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FIRM SPECIFIC FACTORS AND PERFORMANCE OF ISLAMIC BANKS IN NIGERIA

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Abstract

This study investigates the relationship between firm specific factors and the performance of Islamic banks in Nigeria over the period 2020Q1-2023Q4 for three sampled Islamic banks in Nigeria using the panel random effect regression technique as chosen by Hausman Test. This is due to the fact that the environment in which the Islamic banks operate differs in terms of regulation and operation. Hence, the need to conduct a Nigerian study on the subject matter using recent data. The objective of this study is to empirically investigate the effect of firm specific factors on the performance of Islamic banks in Nigeria. The empirical results revealed a direct (positive) and statistically significant relationship between Islamic bank performance and age. Besides, size and liquidity are firm specific factors that have significant inverse relationship with Islamic bank's performance in Nigeria which is an indication of diseconomies of scale suffered by Islamic banks due to uncontrolled increase in size. More so, capital adequacy and asset quality positively influence bank performance but the impact was not significant at 5% level of significance. From the findings, the study concludes that liquidity, firm age and size are significant determinants of Islamic bank performance in Nigeria. The study recommends that Islamic banks should pay more attention to their liquidity, size and be sensitive to their age as it relates to their performance. And regulatory agencies should re-evaluate the prudential regulation measures for Islamic banks to help expedite the effect of capital adequacy to remain positive and become significant.

Keywords: Islamic Banks, Firm Specific Factors, Hausman Test, Performance, Random Effect

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1. INTRODUCTION

1.1. Background of Study

Islamic bank typically manages the banking system under the Shariah laws which are also known as Islamic laws. Shariah law is one of the Islamic principles that act as a guideline for Islamic bank management to avoid prohibited activities. The prohibited activities stated by Shariah laws involved Riba (interest), Maysir (gamble) and Gharar (speculative trading) (Abugamea, 2021). Besides, Moussawi (2011) highlighted that the activities of Islamic banks applied the principle of risk-sharing, an Islamic term, "al-Ghunm bi al-Ghurm". He also described the term risk-sharing as situations where the lender agreed to share benefits and risks of the loan with the borrowers.

The primary difference between Islamic and conventional banks, according to Ariff (1988), is that the former operates as intermediaries in accordance with Shariah laws, which forbid riba (interest), while the latter are based on the conventional interest-based concept. Additionally, Islamic banks and conventional banks employ distinct practices to generate diverse revenue streams. For instance, Islamic banks use profit and loss sharing in place of interest, while conventional banks treat interest as income. In addition, clients must comprehend that there are various deposit account kinds with varying risk profiles and return rates before making a deposit into an Islamic bank. Additionally, Islamic banks profit from Islamic compliance investments, sometimes referred to as profit and loss sharing, which benefits their depositors or customers.

In order for Islamic banking to continue to thrive in the face of intense competition, management must find the best approach as the banking industry grows more competitive (Suhartanto, Muflih, Setiawan & Hadiati, 2018). Islamic banking is still young in Nigeria where it only existed for 13 years (since the first Islamic bank - Jaiz Bank was license on 11th November 2011) as compared to the conventional banks. Although the Islamic banking industry existed shorter period than conventional banks, the industry has been growing rapidly due to the wide acceptance of consumers. Though Islamic banks in Nigeria have survived successfully from the encumbrance and skepticism of the critics, it still faces many challenges as which may hinder its performance (Abdullahi & Yusuf, 2022).

One of the most important ways to assess the success of Islamic banking is by measuring its performance. Hence, it is necessary to make sure that Islamic banks in Nigeria perform remarkably and productively. Banking performance is a major issue for policy and decisions makers, especially since it is the basis for the stability and smoothness of the financial and banking systems function (Shawtari, 2018). The banking industry, including Islamic banking, is generally exposed to a higher level of credit risk than non- financial institutions. As a result, it has the potential to have more loans and debt that cannot be recovered, so that a lower rate of return and performance is likely to happen (Athanasoglou, Brissimis, & Delis, 2008).

Indeed, consolidation among banks, rising competition and continuous innovation to provide financial services, all contribute to a growing interest in a detailed critical evaluation of Islamic banks. In fact, evaluating the performance of Islamic banks is essential for managerial as well as regulatory purposes. While managers are keen to determine the outcomes of previous management decisions, bank regulators concerned about the safety and soundness of the banking system and with preserving public confidence, monitor banks' performance to identify banks that are experiencing severe problems (Insanil & Muflih, 2019). Without persistent monitoring of performance, existing problems can remain unnoticed and could lead to financial failure in the future. Depositors may also be interested in characterizing the performance of their bank(s) since they are not entitled to fixed returns and the nominal values of their deposits are not guaranteed. Most importantly, performance evaluation is needed to provide answers to key policy questions such as: should Islamic banks be held to the same set of regulations as conventional banks? Are they relics of a bygone era, propped up by subsidies and distorting financial-sector competition? Or, are they efficient and focused financial institutions that could, if unleashed, eventually dominate the retail financial landscape? (Hassan & Bashir, 2005)

In recent times, there have been growing numbers of studies that seek to ascertain firm specific factors as it relates to the performance of Islamic banks. Researchers in fields of finance and business have given important attention to financial performance (Almajali, Alamro & Al-soub, 2012). Due to the implications of financial performance on the health of an organization and its survival, it has been the main concern of business practitioners in various organizations. Management efficiency and effectiveness in utilizing the resources of a firm is reflected in high performance and helps to contribute to the economy (Naser & Mokhtar, 2004). For decades in the field of corporate finance, organizational performance has drawn the attention of scholars but as it relates to Islamic banks, little attention has been given (Muhammad, 2022).

1.2. Research Problem

Performance is very vital for Islamic banks as it aids their survival in the banking industry. Over the years, there have been variations in profit as reported in financial statements of Islamic banks in Nigeria (Abdullahi & Yusuf, 2022). These led to the suggestion that certain firm specific factors must have been responsible for influencing the performance of Islamic banks over time. In Nigeria, to the best of our knowledge, only few empirical studies have investigated firm specific factors like capital adequacy, asset quality, liquidity management, size and age in relation to Islamic banks' performance.

Previous studies in Nigeria (Fali, Ibenre & Mustapha, 2019; Abdullahi & Yusuf, 2022; and Muhammad, 2022) examined leverage, capital adequacy, credit risk,

deposit ratio, cost efficiency in relation to the performance of Islamic banks in Nigeria. These studies conclude with mixed findings on the relationship between these firm specific factors and performance of Islamic banks in Nigeria. Hence, the study attempts to investigate empirically this controversy as it relates to asset quality, age and size in relation to bank's performance in Nigeria. This study introduces asset quality, liquidity management, age and size. This is a new variable in the investigation of determinants of performance in Nigerian Islamic banks.

Studies done outside Nigeria like Abduh and Idress (2013); Asadullah (2017); Chowdhury, Haque and Masih (2017); Widarjono, (2018); Quan, Ramasamy, Rasiah and Pillay (2019); Insanil and Muflih, (2019); Abugamen (2021) focused on both firm specific and macroeconomic factors in their respective studies. This study differs from these studies as it specifically focused on firm specific factors such as capital adequacy, asset quality, liquidity management, size and age. This study also introduces age which scanty of these studies conducted outside Nigeria take into consideration. Furthermore, the findings of studies conducted outside Nigeria may not be applicable to Islamic banks in Nigeria. This is due to the fact that the environment in which the Islamic banks operate differs in terms of regulation and operation. Hence, the need to conduct a Nigerian study on the subject matter using recent data. The main contribution of this paper is to focus on a previously little-studied area, which is the firm specific determinant of Islamic banking performance in Nigeria.

1.3. Research Questions

Based on the established research problems, the following research questions are drawn out to pilot this study.

(i) What is the effect of capital adequacy on the performance of Islamic banks in Nigeria?

(ii) What is the effect of asset quality on the performance of Islamic banks in Nigeria?

(iii) What is the effect of liquidity management on the performance of Islamic banks in Nigeria?

(iv) What is the effect of age on the performance of Islamic banks in Nigeria?

(v) What is the effect of size on the performance of Islamic banks in Nigeria?

1.4. Research Objectives

The general objective of this study is to empirically investigate the effect of firm specific factors on the performance of Islamic banks in Nigeria. The particular objectives include to;

(i) examine the effect of capital adequacy on the performance of Islamic banks in Nigeria;

(ii) examine the effect of asset quality on the performance of Islamic banks in Nigeria;

(iii) examine the extent to which liquidity management influences the performance of Islamic banks in Nigeria;

(iv) examine the effect of age on the performance of Islamic banks in Nigeria; and

(v) examine the effect of size on the performance of Islamic banks in Nigeria.

2. LITERATURE REVIEW

2.1. Conceptual Review

2.1.1. Performance

Financial performance is the extent to which objectives of the firm and in this case financial objectives will be met or have been meet. Performance can be defined as the outcome arrived at after embarking on an activity (Kajirwa, 2015). The measure applied in evaluation of performance in the corporate world depends on the kind of organization that is to be evaluated and the purpose for carrying out evaluation. This serves as a yardstick for selecting the appropriate measure for evaluating performance. Different models for examining financial performance have been offered by scholars in the field of finance and management. The multidimensional view of performance suggests that the employment of various models or relationship patterns between organizational performance and its determinants will bring about different relationships between dependent and independent variables in the estimated models (Ostroff & Schmidt, 1993). Mohammed (2016) deduced that the company's financial performance subject to how effectively a firm uses its assets from its principal role of conducting business and its subsequent generation of revenues. It also refers to the general well-being of a firm as far as finance is concerned over a certain period of time. Financial performance in summary, is a crucial objective that firms especially the profit-oriented firms desire or aim at to achieve (Yahaya & Lamidi, 2015).

The ratios employed for measuring performance of a firm can be classified into: Liquidity ratios and Profitability ratio. Profitability ratio is commonly used as measure of performance. There are several profitability ratios; Returns on assets (ROA), Return on equity (ROE), net profit margin and gross profit margin. In this study Return on assets (ROA) was employed as surrogate for performance. Most of the empirical studies on performance as it relates to Islamic banks employed return on assets(ROA) as the measure of performance; Chowdhury, et al., (2017); Widarjono, (2018); Quan, et al., (2019); Insanil and Muflih, (2019); Abugamen (2021); and Muhammad, (2022).

Return on assets (ROA): Return on assets indicates the profitability of a firm as it relates to the total assets of the firm. It gives a clue as it relates to whether management of the firm has been efficient in using assets of the company in generating earnings. Return on assets (ROA) is the most appropriate measure of the performance of a firm and when there is an increase in ROA ratio it portrays positive financial performance of relative business and vice versa (Epps & Cereola,2008).

2.1.2. Firm Specific Factors

Firm specific factors are a firm's demographic and managerial variables which, in turn, comprise part of the firm's internal environment. The firm specific characteristics considered in this study include capital adequacy, asset quality, liquidity management, size and age.

Capital Adequacy: Capital Adequacy is a calculation of the capital required to control the risk based on the bank asset value. Baral (2007) explained capital adequacy by the definition of Basle Committee on Banking Supervision of the Bank of International Settlements (BIS) which classify bank capital into Tier I and Tier II to measure capital adequacy. Additionally, Tier I is primary capital whereas Tier I is supplementary capital. Capital adequacy was explained by San and Heng (2013) who describe that capital adequacy as the ability to absorb any losses the bank may face by the adequate amounts of bank equity and capital adequacy measure the bank's capacity to afford losses or financial risks.

Asset Quality: Asset quality is the instability of soundness banking induced by unsettled bank assets affected by high nonperforming loans. According to Widarjono (2008), asset quality illustrates bank asset quality levels. The increase in this ratio is serious and the bank needs to make provisions for bad and problematic debt to cover losses from financing. Monitoring asset quality indicators is important since risks to the solvency of financial institutions often derive from impairment of assets. Banks that actively manages their asset quality tends to exhibit better financial performance. Poor asset quality is perceived to cause capital erosion and increase credit and capital risks. Asset quality depends on the quality of credit evaluation, monitoring and collection within each bank, and could be improved by collateralizing the loans, having adequate provisions against potential losses, or avoiding asset concentration on one geographical or economic sector

Liquidity Management: Liquidity is the capacity and ability of banks to repay and reimburse short-term obligations. Liquidity is the health of Islamic bank which refers to cash availability. The cash availability reflects how speedily the bank can transform assets into ready money in order to solve the demands of lenders and borrowers. More liquid assets owned by a bank imply a higher level of liquidity of the bank (Samad, 2004). Due to nature of bank business, generally banks will face the problem of

maturity mismatch, hence, adequate liquid assets needed to pass up the event of illiquidity problems (San & Heng, 2013).

Age: Age is the length of time during which a being or thing has existed. Shumway, (2001) defined firm age as the number of years of listing of a company on the Stock Exchange of a particular country where it operates. Akhtar (2006) defines firm age from the perspective of the firm as a legal personality. As a legal person, a firm is born through incorporation. Company's age has been severally argued in the empirical literature as one of the major determinants of financial performance. It is usually measured by the the number of years since the firm was founded. Older banks tend to have better financial performance than younger banks.

Size: An important factor employed in determining firm performance is the size of a firm and this is attributable to economies of scale as found in the traditional neo classical view of the firm. A firm size influences its financial performance in several ways. Firms with large size have the advantage of economies of scale thereby leading to efficiency in comparison to firms with small size. Small firms are likely to face difficulty as it relates to competing with large firms in highly competitive markets due to the fact that smaller firms are likely to have lesser power. Size is measured by log of total assets. It is used to capture the fact that larger banks (banking sector) are (is) better placed than smaller ones in taking advantage of economies of scale in transactions to the plain effect that they will tend to enjoy a higher level of profits. Accordingly, a positive relationship is expected between size and profits. However, for banks that become extremely large, the effect of size could be negative due to bureaucratic and other reason (Abduh & Idress, 2013).

2.2. Theoretical Review

Agency Theory: One of the useful conditional theories that attempt to approach the determination of financial performance of firms is the agency theory. The principal-agent framework is used by Jensen and Meckling (1976) to explain the conflict of interests between managers and shareholders. The agency problem developed by Coase (1960), Jensen and Meckling (1976) and Fama and Jensen (1983)) is an essential part of the contractual view of the firm. Berger, Cummins, & Weiss (1997) contend that the factors underpinning the operational Performance of financial services firms are often difficult to discern because of the intangible nature of outputs and the lack of transparency over resource allocation decision. Nonetheless, insights from the financial economics literature, such as those provided by agency theory, can provide important insights into the determinants of operational performance in financial services firms. For instance, agency theory provides that relationships between owners of firms (principals) and managers (agents) are maintained by contracts (Jensen & Meckling, 1976

Resource based Theory: The resourced based theory (RBT) was propounded by Warnerfelt (1984) and the theory addresses performance differences between firms

using asymmetries in knowledge. Pearce and Robinson (2011) define the resource-based theory as a method of analyzing and identifying a firm's strategic advantages based on examining its distinct combination of assets, skills, capabilities, and intangibles as an organization. This theory is concerned with internal firm characteristics and their effect on firm performance. It views the firm as a bundle of resources which are combined to create organizational capabilities which it can use to earn above average profitability (Grant, 1991). Each firm develops competencies from these resources, and when they are well developed, these become the source of the firm's competitive advantages.

2.3 Empirical Review

Recently, different studies have examined the impact of both internal and external factors on the profitability of Islamic banks. Some of these prior studies are reviewed below.

Ramadan (2011) in an empirical effort aimed at identifying the specific firms (Bank) internal and external variables that influence Islamic bank profitability in Jordan. Unbalanced panel regression was employed for the analysis. It was discovered that ROA (Performance variable) is significantly and positively influenced banks' management efficiency, capital adequacy, investment to deposit ratio, equity book value, and credit risk exposure. The study further documents that, bank size, expenses management and non-interest earning do not significantly affect profitability.

Abduh and Idress (2013) investigated the impact of bank specific as well as industry specific and macroeconomic indicators on Islamic banks profitability in Malaysia for the period 2006-2010. Profitability was proxied with the return on assets. The internal factors include; size (log of total assets), capital (total equity over total assets), liquidity (loans to total deposit and short term funding), credit risk (loan loss reserves to gross loans), financial risk (total liability over total assets) and operation efficiency (cost over income). The external factor consists of GDP and inflation. They used a pooled regression analysis for 10 Islamic banks. The results show that the bank size has a significant effect on bank profitability. Moreover, capital, liquidity and financial risk have insignificant negative impact on banks profitability meanwhile operation efficiency has insignificant positive impact on profitability. Also, financial market development and market concentration have significant positive impact on profitability. For macroeconomic variables, inflation has a significant positive impact on Islamic banks profitability.

Fali, Ibenre and Mustapha (2019) investigate the effect of leverage on financial performance of Islamic Banking in Nigeria. The population of the study was Jaiz Bank because it is the only listed Islamic Banking in Nigeria as at that period. The study uses secondary data from annual reports of Jaiz Bank Nigeria Plc for the period of 2012 to 2017. This study concludes that there is a positive and significant effect

between DEBTCAP and ROA. In addition, positive and insignificant effect exists between DEBTCAP and ROE.

Abugamea (2021) examine the impact of bank-specific and major macroeconomic factors on the profitability of the biggest two Islamic banks in Palestine over the time period 1997-2018. It employs Pooled Regression analysis to investigate the effect of bank's asset size, capital, loans, liabilities, operating cost, economic growth and inflation on key bank profitability indicators; return on assets (ROA) and return on equity (ROE), respectively. The main findings show that size and capital have positive impact on ROE. Loans are positively correlated with both ROA and ROE. Liabilities are negatively related to ROA and operating cost has negative impact on both ROA and ROE. Moreover, Islamic banks not benefited significantly from both the inflationary environment and economic growth.

Abdullahi and Yusuf (2022) assessed whether the bank-specific factors (internal) and economic (external factors) determine the financial performance of Jaiz bank Nigeria as an Islamic bank. Secondary data from the bank's financial statements and world banks development indicators were extracted for the period of 8 years (2011 to 2018). After description analysis, OLS regression was utilized to determine the effect of independent variables (GDP, Inflation, Interest, capital adequacy, credit risk, deposit ratio, and cost efficiency) have on the dependent variables (ROA, ROE, and ROI) financial performance. It was established that; GDP as an external factor has a significant positive association with financial performance; cost efficiency was discovered to have a weak positive relationship with the financial performance, while inflation rate, interest rate, capital adequacy, deposit ratio, and credit risk were found to have no significant effect on the bank's financial performance.

3. METHODOLOGY

This study investigates the impact of firm specific factors on performance of Islamic banks in Nigeria. The longitudinal type of ex-post factor research design was adopted in this study because the study used ex-post (manifested) data (which cannot be manipulated) to explain the relationship between firm specific factors and performance. The population of the study consists of all the four Islamic banks (Jaiz Bank, Taj Bank, Lotus Bank and the Alternative Bank) operating in Nigeria. The criterion for sample size selection is that the Islamic bank must have continuous data from 2020Q1 to 2023Q4. Three (3) Islamic banks, that is Jaiz Bank, Taj Bank, and Lotus Bank met the criteria for inclusion in the sample size and hence constitute the sample size for this study. This study made use of secondary data from the audited financial reports and accounts of the sampled Islamic banks.

3.1. Theoretical Framework

The study is anchored on the resource-based theory to explain how internal factors (firm specific characteristics) determine the performance of firms. The resource-based

theory propounded by Warnerfelt (1984), posits that performance is a function of resources which may be tangible or intangible. In other words, Islamic banks are resource-based firms which make use of both tangible and intangible resources to achieve their organizational objectives. Each Islamic bank develops competencies from these resources, and when they are well developed, these become the source of the Islamic bank's competitive advantages. This theory explains the performance variation of intra industry firms as it specifically addresses firm characteristics rather than industry factors. The financial resources of insurance firms in this study are measured by capital adequacy, asset quality, liquidity, age and size. The physical resources as measured by the assets size is one of the tangible resources the Islamic banks can use to gain competitive advantage, whereas business experience (age) of the Islamic bank gives the bank managerial capabilities that it can use to gain a competitive advantage over its competitors thus being able to earn an above average financial performance. Capital adequacy enables the bank to afford losses or financial risks while liquidity shows the capacity and ability of banks to repay and reimburse short-term obligations. From the foregoing explanation one can infer quantitatively that firm performance depends on tangible and intangible resources as this is expressed as:

$$Fmp = \mathcal{F}(IEF) \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots . . \text{(i)}$$

The estimation version is given as:

$$Fmp = \alpha_0 \delta IEF_{i,t} + \varepsilon_t \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots . (ii)$$

Where:

Fmp = Firm performance

IEF = Vector of Internal and external factors

ε_t = error term

3.2. Model Specification

The model in Equation (ii) was adapted and followed the procedure and modification of Insanil and Muflih (2019) in terms of variables included to proxy firm specific characteristics. The firm specific factors employed by Insanil and Muflih (2019) includes size, capital adequacy ratio, liquidity risk, operational costs, Income diversification as well as macroeconomic factors like gross domestic income (GDP) and inflation while performance was proxy by ROA. However, in this study we only considered firm specific factors such as capital adequacy, asset quality, liquidity, age and size. The functional form of the modified model is specified below:

ROA = Ƒ (CAR, ASQ, LIQM, AGE, LBSZ) ……..... (iii)

The econometric form of the model of the study is stated below:

$ROA_{it} = a_0 + a_1CAR_{it} + a_2ASQ_{it} + a_3LIQM_{it} + a_4AGE_{it} + a_5LBSZ_{it} + u_t$ …….. (iv)

Where;

ROA = Return on total assets

CAR= Capital adequacy ratio

LIQM = Liquidity;

AGE = Age of bank

LBSZ = Bank size

a_0 to a_5, are estimated parameters

u_t is the stochastic error term

$_i$ represents the Islamic bank which is from 1 to 3, while $_t$ represents time period which is 2020 – 2023

The a priori expectations are as follows: $a_1 > 0$, $a_2 > 0$, $a_3 > 0$, $a_4 > 0$, $a_5 > 0$. All the explanatory variables are anticipated to positively influence ROA.

3.3. Measurement of Variables

Table 01 defines the variables that were used, together with the a priori expectation and the name of the previous researcher that used the variable in their investigation.

Table 01- Variable Measurements

Variables	Variable Type	Measurement	*A-priori* Expectation	Previous Study that Utilized the Variable
Return on Asset (ROA)		Measured as profit before tax divided by total assets		Muhammad (2022)

Capital Adequacy (CAR)	Independent	Measured as total capital divided by total assets	(+)	Abdullahi and Yusuf (2022)
Asset Quality (ASQ)	Independent	Measured as non-performing loans divided by total loans	(+)	Samail, et al., (2018)
Liquidity (LIQM)	Independent	Measured as total loans divided by total customer deposit	(+)	Insanil and Muflih (2019)
Age of Bank (AGE)	Independent	Age of Islamic banks is measure by year of incorporation	(+)	Ahmed et al., (2011)
Size of Bank (LBSZ)	Independent	Size is measured as logarithm of total assets of Islamic banks.	(+)	Abugamea (2021)

Source: *Author's compilation* (2024)

3.4. Method of Data Analysis

The data for this study are panel (cross sectional) in nature because the variables specified in the above model covered all the three sampled Islamic banks for a period of four years (2020Q1 -2023Q4), hence, Panel regression technique of fixed and random effect were employed. Thereafter, the Hausman test is carried out on random effect to select the model the best describe the relationship between the dependent variable and the various independent variables considered in the model as econometric analysis for this study. This estimation technique was employed because of its capability to control for unobserved heterogeneity, model dynamic relationships, improve statistical efficiency and account for both fixed and random variables, resulting in more robust and flexible findings. The characteristics of the data were described with descriptive statistics and correlation analysis as preliminary test prior to the econometric analysis. The model was estimated using the E-views 9.0 version software.

4. RESULTS AND DISCUSSION

In this section, both statistical and econometric tools are employed for the analysis in order to provide a robust background for demonstrating the objectives of the study.

4.1. Descriptive Statistics

The basic characterization of the datasets is conducted using descriptive statistics. Table 4.1 shows the quarterly summary data for all variables in this study for the period 2020Q1 – 2023Q4.

Table 02 - Results of the Summary Statistics

	Mean	Median	Max	Min	Std. Dev.	Skewness	Kurtosis	Jarque-Bera	Prob
ROA	0.665833	0.825	1.81	-3.84	1.443662	-2.500533	8.328362	106.8042	0.000
CAR	21.18083	20.51	30.81	16	4.275152	0.837819	2.962448	5.618344	0.0603
ASQ	0.730833	0.3	1.99	0	0.815493	0.575818	1.572617	6.727376	0.0346
LIQM	105.6717	75.87	222.57	40.32	61.6854	0.712109	1.869672	6.612079	0.0367
AGE	5.166667	3.5	12	1	3.9751	0.623171	1.723703	6.364606	0.0415
LBSZ	19.25429	19.48478	20.11419	17.72803	0.756788	-0.606396	2.133468	4.443487	0.1084

***Source**: Researcher's Computation (2024) using E-views 9.0*

Table 02 is the summary statistics for the dependent variable ROA and the independent variables; capital adequacy, asset quality, liquidity, age and size. The mean of ROA is 0.665833 while the maximum and minimum is 1.810000 and -3.840000 respectively. The standard deviation is 1.443662 indicating considerable clustering around the mean. The mean of capital adequacy is 21.18083 which is much higher than the minimum regulatory requirement of 10 percent while the maximum and minimum is 30.51000 and 16.0000 respectively. The standard deviation value of 4.275152 indicates a large variation among the sampled Islamic banks in Nigeria. Asset quality had minimum value of 0.0000 and a maximum value of 1.990000. The mean value of asset quality was 0.730833. The standard deviation of asset quality was 0.815493 which is a large variation from the mean. Liquidity had a mean of 105.6717 with the minimum and maximum ranging from 40.32000 to 222.5700. The standard deviation for liquidity was 61.68540 which indicate that the liquidity of the Islamic banks in the sample deviates from the mean up to 439863. The average age of the Islamic banks was 5.166667 (5years). The maximum age of the Islamic banks was 12.00000 (12years) while the minimum age of the Islamic banks was 1.00000 (1year). The standard deviation of age was 3.975100 (4years). Size had an average value of 19.25429 with a minimum of 17.72803 and a maximum of 20.11419. The standard deviation of size was 0.756787. Only CAR and LBSZ variable are normally distributed as indicated by the Jarque-Bera statistics value that is not significant at 5% level. Other variables in the model are not normally distributed because the converse holds (significant at 5% level) for their corresponding Jarque-Bera statistic and the probability values. The normality test is further conducted in the diagnostic test estimate to confirm the variables normality status and to determine whether the

parametric choice estimation technique of panel regression of fixed and random effect is suitable for analyzing the variables under consideration

Correlation Analysis

The Pearson product-moment correlation is carried out to ascertain the direction and strength of the relationship between the dependent variable (ROA) and explanatory variables (capital adequacy, asset quality, liquidity, age and size). The results are displayed in Table 4.2.

Table 03- Result of the Correlation Matrix

Correlation						
t-Statistic						
Probability	**ROA**	**CAR**	**ASQ**	**LIQM**	**AGE**	**LBSZ**
ROA	1.000000					

CAR	-0.138723	1.000000				
	-0.950054	-----				
	0.3471	-----				
ASQ	0.485609*	-0.491001	1.000000			
	3.767615	-3.822644	-----			
	0.0005	0.0004	-----			
LIQM	0.369740*	-0.481412	0.890023	1.000000		
	2.698956	-3.725172	13.24022	-----		
	0.0097	0.0005	0.0000	-----		
AGE	0.543059*	-0.530053	0.846147	0.881652	1.000000	
	4.386364	-4.239556	19.82182	12.67146	-----	
	0.0001	0.0001	0.0000	0.0000	-----	
LBSZ	-0.047985	-0.568670	0.462709	0.229780	0.487961	1.000000
	-0.325827	-4.688874	3.539999	1.601288	3.791549	-----
	0.7460	0.0000	0.0009	0.1162	0.0004	-----

Source: Researcher's Computation (2024) using E-views 9.0

Table 03 shows the correlation coefficient (strength and direction of relationship) between the dependent variable (ROA) and the independent variables (capital adequacy, asset quality, liquidity, age and size). ROA is weakly, negatively and insignificantly correlated with capital adequacy and size. For size, it indicates that Islamic banks are experiencing inefficiencies due to increase in size. This also implies

that as the Islamic banks become larger, they might experience inefficiencies leading to insignificant poor financial performance. The negative correlation between ROA and capital adequacy implies that the capacity of banks to uphold a sufficient level of capital and has internal management capabilities that enable them to detect, assess, monitor, and regulate risks is low. ROA has a weak, positive and significant correlation with asset quality, liquidity and age. However, the association between ROA and Age is fair. This implies that these variables improve the performance of the sampled Islamic banks. From the above correlation results, none of the variables representing firm specific factors is strongly correlated since none have a correlation value greater than 0.90 and this suggests the absence of multicollinearity. Hence, the variables are appropriate for conducting regression analysis.

Table 04- Co-integration Result

Kao Co-integration Result		
Variable	**t-Statistic**	**Prob.**
ADF	-1.740389**	0.0409

*** = 5% Significance Level*

Source: Researcher's Computation (2024) using E-views 9.0

Table 4.3 shows that the Kao ADF statistics absolute value of 1.740389 is significant at 5% level of significance as indicated by it corresponding probability of 0.04 that is < 0.05. This implies that there is a co-integrating (long-run) relationship among the model variables. Any variable that deviates due to shock in the short-run will adjust to equilibrium in the long run.

Table 05- Fixed and Random Effect Regression Result

Dependent Variable = ROA							
Fixed Effect				**Random Effect**			
Variable	**Coefficient**	**t-Statistic**	**Prob.**	**Variable**	**Coefficient**	**t-Statistic**	**Prob.**
C	22.02938*	3.424017	0.0014	C	25.01687*	3.871273	0.0004
CAR	-0.012543	-0.245531	0.8073	CAR	0.001770	0.035862	0.9716
ASQ	0.711267	1.192838	0.2400	ASQ	0.380215	0.672763	0.5048
LIQM	-0.002814*	-0.240668	0.0110	LIQM	-0.022263*	-3.042617	0.0040
AGE	0.800230*	5.513904	0.0000	AGE	0.603896*	5.601838	0.0000

LBSZ	-1.322037*	-4.674923	0.0000	LBSZ	-1.320950*	-4.627859	0.0000

R-square	0.746020	R-square	0.682819
Adj R-	0.701573	Adj R-	0.633155
F-Stat	16.78465*	F-Stat	11.73514*
Prob.	0.000000	Prob.	0.000000
D.W	0.499878	D.W	2.143572

Hausman Test

Chi-Sq. Statistic	Chi-Sq. d.f.	Prob.
10.20001	5	0.9000

** indicates statistical significance at 1% level.*

Source: Researchers' Computation (2024) using E-views 9.0.

The Hausman test in table 05 is used to assess whether the unobserved individual effects are correlated with the explanatory variables. The Chi-square value of 0.000001 at five (5) degree of freedom is not significant at 5% level of significant. Thus, the null hypothesis cannot be rejected. This implies that the unobserved individual (or group) effects are random and uncorrelated with the explanatory variables. Hence, the fixed effects model might be biased, and the random effects model is more appropriate.

The Random effect coefficient of determination and its adjusted version as indicated in Table 4.4 stood at 0.68 and 0.63 respectively even after adjusted for degree of freedom. This suggests that about 63% of variations in performance (ROA) are explained by all the independent variables in the model when taken together. The model has a good fit of the regression line as only 37% of systematic variation in ROA were not explained by the model but captured by the error term. Due to other internal and external factors that affect Islamic bank performance in Nigeria that was not included in the model

The F-statistic value of 11.75 approximately had p-value (0.0000 < 0.05) which indicates that there a significant linear relationship exists between the dependent and independent variables taken together. Only LIQM, AGE and LBSZ variables passed their significant test individually as indicated by their corresponding probability values that are < 0.05. This implies that these variables contributed more to Islamic bank performance (ROA) during the studied period.

The Durbin-Watson (D.W) value of 2.14 can be approximated to 2.0 suggests that the presence of autocorrelation is unlikely. An evaluation of the slope coefficients of the explanatory variables indicates that Liquidity management (LIQM) and size (LBSZ)

are negatively related to ROA while asset quality (ASQ), age and Capital adequacy (CAR) were positively related to ROA. Furthermore, the average performance of Islamic banking (ROA) is positive and stood at 25.01687 units holding other factors constant as indicated by the constant (intercept) coefficient.

Diagnostic Tests for Normality

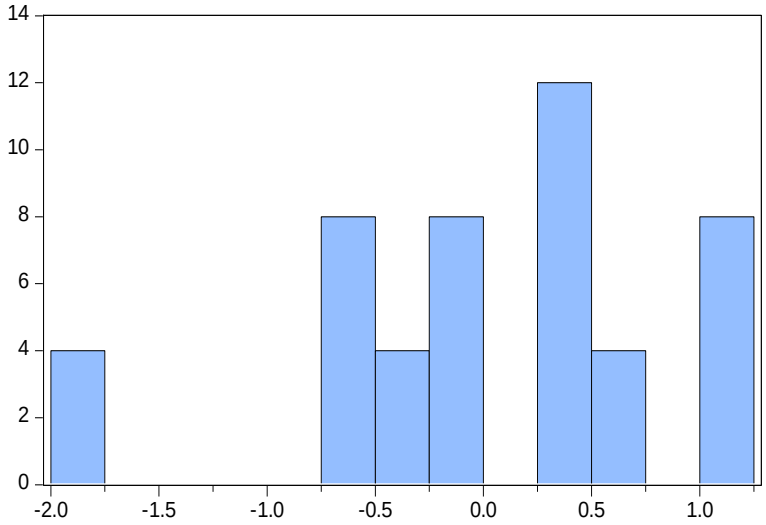

Figure 1: Test of Normality for Estimates

Source: Researchers' Computation (2024) using E-views 9.0.

The robust estimates conducted in this analysis are based on the application of panel regression with heterogeneity-robust standard errors. There is therefore the need to evaluate the estimated model to ascertain the overall reliability and appropriateness of the models in Figure 1. The plot of normality from the histogram suggests that the residuals of the estimates are well concentrated at the middle. The Jarque-Bera test of normality also fails the significance test at the 5 percent level. This shows that the null hypothesis of normal distribution of the residuals cannot be rejected. Thus, the variables are normally distributed and the parametric estimates of Random effect panel regression used in the analysis are well specified.

5. CONCLUSION

5.1. Discussion of Findings

Capital adequacy (CAR) is positively and insignificantly related to ROA and this conforms to the *A priori* expectation of positive relationship between capital adequacy and performance. The insignificant relationship between CAR and performance implies that Islamic banks in Nigeria were not significantly affected as a result of

increasing or decreasing the level of capital adequacy. This insignificant effect may be attributed by lack of optimizing Islamic banks' capital so that it becomes idle money and also create cost. This finding of an insignificant positive relationship between capital adequacy and performance of Islamic banks is in line with the result of Ramadan (2011), Al-Damir (2014), Mhanna and Al-Ammar (2017), Abugamea (2021) and Abdullahi and Yusuf (2022) and contradicted the findings of Abduh and Idress (2013) and Choudhury et al., (2017) whom found a negative relationship between capital adequacy and Islamic banks' performance.

Asset quality (ASQ) was positively and insignificantly related to ROA and this is in line with the *A priori* expectation of positive relationship between asset quality and performance. The insignificant relationship between asset quality and ROA implies that the performance of Islamic banks in Nigeria was not significantly affected by their asset quality increase. This corroborates the finding of Abdullahi and Yusuf (2022) who also found an insignificant positive relationship between asset quality and performance of Islamic banks. It however, contradicts the findings of Ramadan, (2011); Al-Damir (2014); (2014); Samail et al., (2018) who found a positive and significant relationship between asset quality and performance of Islamic banks.

Liquidity (LIQM) was found to be significant but negatively related to performance. The negative relationship between liquidity and ROA contradicted the *A priori* expectation of a positive relationship between liquidity and performance. The impact of liquidity on performance can be negative if the Islamic banks liquidity risk is high, so it can be concluded that the higher liquidity risk reduces the value of Return on Assets. The negative and significant relationship between Liquidity and Islamic bank performance is consistent with the previous findings by Insanil and Mufih (2019) but conflict with Al-Damir (2014); Asadullah (2017); Samail et al., (2018) who reported a positive relationship between these variables.

Age is positively and related to ROA and this is consistent with the *A priori* expectation of a positive relationship between age and performance. On the basis of significance, age had significant relationship with ROA. As a significant variable, it implies that age is an important firm specific factor that influences its performance of Islamic banks in Nigeria. This further suggests that older Islamic banks tend to perform better than newer ones. This finding is in line with that of Chua, Roslen and Mary (2023) and contrary with that of Haryati, Burhany and Suhartanto (2019) who reported that bank age does not have a significant effect on Islamic bank profitability.

Size (LBSZ) was negatively related to ROA and contradicts the *A priori* expectation of a positive relationship between size and performance. This is quiet surprising. This may be as a result of diseconomies of scale suffered by Islamic banks due to uncontrolled increased size. As the banks become larger; they might experience

inefficiencies leading to poor financial performance. Al-Damir, (2014); and Quan et al., (20158) also found a negative relationship between size and Islamic bank's performance. This finding of a significant negative relationship between size and Islamic bank's performance conflict with the findings of Norman, (2015); Mhama and Al-Ammar, (2017); Abduh and Idress (2013); and Abugamea (2021).

5.2. Conclusion

The focus of the study was on firm specific factors and Islamic banks' performance in Nigeria for the period 2020Q1 to 2023Q4. Five firm specific factors (capital adequacy, asset quality, liquidity, age and size) were selected for this study while Return on assets was used to represent performance. The study employed preliminary test of summary statistics, correlation analysis, the Kao co-integration test and the panel random effect estimation technique to ascertain the nexus between the explained and the explanatory variables considered. The findings seem to provide evidence that liquidity, size and age of Islamic banks are crucial as they were found to be the most important firm specific factors affecting the performance of Islamic banks in Nigeria. Liquidity and firm size though significant, were inversely related to ROA. Thus, large total assets and high liquidity are not associated or linked with better performance of Islamic banks. Hence, the issue of large assets and high liquidity need to be addressed as it does not yield better performance for Islamic banks in Nigeria. Also, capital adequacy and asset quality has little or no role to play as regards the performance of Islamic banks in Nigeria since both variables had an insignificant effect on performance. From the findings, the study concludes that liquidity, size and age variables are significant determinants of Islamic bank performance in Nigeria while capital adequacy and asset quality were not found in this category.

5.3 Recommendations

The following policy recommendations are advanced based on the empirical findings from our results:

Capital adequacy ratio insignificantly spurs performance of Islamic banks. Note that capital adequacy is a prudential regulatory ratio for banks, implying that strict regulations that mandate Islamic banks to keep higher capital adequacy ratio is a step in the right direction that will soon start to yield the desired benefits. Therefore, there is need for regulatory agencies to re-evaluate the prudential regulation measures for Islamic banks to expedite its positive effect to become significant. The use of similar capital adequacy requirements for both Islamic and conventional banks may needs to be revised, in particular, lower capital adequacy requirements should be imposed on Islamic banks compared to the conventional banks due to their non-profit oriented nature.

Furthermore, there is evidence from the study that asset quality is not an important internal factor that determined the performance of Islamic banks in Nigeria. There is therefore need for the banks to maintain strict asset management policy that focuses on efficient financing strategies. The quality of credit evaluation, monitoring and collection within each bank should be improved and this can be done by collateralizing the loans, having adequate provisions against potential losses, or avoiding asset concentration on one geographical or economic sector as it is currently practice by Islamic banks in Nigeria.

The age of Islamic banks appears to be more important for performance determination than asset quality and capital adequacy. This implies that newer banks coming into the sub-sector need to be more strategic in ensuring that turnaround period of growth is rapidly advanced.

Finally, Islamic banks should pay more attention to their size and liquidity as it relates to their performance. Hence, the issue of large assets and high liquidity should be addressed as it does not yield better performance for Islamic banks in Nigeria.

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