Growth and Financial Performance of Islamic Banks in Nigeria: The Monetary Policy Impact

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***Abstract*: The study investigates the impact of monetary policy on the growth and financial performance of Islamic Banks using data spanning the periods 2014-2019 from 3 Islamic Banks in Nigeria (Jaiz Bank Plc, Sterling Bank Plc and Stanbic IBTC Bank Plc i.e., operating full-fledge Islamic bank or Islamic Banking windows). The study employed the Robust Least Squares (RLS) and Panel Robust Least Squares (PRLS) methods to examine the specific Banks' effect and the panel analysis. The results showed that on the specific Banks', monetary policy significantly impacted on their growth and financial performances. However, considering the panel result, monetary policy impacted insignificantly on the Banks, which reflects the disparity in the strategic positions of the Banks. It concluded and recommended from the research findings that the in growth and financial planning of the Islamic banks in Nigeria, plans are put in place to mitigate the unstable monetary policy landscape, while also evaluating the possibility of a dual regulatory model which accommodates Islamic banking guidelines of profit or loss sharing**

***Keywords:* Growth, Financial Performances, Islamic Banks, Monetary Policy.**

I. INTRODUCTION

One of the strong pillars of the economy of countries is the banking sector(Akintan, Dabiri, & Sanyaolu, 2018). The banking plays a very important role by providing the mechanism for savings mobilization; influence the distribution of income and most importantly as a mechanism for implementing monetary policy through the various financing options that is coordinated by the monetary regulators in an economy. The financial role played by Banks is integral to the modern market economies. "…*Well-functioning and sound financial institutions and markets underpin the smooth exchange of services and goods and foster long-term investment and thus growth*…" (Beck, 2011).

Succinctly, monetary policy actions are transmitted through money market rates and sovereign yield curves, as well as bank lending rates (IMF, 2016). These various functions are carried out by the conventional financial intermediaries through an interest-based system that is guided by the monetary policy in play. However, unlike conventional banks/ financial intermediaries that operate on interest-based monetary policy-driven models, Islamic banks/ finance are not allowed to partake in interest-based transactions. Interest-based activities are outrightly prohibited in Islam as it is expressly ordered in the holy Qur'an.

Specifically, the almighty Allah in Suratul Baqara in the holy Qur'an (2:275) declared that:

"…*Those who consume interest cannot stand (on the Day of Resurrection) except as one stands who is being beaten by Satan into insanity. That is because they say, "Trade is like interest." But Allah has permitted trade and has forbidden interest. So, whoever has received an admonition from his Lord and desists may have what is past, and his affair rests with Allah...*"

The non-interest-based system in banking/ financing; with specific emphasis on the Islamic finance system, in financial intermediation process, takes its root from the above.

The prohibition of interest-based system in Islamic finance was further highlighted by Ahmad, Rehman and Humayoun (2011) as thus:

"…*In Islam, religious, social and economic activities have strong ties with each other, so economic activities (i.e., earning and spending pattern of individuals) should be in line with the Islamic principles*…"

Nevertheless, while numerous empirical studies abound on profitability, monetary policy and workings of conventional banks, a literature search for this study shows there is a dearth of studies that examined and documented how non-interest banks in Nigeria survive in the interest-based monetary policy model operations in Nigeria, as coordinated by the Monetary Policy Committee of the nation through the Central Bank of Nigeria (CBN).

Traditionally, Monetary Transmission Mechanism (MTM) differs from one economy to another and changes over time. The intensity of nominal rigidities, market imperfections and other distortions arising from government interferences, the degree of financial development and openness, as well as potential constraints on the supply and demand side of credits are important determinants of a country's MTM, (IMF, 2016). Therefore, it is important to fully understand and document how Islamic banking/ finance operations in Nigeria are tied to the monetary policies of the Nigeria's Central Bank and how it navigates these two dichotomies: non-interest basis of finance and interest-based monetary policy, effectively.

Nevertheless, the business potential for a non-Interest finance in Nigeria is enormous, as such an institution has long been awaited by the teeming population of Nigerian Muslims and non-Muslims alike (BusinessDay, 2019). The big question is:

how does the monetary policies impact the Islamic financing operations, in its bid to achieve its set goals and objectives?

The transmission of the monetary policy to the conventional financial system, its effects on economic growth and other macroeconomic variables have received greater attention from both policy makers and academicians. However, the assessment of the impact of monetary policy on the Islamic financial services industry is quite a new area of study that has not yet been adequately empirically navigated, despite a number of few researches that had predominantly examined the effects of interest rate on the Islamic inter-bank rate and profit rate of return, particularly from Nigeria.

Study Objective, Scope and Hypothesis

Against this backdrop, this study seeks to examine the impact of monetary policies on the Islamic banking growth and financial performances in Nigeriawith focus on selected case studies providing Islamic banking services as full-fledged or through an Islamic banking window for the periods of 2014 to 2019.

This study tested the null hypotheses stated below:

H_{01}**:** Monetary policy has no significant impact on Islamic Banking financial performances in Nigeria.

H_{02}**:** Monetary policy has no significant impact on the growth of Islamic Banking in Nigeria

The rest of the study is sectionalized into four sections. Section 2 presents a detailed literature review, section 3 presents the methodological framework, section 4 provides the results, while section 5 anchors the concluding remarks and recommendations.

II. LITERATURE REVIEW

This study relaxes its argument on the efficient structure theory which states that better management and practices attracts higher profits and performances. Therefore, increasing market share and concentration in the medium to long-term in the banks' performance. On this note, related empirical studies on the performances and growth of Islamic banking are reviewed.

The efficiency of Islamic and conventional banks in countries that practice both types of banking system was analyzed by Kablan and Yousfi (2011). Data spanning from 2001 to 2008 from 17 countries in Middle East, Africa, Asia and the United Kingdom was used for the analyses using Stochastic Frontier Approach. Personnel expenses/total assets, other expenses/total assets, income for deposits/total deposits, net loans, net liquid assets, total earning assets were variable used to represent inputs and output of the Islamic banks, while net income/total assets (return on assets), equity/total assets, total deposit of a bank/total deposit in the whole banking system were variables used to explain cost-efficiency; gross domestic product per capita proxy for level of development.

From results obtained, conventional banks had a higher efficiency when compared with Islamic banks; in terms of Islamic banks, Islamic banks located in the United Kingdom (had a lower efficiency compared to the others. This was attributed to another finding that associated urban population, profitability and market power with negative impacts on the efficiency of Islamic banks (Kablan & Yousfi, 2011).

In 25 Gulf Council Countries, the performance of Islamic banks and conventional banks before the economic downturn was compared to their performance after the 2008 economic downturn, using the multivariate general linear model (GLM) by Al-Deehani, El-Sadi, and Al-Deehani (2015) covering the periods 2001 through 2013. Result showed that Islamic banks had a lower loan/assest ratio when compared to the conventional banks before the crises, islamic banks had a higher loan/assest ratio during the crises. Howeever, the return on investment was lower for Islamic bank (Al-Deehani, El-Sadi, & Al-Deehani, 2015)**.**

The financial performance of Jordan Islamic Bank was examined by Samhan and Al-Khatib (2015). Three categories of variables were used – financial performance, macroeconomic variables and bank specific factors. Financial performance consisted of return of assets, return on unrestricted investment account and return on equity; macroeconomic variables used were gross domestic product (GDP), inflation rate and unemployment rate; bank specific factors consisted of ratio of total income to total assets, debt ratio, equity ratio, liquidity ratio and bank size. Descriptive analysis, correlation matrix and analysis of variance where employed in the analysis of data for the period 2000 through 2012. A positive and significant relationship was observed between inflation, bank size, equity ratio and return on assets with a negative and significant relationship existing between ratio of total income to total assets, liquidity ratio and return on assets; significant and positive relationship was found between inflation, bank size and return on equity while a negative and significant relationship was found between unemployment and return on equity; return on unrestricted investment account and return on equity had a positive and significant relationship with unemployment rate and a negative and significant relationship with inflation, equity ratio, ratio of total income to total assets and bank size(Samhan & Al-Khatib, 2015)**.**

The profitability, credit risk management, solvency and liquidity of Islamic and conventional banks were compared using sixteen banks in the United Arab Emirates (UAE) by El-Massah and Al-Sayed (2015). Profitability ratios employed were return on assets and return on equity; liquidity ratios used were total loan to deposit ratio, cash and portfolio investment to deposit ratio and total loans to total assets ratio; solvency ratio employed debt to equity ratio, equity multiplier and debt to total assets ratio; credit risk is measured using total equity to net loans ratio, common equity to total assets ratio and impaired loans to gross loans ratio. Financial ratio analysis was used in analyzing data for the years 2008 through

2014. Conventional banks were observed, on the average, to be more profitable, more solvent, have better credit risk management (lower credit risk), however Islamic banks had a higher liquidity (El-Massah & Al-Sayed, 2015).

The relationship between macroeconomic efficiency and the development of Islamic banking was studied by Gheeraert and Weill (2015). Stochastic frontier approach was applied in estmating the macroeconomic efficiency on data from Islamic banks and conventional banks in 70 countries (Middle East and Southeast Asia) covering the period 2000 through 2005. Varables considered were Islamic credit/GDP, conventional credit/GDP, total credit/GDP, Islamic deposit to GDP, conventional deposit to GDP, total deposit to GDP, output per worker, physical capital per worker; macroeconomic efficiency was proxied by inflation and latitude. Islamic credit to GDP had a positive impact on macroeconomic efficiency, however this impact was weakened by the conventional credit to GDP. Also, Islamic banking development supported efficiency up to a certain limit, but the reverse was the case for conventional banking (Gheeraert & Weill, 2015). Hence macroeconomic efficiency experiences a substitution effect between Islaomic banking and conventional banking.

An empirical study on the risk, efficiency and performance of Islamic bank was carried out on eleven Islamic banks in Indonesia (Sutrisno, 2016). Variables used to measure risks were capital adequacy ratio, non-performing financing, minimum reserve ration and financing to deposit ratio; variables used to measure efficiency was operating expenses to income ratio; variable used to measure performance were net profit margin and return on assets. Quarterly data from the banks were analyzed using multiple regression analysis. Result showed that financing to deposit ratio and size had a significant and positive effect; reserve requirement, operating expenses to operating income and capital adequacy ratio had a significant and negative effect on Islamic bank's performance; while non performing financing had no effect on the performance of Islamic bank (Sutrisno, 2016).

A comparison of the contribution of Islamic banking and conventional banking to economic development was carried by Daly and Frikha (2016). Data of 54 conventional banks and 66 Islamic banks from 10 developing countries (Bahrain, Egypt, Jordan, Kuwait, Pakistan, Qatar, Saudi Arabia, Sudan, Turkey, and the United Arab Emirates (UAE)) where employed. An Ordinary Least Square estimation was used for analysis covering a period of 2005 through 2012. Bank profitability (measured by return on assets, return on equity), bank development (measured by total deposit, total investment, total incomes, number of branches, number of employers), role of the state (governance voice and accountability, political stability & absence of violence, governance effectiveness, regulatory quality, role of law, control of corruption), interest variables (inflation rate deposit, interest rate), economic growth measured by gross domestic product) with control variables (total assets, market share, income diversity), were the variables considered. Results showed that economic growth was supported by both conventional and Islamic banks (Daly & Frikha, 2016).

The macroeconomic implication of business cycle volatility, economic growth and financial openness for Islamic finance was examined by Djennas (2016). Data examined were real gross domestic product (GDP), population growth rate, oil revenue/GDP, trade openness, resistance index, exchange market pressure index (EMPI), money and quasi money (M2), Muslim population/ total population, Islamic net assets to M2, capital expenditure, taxation, fiscal divergence for the years 1980 through 2013. 14 countries were involved in the studies. Result showed that Islamic finance had a similar response to macroeconomic policies as conventional economic systems (Djennas, 2016). Therefore, Islamic finance is not a protection against economic downturns.

The response of Islamic bank deposit to monetary policy shocks was investigated by Nazib and Masih (2017). Monthly data for Islamic bank deposits, overnight policy rate (proxy for interest rate), money supply, gross domestic product and consumer price index from January 2010 through December 2016 were processed using auto-regressive distributed lag. Results showed that inflation and interest rates had the strongest effect on deposits in the Islamic banks (Nazib & Masih, 2017). Hence, Islamic bank's deposit response to monetary policy shocks is similar to how conventional banks deposit respond to monetary policy shocks.

The dynamic interaction between economic growth and Islamic banking was examined by Boukhatem and Moussa (2018). Pooled Fully modified Ordinary Least Square and Dynamic Ordinary Least Square were employed in analyzing data in selected Middle East and North African (MENA) countries over the period 2000 through 2014. Variables used were gross domestic product (GDP), domestic credit extended by commercial banks to private sector/GDP, loans extended by Islamic bank to private sector/GDP, inflation, primary school enrollment, government expenditure/GDP, trade openness, rule of law and regulatory quality. The result showed that Islamic banking has a positive contribution to economic growth however high inflation and underdeveloped institutional framework reduces this positive impact (Boukhatem & Moussa, 2018).

The role of Islamic bank in monetary transmission process in Pakistan was investigated by Rafay and Fabrid (2019). The Impulse Response Function (IRF) and Variance Decomposition Analysis was (VDC) were employed in analyzing the data used. Data used consisted of quarterly data of large-scale manufacturing index (proxy for economic output), discount rate, Islamic deposit and Islamic financing and investments for the years 2007 through 2017. The results show that when monetary shocks occur, Islamic banks deposit decline due to increase in discount rate (Rafay & Fabrid, 2019). Therefore, a negative relationship exists between Islamic bank deposit and monetary policy shock. This also shows that the primary aim of the customers is to maximize

profit. A positive relationship was noticed between Islamic bank deposit and Islamic financing.

An appraisal of Islamic banking in Nigeria was carried out by Nwaolisa and Kasie (2013). Questionnaires were employed in to determine the public view of Islamic banking in the country. Results indicated a low knowledge of understanding of Islamic banking, a large portion of the population do not see anything wrong in charging interest rate on money loaned/borrowed and a high percent of those surveyed do not believe that Islamic banks can guarantee profit maximization as conventional banks (Nwaolisa & Kasie, 2013).

The financial performance in terms of profitability, liquidity and leverage of Jaiz Bank PLC in Nigeria was examined by Akintan, Dabiri and Sanyaolu (2017). Eight variables were used in the analysis. Profitability was represented by return on asset, return on equity and earnings per share; leverage by tatal liability to shareholder's fund and current liabilities to total assets; and liquidity by current ratio, quick ratio and cash flow per share. Gray Comaparative Index was employed to analyse data from 2012 through 2016. Results obtained showed positive relationship exists between liquidity, profitability and leverage; and financial performance

III. METHODOLOGICAL FRAMEWORK

The study adapted the model used in Ball (2010) on modelling inflation targeting economies performances, with the following equations;

$$X_{it} = \alpha_i + \beta I_{it}^{*} + \gamma_t + \nu_{it} \qquad 1$$

X_{it} is defined as the variable of interest, such as inflation, I^{*} is a dummy factor denoted as one (1) if country i operates some specific Monetary Policy Framework (MPF) in period t, α_i connotes a country fixed effect, γ_t explains the time effect, and ν_{it} represents a country-time effect The last three proxies are assumed to independent of each other (Ball, 2010). Further explained by Cobham and Song (2020), equation (1) depicts all the possible determinants of X as well as the monetary policy framework. The essence of the adaptation was the similarity of the study as being country specific and covering different entities within the country's financial sector.

Therefore, for the specific banks, the model is specified as:

$$ROA_t = \alpha_{0t} + \beta_1 CRR_t + \beta_2 INF_t + M + \varepsilon_t \qquad 2$$

$$TA_t = \alpha_{0t} + \beta_1 CRR_t + \beta_2 INF_t + M + \varepsilon_t \qquad 3$$

ROA denotes returns on asset (proxy for the dependent variable; financial performance of the Islamic Banks. CRR denotes cash reserve ratio and INF for inflation rate in Nigeria, both representing the proxies for the independent variable; monetary policies. α_{0t} is the fixed effect proxy. M represents the moderating variables, which is proxied by; EXR representing the average exchange rate of the United States Dollar to the Nigeria Naira and (CDD) representing Bank Deposits (customers' deposit). TA implies the Islamic banks total assets over the period studied, a proxy for the dependent variable growth ε_t denotes the error term.$\beta_1 - \beta_3$ are the coefficient of the parameters as stated in the model.

For the cross-sectional analysis, the model is stated as

$$ROA_{it} = \alpha_{0t} + \beta_1 CRR_{it} + \beta_2 INF_{it} + M + \varepsilon_{it} \qquad 4$$

$$TA_{it} = \alpha_{0it} + \beta_1 CRR_{it} + \beta_2 INF_{it} + M + \varepsilon_{it} \qquad 5$$

From equations 4 and 5, the variables remain as defined. However, it implies denotes observations of the units at time$t$.

IV. RESULTS

4.1 Correlation Matrix

In the correlation result table 1 below, the following proxies: STTA, STROA, STCDD, STA, SROA, SCDD, JTA, JROA, JCDD implies Sterling Bank Total Asset, Sterling Bank Return on Assets, Sterling Bank Cash Deposits, Stanbic IBTC Total Assets, Stanbic IBTC Returns on Assets, Stanbic IBTC Cash Deposits, Jaiz Bank Total Assets, Jaiz Bank Returns of Assets, Jaiz Bank Cash Deposits respectively. For the results, more focus is placed on the linear relationship between the independent variables and the dependent variables which are the banks Total Assets (TA) and Returns on Assets (ROA). Although, the results show that the dependent variables are independent of each other as they have a mix of positive and negative linear correlation. Notably, Jaiz Bank ROA has a strong linear association with Sterling Bank's ROA with an insignificant value of 0.937. Stanbic IBTC ROA also exhibits a strong positive insignificant linear association with Stanbic IBTC Total Assets having a correlation value of 0.980. This implies that these variables should be analysed independently. Inflation linear association with banks variables (ROA, TA and CDD) are insignificant. However, for Sterling Bank, inflation showed a low negative linear association with the banks TA, while low positive linear association with its CDD and ROA. For Stanbic IBTC, inflation linear association with the Bank's TA and ROA is positive. While the linear association with CDD is negative. In Jaiz Bank, inflation and TA has a positive linear association, but low. The linear association between Jaiz Bank ROA and CDD, and inflation is negative.

For exchange rate and Cash reserve ratio, the linear association with the banks indicators are mix with positive and negative. However, some (exchange rate and Sterling Bank's ROA; Cash Reserve Ratio and Sterling Bank's TA; Cash Reserve Ratio and Jaiz Bank's ROA) are found to be significant at 5% level. The positive linear association between inflation and the banks TA and ROA is expected following the value added to assets as cost of goods or products increase. Exchange rate negative linear association with the banks financial performances key metrics is expected as their values are expected to decline as the country's currency devalues. In the same direction, as the Central Bank of Nigeria (CBN) reviews its Cash Reserve Ratio, it is expected that the banks cash liquidity declines irrespective of

the increase in cash deposit. Therefore, CRR negative linear association with banks CDD is expected.

In the same direction, as the Central Bank of Nigeria (CBN) reviews its CRR upward, it was expected that the Banks liquidity would decline, irrespective of the increase in the Banks deposits. Therefore, CRR negative linear association with banks CDD are expected. (see table 1 for detailed results).

Table 1 Correlation Test Results

	STTA	STROA	STCDD	SRTA	SRROA	SRCDD	JTA	JROA	JCDD	INF	EXR	CRR
STTA	1											
STROA	-0.415	1										
	(0.487)											
STCDD	0.011	-0.792	1									
	(0.986)	(0.110)										
SRTA	0.035	-0.208	0.660	1								
	(0.956)	(0.738)	(0.225)									
SROA	0.153	-0.120	0.528	0.980	1							
	(0.807)	(0.848)	(0.360)	(0.003)**								
SRCDD	-0.289	-0.270	0.011	-0.702	-0.825	1						
	(0.638)	(0.661)	(0.986)	(0.186)	(0.085)***							
JTA	-0.605	0.607	-0.489	-0.234	-0.206	-0.091	1					
	(0.280)	(0.277)	(0.404)	(0.705)	(0.740)	(0.885)						
JROA	0.937	-0.426	-0.128	-0.290	-0.184	-0.002	-0.489	1				
	(0.019)**	(0.475)	(0.837)	(0.636)	(0.767)	(0.997)	(0.403)					
JCDD	0.184	0.250	-0.506	-0.258	-0.129	-0.321	0.663	0.287	1			
	(0.767)	(0.685)	(0.384)	(0.675)	(0.836)	(0.599)	(0.222)	(0.639)				
INF	-0.427	0.326	0.298	0.781	0.746	-0.550	0.032	-0.714	-0.418	1		
	(0.473)	(0.592)	(0.626)	(0.119)	(0.148)	(0.337)	(0.959)	(0.175)	(0.484)			
EXR	0.586	-0.889	0.777	0.519	0.494	-0.199	-0.573	0.469	-0.075	-0.105	1	
	(0.299)	(0.043)**	(0.123)	(0.370)	(0.397)	(0.749)	(0.313)	(0.426)	(0.905)	(0.867)		
CRR	0.906	-0.037	-0.414	-0.241	-0.077	-0.275	-0.348	0.904	0.376	-0.505	0.202	1
	(0.034)	(0.953)	(0.489)	(0.697)	(0.902)	(0.655)	(0.566)	(0.035)**	(0.533)	(0.386)	(0.744)	

The parenthesis ( ) implies the probability values. While **, *** implies significant level at 5% and 10% respectively
Source: Author's Compilation

4.2 Descriptive Statistics

For each of the sampled entities, the key metrics of the descriptive statistics explained in this study includes the mean, minimum and maximum values, the standard deviation and the Jarque-Bera Statistic. The metrics gives a summary of how the variables behaved over the years reviewed.

The variables are as defined in sub-section 4.1.1. From the descriptive results, the study confirms that the average values of all the variables lie within their minimum and maximum level. This implies the data used and trends revealed are accurate. Skewness result proofs that SRROA, STCDD and CRR had a long tail to the left (implying a negatively skew). While other variables have a long tail to the right (that is, positively skewed). The Jarque-Bera result for the variables shows that all the variables are normally distributed. This was further confirmed by their probability values greater than 5% level of significance. See Table 2a and b below.

Table 2a: Descriptive Statistics						
	STTA	STROA	STCDD	STA	SROA	SCDD
Mean	1.792	0.014	1.091	0.048	0.001	0.015
Maximum	6.352	0.031	2.950	0.276	0.251	0.096

Minimum	-0.157	-0.004	-0.272	-0.061	-0.097	-0.102
Std. Dev.	2.724	0.015	1.271	0.134	0.142	0.074
Skewness	1.096	-0.077	0.420	1.158	1.399	-0.698
Jarque-Bera	1.032	0.538	0.593	1.128	1.634	0.467
Probability	0.597	0.764	0.743	0.569	0.442	0.792
Observations	6	6	6	6	6	6

Table 2b: Descriptive Statistics

	JTA	JROA	JCDD	INF	EXR	CRR
Mean	0.309	0.048	0.343	0.119	0.110	0.214
Maximum	0.542	0.238	0.496	0.171	0.231	0.232
Minimum	0.185	0.005	0.248	0.081	0.001	0.153
Std. Dev.	0.123	0.093	0.096	0.034	0.116	0.030
Skewness	1.237	1.784	0.542	0.350	0.015	-1.729
Jarque-Bera	1.572	3.538	0.553	0.398	0.976	3.290
Probability	0.456	0.171	0.758	0.819	0.614	0.193
Observations	6	6	6	6	6	6

Source: Author's Compilation

4.3 Estimation Analysis

The estimation analysis has been distilled into the individual entities: Jaiz Bank Plc, Sterling Bank Plc, and Stanbic IBTC Bank Plc.

4.3.1 Jaiz Bank Plc financial performances and growth model estimation

In Jaiz Bank Plc's financial performance model, CRR and EXR had positive impacts on the Bank's financial performance at 5% significance level. This implies that a positive unit change in CRR and EXR as a result of policy reviews, causes the Bank's financial performances increase by 2.051units and 0.503units respectively. INF and CDD impacted the Bank's financial performance negatively and significantly at 5% significance level. This implies that as INF and CDD increase by a unit, financial performance of Jaiz Bank declines by 2.489units and 0.267units respectively.

However, the model shows a weak goodness of fit with its robust adjusted least squares at 0.418.

For the growth model, CRR and EXR showed a negative significant impact on the Bank's growth. The results implied a decline of 2.306units and 0.729units in Jaiz Bank growth for every unit change in CRR and EXR. Inflation and cash deposits impact on the Bank's growth was positive and significant at 5% significance level. This indicates that Jaiz Bank growth was boosted by 1.693units and 1.409units for every unit increase in INF and CDD. The growth model shows a strong goodness of fit with an Adjusted R-squared of 0.652 value. See table 3 for results

Table 3: Jaiz Bank Model

Financial Performance Model				Growth Model			
Variable	Coefficient	z-Statistic	Prob.	Variable	Coefficient	z-Statistic	Prob.
CRR	2.051	3841.651	0.000	CRR	-2.306	-1436.344	0.000
INF	-2.489	-6772.263	0.000	INF	1.693	1532.034	0.000
EXR	0.503	5141.608	0.000	EXR	-0.729	-2475.850	0.000
CDD	-0.267	-2021.624	0.000	CDD	1.409	3548.180	0.000
C	-0.035	-450.306	0.000	C	0.172	741.458	0.000
	Robust Statistics				Robust Statistics		
R-squared	0.418	Adjusted R-squared	-1.908	R-squared	0.652	Adjusted R-squared	-0.741

Source: Author's Compilation

4.3.2 Sterling Bank Plc Financial Performances and Growth Model Estimation

From Sterling Bank financial performance estimation results (see *table 4* for detailed results), it was observed that INF and CRR ratio's impact is positively significant at 5% significance

level. This indicates that a positive unit change in INF and CRR implied a 0.249unit and 0.247unit increase in Sterling Bank's financial performance. EXR and CDD impact on the Bank's financial performance was negative and significant from the observation. This implies that a unit decline in EXR due to policy review and CDD unit decline caused the Bank's financial performance decrease by 0.047unit and 0.007unit respectively. The Adjusted R-Squared shows that the model goodness of fit as very strong, with its value at 0.993.

For the growth model, Sterling Bank growth significantly trended positively and INF, EXR and CDD changed positively. The result implies that for every positive unit change in INF, EXR and CDD, Sterling Bank's growth was favoured by 4.093units, 37.087units and 10.943units respectively. However, INF and CDD impacts were insignificant, while EXR's impact was significant at 5% significance level. The growth model showed a strong goodness of fit, with 0.96 confidence level.

Table 4: Sterling Bank Model

Financial Performance Model					Growth Model			
Variable	Coefficient	z-Statistic	Prob.		Variable	Coefficient	z-Statistic	Prob.
INF	0.249	8.822	0.000		INF	4.093	0.254	0.799
EXR	-0.047	-3.800	0.000		EXR	37.087	5.258	0.000
CRR	0.247	8.380	0.000		CRR	10.943	0.651	0.515
CDD	-0.007	-6.212	0.000		CDD	-2.812	-4.266	0.000
C	-0.058	-11.647	0.000		C	-2.310	-0.819	0.413
	Robust Statistics					Robust Statistics		
Rw-squared	0.993	Adjust Rw-squared	0.993		Rw-squared	0.960	Adjust Rw-squared	0.960

Source: Author's Compilation

4.3.3 Stanbic IBTC Bank Plc Financial Performances and Growth Model Estimation

The impact of INF and EXR on Stanbic IBTC financial performance was positive and significant at 5% significance level. The implication of this was that as INF and EXR changed by one unit positively, financial performance of the Bank increase by 2.197units and 0.559units respectively. CRR and CDD had a negative 5% significant impact on financial performance. This denotes that, a unit negative change in CRR and CDD implied a 2.124units and 0.912units decrease in Stanbic IBTC financial performances. The Adjusted R-Squared confirms that the financial model goodness of fit is strong with the value 0.988.

While measuring Stanbic IBTC Bank's (Imaan Fund) growth impact from monetary policy, we confirmed from the results that INF and EXR exhibited a positive 5% significant impact on the Bank's growth. This confirms that for every positive unit change in INF and EXR, the Bank growth increase by 2.810units and 0.636units respectively. CRR and CDD impact on the Bank was significantly negative. This indicated that, as CRR and CDD changed negatively by one unit, the Bank growth decrease by 2.107units and 0.430units respectively. The model goodness of fit is also confirmed with the Adjusted R-Squared value of 0.989. See *table 5* for detailed results.

Table 5: Stanbic IBTC Model

Financial Performance Model					Growth Model			
Variable	Coefficient	z-Statistic	Prob.		Variable	Coefficient	z-Statistic	Prob.
INF	2.197	17.735	0.000		INF	2.810	23.700	0.000
EXR	0.559	17.760	0.000		EXR	0.636	21.085	0.000
CRR	-2.124	-14.479	0.000		CRR	-2.107	-15.003	0.000
CDD	-0.912	-15.915	0.000		CDD	-0.430	-7.844	0.000
C	0.143	5.873	0.000		C	0.091	3.910	0.000
	Robust Statistics					Robust Statistics		
R-squared	0.988	Adjusted R-squared	0.940		R-squared	0.989	Adjusted R-squared	0.943

Source: Author's Compilation

4.3.4 Panel Robust Least Squares Results

The panel robust least squares result shows that cash reserve ratio and cash deposit impact on Islamic bank's financial performances is negative and insignificant. This implies that as cash reserve ratio and cash deposit increase by one-unit, financial performances of Islamic banks in Nigeria insignificantly decrease by 0.366units and 0.017units respectively. Inflation and exchange rate have a positive insignificant impact on Islamic banks' financial performances in Nigeria. This implies as inflation and exchange rate increase by one-unit, cash reserve ratio and cash deposit insignificantly increase by 0.585units and 0.254 units respectively.

For the growth model, cash reserve ration impact on Islamic banks' growth is negative and insignificant. The implication of this is that, as cash reserve ration changes by one-unit, Islamic banks' growth decrease insignificantly by 0.971units. inflation and exchange rate impact on the Islamic Banks' growth are positive and insignificant. This infers that one-unit change in inflation and exchange rate causes the growth of Islamic Banks' increase insignificantly by 2.485units and 0.671units respectively. Cash deposits shows a positive significant impact on Islamic Banks' growth. This hints that, as cash deposits increase by one-unit, Islamic Banks' growth significantly increase by 0.488units. The results are presented in table 6 below.

Table 6: Panel Robust Least Squares

Financial Performances Model					Growth Model			
Variable	Coefficient	z-Statistic	Prob.		Variable	Coefficient	z-Statistic	Prob.
CRR	-0.366	-0.923	0.356		CRR	-0.971	-0.355	0.723
INF	0.585	0.879	0.380		INF	2.485	0.539	0.590
CDD	-0.017	-0.696	0.486		CDD	0.488	2.881	0.004
EXR	0.254	1.313	0.189		EXR	0.671	0.501	0.616
	Robust Statistics					Robust Statistics		
R-squared	0.085	Adjusted R-squared	-0.110		R-squared	0.081	Adjusted R-squared	-0.116

Source: Author's Compilation

4.3.5 Hypothesis Testing

The hypotheses of the study have been restated below and are validated based on the analysis in 4.3.4 above and the statistical data in table 6 above.

4.3.5.1 Hypothesis One:

H_0:Monetary policy has no significant impact on Islamic Banking's financial performances in Nigeria.

From the result in table 6 above, the study accepts the null hypothesis i.e., monetary policy has no significant impact on financial performances of Islamic Banks' in Nigeria. The probability figures of the independent variable's proxies at 0.356 and 0.380 for CRR and INF respectively are higher than the significance level of 0.05. Therefore, the study rejects the alternative hypothesis.

4.3.5.2 Hypothesis Two:

H0: Monetary policy has no significant impact on the growth of Islamic Banking in Nigeria

Similar to 4.3.5.1 above, the study also accepts the null hypothesis i.e., monetary policy has no significant impact on growth of Islamic Banks' in Nigeria. Therefore, rejects the alternative hypothesis. However, cash deposits (a moderating variable) result at 0.004 accepts the alternative hypothesis that cash deposit has a significant impact on the growth of Islamic Banks'. Given that the variable is only a moderator in the model, the overall decision is, accept the null hypothesis.

V. DISCUSSION OF FINDINGS

From the results across the sampled banks, we observed that the findings deviate from the position of existing studies. From the analysis, we can attest to the dynamic impacts of monetary policy across the Islamic banks in Nigeria. This deviation could be as a result of the strategies adopted by the banks to mitigate the volatile risk in the Nigerian monetary policy landscape. Since the main idea of Islamic Banking is tilted towards zero interest on loan, rather, profit or loss sharing oriented from the performance of the businesses/ projects financed.

The diverse result noted from the findings on Islamic banks in Nigeria can be linked to the various projects/ businesses financed by the banks since inception. Businesses in Nigeria has been affected by the unstable nature of the Country's exchange rate policies which impacts on the general price of goods and services. It should be noted that the conventional banks enjoy incentives from the Central Bank of Nigeria such as returns on safe keeping funds, float excess liquidity in the treasury market which could have helped mitigate some risks imposed by the unstable nature of monetary policies. However, such benefits are not enjoyed by the Islamic Banks given the economic jurisprudence (religious principles) governing their activities, as a result their decisions on investment remain the leverage for reducing the enormous risk, they are exposed to in the Nigeria economy.

VI. CONCLUDING REMARK AND RECOMMENDATIONS

The study investigates the impact of impact of monetary policy on the growth and financial performances of Islamic banks in Nigeria using data from three Islamic banks (Jaiz bank, Sterling bank and Stanbic IBTC Islamic bank). The data spans within 2014-2019. While considering the problems of outliers in the data used, the study adopted the Robust Least Squares method for the specific bank analysis and Panel Robust Least Squares method for the panel analysis. From the findings it was observed that for the specific banks, monetary policy has significant impact on the Islamic bank's growth and financial performances, while considering the panel effect, the impact is insignificant to the banks' growth and financial performances. From the findings, it was recommended that irrespective of the banks' policy uniqueness, monetary policy is a significant factor to be considered as an influencer of their performances. Therefore, the study recommends that, from the macro perspective, there is need for a a more flexible monetary policy to aid the proposed impact of the Islamic banks, while there is need for the Islamic banks to be strategic with their investment decisions toward reducing the risk imposed by the monetary policies.

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