has been designed to generating funds to satisfy the needs of the government at all levels with little or no concern about the causing and sustaining a system effective enough to occasion rapid development in the financial sector which undoubtedly holds significant growth in the economy of Nigeria (Ezugwu & Akubo, 2014). Evidently, the poor height of infrastructural facilities, ease of doing business stemming from poor distribution of revenue generated by the government for developmental projects and activities that should cause business operations including the banking business to be carried out without hitch has been unduly diverted and misappropriated thereby giving little or no justification for payment of tax especially by deposit money banks as the equivalent is still unattained (Oloyede, Olaoye & Oluwaleye, 2018). Hence, firms now explore alternatives to present delusive tax returns towards avoiding tax, adopt evasion as well as transfer tax burden to the society.

Corporate firms especially deposit money banks indulge in such act by shooting up the price of their product and services usually against the regulations of Central Bank of Nigeria which in effect reduce customer satisfaction; the most common act of transferring the effect of tax

burden suffered is exerted on shareholders by denying them returns on their investment as the relatively low profit after tax is often retained for reinvestment (Oloyede *et al.,* 2018). Most shockingly, firms tend to be completely undisturbed and relaxed even without declaring dividend at the end of the financial year. Again, the unstable dividend payment of deposit money banks in Nigeria has been associated with the amount of corporate tax paid including companies income tax and education tax as caused by changes in government tax policies and the resultant effect which is reduced profit after tax (Onwuka, 2019). Shareholders considering their cascading value have consistently bemoaned low dividend payment of deposit money banks and this sends adverse signal that is capable of discouraging existing shareholders and potential investors thereby constraining deposit money banks to operate with its retained earnings which restricts the growth of these banks and ultimately drag down the performance of the financial sector (Obafemi, Araoye & Ajayi, 2021).

Despite the urgency of this issue, relatively few studies have tracked the impact of company income tax on the dividend policy of quoted deposit money banks in Nigeria stock exchange as most studies focused on the determinants of dividend policy (Torbira & Otokwala, 2019; Sasona, 2017; Mukhtar 2015; Odeleye, 2015; Odesa, & Ekezie, 2015; Kurawa & Ishaku, 2014; Ajide & Aderemi, 2014). Another strand of studies focused on dividend policy on profitability and performance of firms (Omodero & Ogbonnaya, 2018; Akani & Sweneme, 2016; Jacob & Akinselure, 2016; Abdul & Muhibudeen, 2015; Yusuf 2015; Abiola, 2014). However, the findings of the few studies conducted on corporate taxes and dividend policy still remains divergent as Anaeto, Eche, Abubakar & Salawu (2020), Abiahu & Amahalu, (2017), Odia & Ogiedu (2013) determined negative association between corporate taxes and dividend policy. Omodero & Ogbonnaya (2018), Oloyede, Olaoye & Oluwaleye (2018), Uwuigbe & Olowe, (2013) discovered positive relationship while Mohammed & Hauwa (2015), Obayagbona & Ogbeide (2018) ascertained that no significant association exists between corporate taxes and dividend policy of listed firms in Nigeria. Observably, most of these studies adopted pooled OLS and panel estimation techniques (fixed and random effect) that tracked the dynamic effect of these variables but the causal relationship of these variables which could mediate the contrasting findings existing in literature is evidently lacking in literature; hence, this study despite employing the usual panel estimation techniques intends using the panel based granger causality analysis to examine the causal relationship between company income tax and dividend policy of quoted deposit money banks in Nigeria.

2. LITERATURE REVIEW

Dividend

The word "dividend" comes from the Latin word "dividendum" ("thing to be divided") (Online Etymology Dictionary, 2001). Also, Frankfurter and Wood (2003) define dividends as the distribution of earnings (past or present) in real assets among the shareholders of the firm in proportion to their ownership. The definition has three equally important parts; the fact that dividends can be distributed only from earnings and not from any another source of equity, dividends must be in the form of a real asset e.g. cash and that all stockholders share in dividends relative to their holdings in the corporation.

In extending the concept of dividend, O'Sullivan and Sheffrin (2003) describe it as a payment made by a corporation to its shareholders, usually as a distribution of profits. In the financial history of the world, the Dutch East India Company (VOC) was the first recorded (public) company ever to pay regular dividends (Huston, 2015; Freedman, 2006 & Kindersley, 2014).

The VOC paid annual dividends worth around 18 percent of the value of the shares for almost 200 years of existence (1602-1800) (Chambers, 2006).

Dividend Policy

Dividend policy means the payout policy that managers follow in deciding the size and pattern of cash distribution to shareholders overtime (Baker *et al*, 2011).The term, policy, rejects the possibility of randomness and arbitrariness in determining its pattern and size and implies some consistency and predictability (Allen and Michealy, 2003). It is important to understand how the firm's profits are divided between dividend payment and retained earnings. Corporate managers in their daily routine of life are exposed to a number of crucial decisions regarding finance of a company. Among all such decision dividend payout policy is the one of the most important financial decision that came across (Baker & Powell, 1999). The firm's dividend policy and its capital structure are interrelated. Watson and Head (2007) view dividend policy as being directly connected with the theories of capital structure. If any enterprise pays dividend, it decreases the degree of financing of equity capital from internal sources, and therefore may require external financing sources. Therefore, the dividend decision of affirm and its capital structure are interrelated. A company's dividend policy can depend on: its shareholder, Market signaling and its growth potential.

Companies Income Tax

This tax also refers to as corporate tax and it is a levy placed on the profit of a firm to raise taxes. After operating earnings is calculated by deducting expenses including the cost of goods sold (COGS) and depreciation from revenues, enacted tax rates are applied to generate a legal obligation the business owes the government. Rules surrounding corporate taxation vary greatly around the world and must be voted upon and approved by the government to be enacted (Abiahu & Amahalu, 2017). The corporate income tax is the tax on corporate profits. Broadly defined, corporate profit is total income minus the cost associated with generating that income. Business expenses that may be deducted from income include employee compensation; the decline in value of machines, equipment, and structures (that is, deprecation); general supplies and materials; advertising; and interest payments (Keightley & Sherlock, 2014).

Taxation and Dividend per Share

Afuberoh, Dennis & Okoye (2014) states that income tax can be regarded as a tool of fiscal policy used by government all over the world to influence positively or negatively particular type of economic activities in order to achieve desired objectives. The primary economic goals of developing countries are to increase the rate of economic growth and hence per capita income, which leads to a higher standard of living. Progressive tax rate can be employed to achieve equitable distribution of resources. Government can also increase or decrease the rates of tax, increase or decrease the rate of capital allowances (given in lieu of depreciation) to encourage or discourage certain industries (for example in the area of agriculture, manufacturing or construction) or may give tax holidays to pioneer companies. Income tax therefore can be used as an agent of social change if employed as a creative force in economic planning and development.

3. METHODOLOGY

This study adopts the ex-post facto research design. The model of Oloyede, Olaoye and Oluwaleye (2018) which examined the impact of corporate taxation on dividend policy of quoted firms in Nigeria was moderated and followed in developing a relatively robust model in this study. Oloyede *et al* (2018) captured corporate taxation with tax surrogates including company income tax and education tax which dividend per share was used in proxying dividend policy of firms sampled in the study while firm size was considered as a control variable in the model. For clarity, the model of Oloyede *et al* (2018) is presented in equation 3.1

DPS = *f* (CIT, EDT, FZ) ……. 3.1

$DPS_{it} = \alpha_0 + \alpha_1 CIT_{it} + \alpha_2 EDT_{it} + \alpha_3 FZit + \mu_{it}$ ……. 3.2

Where:

DPS = Dividend per share
CIT = Company income tax
ED = Education tax
FZ = Firm size
α_0 = Intercept
$\alpha_1, \alpha_2, \alpha_3 =$ Coefficients
μ_{it} Error term

However, this study observed that the profit after tax of firms which reflects remains of the effect of companies income tax was not considered in the model of Oloyede *et al* (2018). Hence, the model is modified to contain profit after tax and for simplicity; the modified model is specified in its functional and linear forms below:

Functional representation:

DPS = *f* (CIT, EDT, PAT, FIS, U) 3.3

Linear representation:

$DPS_{it} = \delta_0 + \delta_1 CIT_{it} + \delta_2 EDT_{it} + \delta_3 PAT_{it} + \delta_4 FIS_{it} + \mu_{it}$

……3.4

Where:

DPS = Dividend Per Share
EDT = Education Tax
PAT = Profit after Tax
FIS = Firm Size
μ = Error term

Sources of Data and Method of Data Analysis

Data considered in this study are secondary data which was gathered from the published financial statements of deposit money banks on the Nigeria Stock of various issues. Data amassed from this sources spanned from 2012-2020 as stated in the scope of the study. The study static panel data analyses including pooled OLS estimator, fixed effect estimator, and random effect estimator, alongside post-estimation tests such as restricted f-test, Hausman test and Dumetrescu-Hurlin granger causality estimation.

4. RESULTS AND DISCUSSION

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
DPS	45	.363311	.185589	.038	.865
CIT	45	14.52022	2.47909	9.39	17.72
EDT	45	11.774	2.443619	8.06	16.86
PAT	45	16.95778	1.551742	14.3	19
FSI	45	22.37511	2.156309	19.77	26.43

Sources: E-View Version 7. *Author's Computation, (2022)*

Descriptive statistics reported in table 4.1 revealed that the mean divined per share, company income tax, education tax, profit after tax and firm size for 2012-2020 across the five deposit money banks sampled in the study stood at: .363 naira, 14.5 million, 11.774 million, 16.957 million and 22.375 billion respectively. Reported minimum and maximum values stood at: .038 and .865 naira for dividend per share, 9.39 and 17.72 million for company income tax, 8.06 and 16.86 million for education tax, 14.3 and 19 million for profit after tax, 19.77 and 26.43 billion for firm size respectively.

Table 4.2 Multicollinearity Test

The presence of strongly correlated variables in a model tends to create a multicollinearity problem. Therefore, the Variance Inflation Factor (VIF) test can be used to confirm the existence of multicollinearity among the independent variables. Based on the rule of thumb, the VIF must be less than 10 to confirm that the estimates of the regression would not be biased due to the presence of multicollinearity.

Table 4.2 Result of Multicollinearity Test

Variable	VIF
CIT	9.96
PAT	5.88
EDT	5.54
FSI	3.91
Mean VIF = 6.32	

Sources: E-View Version 7. *Author's Computation, (2022)*

Table 4.2 shows that all the variables have a VIF value of less than 10, thus implying that there is no strong evidence of collinearity among the independent variables.

Pooled OLS Estimation

Table 4.3: Pooled OLS Parameter Estimates

Series: *DPS CIT EDT PAT FSI*

Variable	**Coefficient**	**Standard Error**	**T-Test Values**	**Probability**
C	-1.355609	.7870131	-1.72	0.093

CIT	-.0053184	.0311115	-0.17	0.865
EDT	-.0563712	.0235455	-2.39	0.021
PAT	.0936993	.0381873	2.45	0.019
FSI	.0389239	.0224143	1.74	0.090

R-square=0.6061
Adjusted R-square=0.5368
F-statistics=4.41
Prob(F-stat)=0.0048

E-View Version 7.

Pooled OLS panel estimation presented in table 4.3 reported coefficient estimate of -.0053184, -.0563712, .0936993 and .0389239 for company income tax, education tax, profit after tax and firm size with the probability values of 0.865, 0.021, 0.019, 0.090. The result showed that company income exert negative insignificant impact on dividend per share of the sampled banks, education tax exerts significant negative impact on dividend per share, profit after tax impacted dividend per share positively and significantly and the effect of firm size on dividend per share is positive and insignificant. R-square value reported in table 4.3 revealed that about 53% of the systematic variation in the dividend policy of the selected deposit money banks measured in terms of dividend per share can be explained by company income tax, education tax, profit after tax and firm size. Reported f-statistics of 4.41 and the probability value of 0048 validate the fact that all the included explanatory variables jointly influence dividend policy of deposit money banks sampled in the study.

Fixed Effect Panel Analysis

Table 4.4 Fixed Effects Estimates (Bank and Period Specific)

BANK SPECIFIC EFFECT			**TIME SPECIFIC EFFECT**		
Variables	**Coefficients**	**Prob**	**Variables**	**Coefficients**	**Prob**
C	-3.261359	0.124	C	-1.711716	0.045
CIT	-.05333	0.107	CIT	.0378443	0.308
EDT	-.044114	0.062	EDT	-.0896661	0.003
PAT	.178003	0.000	PAT	.0778008	0.055
FSI	.0766859	0.440	FSI	.518483	0.036
Effects			**Effects**		
GTB	.1942018	0.389	2013	.0111219	0.914
WEMA	.3548302	0.024	2014	.0267996	0.796
UBA	.3860943	0.000	2015	.0408351	0.691
FBN	-.01488	0.977	2016	.0931699	0.376
			2017	.1287518	0.222
			2018	.1437062	0.171
			2019	.2665669	0.024
			2020	.2053269	0.070
R-square=0.7060			R-square=0.4555		
Adjusted R-square=0.6406			Adjusted R-square=0.2513		
F-statistics=10.80			F-statistics=2.23		
Prob(F-stat)= 0.0000			Prob(F-stat)= 0.0349		

Sources: E-View Version 7. *Author's Computation, (2022)*

Table 4.4 presents results of the fixed effect estimation (cross-sectional and period specific effect). Notably result presented in table 4.4 showed that when cross sectional effect is incorporated into the model the impact of company income tax is negative and insignificant, impact of education tax is negative and insignificant, profit after tax structure exerts positive significant impact while firm size exerts positive insignificant impact on the dividend policy of deposit money banks in Nigeria. On another hand, when period specific effect was incorporated into the model, explanatory variables including company income tax, profit after tax affects dividend policy positively and insufficiently, education tax exits negative significant impact dividend policy of DMBs and firm size exert positive and noticeable impact on dividend policy of deposit money banks in Nigeria.

Deviation intercept terms reported in table 4.4 stood at .1942018 (0.389), .3548302 (0.024), .3860943 (0.000), -.01488 (0.977) for Guarantee Trust Bank, Wema Bank, United Bank for Africa and First Bank of Nigerian respectively, with the intercept term of the reference firm being Access Bank recorded to be -3.261359 (0.124). Deviation intercept terms for period effects stood at: .0111219 (0.914), .0267996 (0.796), .0408351 (0.691), .0931699 (0.376), .1287518 (0.222), .1437062 (0.171), .2665669 (0.024), .2053269 (0.070) for 2013, 2014, 2015, 2016, 2017, 2018, 2019 and 2020 respectively, with intercept term of reference years being 2012 recorded to be -1.711716 (0.045). Reported R-square values stood at 0.64 for firm specific estimation and 0.25 for period specific estimation, reflecting that about 65% of the systematic variation in dividend per share of DMBs can be explained by company income tax, education tax, profit after tax and firm size when heterogeneity effect across firms is incorporated into the model, while 25% of the systematic variation can be explained when period heterogeneity effect is incorporated into the model.

Random Effect Analysis

Table 4.5 Random Effect Estimation

Series: *DPS CIT EDT PAT FSI*

Variable	Coefficient	Standard Error	Z-Test Values	Probability
C	-1.355609	.7870141	-1.72	0.085
CIT	-.0053184	.0311115	-2.39	0.046
EDT	-.0563712	.0235455	-2.39	0.017
PAT	.0936993	/0381873	2.45	0.014
FSI	.0389239	.0224143	1.74	0.082

R-square=0.6062
Wald chi-square = 17.66
Prob> chi-square = 0.0014

E-View Version 7.

Table 4.5 presents the random effect estimates. Result showed that the effect of company income tax on dividend per share is negative and significant when heterogeneity effect is incorporated into the error term of the model. Meanwhile, education tax exerts negative and significant impact on dividend per share. Also, impact of profit after tax on dividend per share when heterogeneity is incorporated into the error term is positive and significant.

Furthermore, firm size influences dividend per share positively and unnoticeably. Specifically coefficient estimates reported for company income tax, education tax, profit after tax and firm size stood at -.0053184, -.0563712, .0936993 and .0389239 with probability values of 0.046, 0.017, 0.014 and 0.082 respectively. R-square statistics reported in table 4.6 stood at about 0.60 which connote that about 60% of the systematic variation in dividend policy of DMBs captured with dividend per share in the study can be explained jointly by variation in company income tax, education tax, profit after tax and firm size respectively, incorporating heterogeneity effect across firms over time into the error term.

Post Estimation Test

Table 4.6 Restricted F Test of Heterogeneity (Cross-Sectional and Time Specific)

	F-statistics	**Probability**
Firm Specific	12.23	0.0000
Time specific	1.10	0.3911

Source: E-View Version 7. *Author's Computation, (2022)*

Table 4.6 reveals result of the heterogeneity test conducted with respects to both cross-sectional and period specific effect. Reported in table 4.6 are f-statistics values of 12.23 and 1.10 with probability values of 0.0000 and 0.3911 for cross sectional and period specific effect respectively. Hence the table revealed that there is enough evidence to reject the null hypothesis that all differential intercept corresponding to the firm specific units are equal to zero, but otherwise for the period specific intercepts. Therefore it can be concluded that there is only cross sectional heterogeneity/uniqueness effect among the selected deposit money banks. Thus pooled OLS estimator restriction is not valid as firm specific heterogeneity effect is too significant to be ignored.

Hausman Test

Table 4.7 Hausman Test

Null hypothesis	**Chi-square stat**	**Probability**
Difference in coefficient not systematic	8.83	0.0655

Source: E-View Version 7. *Author's Computation, (2022)*

Table 4.7 reveals a chi-square value of 8.83 alongside a probability value of 0.0655. The result shows that there is enough evidence to reject the null hypothesis that differences in coefficients of fixed effect estimator and random effect estimation is not systematic. Therefore given the fact the difference between fixed effect estimates and random effect estimates is significant, the most consistent and efficient estimation for the investigation conducted in the study is the random effect cross section estimate presented in table 4.6 above.

Panel Granger Causality Test

Table 4.8 Dumitrescu-Hurlin Panel Causality Test Result

GRANGER CAUSALITY TEST FOR DIVIDEND PER SHARE AND COMPANY INCOME TAX			
Null hypothesis	Wbar-Stat	Zbar-Stat	Probability
DPS does not granger cause CIT	4.833*	6.1400*	0.0000*

CIT does not granger cause DPS	11.8779*	17.1994*	0.0000*
DPS does not granger cause EDT	5.4939*	7.1055*	0.0000*
EDT does not granger cause DPS	13.4693	19.7157	0.0000*
DPS does not granger cause PAT	3.4364*	3.8523*	0.0001*
PAT does not granger cause DPS	1.6296	0.9954	0.3195

*Note: * connote rejection of the null hypothesis at 5% significance level*
Source**: *E-View Version 7.*** *Author's Computation, (2022)*

Estimation result of Dumitrescue-Hurlin panel causality test presented in table 4.8 revealed Wbar statistics and Zbar statitsics alongside probability values for each test. Result revealed that there is enough evidence to reject all the null hypotheses that dividend per share does not granger cause companies income tax, education tax and profit after tax which implies that there exists a bidirectional causal association running from dividend per share to company income tax and education tax and a unidirectional causal relationship running from dividend per share and profit after tax respectively. In simple terms, findings from Table 4.8 evidence that a bidirectional causal association exists between dividend per share and company income tax; dividend per share and education tax while a unidirectional causal relationship exists between dividend per share and profit after tax of DMBs in Nigeria.

Table 4.9 Other Post Estimation Test

Wald test		
Null hypothesis	**Statistics**	**Probability**
Panel homoscedasticity	17.66	0.0014
Pesaran test		
Null hypothesis	**Statistics**	**Probability**
No cross sectional dependence	9.675	0.041
Breusch-Pagan Lagrange Multiplier test		
Null hypothesis	**Statistics**	**Probability**
Panel Normality	0.34	0.5606

Source: ***E-View Version 7.*** *Author's Computation (2022)*

Table 4.9 reported result of post estimation test conducted to confirm if the specified model is in turn with basic assumptions underlining the panel estimation conducted in the study. The result showed that there is no evidence to reject the null hypothesis on panel homoscedasticity and null hypothesis of no cross sectional dependence and accept the hypothesis of panel normality. Hence, the established result of post estimation test reported in table 4.8 validates assumptions of equal variance of residual terms, cross sectional independence and normality of the model. Which reflect that the model is fit for inferential analysis.

Discussion and Implication of Findings

The most acknowledged estimation result (Table 4.5) affirmed by the hausman test conducted in the study evidenced that companies income tax exerts negative significant impact on the dividend per share of deposit money banks (DMBs) in Nigeria with specific coefficient estimate of -.0053184 ($p=0.046<0.05$) which suggests that as companies income tax is

reducing, dividend per share of DMBs tends to increase per time. The deposit money banks despite being highly regulated still remains exposed to high unsystematic risk which is evident in most banks increasing non-performing loans, this is despite systematic risks that stems from economic uncertainties that sums up to threaten critically the profitability of deposit money banks and causes most DMBs to evade and avoid tax towards impressing shareholders with consistent payment of dividend. This is often done at the expense of the responsibility of DMBs to the government and development of the nation; most DMBs particularly evade income tax with window dressing, falsification towards obtaining tax holidays, storage of wealth outside the economy of Nigeria amongst other techniques which earns the management robust earnings. Hence, it becomes crystal clear that management of deposit money banks are more concerned about the wealth of shareholders than the growth of the nation as this causes them to deploy measures to reduce tax returns.

Further discovery from the study indicates that education tax exerts negative significant impact on dividend per share of deposit money banks in Nigeria with coefficient estimate of -.0563712 ($p=0.017<0.05$) which implies that as education tax is falling, dividend per share of DMBs is most likely to shoot up. In consonance with the above argument, education tax, an almost insignificant amount expected to be paid from the chargeable profits of deposit money banks to the government towards contributing to the liquidity of Education Tax Fund and guarantee the development of the education sector of the country has consistently been evaded by deposit money banks. Most deposit money banks literally evade and utterly ignore the payment of education sustainably despite having chargeable inflows per time, this action may stem from the heavy effect that income tax exert on firms profitability. The payment which would have enhanced the perceived responsibility and passion of these firms towards the growth of the economy has been shunned over time; this act which has caused the level of their profit to be relatively high has guaranteed the unfailing discharge of shareholders returns per time.

Lastly, result obtained in the study indicated a positive impact of profit after tax on dividend per share of deposit money banks in Nigeria with particular coefficient estimate of .0936993 ($p=0.014<0.05$) which suggests that as companies income tax is increasing, dividend per share of deposit money banks also increases. Profit after tax of deposit money banks is also observed from the findings of this study to be increasing and has improved the dividend policy of deposit money banks; the combined effect of methods adopted by firms to defeat the payment of tax has over time assured improved portability for these firms and this has further enhanced the illegal act especially in the banking industry. Deposit money banks have failed to observe the positive implications of appropriate filing of tax returns; even though the payment of tax still aids the attainment of firms primary goal which is to boost shareholders wealth, firms still adopt alternatives to achieve this goal at the quickest time giving no attention to the adverse implication that it holds on the going concern of the firm.

5.0 CONCLUSION AND RECOMMENDATIONS

Premise upon the results obtained in this study, it is evident that companies' income tax have noticeable effect on the dividend policy of deposit money banks in Nigeria. Specifically, the study established that companies income tax exerts negative significant impact on the dividend per share of deposit money banks (DMBs) in Nigeria; education tax exerts negative significant impact on dividend per share of deposit money banks in Nigeria; profit after tax exerts positive significant on dividend per share of deposit money banks in Nigeria. The study further ascertained that a bidirectional causal relationship exists between dividend policy, company income tax and education tax while a unidirectional causal relationship exists between dividend policy and profit after tax. Following these findings, this study concludes that companies' income tax affects to a noticeable height the dividend policy of deposit money banks. Based on this conclusion, the following recommendations become necessary:

i. Government should implement standardize tax audit and investigation practices, as well as demonstrate caution with the use of penalties on defaulters so as to cause DMBs to inculcate deliberate payment of corporate taxes as it ultimately guarantees the prosperity of corporate firms and sustainable payment of dividend;
ii. Management of deposit money banks should harness other investment alternatives with relatively low tax rates; this would cause DMBs to maintain good dividend policy and attract shareholders support per time;
iii. Management of deposit money banks should exert increased effort on the expansion of their operational scope and explore tax policy initiatives including tax relief, tax holiday and tax amnesty to legitimately reduce tax liabilities.

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IMPLICATION OF FINANCIAL INTERMEDIATION ON CREDIT RISK MANAGEMENT IN NIGERIAN BANKING INDUSTRY

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ABSTRACT

This study examined the implication of financial intermediation on credit risk management in Nigerian banking industry. Particular focus was given to the implication of loan to deposit ratio, operating expense to operating income and capital adequacy ratio on non-performing loans of deposit money banks (DMBs) in Nigeria. The quantitative research design was adopted in the study. Panel data spanning 2016-2021 was gathered for Tier 1 DMBs First Bank, United Bank for Africa, Guarantee Trust Bank, Access Bank and Zenith Bank (FUGAZ) in Nigeria. Data gathered was estimated using descriptive statistics, correlation analysis, multicollinearity test, pooled OLS, fixed and random effect analysis and other post estimation tests. Discoveries from the study indicated that capital adequacy ratio exerts negative significant impact on nonperforming loan ratio of Nigerian deposit money banks with coefficient estimate of -6.5150 ($p=0.006<0.05$); loan to deposit ratio exerts positive and significant effect on nonperforming loan ratio of Nigerian deposit money banks with coefficient estimate 2.1753 ($p=0.098>0.05$); operating expense to operating income exerts negative and significant effect on nonperforming loan ratio of Nigerian deposit money banks with coefficient estimate -1.4189 ($p=0.017<0.05$) and firm size exerts positive insignificant impact on nonperforming loan ratio of Nigerian deposit money banks with coefficient estimate .2424 ($p=0.208>0.05$). Hence, the study concluded that financial intermediation maintains noticeable implication on credit risk management of deposit money banks in Nigeria. Based on findings established in the study, it was suggested amongst others that Management of DMBs should deploy measures to raise funds and keep its liquidity position up as this guarantees their sustainable survival, while the CBN should improve regulatory control that guarantees relatively sound credit risk approach for DMBs.

Keywords: NonPerforming Loan, Loan to Deposit Ratio, Operating Expense to Operating Income, Capital Adequacy Ratio, Firm Size

1.0 INTRODUCTION

Risk is inevitable in every business establishment; it is referred to as uncertainties that threaten the survival and the role of business firms and most importantly sectors like financial institutions that drives the growth of Nigerian economy (Onyefulu, Okoye & Orjinta, 2020). There exist numerous risks that are inherent in the nature of business undertaken by banking industry and they include credit risk, liquidity, risk, market risk, foreign exchange risk, interest rate risk, operational risks among others; albeit, credit risk which also refers to as default risk describes the risk that a borrower would not meet the payment obligation as established with the lender. There is usually a chance that the borrower would for a reason or the other default from the establishment agreements thereby exposing the bank to credit risks and posing uncertainties to the effectiveness of the financial intermediation role of banks (Ebrahim, Khalil, Kargbo, & Xiangpei, 2015). Adeusi and Dada (2017) established that the intermediation role undertaken by banks occasions several risks for banks especially credit risk and Kolapo, Ayeni and Oke, (2012) maintained that this risk constrains business prosperity for banks as the performance of the banks depends on the management of this risks.

Financial intermediation describes the series of action in which financial institutions accepts liabilities on its own account towards possessing financial assets by involving in financial

transactions that aids the flow of funds in the economy; however, the sole aim of financial intermediation is towards mobilizing funds from the surplus unit (lender) to the deficit unit (borrower) (Gurr, 2021). Individuals and corporate firms with surplus funds deposits some as savings with the bank and receives interest payments on these funds despite requesting for the withdrawal of these funds when necessary; on another hand, individuals and corporations in dire need of funds approaches the bank to borrow money and repay the loan with interest. Although the bank may be considered efficient and effective in the discharge of its roles but the recovery of these loan and advances has been a critical issue that has per time dragged down the profitability of the banks as the payment of interest and loan principal has often been an issue which evidence the gap in the credit risk management of Nigerian banks (Serwadda, 2018).

In the bid to effectively give banks the capacity to manage issues concerning credit risk more successfully in Nigeria, the Central Bank initiated an agreement in 1987 referred to as the Basel I and Basel II accords; these agreements revealed the significance of capital adequacy in alleviating credit risks as well as subduing the effects of unexpected financial losses on banks (Iwedi & Onuegbu, 2014). Similarly, the height of non-performing loans in the banking sector has caused investors to lose confidence in the banks and has also sent adverse signal to stakeholders in the banking sector (Nawaz, Munir, Siddiqui, Tahseen, Asif & Ateeq, 2012). In fact, between 1999 and 2009, nonperforming loan remained on the increase as it reached the highest level particularly for deposit money banks in Nigeria; the uncontrollable increase in nonperforming loans in these banks were triggered by the poor credit administration approach and the utter disregard for credit management practices which threatened the ability of banks to sustain the discharge of its intermediation role thus casting doubt on the ability of most of these banks to continue as a going concern (Taiwo, Achugamonu, Okoye & Agwu, 2017).

Furthermore, the banking sector has been reported to be faced with poor quality loan assets, this which could be related to the increased macroeconomic uncertainties in the country which is further exacerbated by the numerous economic challenges including COVID-19 caused banks to intermediate at a greater level thereby increasing its loan-to-deposit ratio (Iwedi, & Onuegbu, 2014). However, the poor credit management approach maintained by most banks has made financial intermediation less lucrative as interest payments are usually defaulted by borrowers thus occasioning increased operating expense to operating income. Shockingly, the resulting low debt recovery has to a high extent constrained deposit money banks from allocating credit at the expected height into the economy which suggests that their intermediation role has been severally affected and hence suboptimal productivity of the sector (Taiwo *et al.*, 2017).

The stability of the banking sector has been in doubt as the existence of increasing nonperforming loans in the loan portfolios has in the course of time constrained banks from observing their basic role of intermediating and efficiently allocating funds in the economy for optimal usage towards enhancing the growth of the economy; this is despite the Basel Accord which was introduced to enhance the effectiveness of the banking sector as it remains the stronghold of the economy of Nigeria (Serwadda, 2018). The increasing height of nonperforming loans of banks is no doubt premised upon the poor management of credit risk, this risk which ought to receive peculiar attention from the management of banks as it stems from the primary role of the banking sector which is financial intermediation noticeably leaves the survival of banks in doubt especially as they tend to halt the allocation of funds as expected but consider a trade-off between risk and return on investment thus occasioning practically total disregard for financial intermediation which the economy requires to be prosperous (Ogbol & Okallo, 2013).

The trend of nonperforming loan in Nigeria has been more as the economy of the country is characterized by very high uncertainty; however, the Central Bank of Nigeria have in the bid to ensure that the credit risk consequently faced by banks are appropriately manage, the apex bank in 2010 introduced guidelines that by compulsion required banks especially deposit money banks to examine their loan portfolios more frequently (at least once in three months) so as to track such

risks in the loan portfolio and avert it (Etale, Ayunku & Etale, 2016). This is despite other robust guidelines proffered by the apex bank towards ensuring that from the management of this risk, banks will be fit to carry out their all-important roles and cause stability in the banking sector as well as the economy of Nigeria. But notwithstanding the CBN regulations, nonperforming loans still keeps rising; evidently, in 2012, the Nigeria Deposit Insurance Corporation (NDIC) revealed in 2012 and 2013 nonperforming loan reached 286.09 and 321.66 billion naira respectively (NDIC, 2013). More recently, in 2018, the international monetary fund (IMF) discovered an increase in nonperforming loan up to 10.6% between 2015 and 2017; the adverse implication of this challenge on financial intimidiation also holds grave implication for the growth of the banking sector as banks tends to incur more expense despite reduced interest income (IMF, 2018; Echobu & Okika, 2019).

Furthermore, the capital adequacy of deposit money banks which evident their financial strength and the ability of the bank to soften the effect of nonperforming loan has also been problematic per time in the sector as the Central Bank of Nigeria reported that capital adequacy ratio cascaded by 3.3% between December 2016 and June 2017 thereby causing credit risk to take a toll on banks and leaving the sector in a precarious state (Echobu & Okika, 2019). In giving aid to the banking sector and sustaining its significance in the growth of the economy several studies have been carried out on credit risk management in the banking sector (Asima, Mohammed & Zeeshan, 2021; Echobu & Okika, 2019; Osakwe, Ananwude & Nduka, 2019; Serwadda, 2018; Taiwo, Achugamonu, Okoye & Agwu, 2017; Adeusi & Dada, 2017; Agu & Okoli, 2013; Kolapo, Ayeni & Oke, 2012); but none of these studies assessed the implication of financial intermediation on credit risks which threatens the continuity of banks and the performance of the banking sector. Although Buchory (2015) examined the associations between financial intimidation and credit risk but the study despite focusing on Indonesian banks employed pooled OLS regression which does not capture the dynamic relationship of the variables; again Garr (2021) carried out a study on financial intermediation in Ghana but investigated its effect of bank performance, it is without doubt that optimal credit management in the banking sector is a great precursor to sound performance. Hence, this study sets out to examine the implication of financial intermediation on credit risk management in Nigerian banking industry.

2.0 LITERATURE REVIEW

Credit Risk Management

Lending operations are core banking activities and the most profitable asset of credit institutions. In many markets, banks have to operate in the economic environment that is characterized by the existence of obstacles to good credit management. Where credit is not properly channeled, controlled and administered, it leads to a devastating effect on the banks, reducing its performance, profitability and further into bank distress and failure (Berger & Christa, 2009). Credit risk emanates from a bank's dealing with individuals, corporations, financial institutions or a sovereign. Deposit money banks are exposed to credit risk through their trading, financing and investing activities and in cases where they acts as an intermediary on behalf of customers or other third parties or it issues guarantees. The amount of credit risk exposure in this regard is represented by the carrying amounts of the loans and advances on the balance sheet (Drigă, 2012).

Pânzaru (2011) noted that credit risk include three risks: default risk, exposure risk and recovery risk, while Arunkumar and Kotreshwar (2005) explained that in a bank's loan portfolio, credit risk includes the transaction Risk, intrinsic Risk and concentration Risk. For each of these aggregations, the bank should define appropriate and reasonable portfolio concentrations necessary to mitigate against the exposure. Credit risk management thus serve as a process of identifying, evaluating, monitoring and control of risk arising from the possibility of default in loan repayments by some borrowers and results in decrease in banks income due to the need to

establish allowance for these bad debts. Credit risk management arises any time bank funds are extended, committed, invested, or otherwise exposed through actual or implied contractual agreements, whether reflected on or off the balance sheet (Abiola & Olausi, 2014). Credit risk management incorporates decision-making process; before making the credit decision, follow up of credit commitments is done including all monitoring and reporting process. The credit decision depends on the financial data and judgmental evaluation of the whole market, borrower financial status, management and shareholders. The two distinct dimensions of credit risk management can be identified as preventive measures and curative measures. Preventive measures is ensuring better credit portfolio diversification through providing early warning signals of future defaults, it include risk evaluation, risk measurement and risk pricing. On the other side, the aim of curative measures is to minimize post-sanction loan losses through steps such as securitization, hedging trading, risk sharing, legal enforcement (Arunkumar & Kotreshwar, 2005).

Credit Risk of Deposit Money Banks

According to Chen and Pan (2012), it is the degree of value fluctuations in debt instruments and derivatives due to changes in the underlying credit quality of borrowers and counterparties. Banks are increasingly facing credit risk (or counterparty risk) in various financial instruments other than loans, including in the banking book, in the trading book, and both on and off the balance sheet thus acceptances, interbank transactions, trade financing, foreign exchange transactions, financial futures, swaps, bonds, equities, options, and in the extension of commitments and guarantees, and the settlement of transactions. Credit risk can be divided into three risks: default risk, exposure risk and recovery risk.

Causes of Credit Risk

Credit risk can be caused by a variety of reasons of both internal and external sources. The main sources of credit risk recognised in the literature (Nijskens and Wagner, 2011; Breuer, Jandacka, Rheinberger and Summer, 2010; Qian and Strahan, 2007; Saunders and Allen, 2002) include, for example, poor governance and management control, inappropriate laws, limited institutional capacity, inappropriate credit policies, volatile interest rates, low capital and liquidity levels, directed lending, massive licensing of banks, poor loan underwriting, reckless lending, poor credit assessment, poor loan underwriting, laxity in credit assessment, poor lending practices, government interference and inadequate supervision by the central bank. The literature has identified these reasons that could lead to potential credit risk. The extent of credit risk incurred varies across sectors and countries.

Financial Intermediation

To ensure that investible funds are made available for economic activities, social and community services sector inclusive in the urban and rural areas and the quest for overall development of the economy informed the decision of financial system focusing more financial intermediation. Financial intermediation is typically an institution that facilitates the channeling of funds between lenders and borrowers indirectly. That is, savers (lenders) give funds to an intermediary institution (such as a bank), and that institution gives those funds to spenders (borrowers). Gorton and Winton (2002) define financial intermediaries as firms that borrow consumers/savers and lend same to companies that need resources for investment. Financial intermediaries can be classified into institutional investors, pure intermediaries like investment banks and Deposit Money Banks. Among all the financial intermediaries, banks are the major financial intermediaries that accept deposits and make loans directly to the borrowers (Quilym, 2012).

2.2 Empirical Review

Garr (2021) investigated the impact of financial intermediation on bank performance. The causal research design was used in the study. Time series data covering 1996 to 2018 was gathered in the study. Data gathered was analysed using Augmented Dickey-Fuller (ADF) unit root test and multiple regression analysis. Findings from the study demonstrated that bank performance in Ghana is significantly influenced by the operating cost, reserve and bank borrowing rate; increase in operating cost would enhance bank efficiency, whiles a lower reserve would improve performance and an increase in borrowing rate would increase profitability. Hence, the study suggested that banks must spend more money to become more efficient in managing loans and for that matter enhance loan quality, and be more solvent and eliminating or reducing the reserve requirement would have a positive impact on bank solvency and profitability.

Mekonnen (2021) analysed firm-specific, industry-specific and macroeconomic determinants of commercial banks' lending in Ethiopia. The study used the qualitative and quantitative research design. Secondary panel data covering 2011-2019 was gathered for fifteen (15) commercial banks in Ethiopia. Data gathered was estimated using descriptive statistics and random effect analysis. Findings from the study suggested that bank-specific factors such as; volumes of deposit, capital adequacy, and bank size have a positive and statistically significant effect on bank lending; industry-specific factors such as; cash reserve requirement, bank concentration, and average lending rate have a negative and statistically significant effect on bank lending. Likewise, one of the macro-economic variables gross domestic products has a negative and statistically significant effect on bank lending. Hence, the study suggested that commercial banks in Ethiopia have to manage their lending by giving more attention to the internal factors, which the management has control over in line with the banking industry rules and regulations recalling the implication of the general economic dynamic.

Asima, Mohammed and Zeeshan (2021) examined the effect of credit risk management and bank-specific factors on the financial performance of the South Asian commercial banks. The qualitative and quantitative research design was used in the study. Secondary panel datasets covering 2009-2018 was gathered for nineteen (19) commercial banks. Data gathered was analysed using generalized method of moment. Findings from the study demonstrated that non-performing loans, cost efficiency ratio and liquidity ratio have significantly negatively related to financial performance while capital adequacy ratio and average lending rate have significantly positively related to the financial performance of the Asian commercial banks. Premised on the findings, the study suggested that policymakers of Asian countries should create a strong financial environment by implementing that monetary policy that stimulates interest rates in this way that automatically helps to lower down the high ratio of nonperforming loans (tied monitoring system) and liquidity position should be well maintained so that even in a high competition environment, the commercial is able to survive in that environment.

Gupta, Sarker and Rahman (2021) empirically assessed the relationship among cost of financial intermediation, risk and efficiency among Bangladeshi commercial banks. The study adopted the qualitative and quantitative research design. Secondary data covering 2000-2016 was pooled for thirty two (32) commercial banks in Bangladesh. Data gathered was estimated using Two-Step System GMM (2GMM) estimators of unbalanced dynamic panel data. Findings from the study revealed that efficiency, market concentration, non-performing loans, size, and macroeconomic factors have the greatest economic implication on intermediation and cost of financial intermediation is negatively associated with bank risk and cost-efficiency. Hence the study suggested that commercial banks should be properly guided, monitoring or supervision and above all a deficiency of good intentions and cost efficiency can minimize the intermediation spread as evidenced proved in developed countries or else will be responsible for higher risk-taking, hence the interdependencies should be addressed simultaneously for the steady state of financial market development.

Oyebowale (2020) assessed the determinants of bank lending in Nigeria. The study specifically adopted the qualitative and quantitative research design. Secondary data spanning 1960-2016 was gathered in the study. Data gathered from the study was estimated autoregressive distributed lag (ARDL) bounds testing approach and Granger causality. Findings from the study revealed that growth in broad money Granger-causes growth in bank lending, while there is no causality from other explanatory variables to bank lending in Nigeria; that growth in bank lending Granger-causes growth in loan-to-deposit ratio and growth in inflation in Nigeria. Hence this study suggested that commercial banks in Nigeria should exhibit stern concern for their liquidity and capital adequacy positions while acting as financial intermediaries and the CBN should enjoy instrument independence along with operational independence in order to ensure the appropriate use of monetary policy tools to achieve policy goals.

Echobu and Okika (2019) assessed credit risks and financial performance of Nigerian banking industry. The study adopted the correlation and ex-post facto research design. Secondary panel data covering 2006-2017 was gathered for fifteen (15) deposit money banks in Nigeria. Data gathered was analysed using descriptive statistics, correlation analysis and multiple regression analysis. Findings from the study revealed that nonperforming loans and impairment loan charge-off have negative and significant impact on the financial performance of banks and impact of capital adequacy on financial performance is negative but statistically insignificant. Hence, the study suggested that DMBs should improve their risk management strategy to reduce the increase of default loans and a short-term periodic review of prudential guidelines and other regulations governing the issuance of credit facilities by DMBs is advocated, so that current realities and intrigues about credit risks will be captured in policies

3.0 METHODOLOGY

In examining the implication of financial intermediation on credit risk management in Nigerian banking industry, the quantitative research design would be considered. The model of Buchory (2015) was adopted. Buchory (2015) assessed banking intermediation, operational efficiency and credit risk in the banking profitability; the study broadly assessed the associations between banking intermediation, credit risk and other crucial performance indicators of banks in Indonesia captured credit risk with nonperforming loan and bank intermediation with loan to deposit ratio and operatizing expenses to operating income. For simplicity, the model of Buchory (2015) is presented in equation in equation 3.1

$Y = f(a + \beta X1 + \beta X2 + \beta X3 + e)$…….. 3.1

Where:

Y = Return on Assets (ROA)
a = A constant which is the value of the variable Y when the variable X is 0 (zero)
β = Coefficient of the regression line
X1 = Loan to Deposits Ratio (LDR)
X2 = Operating Expense to Operating Income (OEOI)
X3 = Non Performing Loans (NPLs)
e = Error term

However, the above study adapted pooled ordinary least regression in estimating the 3.1 model thereby giving no attention to the dynamic relationship of variables in the model; furthermore, capital adequacy with a significant of sound financial intermediation of banks was not considered in the above mode. Hence, this study presents a modified model as shown below:

NPL = *f* (LDR, OEOI, CAR, FIS) ……..……...…3.2

Equation representing the models:

$NPL_{it} = \delta_0 + \delta_1 LDR_{it} + \delta_2 OEOI_{it} + \delta_3 CAR_{it} + \delta_4 FIS_{it} + \mu_{it}$……...……...…..… 3.3

Where:

NPL = Non-Performing Loan
LDR = Loan to Deposit Ratio
OEOI = Operating Expense to Operating Income
CAR = Capital Adequacy Ratio
FIS = Firm Size
μ = Error term

Sources of Data and Estimation Techniques

Data spanning seven years (2016-2020) shall be culled from the annual reports of the sample Tier 1 deposit money banks that is First Bank, United Bank for Africa, Guarantee Trust Bank, Access Bank and Zenith Bank (FUGAZ). The availability of annual reports directed the selected scope of the study. Descriptive and panel estimation methods was employed; the descriptive analysis will demonstrate the measure of central location and measure of dispersion, normality status, skewness, kurtosis of all the variables included in the model of the study. However, as the study intends to adopt fixed effect analysis and random effect analysis of panel statistical estimations; it will conduct pooled ordinary least square (OLS) regression analysis (random effect, fixed time specific and firm specific effect) and other post estimation tests.

4.0 DATA ANALYSIS AND DISCUSSION

4.1 Descriptive Analysis of Variables

Table 4.1 Descriptive Statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
NPL	30	.9934	1.0467	.12	3.67
CAR	30	.2929	.3373	.08	.98
LDR	30	.1469	.0798	.033	.29
OEOI	30	.5705	.1679	.118	.829
FSI	30	22.562	2.1130	19.77	26.43

Sources: *Author's Computation, (2022)*

Descriptive statistics reported in table 4.1 revealed that the mean non-performing loan, capital adequacy ratio, loan-deposit ratio, operating expense to operating income and firm size for 2015-2020 across five deposit money banks sampled in the study stood at: .9934 percent, .2929 percent, .1469 percent, .5705 percent, 22.562 billion naira respectively. Reported minimum and maximum values stood at: .12 and 3.67 percent for non-performing loan ratio, .08 and .98 percent for capital adequacy ratio, .033 and .29 percent for loan-to-deposit ratio, .118 and .829 percent for operating income to operating expenses, 19.77 billion naira and 26.43 billion naira for firm size respectively.

4.2 Correlation Analysis

Table 4.2 Correlation Matrix

	NPV	CAR	LDR	OIEI	FSI
NPL	1.0000				
CAR	-0.1572	1.0000			

LDR	-0.7880	-0.5684	1.0000		
OEOI	0.1674	-0.5282	0.4724	1.0000	
FSI	0.0239	0.9134	-0.3642	-0.3106	1.0000

Sources: Author's Computation, (2022)

Table 4.2 shows the correlation coefficients between explanatory variables in pairwise style. A maximum of two variables can maintain perfect linear association. Howbeit, it can be ascertained that there exists mixed correlation between pairs of variables. Result evidenced negative correlation between pairs of variables except for non-performing loan and operating income to operating expenses, non-performing loan and firm size with coefficient of 0.1674 and 0.0239. Again, negative correlation was obtained for non-performing loan and capital adequacy ratio, non-performing loan and loan-to-deposit ratio with coefficient estimate of -0.1572 and -0.7880 for the respective pairs. Observably, these results suggests that none of the pair of variables has a perfect relationship which indicates that there is likelihood of multicollinearity issue as affirmed by Gujarati and Porter (2009) that when correlation coefficient of two variables does not exceed 0.8, multicollinearity problem becomes inevitable.

4.3 Multicollinearity Test

The presence of strongly correlated variables in a model tends to create a multicollinearity problem. Therefore, the Variance Inflation Factor (VIF) test can be used to confirm the existence of multicollinearity among the independent variables. Based on the rule of thumb, the VIF must be less than 10 to confirm that the estimates of the regression would not be biased due to the presence of multicollinearity.

Table 4.3 Result of Multicollinearity Test

Variable	VIF
CAR	13.69
FSI	9.59
LDR	1.88
OEOI	1.84
Mean VIF = 6.75	

Sources: *Author's Computation, (2022)*

Table 4.3 shows that all the variables have a VIF value of less than 10, thus implying that there is no strong evidence of collinearity among the independent variables.

4.4 Hausman Test

Table 4.4 Hausman Test

Null hypothesis	**Chi-square stat**	**Probability**
Difference in coefficient not systematic	46.57	0.000

Source: *Author's Computation, (2022)*

Table 4.4 reveals a chi-square value of 46.57 alongside a probability value of 0.000. The result shows that there is enough evidence to reject the null hypothesis that differences in coefficients of fixed effect estimator and random effect estimation is not systematic. Therefore, given the fact the difference between fixed effect estimates and random effect

estimates is significant, the most consistent and efficient estimation for the investigation conducted in the study is the fixed effect bank specific estimate presented in table 4.6 below.

4.5Pooled OLS Estimation

Table 4.5: Pooled OLS Parameter Estimates

Series: ***NPL (Dep)****, CAR, LDR, OEOI, FSI*

Variables	Coefficient	Standard Error	T-Test Values	Probability
C	-3.2986	2.9033	-1.14	0.267
CAR	.2304	1.1602	0.20	0.844
LDR	13.1565	1.8164	7.24	0.000
OEOI	-1.1563	.8552	-1.35	0.188
FSI	.1308	.1550	0.84	0.407
R-square				0.7446
Adjusted R-square				0.7038
F-statistics				18.22
Prob(F-stat)				0.000

Source: Author's computation, (2022).

Pooled OLS panel estimation demonstrated in table 4.5 reported coefficient estimate of .2304, 13.1565, -1.1563 and .1308 for capital adequacy ratio, loan to deposit ratio, operating expenses to operating income and firm size with probability values of 0.844, 0.000, 0.188 and 0.407. The result showed that capital adequacy ratio exerts positive insignificant impact on non-performing loan ratio of the sampled deposit money banks, loan to deposit ratio exerts significant positive impact on non-performing loan ratio, operating expense to operating income ratio affected non-performing loan ratio negatively and insignificantly while firm size exerts positive insignificant impact on non-performing loan ratio of deposit money banks in Nigeria. R-square value reported in table 4.4 revealed that about 70% of the systematic variation in the credit risk management of deposit money banks measured in terms of non-performing loan ratio can be explained by capital adequacy ratio, loan-deposit ratio, operating expense to operating income and firm size. Reported f-statistics of 18.22 and the probability value of 0.000 validates the fact that all the explanatory variables of financial intermediation jointly influence credit risk management of deposit money banks sampled in the study.

4.6 Fixed Effect Panel Analysis

Table 4.6 Fixed Effects Estimates (Bank Specific and Period Specific)

BANK SPECIFIC EFFECT			PERIOD SPECIFIC EFFECT		
Variables	Coefficients	Prob	Variables	Coefficients	Prob
C	.9624	0.874	C	-.8523	0.807
CAR	-6.5150	0.006*	CAR	1.7029	0.265
LDR	2.1753	0.098***	LDR	14.5198	0. 000
OEOI	-1.4189	0.017**	OEOI	-.2842	0. 788
FSI	.2424	0.208	FSI	-.0508	0. 799
Effects			Effects		
UBA	-2.2392	0.379	2016	.5209	0.189
GTB	-4.4951	0.096	2017	.6392	0.126
ACCESS DIAMOND	-4.3958	0.077	2018	.6155	0.150

ZENITH	-4.0698	0.092	2019	.8781	0.061
			2020	.4854	0.807
R-square=0.9622			R-square=0. 7919		
Adjusted R-square=0.9478			Adjusted R-square=0.6983		
F-statistics=66.81			F-statistics=8.46		
Prob(F-stat) = 0.000			Prob(F-stat) = 0.000		

Notes: *, ** and *** denotes statistically significant at 1%, 5%, and 10% significance levels, respectively.
Sources: *Author's Computation, (2022)*

Table 4.6 presents results of the fixed effect estimation (bank and period specific effect). Notably, result presented in table 4.6 shows that when bank specific effect is incorporated into the model the impact of capital adequacy ratio is negative and significant, impact of loan to deposit ratio is negative and significant, operating expense to operating income exerts negative significant impact and firm size impacts positively and insignificantly on non-performing loan of deposit money banks in Nigeria. On the other hand, when period specific effect was incorporated into the model, explanatory variables including operating expense to operating income and firm size exert negative insignificant impact on non-performing loan ratio of Nigeria deposit money banks respectively while capital adequacy ratio and loan deposit ratio exerts positive insignificant impact on the non-performing loan of deposit money banks in Nigeria.

Deviation intercept terms reported in table 4.6 stood at -2.2392 (0.379), -4.4951 (0.096), -4.3958 (0.077) and -4.0698 (0.092) for United Bank for Africa Plc, Guaranty Trust Bank Plc, Access-Diamond Plc and Zenith Bank Plc respectively, with the intercept term of the reference firm being First Bank Plc recorded to be .9624 (0.874). Deviation intercept terms for period effects stood at: .5209 (0.189), .6392 (0.126), .6155 (0.150), .8781 (0.061), .4854 (0.807) for 2016, 2017, 2018, 2019, and 2020 respectively, with intercept term of reference years being 2016 recorded to be -.8523 (0.807). Reported R-square values stood at 0.94 for bank specific estimation and 0.69 for period specific estimation, reflecting that about 94% of the systematic variation in non-performing loan can be explained by capital adequacy ratio, loan-deposit ratio, operating expense to operating income and firm size when heterogeneity effect across firms is incorporated into the model, while 69% of the systematic variation can be explained when period heterogeneity effect is given consideration in the

4.7 Random Effect Analysis

Table 4.7 Random Effect Estimation

Series: NPL (Dep), CAR, LDR, OEOI, FSI

Variable	Coefficient	Standard Error	Z-Test Values	Probability
C	-3.2986	2.9033	-1.14	0.256
CAR	.2304	1.1602	0.20	0.843
LDR	13.1565	1.8164	7.24	0.000
OEOI	-1.1563	.8552	-1.35	0.176
FSI	.1308	.1550	0.84	0.399
R-square				0.7446
Wald chi-square				72.90
Prob>chi-square				0.000

Source: Author's computation, (2022).

Table 4.7 presents the random effect estimates. Result showed that the effect of capital adequacy ratio on credit risk management measured by non-performing loan ratio is positive and significant when heterogeneity effect is incorporated into the model. Meanwhile, loan deposit ratio exerts positive and significant impact on non-performing ratio. Also, impact of operating expense to operating income on nonperforming loan ratio when heterogeneity is incorporated into the error term is negative and insignificant. Furthermore, firm size affects non-performing loan ratio negatively and significantly. Specifically, coefficient estimates reported for capital adequacy ratio, loan-deposit ratio, operating expense to operating income and firm size stood at .2304, 13.1565, -1.1563 and .1308 with probability values of 0.843, 0.000, 0.176 and 0.399 respectively. R-square statistics reported in table 4.7 stood at about 0.74 which connote that about 74% of the systematic variation in credit risk management of deposit money banks captured with non-performing loan ratio in the study can be jointly influenced by changes in capital adequacy ratio, loan-deposit ratio, operating expense to operating income and firm size respectively, incorporating heterogeneity effect across deposit money banks over time into the error term and holding every other thing constant.

4.8 Post Estimation Test

Table 4.8 Restricted F Test of Heterogeneity (Cross-Sectional and Time Specific)

	F-statistics	**Probability**
Cross sectional	30.21	0.000
Time specific	0.91	0.495

Source: *Author's Computation, (2022)*

Table 4.8 reveals result of the heterogeneity test conducted with respects to both cross-sectional and period specific effect. Reported in table 4.7 are f-statistics values of 30.21 and 0.91 with probability values of 0.000 and 0.495 for firm and period specific effect respectively. Hence, the table revealed that there is enough evidence to reject the null hypothesis that all differential intercept corresponding to the cross-sectional specific units are equal to zero, but otherwise for the period specific intercepts. Therefore, it can be concluded that there is only cross-sectional heterogeneity/uniqueness effect among the selected deposit money banks which is captured with the random effect model and appeared too significant to be ignored.

Table 4.9 Other Post Estimation Test

Wald test		
Null hypothesis	**Statistics**	**Probability**
Panel homoscedasticity	72.90	0.000
Pesaran test		
Null hypothesis	**Statistics**	**Probability**
No cross-sectional dependence	0.126	0.900
Breusch-Pagan Lagrange Multiplier test		
Null hypothesis	**Statistics**	**Probability**
Panel Normality	25.12	0.000

Source: *Author's Computation (2022)*

Table 4.9 reported result of post estimation test conducted to confirm if the specified model is in turn with basic assumptions underlining the panel estimation conducted in the study. The

result showed that there is no evidence to reject the null hypothesis on panel homoscedasticity and null hypothesis of no cross-sectional dependence and accept the hypothesis of panel normality. Hence, the established result of post estimation test reported in table 4.9 validates assumptions of equal variance of residual terms, cross sectional independence and normality of the model. Which reflect that the model is fit for inferential analysis.

4.10 Discussion of Findings

The result shown in table 4.6 is the most obtainable and accurate estimation and it revealed that capital adequacy ratio exerts negative significant effect on non-performing loan ratio of deposit money banks (DMBs) in Nigeria. This suggests that as capital adequacy ratio increases, non-performing loan ratio which is used as measure of credit risk management of DMBs in Nigeria tend to fall. Capital adequacy ratio provides the bank with the edge it requires to remain in business, this follows the adequacy of cash which is no doubt required for DMBs to deliver sustainably on unending business operations and to guarantee that the bank would satisfy the needs of its teeming customers as well as boost the confidence the public has reposed in the banking sector; it is based on this premise that the Apex Bank in Nigeria requires that bank maintain certain level of its capital and anything short of the standard may threaten the performance of the bank. Similarly, findings established that loan to deposit ratio exerts positive significant impact on nonperforming loan ratio of DMBs in Nigeria which suggests that as loan to deposit ratio increases, the performance of DMBs may also shoot upward, the height of non-performing loan maintained by DMBs has per time discouraged bank from going extra miles to obtain funds for borrowers as this may threaten the survival of the bank.

Furthermore, operating expense to operating income has negative and significant relationship with nonperforming loan ratio which implies that as operating expense to operating income falls, non-performing loan may increase. Loans provided to individuals, businesses and households forms the assets of DMBs, the interest bank receives on these assets - loan is critical to their revenue, profit and survival; and the risk of the loan becoming a nonperforming loan - that is, non-payment of the loan is the basic risk faced by banks. This poses severe issues for the bank as a higher credit risk reduces the quality of its loan or asset quality; that is the outflow from the bank tends to be more than its inflow, this affirms the cause for maintaining increased capital adequacy level to cushion the effect of high nonperforming loan which may ultimately affect adversely the soundness of the bank especially when it fails to manage nonperforming loans proactively.

Similarly, the Central Bank of Nigeria often ensure that DMBs to satisfy a given level of capital adequacy on a consistent basis; this standard which is usually pegged by the CBN reduces the exposure of banks to the adversities of the economic that can increase nonperforming loan and crumbling the banking sector with the specific effect on each bank. Discoveries from this study further supports the continuous review of such regulation as operational and credit risks inherent in the banking business per time, there becomes an urgent need for the regulatory authority to moderate the standard capital required by banks to adequately and satisfactorily operate while completely utilizing its potentials and resources and in effect guaranteeing its existence in business for the foreseeable future. Findings from the study also suggests that nonperforming loan will increasingly shoots up if DMBs and liquidity may be critically affected except management of these banks guarantee proper examination of loan applications while keeping every operation about loan and related expenses in check as this guarantees the maintenance of an idea level of asset quality.

5.0 CONCLUSION AND RECOMMENDATIONS

Credit risk management remains an issue as it to a noticeable extent drives the level of asset quality of DMBs measured with nonperforming loans which directly constrains the bank from observing its basic functions sustainably and ultimately threaten the prosperity of the economy of Nigeria. Premise upon the results obtained in this study, it is evident that capital adequacy ratio exerts negative significant impact on nonperforming loan ratio of Nigerian deposit money banks; loan to deposit ratio exerts positive and significant effect on nonperforming loan ratio of Nigerian deposit money banks; operating expense to operating income exerts negative and significant effect on nonperforming loan ratio of Nigerian deposit money banks and firm size exerts positive insignificant impact on nonperforming loan ratio of Nigerian deposit money banks. Hence, this study established that financial intermediation maintains noticeable implication on credit risk management of deposit money banks in Nigeria. Based on these findings, it is thereby urgent that the following suggestions be made:

i. Management of DMBs should deploy measures to raise funds and keep its liquidity position up
ii. Other management staffs of DMBs - supervisors of DMBs should be consistent in assessing banks' risk to capital towards evaluating its credit process by ensuring relatively low nonperforming loan position.
iii. The CBN should observe frequently the operations of DMBs in Nigeria towards making satisfactory efforts to moderating and improving banking regulations

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RISK FINANCING OPTIONS AND PROJECT SUCCESS: EVIDENCE FROM BUILDING CONSTRUCTION COMPANIES IN LAGOS STATE, NIGERIA

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ABSTRACT

Risk financing is a critical element of a business future. its indispensable metrics in safeguarding the structural and economic image of construction firms. Therefore, this study assessed the relationship between risk financing options and project success, with specific reference to the perceptions of selected construction firms in Lagos State, Nigeria. The study adopted a cross- sectional survey research design; with combination of both judgmental and convenience sampling techniques. The study population consisted of sixty-nine (69) registered building construction firms in Lagos State. Thus, a structured questionnaire was adopted in the distribution and data collection processes. Eight-seven (87) were used as sample size and in the data analytical procedure. The statistical technique employed was simple regression. This result confirmed the nexus between risk financing options and project success of selected construction firms in Lagos State. While risk retention options proved a positive relationship with project success at a p value of 0.043, risk transfer options confirmed a positive relationship with project success at a p value of 0.017. the study recommended that more risk retentive capacities should be built by building contractors in a bid to handle small proportions of their risks possibly by creating a risk management department. Government should also be dutiful in their regulatory oversight of monitoring the compulsory purchase of builders' liability insurance and thus, ensure that buildings under construction are covered for under a contractor's all-risk insurance policy.

Keywords: *risk retention options, risk transfer options, project success, contingency theory, building contractors, Nigeria*

1. INTRODUCTION

Countries with the desire to create a modern environment may not survival if its infrastructural development is not built by formidable construction firms. Construction companies in any modern economy provide basic living atmospheric plights for sustainable development of human lives (Alsaadi & Norhayatizakuan, 2021; Urbanski, Haque, & Oino, 2019). However, there is no part of human relationships with construction works without some elements of risks. Studies (such as Abramov & Al-Zaidi, 2020; Moshood, Adeleke,

Nawanir, & Mahmud, 2020; Purohit, Siddiqui, Nandan, & Yudav, 2018) had affirmed some levels of human risks associated with construction works. According to Ohenhen and Shirzaei (2022), human errors in the construction project can never be overemphasised hence it remains an undeniable aspect of concern in relation to collapse, dysfunctionality, destruction, among others, of several buildings.

Globally, several incidences of collapse of buildings had been accounted for yearly, culminating into more than 300 individual lives lost (Keim, 2021). However, subsisting literatures (such as Nicholas, Dickson, & Okeke, 2022; Obodoh, Amade, Obodoh, & Igwe, 2019; Wordu & Kanu, 2021) had reported that not less than 300 building collapse had been experienced between the year 1978 and 2022 in Lagos state; despite this consequential human efforts, events of building collapse in Nigeria had been largely underreported. Studies (such as Nicholas et al., 2022; Renault & Ansary, 2018; Watema & Tulirinya, 2021) have argued that failure in project implementation had become risky to the developmental aspiration of most builders. Thus, financing the embedded risk in project seems to be problematic where a construction firm does not have the retentive required capacity and transferability exigencies to so. Areiqat, Alali, and Arikat (2018) noted that project failure criteria are characterised by project not executed on time, inappropriate project outcomes, and project budget insufficiency. Project execution of most construction firms are also said to be encountered with issues such as project timing, project costing, project budgeting, project scheduling, project dissatisfaction, project inefficiency, project non-technicality, project incompletion, among others (Dinu, 2016; Primchangthong & Boonjing, 2017). The aim of this study is to examine the relationship that exist between risk financing options and project success among building construction companies in Lagos, Nigeria. The specific objectives are to assess the effect of risk retention options on project success among building construction companies in Lagos State, Nigeria; and evaluate the influence of risk transfer options on project success of building construction companies in Lagos State, Nigeria

2. Literature Review

2.1. Conceptual Review

2.1.1. Risk Financing Options

Risk is described as a doubt regarding the occurrence of loss events (Ajemunigbohun, & Adeoye, 2018). It is a concept that is explained around any situation causing an entity to lose it valuable image (Alaka, Ajemunigbohun, & Balogun, 2022). Risk financing is an estimation of how an entity will pay for loss situations in the most efficacious and cost-effective manner. It most often involves situations in which risk would be identified, estimated how possible the risk is financed, and ensure proper monitoring of effective risk financing option selected (Pukala, Sira, & Vavrek, 2018). Sirivunnabood (2020) mentioned that selecting the most appropriate disaster risk financing option, is dependent upon the different phases in the disaster event. Therefore, the core financing options in this regard are risk retention and risk transfer. He noted that, for risk retention, key options are reserve funds, budget contingencies, and lines of contingent credit, while insurance and its different forms are suggested for risk transfer.

According to Rejda, McNamara, and Rabel (2022), the core components of risk retention measures are in terms of current net income, unfunded reserve, funded reserve, credit line, and captive insurance; while risk transfer measures majorly comprised of insurance and its

specific classification of any circumstance. In this wise, the building construction companies would require the group life insurance, contractor's all risk insurance, builder's liability insurance, workmen's compensation insurance, and many others. Arunajatesan and Viswanathan (2017) described risk retention as a means of keeping the risk oneself and dealing with it. They buttressed that conscious decisions are required to create funds, and assume losses on the bases of the level of risk, probability, and severity. For risk transfer, is the shifting of responsibilities of the losses to someone else's shoulder; and the scientific technique to doing this appropriately is through insurance.

Insurance, as a risk financing option, does not intend to avert the risk from happenings, nor does it reduce the probability of its occurrence but ensure that the financial effect or impact on individuals or parties in the contractual arrangement, in the event of loss, is largely curtailed (Garzert & Martin, 2013 as cited in Ajemunigbohun, Isimoya, & Elegunde, 2020). Redja et al. (2022) noted that insurance, being a risk financing option, makes provision adequately and conveniently to handling risks. They reiterated that insurers create identical pool into which policyholders pay fair and reasonable premium. However, through insurance option, insurers are able to estimate the cost of portable losses, spreads the losses of few over many, fix the premium cost, take a receipt of the premium into a common pool, and pay the proper claims to individuals or parties who had suffered from the loss situation (Apostolik & Donoghue, 2015; Yoe, 2019).

2.1.2. Project Success: Criteria for performance

The conceptual understanding of project success revolves round different stakeholders' perceptions and their convictions with respect to the attainment of possible objectives. Project success, being a core facet of project management, is deeply explained in connection with successful project management and successful product of such project (Iriarte & Bayona, 2020). Project success is defined as the highest level attained at any given point of evaluation no matter the performance at lower level (Venczel, Berenyi, & Hriczo, 2021). It is depicted as a project that meets up its objectives under budget and schedule.

However, project success criteria are said to include project time, project cost, project quality, project satisfaction, project technicality, project schedule, etc. (Frefer, Mahmond, Haleema, & Almamlook, 2018). Zekavat and Momenian (2019) supported that the criteria for project success also embrace project time, project stakeholders, and project quality. They reiterated that non-compliance to these criteria might cause possible project failure. Montequin, Consillas, Alrarez, and Villanueva (2016) mentioned that while project failure is depicted as project that fails to perform a specific a task or an anticipated action, non-performance, or non-occurrence; project success involves the attainment of something desired, attempted or planned. Thus, projects fail to meet up with anticipated expectation or deliver their promised objectives for numerous reasons, depending on the level of analysis (Van Marrewijk, Stjerne, & Sydow, 2022).

2. Research Methods

This study adopted a cross sectional survey research design hinged upon a quantitative approach to provide an enhanced perception of decisions associated the nexus between risk financing options and project success among building construction companies. This design also supported the planning and execution of this study in a way to achieve anticipated results and also, generated an association with the real-life world scenario (Creswell & Creswell,

2018; Gray, 2017). Data gathering was conducted via field survey among chosen building construction firms with the support of a structured questionnaire. The essence of selecting the participants were due to their role in the economic and social sustainability of Lagos State. The use of this data gathering tool was because of its suitability to the study design with respect to being cost effective, attract wider coverage and sample representation, sufficiency of time for participants to assign well thought out responses and simplicity in the administration the research instrument (Ghauri, Gronhang, & Strange, 2020; Hesse-Biber & Johnson, 2015).

Reference to the submission of Obialo (2023), the registered building construction companies in Lagos State are 69 in number. Out of this, 37 building construction firms were selected for the distribution and collection of required data. Each of this selected companies got at least three (3) copies of questionnaire 101 questionnaire. Out of this, 87 copies of this questionnaire were useful and appropriate for the data analysis, making up 86 percent response rate. The sampling techniques were both judgmental and convenience. For judgmental, it required the opinions of the building contractors; and for convenience, the readiness and availability of the participant justified it.

The study carried out tests of validity comprised of congruent, content, and criterion-related in nature. While the congruent validity was structured in accordance to preceding literature, content validity took cognisance of the measures on the survey instrument, and the criterion-relation validity took a probe of the outcomes from other related participants (Booth, Colomb, Williams, Bizup, & Fitzgerald, 2016). Also, the reliability test was conducted with a Cronbach alpha estimated for risk retention options, risk transfer options, and project success. These outcomes from this study were in line with statistical computations of the soundness of the scale, and the safety of the internal consistency.

4. Data Analysis, Results, and Discussion of Findings

4.1. Descriptive Analysis of Risk Retention Options

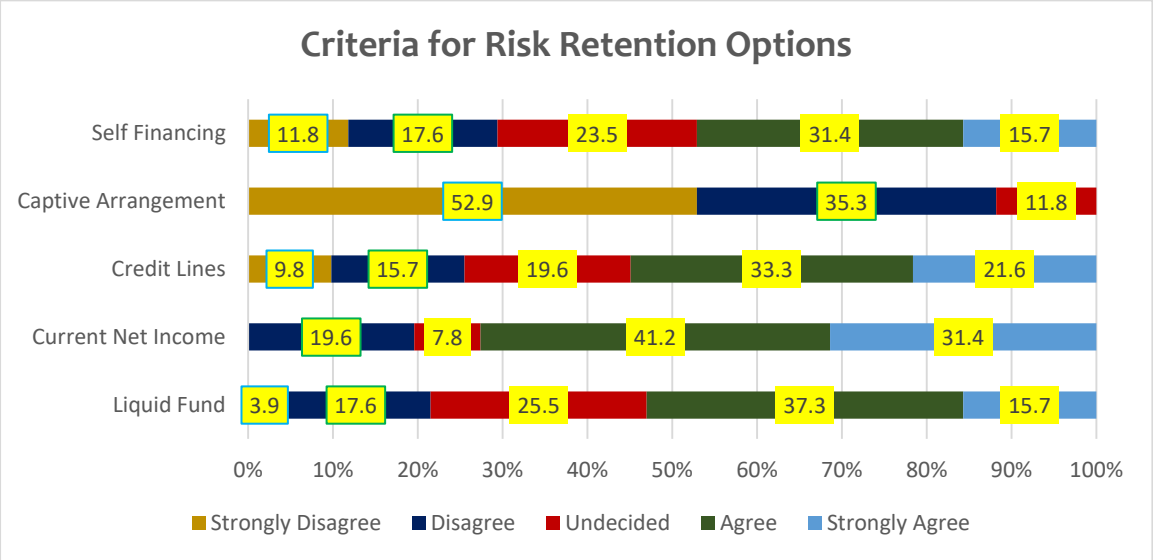


Fig. 4.1: Figure explaining criteria for risk retention option among Building Contractors in Lagos State

Figure 4.1 explains risk retention metrics among building construction companies in Lagos state in terms of *liquid fund, current net income, credit line, captive arrangement, and self-financing.* For the statement that 'my company set aside liquid funds to pay for losses on building projects undertaken', while 3.9 percent strongly disagreed, 17.6 percent disagreed with it, 25.5 percent neutral, 37.3 percent expressed their agreement, and 15.7 percent were strongly in agreement with the statement. This implies that while 53 percent agreed totally with the statement, only 21.5 percent expressed their utmost disagreement. For the statement 'my company fund losses on building projects out of its current net income and treat risk exposures as expenses for each year', while none expressed their strong disagreement, 19.6 percent disagreed, 7.8 percent stood neutral, 41.2 percent showed their agreement, and 34.1 percent showed their strong agreement of the statement. This invariably indicates that while 72.6 percent expressed their agreement, 19.6 percent were in disagreement with the statement.

For the statement that 'my company finance building construction risks through established credit line from financial institutions', while 9.8 percent signified their strong disagreement, 15.7 percent disagreed, 19.6 percent were neutral, 33.3 percent displayed their agreement, and 21.6 percent showed their strong agreement. This, in turn, signifies that over 64.8 percent agreed with the statement. For the statement that *'my company finances its risk exposures through captive arrangement',* while 52.9 percent displayed their strong disagreement, 35.3 percent disagreed, 11.8 percent were neutral, and none was indicated for both agreement and their strong agreement. This shows that more than 88 percent disagreed with the statement. For the statement that 'my company use self-financing method to cater for employee work related accident on building projects', while 11.8 percent indicated their strong disagreement, 17.6 percent expressed their disagreement, 23.5 percent for neutral, 31.4 percent for agreement, and 15.7 percent strongly agreed. This implies that more building contractors (46.1 percent) have shown their agreement with the statement, while 29.4 percent disagreed.

From the above, it shows clearly that building contractors engaged liquid fund, current net income, credit lines and self-financing in their desires to retain construction related risks, while captive arrangement was never their plans in financing risks. This result is supported by previous studies (such as Aduloju & Akindipe, 2022, Aduloju & Oluwaleye, 2023; Bahamid & Doh, 2017; Ipigansi & Ajemunigbohun, 2023). However, a strong correlate was expected among the various metrics to ascertain the retentive capacities of building construction companies. These studies validated the uses of risk retention metrics and their relationship with the performance of building contractors in Lagos State, Nigeria.

4.2. Descriptive Analysis of Risk Transfer Options

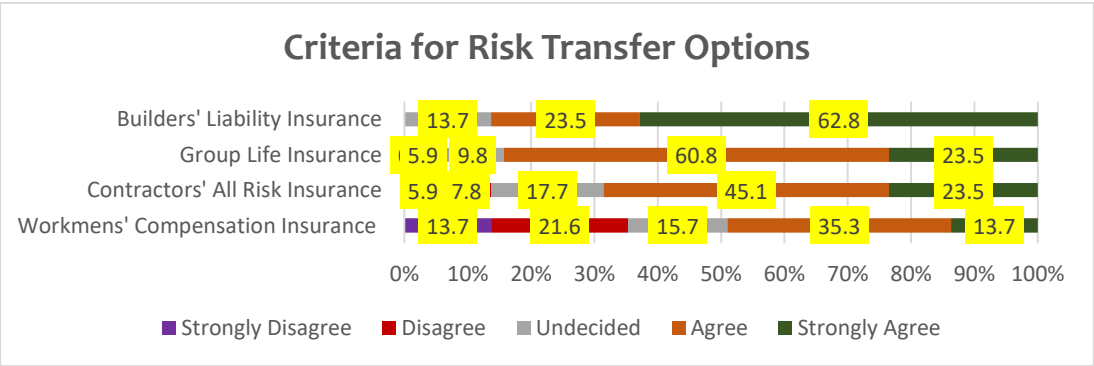


Fig. 4.2: Figure explaining criteria for risk transfer option among Building Contractors in Lagos State

Figure 4.2 explains risk transfer metrics among building construction companies in Lagos state in terms of *workmen's' compensation insurance, contractors' all risk insurance, group life insurance, and builders' liability insurance*. For the statement that 'my company have workmen's compensation insurance policy for building projects carried out', while 13.7 percent strongly disagreed, 21.6 percent disagreed with it, 15.7 percent neutral, 35.3 percent expressed their agreement, and 13.7 percent were strongly in agreement with the statement. This implies that while 49 percent agreed totally with the statement, only 35.3 percent expressed their utmost disagreement. For the statement 'contractors' all-risks (CAR) insurance is effective for building projects exposures at worksite', while 5.9 percent expressed their strong disagreement, 7.8 percent disagreed, 17.7 percent stood neutral, 45.1 percent showed their agreement, and 23.5 percent showed their strong agreement of the statement. This invariably signifies that while 68.6 percent expressed their agreement, 13.7 percent were in disagreement with the statement.

For the statement that 'my company has group life insurance for its workforce at site to cover for construction related risks', while none signified their strong disagreement, 5.9 percent disagreed, 9.8 percent were neutral, 60.8 percent displayed their agreement, and 23.5 percent showed their strong agreement. This, in turn, implies that over 84 percent agreed with the statement. For the statement that 'my company purchase builders' liability insurance to cover for construction workers, third party and surrounding buildings', while none indicated strong disagreement and disagreement, 13.7 percent for neutral, 23.5 percent for agreement, and 62.8 percent strongly agreed. This is an indication that more building contractors (. i.e., 86.3 percent) have shown their agreement with the statement, while none disagreed.

From the above, it shows clearly that building contractors shouldered their risk on the insurers on the bases of workmen's compensation insurance, contractor's all risk insurance, group life insurance, and builder's liability insurance. This result is supported by previous studies (such as Al-Kasasbeh, Abudayyeh, Olimat, Lu, Al-Mamlook, & Alfoul, 2021; Okolie, Ugochukwu, & Ezeokoli, 2017; Oyemogum, Adeagbo, Chindor, & Rugu, 2020; Sola, Arowojolu-Alagwe, Taiwo, & Abiodun, 2013). However, a strong correlate was designed among the various measures to ascertain the risk transfer capacities of the insurers with respect to the building construction companies. These studies validated the uses of these metrics and their relationship with the performance of building contractors in Lagos State, Nigeria.

4.3. Descriptive Analysis of Project Success Criteria

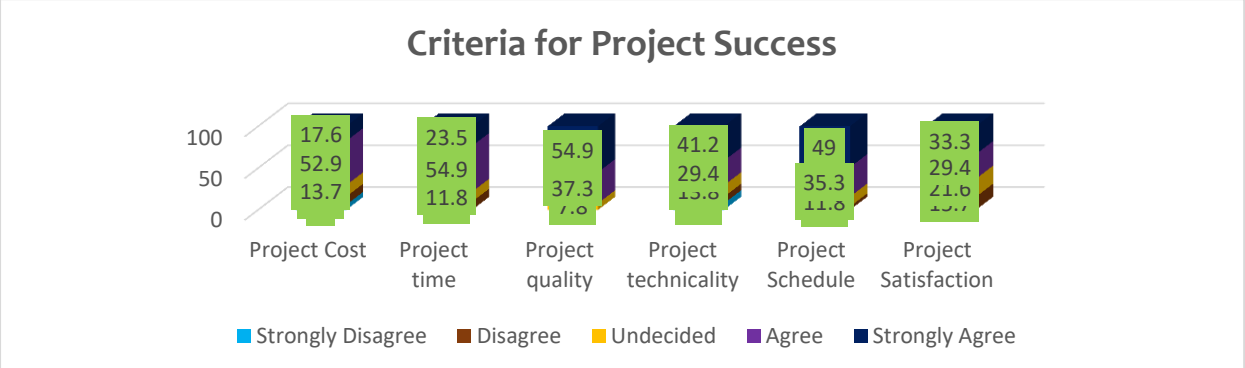


Fig. 4.3: Figure explaining criteria for project success among Building Contractors in Lagos State

Figure 4.3 explains project success metrics among building construction companies in Lagos state in terms of *project cost, project time, project quality, project technicality, project schedule, and project satisfaction.* For the statement that 'my company always manage monetary budget to enable its completion', while 6 percent strongly disagreed, 9.8 percent disagreed with it, 13.7 percent neutral, 52.9 percent expressed their agreement, and 17.6 percent were strongly in agreement with the statement. This implies that while 70.5 percent agreed totally with the statement, only 15.8 percent expressed their utmost disagreement. For the statement 'my company ensures it meets up with project completion deadline oftentimes', while none expressed their strong disagreement, 9.8 percent disagreed, 11.8 percent stood neutral, 54.9 percent showed their agreement, and 23.5 percent showed their strong agreement of the statement. This, in turn, showcases that while 78.4 percent expressed their agreement, 9.8 percent were in disagreement with the statement. For the statement that ''my company often effect quality project deliverables in a bid to meet required expectations', while none of the participants showed any form of strong disagreement and disagreement, 7.8 percent were undecided, 37.3 percent displayed their agreement, and 54.9 percent showed their strong agreement. This, in turn, signifies that over 90 percent agreed with the statement.

For the statement that 'my company ensures application of necessary technicalities on project execution', while 7.8 percent each signified their strong disagreement and disagreement, 13.8 percent were undecided, 29.4 percent displayed their agreement, and 41.2 percent showed their strong agreement. This, in turn, signifies that over 70.6 percent agreed with the statement. For the statement that 'my company ensures compliance with project outlines that often endear time-bound completion', while none displayed their strong disagreement, 3.9 percent disagreed, 11.8 percent were neutral, 35.3 percent agreed and 49 percent indicated their strong agreement. This shows that more than 84 percent disagreed with the statement. For the statement that 'my company ensures compliance with any project embarked upon to produce required output', while none displayed their strong disagreement, 15.7 percent expressed their disagreement, 21.6 percent for decided 29.4 percent for agreement, and 33.3 percent strongly agreed. This implies that more building contractors (62.7 percent) have shown their agreement with the statement, while 15.7 percent disagreed.

From the above, it shows obviously that building contractors engaged in project cost, project time, project quality, project technicality, project schedule, and project satisfaction in their desires for project success in relation to construction works. This result is supported by previous studies (such as Albtoush, Doh, Rahman, & Al-Momani, 2022; Altarawneh, & Samadi, 2019; Amoah, Berbegal-Mirabent, & Marimon, 2021). However, a strong correlate was observed among the various metrics to ascertain the project success of building construction companies. These studies validated the uses of project success measures and their relationship with the performance of building contractors in Lagos State, Nigeria.

4.4. Test of Hypotheses

Ho_1: Risk retention options have no relationship with project success among building construction companies in Lagos State

Table 4.1: Simple Regression Results for Risk Retention Options and Project Success

Table 5			**Model Summary**						
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change

1	.472[a]	.222	.148	.95431	.222	3.921	1	86	.000
a. Predictors: (Constant), Risk retention options									

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	3.570	1	3.570	3.921	.043[b]
	Residual	40.982	86	.911		
	Total	44.552	87			

a. Dependent Variable: Project success

b. Predictors: (Constant), Risk retention options

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	2.604	.490		5.310	.000	13.502	15.788
	Risk retention options	.283	.143	.283	1.980	.043	1.127	1.425

a. Dependent Variable: Project success

Source: *Researchers' Computation, 2023*

From the results of the regression analysis presented above, it is clear that there is positively low relationship between risk retention options and project success. The model also shows the variations experienced by the dependent variable that could be explained by the independent variable (R square) which shows that risk retention options are responsible for about 22.2 percent of variance in building construction firms' project success. This means that 77.8 percent of the project success enjoyed by the building construction firms comes from other factors other than the predictor used in this model (risk retention options). The generalisation of the results (Adjusted R square) indicates that true 14.8 percent of the variation in project success is explained by risk retention options (self-financing, captive arrangement, credit lines, current net income, and liquid fund*).* This result is almost close to reality as the difference between R Square and Adjusted R Square is not high. The standard error fit, which is a measure of the precision of the model, shows how wrong the statistical outcomes could be at 1 percent if one uses this model to make real life predictions. The above result is statistically insignificant as seen in the ANOVA table (p-value = 0.043) as it is greater than the 0.05 confidence interval used in this study. A value greater than 1 shows that F-ratio yield an efficient model but 3.921 F-ratio indicates that this model is not very efficient.

Ho_2: Risk transfer options have no significant effects on project success among building construction firms in Lagos State.

Table 4.2: Simple Regression Results for risk transfer options vs project success

Table 6. Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	. 694[a]	.482	.298	4.58462	.482	2.698	1	86	.017

a. Predictors: (Constant), Risk transfer options

ANOVA[a]

Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	56.700	1	56.700	2.698	.017[b]

	Residual	3047.722	86	21.019		
	Total	3104.422	87			

a. Dependent Variable: Project success

b. Predictors: (Constant), Risk transfer options

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	95.0% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	26.808	1.925		13.926	.000	23.003	30.612
	Risk transfer options	.449	.152	.135	1.642	.017	.549	.051

a. Dependent Variable: Project success

Source: *Researchers' Computation, 2023*

From the results of the regression analysis presented above, it is clear that there is positive relationship between risk transfer options and project success. The model also shows the variations experienced by the dependent variable that could be explained by the independent variable (R square) which shows that risk transfer options are responsible for about 48.2 percent of variance in project success. This means that 51.8 percent of the project success enjoyed among building construction firms in Lagos State comes from other factors other than the predictor used in this model (risk transfer options). The generalisation of the results (Adjusted R square) indicates that true 29.8 percent of the variation in project success is explained by risk transfer options (workmen's' compensation insurance, contractors' all risk insurance, group life insurance, and builders' liability insurance). This result is almost close to reality as the difference between R Square and Adjusted R Square is not high. The standard error fit, which is a measure of the precision of the model, shows how wrong the statistical outcomes could be at 5% if one uses this model to make real life predictions. The above result is statistically insignificant as seen in the ANOVA table (p-value = -0.017) as they are greater than the 0.05 confidence interval used in this study. A value greater than 1 show that F-ratio yield an efficient model but 2.698 F-ratio indicates that this model is not very efficient.

4.5. Discussion of Findings

From the empirical analyses and the tests of hypotheses, this study confirmed the relationship between risk financing options and projectt success among building construction companies in Lagos State, Nigeria; with respect to the research objectives and research questions raised.

The result shows that risk retention options have positive and low relationship with the project success among build construction firms in Lagos State, Nigeria, thereby invalidating the null hypothesis and validating the alternate hypothesis at (p = 0.000). This result is supported by previous studies (such as Aduloju & Akindipe, 2022, Aduloju & Oluwaleye, 2023; Bahamid & Doh, 2017). However, the positive correlation and statistically significant relationship explained the nexus that subsist between the various metrics of risk retentive capacities and project success of building construction companies in Lagos State, Nigeria.
The result shows that risk transfer options have positive relationship with the project success among build construction firms in Lagos State, Nigeria, thereby invalidating the null hypothesis and validating the alternate hypothesis at (p = 0.000). This result is supported by previous studies (such as Al-Kasasbeh et al., 2021; Okolie, et al., 2017; Oyemogum et al., 2020). However, the positive correlation and statistically significant relationship explained

the nexus that subsist between the various metrics of risk transfer options and project success of building construction companies in Lagos State, Nigeria.

5.0. Conclusion and Recommendations

From the empirical analyses conducted and the test of hypotheses, this study has been able to address the research objectives. The results show that risk retention options have positively low relationship and on the project success among building construction companies in Lagos, Nigeria, leading to the rejection of all null hypotheses at 0.05 level of significance. The finding further shows that risk transfer options play a positive and significant moderating effect of project success project success among building construction companies in Lagos, Nigeria. The responses of the respondents largely proved that cost effective implementation of risk financing options is required to enhance the capacity of building construction companies to be able to address certain projects successfully.

Based on the justification adduced to in this study, the researchers recommended that building construction firms should try to shift their desired project management to managing the thrust of risk off to the insurance providers for adequate business, economic and financial security. However, enlightenment programmes should be carried out among building construction firms, in collaboration with other stakeholders (such as government, insurers, builders' association, communities' headship, etc.), to enable them to be aware of need to purchase more of insurance policies, by way of risk transfer. More risk retentive capacities should be built by building contractors in a bid to handle small proportions of their risks possibly by creating a risk management department. Government should also be dutiful in their regulatory oversight of monitoring the compulsory purchase of builders' liability insurance and thus, ensure that buildings under construction are covered for under a contractor's all-risk insurance policy. Insurance companies are also advised to make out ways to design group life insurance suitable for on-site workers and make attractive to building construction firms. Conclusively, on-site workers should ensure that adequate insurance policies are in place to secure their possible bodily injury or disability cases before embarking on signing any contractual agreement with building contractors.

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PERCEPTIONS ON ORGANIZATION CULTURE AND EMPLOYEE RETENTION AMONG STAFF OF COMMERCIAL BANKS IN ADO-EKITI METROPOLIS, EKITI STATE, NIGERIA

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ABSTRACT

This study sought to find out the effects of organization culture on employee retention among banks in Ado-Ekiti, Ekiti state, Nigeria. This research adopted qualitative descriptive research design with use of face to face interview with participants. The population of the study consists of all bank employees in Ado-Ekiti metropolis; with target participant of twenty (20) staff from four different banks in Ado-Ekiti Metropolis, however, only six (6) were available for interview. Convenience sampling method was used to select the participants, with the sampling size of the study being four (4) staff of banks. Data was collected using structured interviews question recordings and analysed using thematic analysis. The study found out that organization beliefs, organization norms, organization value had significant effect on employee retention and towards helping employees achieve organizational goals and objectives. The study thus concludes that organization norms promote the retention of employees.

Key words: Organisational culture, beliefs, norms, values, employee retention

1.0 INTRODUCTION

Organizational culture is one of the major issues in academic research and education, in organization theory as well as in management practice. There are good reasons for this: the cultural dimension is central in all aspects of organizational life. Even in those organizations where cultural issues receive little explicit attention, how people in a company think, feel, value and act are guided by ideas, meanings and beliefs of a cultural (socially shared) nature. Whether managers think that culture is too soft or too complicated to bother about or whether there is no unique corporate culture does not reduce the significance of culture. Organizational culture is conceptualized as shared beliefs and values within the organization (Alvesson, 2002).

The organizational culture is outlined in Schein (1990) as overall phenomenon of the organization such as natural settings, the rite and rituals, climate, values and programmes of the company e.g. performance management, training and development, recruitment and selection, etc. According to Martins and Terblanche (2003), culture is deeply associated with values and beliefs shared by personnel in an organization. Organizational culture relates the employees to Organization's values, norms, stories, beliefs and principles and incorporates these assumptions into them as activity and behavioural set of standards. Klein, (1996) positioned organizational culture as the core of organization's activities which has aggregate impact on its overall effectiveness and the quality of its product and services. Schein (2004) defined organizational culture as a dynamic force within the organization which is revolving,

engaging and interactive and it is shaped up by the employees and management gestures, behaviours and attitudes. Organizational culture is the basic pattern of shared assumptions, values and beliefs considered to be the correct way of thinking about and acting on problems and opportunities facing the organization. It is what is important and unimportant in the organization.

According to Griffeth and Hom (2001), retention refers to measures organisations take to encourage employees remain in their organisation for the maximum period of time. To them, highly skilled employees contribute a great deal towards the success of an organisation and hence organisations face lots of consequences when such key employees quit. Employee retention is also defined by Hom (2005) as a process in which employees are encouraged to remain loyal and stay with their organisations for the maximum period of time or until the completion of a particular project. Understandably, the retention and further development of highly skilled employees is often the priority in terms of an organisation's retention strategy (Dibble 1999). Dibble (1999) suggests "If you think that it is hard to retain your employees now, be aware that in the future it will be worse". Therefore, such organisations may focus not only on high achievers at the present time, but also on those with the potential of becoming high achievers in the future. High potential employees are defined as those who are recognised by senior management as persons with the potential to fill executive functions within the organisation (Dries & Pepermans, 2008).

Previous studies of organization culture on employee retention mention that out of the four pillars/kinds of culture, achievement culture and support culture had significant and positive effects on retention whilst power culture had a significant and negative effects on retention. Role culture had no significant effect on employee retention (Brenyah & Tetteh, 2019). According to Okonkwo, Osita, Olisaemeka, and Chigbo (2019) study on the effects of organisation culture on job satisfaction and workers retention and it was found out that there was a significant positive relationship between innovation and risk-taking and job satisfaction in the banks under study. The study also revealed that attention to detail positively influences job satisfaction in commercial banks in Anambra state. The study further revealed that team orientation culture positively influences job satisfaction among employees of the banks under study, and that there is a significant positive relationship between organizational culture (union representation, co-worker social support, incentive programme) and workers retention in the banking sector. Most research works have been looking into organisation culture on employee retention but only few or limited study has been carried out in a developing or undeveloped state like Ekiti state and a target respondents like banks within Ado Metropolis, most researchers base their works in a developed economy. That is why the researcher intends to investigate the impact of organisation culture on employee retention among banks in Ado Metropolis in Ekiti state.

2.0 LITERATURE REVIEW

Organization Culture

Organisational culture provides the fundamental values, beliefs and principles that serve as underpinning for any organisational practices and procedures. organisational culture is defined as a pattern of basic assumptions, invented, discovered or developed by a given group as it learns to cope with its problems of external adaptation and internal integration that have worked well enough to be considered valid and therefore is to be taught to new members as the correct way to perceive, think and feel in relation to those problems (Megginson, Mosley

& Petri, 2006 Schein, 2001). Organizational culture can be described as the core value that defines corporate practices and behavioural pattern. It is a major factor that influences organizational decisions and actions. It represents the sum total of the assumptions, values, norms, symbols, technologies and behaviours of the organizational members (Alvi, Hanif, Adi, & Ahmed, 2014).

A study by Aldhuwaihi (2013) citing Quinn and Cameron (2011) reported that organisational culture has a strong relationship with the organisations values, mission, aims, goals and ways of building shared values. Similarly, organisational culture implies a system of intangible and indisputable beliefs that justify how organisational members conduct themselves. Also, Mateiu, Puiu and Puiu, (2013) pointed out that the organisational culture in any organisation is formed through the process of interactions among specific elements, such as organisation's founder, selection criteria, top management and socialization. Organizational culture is conceptualized as shared beliefs and values within the organization that helps to shape the behavior patterns of employees (Kotter & Heskett, 1992). The organizational culture is outlined in Schein (1990) as overall phenomenon of the organization such as natural settings, the rite and rituals, climate, values and programmes of the company e.g. performance management, training and development, recruitment and selection, etc. According to Martins and Terblanche (2003), culture is deeply associated with values and beliefs shared by personnel in an organization. Organizational culture relates the employees to Organization's values, norms, stories, beliefs and principles and incorporates these assumptions into them as activity and behavioural set of standards. Schein (2004) defined organizational culture as a dynamic force within the organization which is revolving, engaging and interactive and it is shaped up by the employees and management gestures, behaviours and attitudes.

Norms

A norm is more like a field of force that makes the members of the community tend to behave or think in a certain way. The term norms, according to Sathe (1983), was sometimes used interchangeably with the term values, but there was an Important distinction. Norms were more tactical and procedural than values. Norms were standards of expected behavior, speech, and presentation of self. In producing specific behavior, norms were often interrelated with or reflected a particular value or set of values (Shull & Beque, 1964). Behaviors reaffirmed corporate values and were considered actual translations of those values (Ernest, 1985). Corporate norms were produced by leaders and founders (Ernest, 1985), and had powerful influence over the behaviour of Individuals and the organization as a whole (Schwartz & Davis, 1981; Ernest, 1985; Sllverzwelg & Allen, 1976; Shull & Beque, 1964). Norms functioned In a multi-dlmenslonal way to influence membership behavior (Shull & Beque, 1964). This Influence was accomplished through guilt, ego, a need for soemotional reinforcement, and formalized rewards and punishment. Various norms which affected behavior in business settings Included dress codes, reward systems, how hard employees worked, how employees interacted with one another, and how success was measured (Shull & Beque, 1964). In other words, norms were evidenced by observable behavior (Schwartz & Davis, 1981; Ernest, 1985).

Values

Values have been defined in various ways by psychological and philosophical sources. Values represented eternal or universal truths (Nelson, 1973), instincts (Freud, 1961), needs (Maslow, 1954, Fromm, 1947), or preferences (Rescher, 1969). Sociologists and anthropologists tended to define values as standards or rules of society (Kniker, 1977). Values, according to Sathe (1983), represented a principal type of shared understanding in a culture. Values were basic assumptions with an ought to implicit in them. Values represented preferences for an ultimate result—such as striving to be number one, or avoiding debt at all costs. Deal and Kennedy (1982.) believed that values were the "bedrock" of any corporate culture. Functionally, values created a set of expected rules of behavior for employees (Davis, 1971; Donnelly, 1984) which served to hold an organization together (Kilmann, 1984; Donnelly, 1984). Values tended to give members a sense of identity (Smircich, 1983) and kept everyone pulling toward a common goal (Uttal, 1983; Smircich, 1983; Deal & Kennedy, 1982). Values created corporate culture, therefore, clear values were not apparent in weak cultures (Deal & Kennedy, 1982). For those who held them, shared values were the definition of the fundamental character of their organization (Deal & Kennedy, 1982). Schein (1985) stated that values provided the day-to-day operating principles by which employees guided their behavior. Scheln (1985) reported that to understand culture one must have identified values, for values were manifestations of culture. Understanding corporate values was seen as important to executives in making decisions (Deal & Kennedy, 1982), hiring and training new employees (Pascale, 1984; Uttal, 1983), determining strategy (Donnelly, 1984), and making promotions (Deal & Kennedy, 1982).

Belief

Every organization has operating manuals, procedure manuals, protocol and there's also a set of beliefs that drives every company. And these beliefs have much, much more influence over its success than any written manual. You can find them by asking employees to describe their company culture or operations, or their day-to-day experience at their job (maybe after a little truth serum in some cases). The beliefs that make up the invisible manual are how people describe what it's like to work someplace, statements about how things have historically been done, or representations of the message people have gotten about what's truly valued within an organization. They aren't necessarily true, they're just practiced. Beliefs can shape reality. Organizational beliefs can shape corporate behavior and performance. Donaldson and Lorsch (1983) in their extensive study of top management decisions, stated that 'beliefs and corporate strategy are closely intertwined - at times almost indistinguishably so.' Until 1995, for example, Microsoft and Sun held nearly opposite beliefs regarding the future of computing, which led them to very different strategic choices. Such beliefs are often determined by the vision of the CEO or founder

Employee Retention

According to Sultana and Begum (2013), employee retention is an effort by a business to maintain a working environment which supports current staff in remaining with the company. Many employee retention policies are aimed at addressing the various needs of employees to enhance their job satisfaction and reduce the substantial costs involved in hiring and training new staff. It is a process in which the employees are encouraged to remain with the organization for the maximum period of time or until the completion of the project. Retention Strategies helps organizations provide effective employee communication to improve commitment and enhance workforce support for key corporate initiative. The big business challenge is to align your goals with the growing demand for a balanced organizational

climate that meets basic human needs and where work is synonymous with personal fulfillment and fulfillment (Teixeira & França, 2013). In this sense, managers are increasingly convinced that attracting and retaining good employees goes far beyond paying the best salaries in the market. It is imperative to understand the factors that lead people to stay in a job, since all business action requires financial and human resources, and the latter act better when motivated. Thus, implementing an effective employee retention strategy helps the company to ensure better performance by properly utilizing employee capital.

3.0 RESEARCH METHODOLOGY

3.1 Research Design

This study made use of the qualitative descriptive research design because it provides accurate estimation of the association between organisation culture and employee retention among banks in Ado-Ekiti, Metropolis, Ekiti State, Nigeria. A qualitative, exploratory, descriptive and contextual design was followed using the phenomenological method to explore the experiences of exployees in the banking environment (Streubert & Carpenter 1999 Qualitative research emphasizes the dynamic, holistic and individual aspects of the human experience, and attempts to capture those experiences in their entirety, within the context of those experiencing them (Polit & Beck 2004; Streubert & Carpenter 1999).

Interview Participants

The researcher chose to follow a qualitative research process to explore the experiences of bank employees with the organisational culture and to what extent it influences employee retention. Through this approach, it was possible for the researcher to deeply engage and interact with bank employees through phenomenological interviews, and rich data was generated on the experiences of the bank employees with organisational culture. This work will be carried out in Ado-Ekiti, Ekiti state, Nigeria. The participants consent to be interviewed were obtained through signing consent forms and this served as a further measure to build trust in the researcher. The researcher also explained the consequences of the study with the participants as well as the dissemination of the findings. Furthermore, since the participants were conveniently sampled this method allowed the researcher to select participants that are typical of the population under investigation and also allowed for the in depth study of those participant, base on the objective of the study (Terre Blanche et al. 2006).

The Interview Guide

The researcher developed an interview guide by using certain predetermined question (or keys) to guide the interview. These questions were asked in an open ended way. The question were sifted according to their relevance to the purpose of the study and what question the researcher targeted as the appropriate final question. This was important as according to Wilkinson and Birmingham (2003), the researcher need to prepare a list of questions to be covered so that important issues are not overlooked and the interview follows a logical progression. According to Wilkinson and Birmingham (2003), there are three models of interview, namely; the unstructured interview, semi structured interview, and the structured interview.

Behavioural Norms

To explore the perception of behavioral Norma among staffs of the selected banks.

What do you understand by behavioural Norms?

1. Tell me about how the behavioral Norms of this bank affect the staff retention.
2. What are the things that involves in behavioral Norma?

Organization Value

To examine how organization value affects the employee turnover intention among banks.

What do you understand by organization value?

1. How does organization value affect you as a staff.
2. What can you do to adapt to and achieve the organization value

Organization Belief

To investigate whether organization belief have any relative impact on employees retention.

What do you understand by organization belief?

1. Does organization belief have any influence on employee retention?
2. How does organization belief have impact on staff retention?

Method of Data Analysis

Cresswell (2003), defines the process of data analysis as involving making some out of the text an image data. Data analysis methods used with qualitative research should be able to explore the true essence of the phenomenon under investigation as explained by the participants. The emphasis is this on language and the meaning, understanding and experience of phenomena in context, hence. Visser (2007), states that methods that use "word as data to understand people's interpretation of experience should be employed. Thematic analysis was therefore adopted for this study. Thematic analysis is a method used to identify and analyse emerging themes which are initially embedded in the gathered information and recognizes that a specific theoretical framework carries a number of assumptions about the nature of the gathered information and can therefore not be ignored (Braun & Clarke, 2006). The themes and sub-themes that relate together were categorized and a demographics table was developed. The discussion included detailed themes and sub-themes, specific illustrations, multiple perceptive from individual participants and the questions, finally data was interpreted and presented according to themes and sub-themes in order to give meaning to the participants' responses.

RESULTS AND DISCUSSION

4.1 Demographic Distribution

Introduction of respondents were done without the inclusion of their name to keep the code of confidentiality and enable them to express their mind without having fear of compromise, academic qualifications, position held, years of working experience and others were all analysed in a tabular form below:

Introduction without name	Academic qualifications	Position held in Bank	Years of working	Position given as at the time of employment
Bank staff A	B.Sc in Accounting	Card centre supervisor	Over 10 years	Marketer
Bank staff B	HND	Customer service operation	Over 10 years	Customer service officer
Bank staff C	B. Sc	Head of operation	Over 10 years	Operations manager
Bank staff D	B. Sc in Accounting	Customer service operation	8 years and above	Teller
Bank staff E	B. Sc in Accounting	Branch service manager (BSM)	10 years above	Marketer

Source: Survey Data 2022

4.2 Identification of Themes and Sub-themes

The four themes are presented here in this section include (1) perception of organizational beliefs, (2) perception of organization value, (3) perception of organization norms (4) perception on employee retention, (5) perception on effect of organization culture on employee retention. These themes describe the different aspects of the employees view and experience in banking firms.

4.2.1 Theme 1: Perception of organization beliefs

Questions focused the respondents perception of the organization beliefs in banking firms and their views of what keeps them retained in the organization. The respondents expressed their thoughts about the banking organization beliefs on how they have been treated by the firm. The respondents' comments or replies on the asked questions were given on how they feel they have been treated by the firm since their engagement.

Question 1: Since you have been working in this organization does the top management communicate a clear philosophy (goals and objectives) for this organization.

Bank staff (A): Yes.
Bank staff (B): Sure.
Bank staff (C): Yes, they do.
Bank staff (D): yes
Bank staff (E): yes of course, that's our drives and way navigator.

Question 2: Do you take pleasure in what you do and is there team work even when you are in a different department.

Bank staff(A): yes of course, I really enjoy it. There is a team bond work in this financial firm (if we have something to do and am a bit less busy in my department I can join them in doing the work no matter the position held, because we are all working towards same goal).
Bank staff (D): yes of course and the team work is superb irrespective of department.

Bank staff (E): yes, in this bank the team work is what you can't get in another place because we see ourselves as family working for the same goals and as family there is meant to be unity. There is a strong team work here and it's always encouraging.

Question 3: The belief that the organization is more important than any of the people who work here, how is it being treated?

Bank staff (A): Yes, the goal of an organization supersede the individual goals. We have different drives, your own drive might be different from my own. Organization are established to face a challenge and conquer the challenge but some people are not like that because they are usually lost in the way of not getting to the final destination but goals set by the organization is constructed to be achieved at all cost.
Bank staff (D): well, it's treated the way it's suppose to be. The organization is more superior to anyone goals.
Bank staff: yeah, it's being treated right. In this place we ourselves as family and we believe the organization objective is why the family is holding. So, we strive to achieve the bank goals before ours.

Question 4: Do people in this organization always on lookout for ways to do better things?

Bank staff (A): Sure, the best way is to go the way it's has been decided, if you deviate and you are caught in the web, then you are in problem.
Bank staff (B): Sure.
Bank staff (C): Yes.
Bank staff (D): yes of course.
Bank staff (E): Yes of course, I answer this in a previous question you ask. We are always looking for a way to improve the firm goals and also our own personal improvement but the bank comes first.

Question 5: Do people feel personally responsible for job quality?

Bank staff (A): Sure, there is this thing you do in a job, only a person can not start up a job and end it singlehandedly.
Bank staff (D): Yes.
Bank staff (E): well for us here we appreciate every job quality done by individual staff and by doing that they feel appreciated and ready to do more

4.2.2 Theme 2: Perception of organization value

Questions focused the respondents' perception of the aspect of the organization value that will impact on employee retention. The respondents expressed their thoughts about what they perceive will be important to organization growth and their own retention.

Question 1: Do you accept and achieve goals set by the top management even when outsiders might consider them unrealistic.

Bank staff (A): Yes, working for an organization depends on individual attitude. Your push factors determine how you reach the target goals.
Bank staff (B): Yes.
Bank staff (C): Yes.
Bank staff (D): Yes.
Bank staff (E): Yes

Question 2: In your experience on the job, does your organization provides for staff training and development to prepare them for future responsibilities.

Bank staff (A): Sure, the organization embarks on training and re-training of staffs on the job.
Bank staff (D): yes, the bank does training on the job to everyone here that is staff.
Bank staff (E): Yes, the bank engage in staff improvement policy because the more improve the staff the more quicker way to achieve set objectives and goals.

Question 3: How are you guided in your actions by the organization philosophy (goals, vision and mission).

Bank staff (A): Before an institution writes out it's goals, vision and mission statement, they put into consideration what and what the business is all about. The institution makes sure that before the start of work for the day, the vision and mission statement are read to further remind them if the sets goals and objectives.
Bank staff (C):Yes.
Bank staff (D): well, it's always there on the wall to be read and re-read to focus your attention on what will make it achievable only.
Bank staff (E): Just like have been saying before, there is a statement on what the bank goals, vision, and mission are, the daily intake of those statements guide our mindset and operation to achieving them only.

Question 4: Does the organization See's you as a valuable resources and how much does it contribute to your self development and goals.

Bank staff (A): The bank possess a developmental goals for every individual staffs, it's left for each staffs to now developed themselves base on the set development program.
Bank staff (D): yes of course, it's has contributed so much my own personal goals and I believe that the same for everyone here.
Bank staff (E): Yes, the organization knows so well that without human contribution and dedication to work, those set target are just words with no action backing it. The bank has contributed immensely to the growth of every staff here, not everyone can say they are the same since they joined.

Question 5: Do your colleague share information freely to achieve common goals?

Bank staff (A): Yes, if you have the like-minded staffs then there is nothing bad sharing information that may improved the steps to achieving organization goals.
Bank staff (D): yes.
Bank staff (E): yes

Question 6: Do your colleague knows they are respected and valued by the organization?

Bank staff (A): Yes, because the organization shows that on a daily basis that it's staffs are important and they are valued.
Bank staff (D): yes
Bank staff (E): Yes, We are the bank first customer so when we are happy and appreciated the banks get it back from our behaviour to work which is to positively influence the goals and objectives of the firm rightly.

Question 7: Do people believe managers are expected to have the technical expertise needed to deal with problems?

Bank staff (A): Sure, being a manager or supervisor in any level, all solutions to problems lies on you are held responsible for every success and failure of the team.
Bank staff (C): Yes.
Bank staff (D): Yes
Bank staff (E): That one of the main reason you are put in charge not just to seat all day.

Question 8: Do the organization value quality as one of the necessary aspects to achieving any goals.

Bank staff (A): Yes, this organization value job quality as one of the necessary aspects of achieving any goals.
Bank staff (D): Yes, it's the only way to attract customers and get to set goals faster.
Bank staff (E): Yes of course, that what draws your customer nearer to you.

Question 9: Do people feel committed in the growth of the organization.

Bank staff (A): Yes, they fell committed in the growth of the organization because they see the impact of the growth in their lives positively.
Bank staff (D): Yes, very committed.
Bank staff (E): Yes, that one of the main reason we are here as one family.

Question 10: Do people see financial measures (profit/surplus, returns on investment etc.) as very important.

Bank staff (A): Yes, it's important to note that at every branch, if you are not making profit then you are not improving, you need to make profit for the firm through the guiding stated by the firm.
Bank staff (D): Yes.
Bank staff (E): yes

4.2.3 Theme 3: Perception on organization norms

Questions focused the respondents' perception of their expectations on organization norms and how it can be improved in these employee retention. The respondents expressed their

thoughts about what they Perceived, what aspect of organization norms will be important to employee retention.

Question 1: Do you abide in the code of ethics employed by your organization?

Bank staff (A): Yes, every staff is to abide by the code of ethics especially the code of confidentiality.
Bank staff (C): Yes
Bank staff (D): yes
Bank staff (E): Yes

Question 2: Is there a clear understanding of the written rules of work ethics.

Bank staff (A): Yeah, there is written rules. Individual have a job functions to be delivered.
Bank staff (B): Yes
Bank staff (D): Yes
Bank staff (E): Yes.

Question 3: What can you say about your working conditions here; are you provided with the needed tools and equipment.

Bank staff (A): Sure, as the banks employ you, it's written in the offer letter the equipment you are provided with for work.
Bank staff (B): Yes.
Bank staff (C): Well, as a manager, you don't expect to be given everything as you need them but as a manager you are expected to manage what you are given.
Bank staff (D): Yes of course.
Bank staff (E): Yes, infact that has been one of the motivation to come to work every day

Question 4: How does the bank deal with a lagging staff or not improving staff?

Bank staff (A): since you are being prepare to run, you run and if you can't run, you walk but if
you can't do both then you face the consequences. Your attitude to work feels how the organization treat you.
Bank staff (C): You give the person series of queries and warning and if there is no improvement, then sacked.
Bank staff (D): the right way
Bank Staff (E): well, queries upon queries and if not changing or improving sacking comes in.

4.2.4 Theme 4: Perception on employee retention

Question focused the respondents' perception of the aspect of the employee retention and how it can improve the achievement of organization goals and objectives. The employees expressed their thoughts on what could influence them to work faster and feel motivated to perform their daily duty.

Question 1: What do you look forward to when you come to work each day.

Bank staff (B): I just meet customer needs and try my best to satisfy them.
Bank staff (C): I look forward given my best the way I can at work.
Bank staff: achieving banks and personal goals
Bank staff: to be outstanding among my fellow managers.

Question 2: what do you like the most or least about working here.

Bank staff (B): Customer service, I love working there and interacting with customers.
Bank staff (C): The position I am in this bank made me love my job, seating with system inputting data entry and verification.
Bank staff (D): everything.
Bank staff (E): everything about working here is superb.

Question 3: If you could change something about your job, what would that be?

Bank staff (C): maybe, I will like to say if working remotely is possible for my job.
Bank staff (D): if I can get more pay, I think I will be fine.

Question 4: How would you make your job more satisfying to customer?

Bank staff (B): just try my best for them, and I find it more comfortable and lively cos the ability to meet customer needs gives me joy

Question 5: What can tempt you to leave the bank?

Bank staff (B): it's about money stuffs, if I can get a better offer.

SUMMARY, CONCLUSION AND RECOMMENDATIONS

5.1 Summary

An overview of the research proposal appears in chapter one in which a brief summary of the research question and statement of the problem were provided. The research methodology was discussed and a plan was set out to implement this study. This plan included the qualitative research approach and the use of structured individual interviews as a method of data collection, followed by the literature in chapter two. In the third chapter of this study, the research methodology that was applied was discussed in depth. The choice of research design was discussed and the rationale was provided. The various steps that the researchers carried out during the research process were set out. The preparation of the participants, the data collection, the data analysis and data verification process were describe in significant details. The research provided a detail presentation and discussion of findings in the chapter four. The various themes and sub themes that were identified during the data analysis process were discussed. Relevant quite from the interview with the participants were used to provide

evidence of these findings. These findings were also compared and contrasted with those of previous research as reported in the relevant literature.

Conclusion

The participants viewed that organization beliefs is important to the bank development as it's guides their behaviour and procedures to achieve organizational goals and objectives. Six participants from six different banks all agreed that organization beliefs has been helpful in guiding the staff to what the firm wants, how it's want it and when it's needs it. It is concluded that organization beliefs was favourable to every staffs in the banks. The participants viewed that, organization value have great influence on employee retention. Most of the participants are of the view that organization value have great influence on employee retention. The participants' belief that organization value has helped them stay dedicated and focus in achieving the bank objectives one after the other. Thus, organization value among selected banks helped employee retention in the firm. The participants viewed that organization belief have norms have great influence on employee retention. Six participants are of the view that organization norms have great influence on employee retention. Thus, organization norms promote the interest of employees and also aid in restoring law and order in the bank environment.

Recommendations

The following recommendations are by no means comprehensive but should be seen as an attempt to be taken into consideration.

i. The behavioural norms of employees of banks should support and promote the good legacy of the institution.
ii. The bank management should endeavor to avoid any practice that can cause employee turnover.
iii. The institution belief should both be employee and task oriented and not task oriented alone so as to keep in retaining their staffs.
iv. The bank ritual and customs should not affect employees that are working in the institution.

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PERCEPTION OF ELECTRONIC BANKING (E-BANKING) ADOPTION ON BANKS' CUSTOMERS SATISFACTION IN OFFA METROPOLIS

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ABSTRACT

Adoption of new technology by banking industry has improved customer service level and tied customers closer to the bank. With the help of technology, Nigerian banks have been able to reduce the waiting time of customers to some extent. This study therefore examines perception of E-banking on customers' satisfaction in Offa metropolis. The study utilized cross-sectional research design. Purposive sampling technique was adopted as questionnaires were purposively administered to customers using E-banking platforms in Offa Metropolis. It was difficult for researchers to determine the actual number of banks' customers that are using E-banking. Therefore, the population of this study is considered to be infinite. The study used Rose, Spinks and Canhoto (2015) formula for an infinite population to arrive at the sample size. Structural Equation Model (SmartPLS2software) was used as technique of data analysis. The result revealed that, both perceived usefulness of E-banking and perceived ease of E-banking have significant impact on customer satisfaction. While perceived trust has insignificant impact on customer satisfaction. The study concluded that, perception of E-banking adoption have significant impact on the level of banks' customers satisfaction in Offa metropolis. Various recommendations were proffered in line with the findings.

Keywords: E-banking, perceived ease, perceived usefulness, perceived trust, customers' satisfaction

1.1 INTRODUCTION

Business organizations, most especially service-oriented organization are operating in highly competitive environment and they have acknowledged the fact that customers can make or mar their success. This has compelled organizations tailored their attention towards meeting the expectations of customers. In fact, business processes are integrated in such a way as to make customers satisfied. Customer satisfaction indicates the fulfillment that customers

derived from doing businesses with a firm. Businesses with very high number of satisfied customers tend to perform better than those with very little number of satisfied customers. Customer satisfaction is the result of the correlation between a customer's assumptions and a customer's feelings (Mustapha & Samuel, 2017). Many organizations are aiming for high satisfaction because customers who are averagely satisfied still find it easy to switch when a better offer comes along, while those who are highly satisfied are much less ready to switch (David, 2010). High satisfaction or delight creates an emotional attraction with the brand and not just a rational preference. The result is high loyalty which in turn results to high profitability for the organization. Customer satisfaction must be taken so seriously by organizations because profits are tied to it. It is important organizations enjoy higher levels of customer satisfaction as it may lead organizations to higher levels of customer loyalty.

The banking industry believes that by adopting new technology, the banks will be able to improve customer service level and tie their customers closer to the bank. It is evident that Nigerian banks have benefited from global technology innovation like the mobile banking, safe token, automated teller machine(ATM), amongst others and the introduction of such technologies have affected employee performance and customers responses. With the help of technology, Nigerian banks have been able to reduce the waiting time of customers to some extent (Oluwagbemi, Abah & Achimugu, 2011). These improvements in improved service delivery and on-time response to customers have been well documented (Dauda & Akingbade, 2011). Thus, banks that want to survive, grow and remain relevant must offer efficient services through the aid of technology.

The rise of information communication technology has radically transformed the world economy. There have been tremendous changes in the banking industry over the years and customers have also rightly demanded world class quality services from the banks. E-banking benefits both, the customer and the banks. It has also helped banks to reduce their operational expenses of maintaining employees and physical facilities (Sardana & Bajpai, 2020). Customers on daily basis always quest for the best services from their banks, and are in most cases not willing to put up with anything less than the best. Therefore, if banks are to obtain the benefits of investing in technology, an identification of how the technology is perceived useful, trustworthy and ease of use by the customer is crucial.

Mobile banking application which is one of the many technologies (E-banking) that have been introduced by banks in recent time is the major focus of this study. This mobile application is downloadable in nature on smart phones and gives a customer optimal protection against online theft, hackers and fraudsters as account users are given opportunity to access their accounts and make transaction on their mobile phone via internet connection. This application made provision for users to have their unique username and password before users can login and make any transaction (Pakojwar & Uke, 2014). Thus, this study therefore examines the perception of E-banking on the level of customers' satisfaction of deposit money banks with special reference to banks customers in Offa metropolis.

1.2 Statement of the Problem

Despite the usefulness of E-banking (Mobile Banking) most especially in the area of reducing long and uncomfortable queues in the banking halls, there are still series of untold hardship its adoption is inflicting on users such as debiting customer's account without the success of

such transaction. In some cases, transaction will displayed successful but the beneficiary account will not be credited. Although, banks gave poor internet connection as their excuses. This raises concerns as to whether these platform is achieving the objectives it is meant to achieve (efficient service delivery among others).

Banking institutions all over the world have recognized the importance of customer satisfaction and developing and maintaining enduring relationships with their customers as crucial to increased business performance. At the same time, several banking institutions are experiencing high level of customer dissatisfaction (KPMG report, 2016). This dissatisfaction could be because of variety of reasons, which technology is one of them (Mandel & Bhattacharya, 2013). According to a KPMG survey in October, 2016, an average of 66% of banking customers in Africa are not satisfied. The survey stressed further that, bank customers in Africa are looking for more secured service from their banks, as they are increasingly willing to switch banks if they feel they can get better service elsewhere. In October 2016, more than two-thirds of Nigerian bank customers admit to have never used internet banking, that customers still seek enhanced high-quality and more secured service and more innovation (KPMG report, 2016).

Varieties of technologies have been adopted by Nigerian banks so as to increase the speed and accuracy of transactions by customers. One of these technologies is the mobile banking. Thus, the mobile banking application is invariably adopted by banks so as to increase accuracy and speed of transactions performed by customers. It is against this background that this study seeks to examine the perception of E-banking adoption on customers' satisfaction in Offa metropolis.

1.3 Objectives of the Study

The main objective of this study is to examine the perception of E-banking adoption on customers' satisfaction in Offa metropolis. The specific objectives are to access the effect of perceived ease of use of E-banking on deposit money bank customer satisfaction; examine the effect of perceived usefulness of E-banking on deposit money bank customer satisfaction and to evaluate the effect of perceived trust of E-banking on deposit bank customer satisfaction.

2.0 Literature Review

2.1 Customer Satisfaction

According to Khraim, Al-Jabaly and Khraim (2014) customer satisfaction has become an everyday phrase for organisations that seek to create difference and operational excellence at whatever that it does. Customer satisfaction is a fundamental tool that is used by organizations particularly financial institutions for enhancing customer loyalty which ultimately translates to organizational profitability. Satisfaction is also defined by Khan (2013), as the feature or characteristics that contend the need or want of a consumer in a better way than the competitors. Kukoyi and Iwuagwu (2015) stressed that, satisfied customers will make a great profitable return for the business, and they may bring their business associates and friends. It is therefore, necessary to keep the customers satisfied.

2.1.1 Perceived Ease of Use of E-banking

Perceived ease of use is also seen as the process which can be instrumental to the utilization of technology and contribute to the individual by reducing transfer costs and improving work performance (Nasri & Zarai, 2014). Perceived ease of using a particular technology is the degree to which people believe that using a particular system would be relatively easy (Beldad, DeJong & Steehouder, 2010). Perceived ease of use is defined as the degree to which self-service banking transactions are regarded as easy to comprehend and operate (Rose & Fogarty, 2006).

2.1.2Perceived Usefulness of E-banking

Perceived usefulness is defined as the extent to which a person believes that using electronic banking will create value for them (Nasri & Zarai, 2014). Perceived usefulness according to Juniwati (2014) is defined as individual perception that using internet as shopping media will increase their shopping performance.

2.1.3 Perceived Trust of E-banking

Trust is seen by Trif (2013) from the customer's cognitive perspective as the willingness to rely on a service provider based on specific evidence of its reliable conduct. According to Utami (2015), trust arise as a result of earned credibility of the banks on the part of the customers that it has the desired expertise to perform a task.

2.2 Review of Empirical Studies

Li, Lu, Hou, Cui and Darbandi (2021) examined the factors influencing the satisfaction of customer with e-banking services. Four factors that can drive customer satisfaction towards e-banking are cloud services, security, e-learning, and service quality. This study has utilized the structural equation modeling method to evaluate the causal model with the measurement model's validity and reliability. The research model is analyzed based on the data which are collected from the questionnaires using SMART PLS 3.2. The results have shown that cloud services, security, e-learning, and service quality are four significant factors influencing customer satisfaction in using Internet banking services.

Khatoon, Zhengliang and Hussain (2020) investigated the relationship between the dimensions of electronic banking (E-banking) service quality and customer purchasing intentions with the mediating role of customer satisfaction. Data were collected from employees and customers, working in different banks of Qatar through a validated closed-ended questionnaire from a sample of 235. Correlation analysis and regression analysis were implied to the obtained data to test the study hypothesis, and the report provided accurate results as per our expectations. The results of the study indicate that reliability, efficiency, responsiveness, communication, security, and privacy have a significant and positive impact on customer purchasing intentions. Customer purchasing intentions are significantly increased when the customers are satisfied with E-banking service quality. The mediating role of customer satisfaction was established for E-banking service quality and customer purchase intentions. Customer satisfaction tested as a mediator has shown a partial impact on the relationship between information technology (IT), E-banking service quality, and customer purchasing intentions. The study has significantly contributed to the area of research primarily within the domain of behavioral finance. The study also provided significant implications for academicians and practitioners.

Bashir, Ali, Wai, Hossain and Rahaman (2020) explored the mediating role of the Customer perceived value (CPV) role between customer satisfaction (CS) and service quality (SQ) in the E- Banking sector of Bangladesh. A conceptual model is developed by using Theory of Planned Behaviour (TPB) to show the relationship between dependent and independent variables adopted from the existing literature. The data are collected from 323 e-banking customers taken from the four major cities of Bangladesh using structured questionnaire. Descriptive statistics including mean, standard deviation (SD), reliability, and correlation analysis are determined by using SPSS V23.0 where multi-group Confirmatory Factor Analysis method are applied by AMOS V23.0 to assess the effect of mediator variable . Results show that there is a positive relation between the SQ and CS. Similarly, SQ has positive relationship with CPV and CPV have significant positive relationship with CS. It is also found from the results that CPV partially mediate on the relationship between SQ and CS. The study concluded that, the relationships among service quality, customer satisfaction and customer perceived value helped the services sector especially banks to improve their service quality which leads to customer satisfaction thorough their perceived value.

Sharma, Singh and Singh (2020) measured the impact of E-banking service quality on customer satisfaction. Primary data method is used to collect data by using the interview method over 504 respondents. The random sampling technique has been taken up for the survey by keeping due care for the availability and easiness of the customers. The Multiple regression technique has been employed to measure the effect to service quality dimension on the customer satisfaction. The paper examines the relative strength of each dimension affecting customer satisfaction. It has been found that the overall regression model has been a reasonable fit and there is a statistically significant association between service quality dimension (Credibility, Understanding, Responsiveness, Tangibility, Security, Competence, Communication, Access, Reliability)and customer satisfaction.

Madavan and Vethirajan (2020) examined the customer satisfaction on the electronic banking services of public sector and private sector Banks in Puducherry Region. The sample size of the study is 478; the data is gathered from both the primary and secondary information. Non Probability sampling techniques are applied in this research article and particularly purposive sampling technique applied for the study. Some of the statistical tools like, independent sample t-test, ANOVA, correlation, Mean and Standard Deviation are used in this research article. The result of the study shows that customers of Public Sector Banks have lesser perception of the various dimensions of e-service quality compared with the private sector Banks. The study recommends that the wider use of IOT based applications in banking services will make better banking Sardana and Bajpai (2020) examined the determinants of e-banking service quality and their impact on customer satisfaction. Based on convenient sampling, the study used primary data of two private sector banks in Delhiregion to produce a 5-factor structure. The exploratory factor analysis produces dimensions of efficiency, trust, fulfillment, responsiveness and systems critical to e-service quality satisfaction. Regression results show trust and privacy as the most critical factor influencing e-banking service quality perceptions. Further, the study provides theoretical and managerial recommendations for increasing online banking adoption and improving overall customer satisfaction. Limitations and future scope of research are further discussed.

2.3 Theoretical Framework

The theory underpinning this study is the expectation confirmation theory, the structure of the theory was developed in a paper by Oliver (1980). It is a cognitive theory which seeks to explain post purchase and post adoption satisfaction as a function of expectations, perceived

performance and disconfirmation of beliefs. The expectation confirmation theory explains that consumers firstly form an expectation prior to adoption, and then build perceptions about the performance of the adopted technology after a period of initial use. Next consumers will decide on their level of satisfaction based on the extent to which their expectation is confirmed through comparing the actual performance of the technology against their initial expectation of the performance.

The theory assumes that positive confirmation will lead to customer satisfaction. Consequently, satisfied customers will form re-adoption intentions. Similarly, when customers have confirmed their expectation that a technology is useful, easy to use and trustworthy, they will be satisfied with the use. The theory relates the independent construct to the dependent construct in the sense that there is an expectation in the form of trust, ease of use and usefulness of a technology that must be in place prior to adoption. Consequently, if their expectations are met, they will form a re-adoption which indicates that customers are satisfied.

3.0 Methodology

The paper employed cross-sectional survey design. The researcher couldn't determine the actual number of bank customers that use mobile banking to perform their E-banking in Offa metropolis. Therefore, the population of this study is considered to be infinite. The study used Rose, Spinks and Canhoto (2015) formula for an infinite population to arrive at the sample size of 400. 20% was added to the minimum sample size (making 480) to take care of attrition. Data was collected through primary source as questionnaires were distributed to respondents. The study utilized Structural Equation Model to test each perception of E-banking (perceived usefulness, perceived ease to use and perceived trust) on customers' satisfaction (CS).

4.0 Results and Discussion

Table1: Path Coefficients

Hypothesis (Adj. $R^2$46.5)	B Value	Std. Error	T Statistic	P Value	Decision
Perceived Ease to Use>CS	0.710	0.226	3.142	0.049*	Rejected
Perceived Usefulness >CS	0.233	0.125	1.871	0.018*	Rejected
Perceived Trust>CS	0.062	0.0275	2.2572	0.054	Accepted

P value*< 0.05

From (Table 1) it has been shown that perceived ease of use of E-banking has significant effect on customer satisfaction, significant at (β=0.71, p<0.049). This result implies that, E-banking is perceived to be simple to operate by customers and it will influence the satisfaction of bank customers. A newly developed technology, will influence customer satisfaction where such technology is easy to use, and most especially enhance their banking transaction in terms of providing more security services to customers. This finding is in line

with that of Sharma, Singh and Singh (2020) that found the effect of technology adoption (E-banking) on customer satisfaction to be significant.

Similarly, perceived usefulness of E-banking has positive and significant effect on customer satisfaction at (β=0.233, p<0.018). This simply explained that, mobile applications developed by banks are perceived to be useful by customers which make customers satisfied. This is so because where customers feel a technology will ease their banking services, such technologies will enhance their satisfaction. This finding is similar with the result of study conducted by (Gitau & Nzuki, 2014).

Finally, perceived trust of E-banking has insignificant effect on customer satisfaction at (β=0.062, p>0.05). This shows that customers are skeptical on the safety of E-banking as series cases of hackers and internet fraudsters are reported on daily basis. This finding is consistence with that of Gulati and Kadyan (2015); Sikdar (*et. al*) (2015) that found trust as one of the major factor influencing the online adoption as security and privacy as the major concern areas of e-banking customers.

Adjusted R square is 46.5%, meaning that 46.5% variance in customer satisfaction is accounted for by for the set of variables considered for E-banking (perceived ease of use, perceived usefulness and perceived trust of E-banking.

5.0 Conclusion and Recommendations

The main intention of this study was to investigate the perception of E-banking adoption on customers' satisfaction when viewed from the deposit money bank customers' perspective. The study concluded that, perceived ease to use E-banking and perceived usefulness of E-banking significant and positive relationship with customer satisfaction. While, perceived trust of using E-banking has insignificant effect on customers' satisfaction.

Recommendations were proffered as follows; Banks should continuously design a user-friendly interface will be allowing consumers to feel free of mental effort when using E-banking; Banks should make E-banking more useful by adding numerous usable features and Banks should build trust with consumers by assuring them on the safety on using E-banking

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EFFECT OF MONETARY POLICY ON DEPOSIT LIABILITIES OF COMMERCIAL BANKS IN NIGERIA

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Effect of Monetary Policy on Deposit Liabilities of Commercial Banks in Nigeria

ABSTRACT

This study examined the effect of monetary policy on the financial performance of deposit money banks in Nigeria over a period of 19 years between 2000 and 2018. Specifically, the study established the effect of interest rate (INT) and cash reserve ratio (CRR) on the financial performance of deposit money banks. Secondary data were sourced from CBN statistical Bulletin. Being a time series data, the Autoregressive Distributed Lag Model (ARDL) regression technique was employed. The findings of the study indicated that interest rate and cash reserve ratio influenced the performance of banks in terms of their deposit liabilities. The study recommends that governments should ensure good and stable monetary policy in Nigeria such that deposit money banks' performance can be enhanced in Nigeria.

Keywords: Monetary Policy, Interest Rate, Cash Reserve Ratio (CRR), deposit money banks

1.0 INTRODUCTION

The development of a nation depends to a large extent on the soundness of the financial sector of which banking sub-sector is a key player. The banking sector serves as a channel for deposits mobilization and implementation of various monetary policies of the government which are introduced by the monetary authorities. As a stabilization policy, monetary policy involves the use of monetary instruments to regulate the volume, cost, availability and the direction of money and credit in an economy in order to achieve some specific macroeconomic objectives. According to Onouorah, Shaib, Oyathelemi and Friday (2011), monetary policy is described as a deliberate effort by the monetary authority to control the money supply volume and direction of credit in the economy with the aim of achieving certain economic objectives. Some of the macroeconomic objectives include price stability, full employment, sustainable economic growth, balance of payment equilibrium. Monetary policy determines the robustness of economic activities with its attendant effects on available financial resources and its management in the banking sector (Aurangzeb, 2012; Ibeabuchi, 2012; Ojo, 2013).

When inflationary pressure is experienced in the economy, the monetary authority is expected to implement contractionary monetary policy to stabilize the price level (Onyeiwu, 2012). This could be carried out by increasing the reserve ratio or selling short-term securities to the public especially the banks. The action would thereby reduce the volume of money available to commercial banks for the purpose of credit facilities. In the same vein, the pressure on prices is expected to be abated in the economy through a reduction in the volume of money in circulation. On the other hand, if the monetary authority aims at increasing the aggregate demand in the economy, the reserve ratio may be reduced and short-term securities-treasury bills would be bought by the monetary authority.

Commercial banks are profit oriented organisation that are expected to make profit in order to maximize the wealth of the owners that is, shareholders (Alper and Anber, 2011). Therefore, it becomes imperative for them to perform financially. The performance of these banks can be measured or assessed through various parameters such as loans and advances, interest income, return on assets to mention a few(Ongore and Kusa, 2013; Uchendu, 2010: Uwazie and Aina, 2015). There is no doubt that the performance of the banks depend to a large extent on the various monetary policies issued out by the monetary authorities (Enyioko, 2012). Hence, the monetary authority regulates the economy through the adoption of various monetary instruments as the situation demands. The extent of the effect of these policies on the performance of commercial banks in Nigeria is the crux of this study.

Different studies had used various parameters or proxies for performance of deposit money banks. These include; loans and advances, profit after tax, profit before tax, private sector credit, return of assets, return on equity, interest income, earnings per share (Akomolafe, Danladi, Babalola &Abah, 2015; Mbabazize, Turyareeba, Ainomugisha & Rumanz1, 2020: Osakwe, Okoye, George & Okeke, 2021). But this study made use of deposit liabilities as measure of performance which makes this study to stand out from the previous empirical works on this investigation.

The remaining part of this study is segregated as follow; section two presents the literature review, section three deals with the method of analysis while section four presents the results and discussion. The last part covers the conclusion and recommendations from the study.

2.0 LITERATURE REVIEW

Every nation strives to achieve economic objectives with the adoption of monetary policy. Onouorah *et al*, (2011) defined monetary policy as a set of rules and regulations imposed by the monetary authority on financial institutions especially banks in order to control the money supply and achieve economic growth (Imoisi, Olatunji and Ekpenyong, 2013). It is a deliberate effort to use changes in supply of money, cost, size and direction of credit to influence the economic activities with the aim of achieving macroeconomic objectives (Chigbu and Okonkwo, 2014). The instruments of monetary policy can be categorized into direct instruments and indirect instruments. Though there is an avalanche of instruments available for money and credit control, the instrument mix to be employed at any time depends on the goals to be achieved. Direct instruments of monetary policy are those measures that affect the bank financial institutions directly. The effectiveness of such instruments to a large extent hinges on the economic fortunes of the country (Aurangzeb, 2012; Satta, 2014). These instruments include: reserve requirement, special deposit, moral suasion, selective credit control, direct credit control and prudential guidelines.

On the other hand, indirect instruments of monetary policy which are also called market-based instruments include fiduciary or paper money issued by the Central Bank on the basis of computation of estimated demand for cash. The commonly used instruments are open market operation (OMO), lending by the central

banks, interest rate, exchange rate and rediscount rate. The macroeconomic objectives intended to be achieved with the monetary policy include, high level of employment, stable price level, maintaining sustainable economic growth rate as well as equilibrium of balance of payments (Onyemaechi, 2010). Cash reserve ration and interest rate were the proxies monetary policy as used in this study.

Financial performance gauged by profitability is considered in most business entities as the ultimate goal and all strategies geared to realize this ultimate objective (Ongore & Kusa, 2013). There have been a large number of empirical studies on commercial bank performance around the world (see Yeh, 1996; Webb, 2003; Lacewell, 2003; Halkos & Salamouris, 2004; Tarawneh, 2006). In most academic literatures, financial performance of banks has been measured by using individual indicator like return on assets (ROA) and return on equity (ROE) (see Kolapo et al. (2012), Warue (2013), Mensah and Adjei (2015). However, deposit liability of the banks is used in this study as performance measure.

Deposit liability of banks form the basis for the banks' operations. Where there are no deposit liabilities, banks cannot perform their functional activities let alone making profit. All measures of financial performance depend largely on the volume of deposit the banks can mobilize.

2.1 Empirical Review

Ekpung, Udude and Uwalaka, (2015) examined the effect of monetary policy on banking sector performance in Nigeria. The study covered 36 years period of 1970 to 2006. Ordinary least square (OLS) regression technique was adopted. Deposit liabilities were used to represent performance while exchange rate, deposit rate and minimum discounting rate were used as proxies for monetary policy. The result of the study indicated that monetary policy has a significant effect on banks' deposit liabilities. It was concluded that monetary policy to a large extent determines the level of banks deposit liabilities. It was thereby recommended that government should provide a conducive environment for banks to grow in Nigeria.

Akomolafe et al, 2014 investigated the impact of monetary policy on commercial banks' performance in Nigeria. In their analysis, interest rate and money supply were used as surrogate for monetary policy, while profit before tax was used as proxy for commercial banks' performance. Pooled regression, fixed effect and random effect were used in the analysis. Fixed effect regression was found to be the appropriate model with the aid of Hausman test. The result revealed that there is a positive relationship between banks' profit and monetary policy. The study recommended that interest rate should be worked on to make it attractive to the investors.

Jegede (2014) examined the effect of monetary policy on commercial bank lending in Nigeria between 1988 and 2008. Variables used include exchange rate, interest rate, liquidity ratio and money supply as independent variables while loans and advances was used as dependent variable. Error correction mechanism of ordinary least square was adopted. The findings of the study indicated that long run relationship existed among the variables in the model. While exchange rate and interest rate were found to be statistically influenced commercial bank loans and advances, liquidity ratio and money supply exerted negative relationship with commercial bank lending. The study concluded that monetary policy instruments were not effective to encourage commercial banks loans and advances in the long run. Indirect monetary instruments were thereby recommended by the study.

In the study of Afolabi, Adeyemi, Salawudeen and Fagbemi (2018), the relationship between monetary instruments and deposit money bank loan and advances was investigated. Data series sourced from Central Bank of Nigeria publications covering a period of thirty six years (1981-2016) were analyzed using Toda and Yamamoto non-causality model. It was found that structural changes in monetary policy affected loans and advances positively and significantly. It was also identified that monetary policy rate proved to be significant variable that causes deposit money bank loans and advances while other variables of monetary policy (broad money supply, liquidity ratio, inflation rate and cash reserve ratio) used in the study did not

granger cause bank loans and advances within the period covered. Hence, it was recommended that monetary authority should strive to achieve stable interest rate in order to attract investors.

Ayub and Seyed (2016) examined the relationship between monetary policy and bank lending behaviour of eight banks listed on Tehran Stock Exchange in Iran. Aggregate bank loans, bank size, capital structure data and growth rate of M2 were used. Vector error correction model (VECM) was used to analyze quarterly data from first quarter of 2007 to fourth quarter of 2014. The result of the study indicated that bidirectional causal link existed between M2 and bank lending behaviour. Bank capital structure was found to impact bank lending negatively.

Uwazie and Aina (2015) carried out a study to investigate the cause and effect of monetary policy on commercial bank credit in Nigeria between 198 and 2013. Linear relationship model was specified among the variables- bank credit, broad money supply (M2), monetary policy rate, liquidity ratio, inflation rate and exchange rate. The result of the study revealed that a causal effect existed between monetary policy and commercial bank credit in Nigeria. Money supply was found to be a significant parameter which caused bank credit.

Nguyen, Vu and Le (2017) studied the impact of monetary policy on the profits of commercial banks in Vietnam. Panel data regression of fixed effect model was adopted to analyze collected data of twenty commercial banks operating in Vietnam between 2007 and 2014. Data collected include monetary base, discount rate, required reserve ratio and profit after tax of the banks. The result of the study indicated that positive relationship exists between monetary policy and commercial banks' profits. Although, only monetary base was found to be significant, hence the study recommended that monetary base should be more targeted by the monetary authority as tool of monetary policy to be used in Vietnam.

The impact of monetary policy instruments on banks performance was examined by Ajayi and Ayanda in 2012. The study covered a period of twenty nine years between 1980 and 2008. Bank rate, inflation rate, exchange rate, liquidity ratio cash reserve ratio and bank credit data were collected and analyzed with the use of Engle-granger two-step co-integration approach. The findings of the study revealed that bank rate, inflation rate and exchange rate raised credit while cash reserve ratio and liquidity ratio decreased credit. Meanwhile, only cash reserve ratio and exchange rate were found to be statistically significant. The study concluded that monetary policy instruments were not significant in enhancing credit in the long-run.

In a similar study, Agbonkhese and Aekome (2013) investigated the effect of monetary policy on credit creation by Nigerian deposit money banks. Ordinary least square (OLS) method of analysis was adopted to analyze series of data covering a period between 1980 and 2010. The findings of the study showed that a positive and direct relationship existed between total deposits and treasury bills rate. On the other hand, the reserve requirement and interest rate exerted negative effect on total credit creation by the banks. It was concluded that reserve requirement was not effective in regulating credit creation by deposit money banks in Nigeria within the period of the study.

In contrast, Otalu, Aladesanmi and Olufayo (2014) studied the impact of monetary policy on performance of commercial banks in Nigeria in terms of credit creation. Data on interest rate, money supply, liquidity ratio and cash reserve ratio were extracted and analyzed with regression analysis. The diagnostic result test indicated that all monetary variables (interest rate, money supply, liquidity ratio and cash reserve ratio) significantly influenced credit creation by commercial banks in Nigeria. It was concluded that money supply and cash reserve ratio were statistically influencing credit created by commercial banks in Nigeria.

The related studies reviewed above indicates that the relationship between monetary policy and bank performance remain inconclusive based on the results and conclusions of the empirical studies. This study will also join the recent work to determine to what extent has the monetary policy contributed to the performance of banks in Nigeria especially in the area of deposit mobilization.

3.0 RESEARH METHODS

This study made use of secondary data for the period of 19 years (2000-2018) which were obtained from World Bank Publications and CBN publications.

3.1 MODEL SPECIFICATION

The data collected for this research work covers for the period of 19 years (2000 – 2018). For this purpose of this research work the researcher make use of interest rate, cash reserve ratio as explanatory variables and deposit liability as dependent variable. Thus, Adeusi, Kolapo, and Aluko, (2014) specify the following models to capture the hypothesized relationship as:

$DL = f(INT, CRR)$ (1)

The econometric model is given as

$DL_t = \beta_0 + \beta_1 INT_t + \beta_2 CRR_t + \mu_t$ (2)

Where:

DL = Deposit Liability of Commercial Banks
INT = Interest Rate
CRR = Cash Reserve Ratio
μ = Stochastic Error Term

From above, equation (2) can be presented in an ARDL framework as follows:

$$DL_t t = \beta_0 + \beta_1 INT_t + \beta_2 CRR_t + \sum_{i=1}^{p} \gamma_{1i} \Delta DL_{t-1} + \sum_{i=0}^{q} \gamma_{2i} \Delta INT_{t-1} + \sum_{i=0}^{r} \gamma_{3i} \Delta CRR_{t-1} + \mu_t \quad (3)$$

All variables are as defined above, p, q and r are the respective lags.

3.2 Estimation Technique

The adoption of ARDL modelling technique for this study is based on the merits which non-linear modelling techniques possess. Linear models are considered to be restrictive in dealing with the relationship between deposit liabilities of banks and cash reserve ratio as well as interest rate.

4.0 RESULTS AND DISCUSSION OF FINDINGS

This part provides the presentation and interpretation of data. It covers the preliminary analysis of descriptive statistics, graphs, unit root and cointegration tests. It also includes the ARDL regression results.

Table 1 Descriptive Statistics

	DL (₦) billion	INT (%)	CRR (%)
Mean	5824.134	17.85105	11.17368
Median	5763.511	17.26	10
Maximum	14822.2	24.85	22.5
Minimum	343.1741	15.14	1
Std. Dev.	4939.242	2.100434	7.216327
Skewness	0.3901	2.066095	0.354749
Kurtosis	1.731045	7.669936	1.995129
Jarque-Bera	1.756676	30.78261	1.197914
Probability	0.415473	0	0.549384

Sum	110658.5	339.17	212.3
Sum Sq. Dev.	4.39E+08	79.41278	937.3568
Observations	19	19	19

Source: Author's Computations using Eviews 9 (2020)

The descriptive statistics is depicted in Table 1 below. Within the period under study, DL averaged about ₦5,824,134,000 while INT and CRR averaged about 17.85% and 11.17%. The standard deviation depicts the spread or dispersion of each variable around its mean. Of all variables, interest rate had the most spread while DL had the least spread. Skewness measures the asymmetry of the distribution of the series around its mean. A positive skewness means that the distribution has a long right tail and negative skewness implies that the distribution has a long left tail.

The skewness of a normal distribution is zero. All variables are positively skewed. Kurtosis measures the peakedness or flatness of the distribution of the series. For normal distribution the kurtosis is 3, but if it exceeds this value, the distribution is assumed to be peaked (leptokurtic) relative to the normal, but if it is less than 3, the distribution is flat (platykurtic) relative to the normal Distribution. DL and CRR are platykurtic while INT is leptokurtic.

The two tests of Skewness and Kurtosis however, are not individually sufficient in defining the distribution of the series, hence the need for Jarque-Bera normality test. Since the Jarque-Bera test combines skewness and kurtosis properties, it provides more comprehensive information. Following from the probability value of Jarque-Bera test, DL, INT and CRR are not normally distributed at 0.05% critical level.

4.1 Unit Root Test

H_0: The series has a unit root (not stationary)

H_1: The series is stationary

The decision criteria for the hypothesis states that if computed probability value exceeds the chosen significance level (in this case, 5%), we fail to reject the null hypothesis (that is we accept H_0), and if the computed probability value is less than the chosen level of significance, the null hypothesis is rejected.

The result shows that DL and CRR variables are non-stationary at level subject to first difference.
Table 2 Unit root Test (ADF)

VARIABLE	LEVEL			FIRST DIFFERENCE			I(d)
	Trend	Trend and intercept	None	Trend	Trend and intercept	None	
DL	-3.040391 (0.9964)	-3.690814 (0.3906)	-1.961409 (0.9995)	-3.052169 (0.0027)*	-3.710482 (0.0029)*	-	I(1)
INT	-3.040391 (0.0471)**	-4.579551 (0.1003)	-1.961409 (0.0398)**	-	-	-	I(0)
CRR	-3.04018 (0.9294)	-3.69081 (0.8939)	-1.961409 (0.8643)	-3.052169 (0.0267)**	-	-	I(1)

Source: Author's Computations using E-views 9

*, ** and *** represents rejection of null hypothesis at 1%, 5% and 10% significance.

4.2 Co-integration Test

Before proceeding to the estimation proper, there is need to determine if there is long-run relationship among the variables.

Hypothesis for Co-integration

H_0: There is no co-integration among variables in the model

H_1: There is presence of co-integration among variables in the model

The ARDL Bounds co-integration test result is presented in the table 4.3 below.

Table 3: ARDL Co-integration Bound Test

Dependent variable	Critical value	F-statistic = 7.629797	
		Lower bound	Upper bound
DL	10%	4.19	5.06
	5%	4.87	5.85
	1%	6.34	7.5

Source: Author's computations using Eviews 9 (2020)

4.3 Model Estimation

This subsection presents the results of the Autoregressive Distributed Lag (ARDL) model. The use of ARDL was informed by the stationarity property of the variables. As the unit root tests in the previous subsection would suggest, the variables are all non-stationary processes hence the conventional OLS model could produce erroneous and spurious results.

Table 4: Results of Short-run Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
DL(-1)	0.192934	0.264827	0.728528	0.4848
DL(-2)	-0.630376***	0.285774	-2.20586	0.0548
CRR____	217.2452*	65.43582	3.319973	0.0089
CRR____(-1)	-218.9959**	83.99194	-2.60734	0.0284
CRR____(-2)	109.5589	60.61291	1.807517	0.1041
INT____	393.8586**	126.2451	3.119792	0.0123
C	-12601.79*	3421.323	-3.68331	0.005
@TREND	1283.44*	271.1406	4.733486	0.0011

****, **,*** represent 1%,5% and 10% level of significance***

Table 5: Results of Long-run Model

Variable	Coefficient	Std. Error	t-Statistic	Prob.
INTR	-0.082635	0.046251	-1.78666	0.1015
CRR	-0.044513*	0.009153	-4.86297	0.0005
C	8.202155*	1.045836	7.842677	0.0000
@TREND	0.222403*	0.021732	10.23387	0.0000

*,**,*** represents 1%,5% and 10% level of significance

R^2 = 0.995116 F-Statistic = 377.3977

Adjusted R^2 = 0.992529 Probability = 0.0000

Durbin Watson Statistic = 1 .970385

Source: Author's computations using Eviews 9 (2020)

The above ARDL result shows that in the short run, the two regressors are significant. They include CRR and INTR(-1).This simply implies that in the short run, movements in the one-period lag of Cash reserve ratio and movements in Interest rate are significant in explaining the dynamics of monetary policy effect with respect to the banking system in Nigeria. Judging from the sign of coefficients, INT rate one period has a positive effect on the banking performance while Cash reserve ratio has a positive effect (and negative effect in its lagged form) on deposit liabilities.
In the Long run also, the cash reserve ratio is significant in explaining deposit liabilities in Nigeria banking industry. This is because its probability value fall short of the 0.05% critical level, therefore the null hypothesis of coefficient insignificance is rejected. Other variables are statistically insignificant at the 0.05% critical levels.

In summary, the determinants of the effects of monetary policy in the banking system in Nigeria can be categorised into both the short run and the long run. In the short run, the determinant of monetary policy on the banking system includes Deposit liability and interest rate. In the long run however, the determinants of monetary policy effect is limited to the Cash reserve ratio.

R2 value of 0.995116 implies that about 99% of the total variations in Deposit liability in the banking sector in Nigeria is explained by the estimated model. This is a satisfactory goodness-of-fit because the higher the R2, the better the results. It is also vital to check that residuals are not serially correlated. The reported Durbin-Watson statistic informs that the error terms are serially and mutually uncorrelated, as its value lies around the threshold of 2.

Having adopted the ARDL for estimation, some major findings were made in this study, which include; some factors strongly determine Nigeria's bank performance and they include interest rate and cash reserve ratio; in the short run interest rate has a negative effect on bank performance and in the long run, cash reserve ratio has a negative effect on bank performance; while cash reserve ratio does not significantly affect bank performance in the short run it significantly affects bank performance in the long run.

5.0 Conclusion and Recommendations

Based on the above findings, the effect of interest rate on deposit liabilities does not persist even in the long run. Interest rate, being a very vital monetary policy variable in Nigeria, was shown to have significant effect on bank performance. The effect of cash reserve ratio on banks' deposit liabilities is also significant in both the short run and long run. The long run relationship (co-integration) which exists among the variables implies that these monetary policy variables will adjust to long-run equilibrium. The study recommends that government should ensure good and stable monetary policy through its monetary authorities such that deposit money banks' performance can be enhanced in Nigeria. The aim of every monetary policy introduced should be targeting soundness of the banking sector which will subsequently improve economic growth.

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