

**Adequate Capital and Performance of Selected Microfinance Banks in Oyo State, Nigeria**

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**Abstract\***. The sufficiency or adequacy of banks' capital is determined by the capital adequacy ratio (CAR). Capital adequacy thus refers to the determination of banks existing capital structures, in terms of the ability to wield against potential widespread risk, crisis and distress. Banks' capital adequacy influences banks' performance, since the adequacy by implication determines the amount of funds available for banks' business and other profitable initiatives, and the degree of absorption of risks. Hence the study examines the capital adequacy as a predictor of microfinance banks' performance. The objective of this study is to assess the impact of adequate capital (paid up capital, share premium and statutory reserve) on microfinance banks' performance (adjusted capital, capital adequacy ratio and profit before tax) in Nigeria. The study made use of ex-facto research design with time series. A sample of twenty selected microfinance banks in Ibadan, Oyo state was selected. Data was collected through secondary source from published annual financial reports of year 2019, which was analyzed using the Ordinary Least Square (OLS) method with the help of E-views version 9. The study further deployed some descriptive and regression analyses to evaluate how the mean outcomes deviate from each other and establish the level of association between variables. Findings showed that paid-up capital and statutory reserve and general reserves have a positive and significant association with adjusted capital and profit before tax of MFBs in Nigeria. Findings of the study further revealed that share premium has negative and significant association with capital adequacy ratio of MFBs in Nigeria. In line with the findings of this study, it recommended that MFBs should establish capital adequacy measures that clearly outline management's view of organization's priorities on financial performance.

**Keywords:** Capital Adequacy, Microfinance Banks, Performance, Reserve, Profit Before Tax

**Introduction**

The financial sector is one of the mostly regulated sectors in an economy and banking by far the most heavily regulated industry. Regulatory authorities carry out their supervisory functions through bank examinations (Igbiosa & Aigbovo, 2016). Bank examination is understood as the examination of the books, records and affairs of a bank for the purpose of finding out whether the affairs of the bank is conducted in a safe and sound manner, with respect to adequacy of capital, asset quality, corporate governance, earnings, liquidity, quality of internal control, effectiveness of the accounting system and record keeping, as well as compliance with both the individual bank's internal policies and prudential guidelines (Longe, 2003).

The importance of the banking of financial institution sector is based on the fact that banks are the foremost channel of savings and allocation of credit in an economy (Abdul, 2017). The sector facilitates financial intermediation task by transferring the money into productive investments. Banks serve as a bridge between small savers and big borrowers, and execute all tasks related to the profitability and security of channeled funds. Therefore, to ensure that the banking industry achieves its objectives, the financial authorities have to ensure

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\* Word counts: 273

that banks play by the rule. A major aspect of the rules of financial authorities is the requirements for banks to maintain a prescribed minimum amount of capital that is adequate for their level of operations.

Source of capital refers to the place or platform where financial resources can be acquired. A firm can source for funds either internally or externally or both, which constitute the firm's structure of capital (Sharon & Celni, 2019). Structure of capital refers to the blend of firm's financial liability. Uremadu and Onyekachi (2019) could also refer to the put together of debt quantity and equity quantity a firm employed to finance business operations. It could be seen as the debt and equity mixture that the firm explore to finance its business operations (Aramvalarthan, Kannadhasan, & Babu, 2018). Structure of capital is the sum of debt and equity quantum or preference shares, common stock and other debt obligations. Irrespective of the Industry, as business expands, capital requirement also increases, thus needing funds and the needed funds could come from any of these sources; debt, equity or combination of both. The sources of funds must be considered based on cost-benefit analysis. A source of funds to an organization should be cheaper, therefore more profitable to the firm than other sources of funds. A strong capital base is critical to the financial health and viability of any bank. As the corner stone of bank's strength, it is the most widely used parameter and indicator for measuring bank's performance.

Capital is a major component of a financial institution's strength. It supports banks' operations by providing a buffer to absorb unanticipated losses from its activities, and in the event of any problem, enables the bank to continue to operate in sound and viable manner, while the problems are being addressed or resolved (Igbinosa & Aigbovo, 2016). The concept of capital structure has been one of the most puzzling issues in corporate finance literature which has attracted much attention from the financial scholars for many years. A study on the assessment of banking performance indicators of performance, indicators of performance in bank areas shows that capital structure is the manner in which a firm funds its investments by the use of a mixture of debt and equity (Alexandru, Genu, & Romanescu, 2008). Capital structure choice has been and will continue to be a very vital decision in the management of firms, hence, the managers need to pay much attention on the optimal capital structure, failure of which, firms may not be able to economically use the available resources. The financial performance of any firm is directly influenced by the capital structure decisions, thus making it a vital managerial decision. In this regard, the capital adequacy of a bank determines the reliability and healthiness of the bank, as it serves as a safety buffer against unanticipated losses, particularly systemic crises (Singh & Milan, 2018).

The sufficiency or adequacy of banks' capital is determined by the capital adequacy ratio (CAR). Capital adequacy thus refers to the determination of banks existing capital structures, in terms of the ability to wield against potential widespread risk, crisis and distress. Banks' capital adequacy influences banks' performance, since the adequacy by implication determines the amount of funds available for banks' business and other profitable initiatives, and the degree of absorption of risks.

### Research Questions

In order to achieve the stated objectives, the following questions were addressed in the study:

1. What is the relationship between paid-up capital and adjusted capital of MFBs in Nigeria?
2. What is the relationship between share premium and capital adequacy ratio in MFBs in Nigeria?
3. How does increase in statutory reserve lead to better profit before tax in MFBs in Nigeria?

## Objectives of the Study

The main objective of this study is to examine the impact of adequate capital on microfinance banks' performance in Nigeria. The specific objectives are to:

1. Investigate the impact of paid-up capital on adjusted capital of MFBs in Nigeria.
2. Examine the relationship between share premium and capital adequacy ratio in MFBs in Nigeria.
3. Determine the relationship between increase in statutory reserve and higher profit before tax of MFBs in Nigeria.

## Literature Review

### Conceptual Review

#### *Adequate Capital*

A bank is said to have adequate capital when it has the level of capital sufficient to cover the various risks to which it is exposed, such as credit risk, market risk and operational risk, in order to absorb the potential losses and protect the financial institution's shareholders. Capital adequacy ratio (CAR) is an independent variable and is chosen because it is the core measure of a bank's financial strength from a regulator's point of view. Capital adequacy ratio consists of the types of financial capital considered as the most reliable and liquid shareholders' equity. Bank with good capital adequacy ratio have good profitability. It is the comparison of the total risk weighted assets with the shareholders' funds unimpaired by losses. The current minimum capital adequacy ratio for MFBs in Nigeria is 10%, with good and adequate capitalization. Microfinance banks are able to absorb loans that have gone bad (Kurawa, 2014). In addition to these, a bank with a strong capital adequacy is also able to absorb possible loan losses and hence avoids bank run, insolvency and failure. Capital adequacy ratio is a measure of the amount of bank's capital expressed as a percentage of its risk weighted exposure. It consists of the types of financial capital considered the most reliable shareholders' equity. Theoretically, banks with good capital adequacy ratio have a good profitability. A bank with a strong capital adequacy ratio is also able to absorb possible loan losses and thus avoid bank run, insolvency and failure.

Adequate capital was defined as a situation where the adjusted capital is enough to absorb all losses and cover the risk weighted assets of the bank, and having enough surpluses for the current and future expansion. Adequate capital is required to maintain public confidence to absorb unanticipated or unusual losses not absorbed by normal earnings. Banks need adequate capital to be able to attract additional funds in the market and to assuage the confidence of depositors, the regulators and the general public at large on their ability to discharge their obligations. According to Onoh (2004), a bank capital is adequate if it can cover the bank's operational expenses and satisfy customers with their various needs and protect depositors against total or partial loss of deposits in the event of the collapse or liquidation of the bank. In any business firm and indeed bank, adequate capital is seen as very important, as it spurs business exertion, better performance and standards in any business environment.

#### *Bank Performance*

The main objective of banks is to maximize profits. This is very important for the purposes of paying corporate taxes, paying interests to depositors, salaries and wages to staff, dividends to shareholders and meeting other expenses (Ezike & Oke, 2014). Profitability is essential for a bank to sustain its operations and for its shareholders to obtain fair returns on their investments. Profitability is a bank's first line of defense against unusual losses as it strengthens its capital position and improves future earnings through investments of retained earnings. A good means of measuring performance of banks and other business enterprises is the financial analysis. Financial analysis is a process of identifying the financial strengths and

weaknesses of a firm by establishing relationship between the items of the balance sheet and the profit and loss account.

Another major yardstick for measuring performance of banks is the CAMELS approach. This approach is used by both regulatory authority and management to assess the level of performance of banks on their soundness, solvency and liquidity position. The acronym CAMELS means C – Capital; A – Assets Quality; M – Management; E – Earnings; L – Liquidity; S – Sensitivity to market risks. This serves as a major tool for assessing solvency level of banks by the regulatory authorities. There are many factors or key parameters to analyze bank performance.

*The quality of capital* of a bank can be measured in two main ways. The first method is by computing the *capital adequacy ratio* of the bank and comparing it with regulatory benchmarks. The CAR is computed by dividing the shareholders' funds by the risk weighted assets and multiplying by 100. For the period of our review, the minimum regulatory benchmark of capital adequacy ratio for MFBs in Nigeria was 10%, which indicated that MFBs should have capital sufficient to carry at least 10% of the risks to which it is exposed. The higher the capital adequacy ratio, the better the bank's position.

The second method is by computing the *Adjusted Capital*, otherwise known as Shareholder's funds unimpaired by losses. The adjusted capital is a regulatory tool used to assess the performance and financial viability of financial institutions, and their ability to withstand internal and external shocks. It is computed by adjusting a bank's shareholders' funds (capital and reserves) for any provision that the bank had not made, such as provision for fictitious assets, under-provision for loan losses etc. The resultant figure is the shareholder's funds unimpaired by losses or adjusted capital, which is compared with the regulatory capital benchmarks. In the case of MFBs, the benchmarks are as follows; N50 million for Tier 2 Unit MFBs, N200 million for Tier 1, Unit MFBs, N1 billion for State MFBs, and N5 billion for National MFBs.

*Profit Before Tax* is a measurement tool used by regulators to assess the performance of the bank. It is considered as the actual performance of the bank because it has not yet been beclouded by tax deductions. There is no regulatory threshold for the level of Profit Before Tax an MFB should achieve, but banks are expected to make profit from their operations, and create internally generated capital to ensure its viability and going -concern status.

### **Microfinance Bank**

According to Hartarska (2005), microfinance is the provision of small-scale financial services to low income or unbanked people. According to Ledgerwood (1999), microfinance has evolved as an economic development approach intended to benefit low-income women and men. The term refers to the provision of financial services to low-income clients, including the self-employed. According to Central Bank of Nigeria (2012), "a microfinance bank (MFB) unless otherwise stated shall be construed to mean any company licensed by Central Bank of Nigeria to carry on the business of providing financial services such as savings and deposits, loans, domestic funds transfers, other financial and non-financial services to micro clients".

### **Empirical Review**

A study of selected MFB in Kwara State was undertaken in order to assess their performance over time with a view to evaluate their objectives, structure, and practicability as it affects their operations (Jenyo & Adebayo, 2018). The study also describes the profile of customers and staff of MFB in the selected areas so as to know whether or not their input had affected the performance of the MFB. In the same vein, it examines and evaluates the causes of failure of those banks in the study area and suggested solutions to ameliorate the problems identified. The method of data collected was based on the use of both descriptive survey and analytical presentation the study revealed that generally the liquidity position of MFB was

weak as it was about 0.96 in 2007 and 0.88 in 2008 as against 2.00 (i.e., standard recommended for the Industry). Similarly, the debt equity ratio revealed that these banks rely heavily on borrowed capital, hence, if for any reason the creditors withdraw their funds, the banks would be faced with a situation of imminent collapse. Similarly, there are strong relationships between their capital base, liquidity stability and relative income. It is thus concluded, therefore, that there is the need for greater cooperation between the Central Bank of Nigeria (CBN) and Nigeria Deposit Insurance Cooperation (NDIC).

A study examines the impact of Credit Management on firm performance amidst bad debts, among Nigerian deposit banks (Ayunku & Uzochukwu, 2020). Hypotheses were formulated following the dependent variables of Return on Asset and Tobin Q. The independent variables employed for this study include: loan loss provision, loan to deposit ratio, equity to asset ratio, and loan write off. This study was based on ex-post facto research design and employed a panel data set collected from fourteen (14) commercial banks over six years ranging from 2014 to 2019 financial year. The scholar analyzed the data set using descriptive statistics, correlation and Ordinary Least Square Regression Technique. The random effect models established that non-performing loan, loan loss provision and equity to asset impact significantly on banks' performance in both Return on Asset and Tobin-Q models. This suggests that the sampled banks needed to establish efficient arrangements to deal with credit risk management. In all, credit risk management indicators considered in this research were important variables in explaining the profitability of Nigerian commercial banks. However, based on the outcome from the empirical analysis, the study carefully recommended that investors and shareholders in these banks should be aware of the possible use of provisions for losses on nonperforming loans by managers for smoothening of profits. The shareholders specifically should be ready to meet optimal agency costs to reduce the manager's information asymmetry by hiring competent internal and external auditors.

The paper aims to analyze the performance of microfinance institutions (MFIs) from sustainability and outreach points of view (Ahmed, 2014). Random-effects GLS regression-robust and fixed-effects (within) regression-robust analysis have been carried out employing a panel dataset of 64 MFIs in Nigeria. These MFIs willingly report their financial and operational data to microfinance exchange (MIX), a non-profit private institution with the objective of strengthening financial inclusion by disseminating performance information of microfinance sector worldwide. This study reveals that the MFIs will cover their cost without necessary increasing the number of loan officer for each borrower and the same time without increasing the number of female borrowers in their books. Also, when the number of borrowers increases it is better for MFIs to increase their OSS. The result shows that PAR 30 will be properly checked and maintain with the increase of log of loan officer per borrower. The log of return on equity in our estimates shows significant when the MFIs ensures decrease in portfolio at risk past due 30 days and when CAR is getting down. Cost efficiency is significant when other variables are constant. The result depicts that the sample MFIs attain breadth of outreach while the cost per borrower reduces and lastly, for the MFIs to increase the depth of outreach PAR30 will also increase.

The study of Waweru and Wanyoike (2016) determined the relationship that exist between equity capital and profitability in MFIs and finds a weak, positive and statistically significant relationship between equity capital and profitability of MFIs. Olusuyi and Felix (2017) examined the relationship between capital structure and financial performance using panel data, variables of return on assets and returns on equity were used to measure the financial performance, also variables of debt-equity ratio, asset turnover and age of firm were used to measure capital structure of the sampled manufacturing firms. This study observed that debt-equity ratio has a negative but statistically significant effect on financial performance of manufacturing firms in Nigeria.

Kimoro, Muturi, and Gekara (2019) explored the effect of profitability on capital structure selection for commercial banks operating in Kenya with multiple regression approach in measuring the link between the firm's capital structure selection and level of profitability. The study found that firm profitability had significant impact on the capital structure selection and exhibited a negative and linear correlation with capital structure selection. The study further found a moderating significant effect of ownership on the capital structure selection. Nassar (2016) ascertained the effect of capital structure on financial performance in Borsa Istanbul between 2005 and 2012 with multivariate regression analysis in measuring return on asset, return on equity and earnings per share as firm performance indicators and debt ratio as a proxy of capital structure. The results show that, there is a negative significant relationship between capital structure and firm performance. Uremadu and Onyekachi (2019) studied the effect of capital structure on corporate performance in Nigeria. The study employed return on asset, long term debt to asset ratio, total debt to equity ratio with special focus on consumer goods industrial Sector of the economy with multiple regression analysis. The results from the research found a negative and insignificant impact of capital structure on corporate performance of the consumer goods firm Sector of Nigeria. Aramvalarthan, Kannadhasan, and Babu (2018) investigated the dependence among capital structure and corporate in India with the application of panel data method in measuring the link between return on equity, firm size, tangibles and capital structure. The result shows that financial leverage has a positive significant effect on the financial performance of the firm.

Aziz and Abbas (2016) ascertained the association of different debt financing on firm's performance in fourteen economic sectors of Pakistan from 2006 to 2014 with the use of regression method. The results of the study indicated that debt financing have negative but also significant impact on firm performance in Pakistan.

Dada and Abbas (2016) examined the effect of capital structure on firm performance by measuring asset turnover, tangible asset and return on asset in selected firms in Nigeria between 2010 and 2014. The results from the panel data approach shows that assets turnover and tangible assets have a significant positive relationship with Tobin's Q. Risk indicated a significant negative association with Tobin's Q. Age on the other end had a significant negative link with ROA and Sales growth indicated a significant positive association with return on asset. Muigai and Murithi (2017) ascertained the moderating effect of firm size on the association between firm's capital structure and financial distress of non-financial firms in Kenya from 2006 to 2015 with feasible generalized least square regression model. The results from the study showed that firm size has a significant moderating effect on the relationship between capital structure and financial distress of non-financial firms. Mulyana, Zuraida and Saputra (2018) evaluated the impact of profitability, liquidity and leverage on earnings and its effect on the value of firms in Indonesia stock exchange between 2011 to 2015. The study employed hypothesis testing on secondary data of 150 manufacturing organizations sourced from corporate website and the official website of the stock exchange in Indonesia with causality method application. It was revealed that profitability, liquidity and leverage do individually and collectively effect firm's earnings.

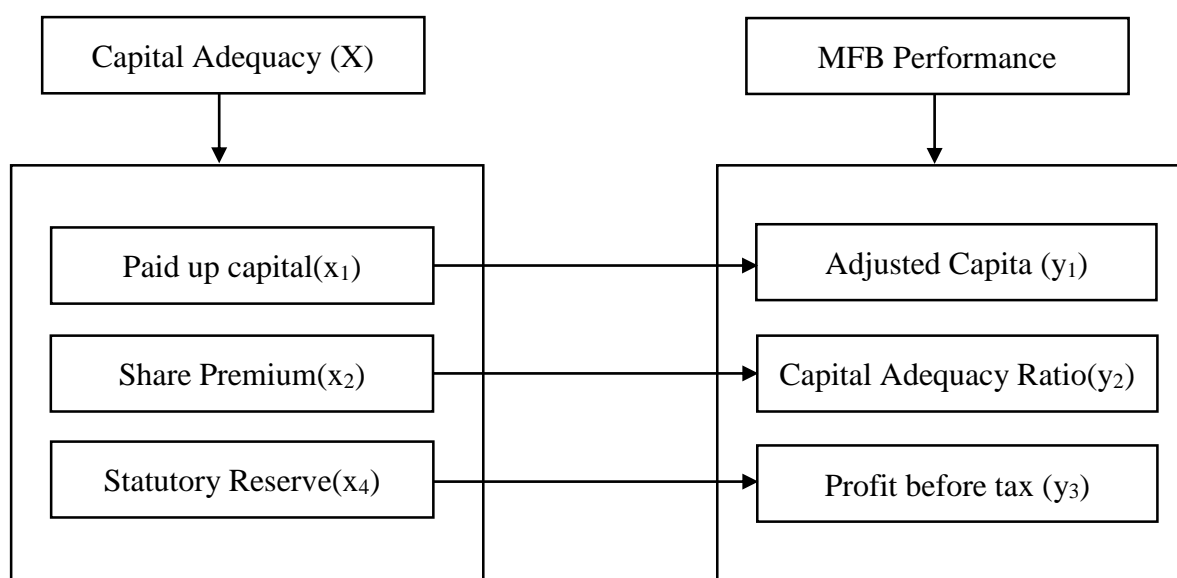
Shen (2017) empirically investigated the association between capital structure and corporate performance in China from 2011 to 2015 with regression method in analyzing return on equity, return on asset, gearing ratio, long term debt capital ratio and current debt capital ratio. The research found a weak degree of negative correlation between asset liability ratio and performance of listed companies in China. Cheema et al. (2017) investigated the link between capital structure and financial performance of Shariah and non-Shariah companies in Pakistan between 2009 and 2015 with multiple regression method. Dependents variable measured by ROA and ROE while capital structure as the explained variable measured by long term debt ratio, short term debt ratio, and sales growth ratio non-debt tax shield and inside

holding. Results from the multiple linear regression and correlation revealed that capital structure affects the performance of firm in the case of non-Shariah but do not significantly affect performance of Shariah companies.

Kehinde (2017) conducted the study to explore the relationship between capital structure and survival dynamics of business organization, using multiple linear regression technique. Dependent variable was measured by equity and debt while independent variable was measured by dividend. The result showed that capital structure of the firm does not satisfied the optimal capital structure status of the Modigliani and Miller of the firm. Gharaibeh (2015) embarked on the research to find out the impact of capital structure on the financial performance of listed companies in the Bahrain Bourse from 2009 to 2013. The study employed ROE, ROA, EPS and dividend yield as firm financial performance indicators and capital structure as explained variable. Ordinary least squares method was utilized to ascertain the impact of capital structure on the ROE, ROA, EPS and dividend yield. Capital structure represented by total liability to total assets has positive significant effect on ROE but have no significant impact on ROA, EPS and dividend yield. The results also revealed that lagged performance measures of ROE, ROA, EPS, and dividend yield have positive significant effect on the current year's firm performance.

### Conceptual Model

This is going to be a linear regression model.



Source: Researcher's Model (2021)

The model expresses the relationship between the dependent (microfinance bank performance) and independent variables (capital adequacy). Also, each variable has sub-variables, capital adequacy will be measured with paid up capital, share premium and statutory reserve, while microfinance bank performance to be measured with adjusted capital, capital adequacy ratio, and profit before tax.

### Methodology

The methodology to be adopted for this study was based on the explanatory content analysis approach. The research design to be employed in this study is the ex-post facto research design. This study will be treated as ex-post facto using time series data research since it relied on historical data over a period last quarter of 2019. This study involves the analysis of financial statements hence this research design is considered suitable for this study.

The data collection method adopted was secondary data. The secondary data on PBT, adjusted capital & liquidity ratio were obtained from the financial statement of the microfinance banks selected in the study. This information acquired, covered a period of 2019 last quarter. The sampling method used for this study was a non-random sampling method upon a purposive sampling technique.

Twenty (20) microfinance banks located in Ibadan, Oyo state Nigeria was selected for this study. The MFBs are Reality MFB, Orilonise MFB, Full Range MFB, Benefits MFB, Custodian MFB, PolyIbadan MFB, UniIbadan MFB, Best Star MFB, Grooming MFB, OAF MFB, SeedVest (State MFB), MultiVest, Lafayette (State MFB), Oke Bola NUT, Civic, New Era, Nigerian Prison MFB, Canaan, Crest and Sal Fol. The data sources to be used for the research are financial statements of the selected microfinance banks for the period. The audited financial statement of the microfinance banks will be employed so as to expand the validity and reliability of the findings and conclusions. The data will be taken from annual financial statements which cover the last quarter of 2019 period.

Data is collected from already audited annual reports from last quarter of year 2019 of selected Microfinance banks. In this study Descriptive Analysis and Ordinary Least Square (OLS) was used to analysis the data collected in selected companies. This study considers data from published annual financial statement. The time series data cover period of last quarter of year 2019. The researcher design adopted the explanatory research design, which is based on past information linking to the dependent and independent variables used in this study.

## Result and Findings

### Descriptive Analysis

This section of the analysis provides an overview of the data set, while an attempt is also made to describe the main features of the data. The study evaluates the capital adequacy as a predictor of microfinance banks' performance in Nigeria. The description of the data series is based on mean, maximum, minimum and standard deviation, skewness, kurtosis, etc. of the variables, which are paid up capital (PUC), share premium (SP), statutory reserve (SR), general reserve (GR) and shareholder's funds (SF).

**Table 1. Descriptive analysis of capital adequacy variables**

	PU	SP	SR	GR	SF
Mean	185.8360	0.167500	12.08050	-47.73050	125.4750
Median	37.90500	0.000000	2.335000	-9.530000	20.15500
Maximum	2550.000	1.020000	129.6700	24.95000	2150.000
Minimum	20.00000	0.000000	0.000000	-399.5900	-62.83000
Std. Dev.	560.2527	0.332849	28.95614	99.92658	478.2755
Skewness	4.041382	1.710270	3.583699	-2.536997	4.079467
Kurtosis	17.57173	4.300791	15.08872	9.012454	17.79187
Jarque-Bera	231.3886	11.16012	164.5907	51.57918	237.8063
Probability	0.000000	0.003772	0.000000	0.000000	0.000000
Sum	3716.720	3.350000	241.6100	-954.6100	2509.500
Sum Sq. Dev.	5963779.	2.104975	15930.70	189721.1	4346201.
Observations	20	20	20	20	20

Source: Author's Computation (2021)

The max and min are the maximum and minimum values of the series in the current sample, which showed that minimum and maximum value of paid-up capital (20.00000 &



2550.000), share premium (0.000000 & 1.020000), statutory reserve (0.000000 & 129.6700), general reserve (-399.5900 & 24.95000) and shareholder's funds (-62.83000 & 2150.000).

The probabilities of the Jarque-Bera test of normality for variables are all lesser than the 5% level of significance, which indicates that the data are normally distributed. Therefore, with all the positive results in the standard deviation, it shows that capital adequacy as a positive predictor of microfinance banks' performance in Nigeria in 2019. The skewness value for paid-up capital (4.041382), share premium (1.710270), statutory reserve (3.583699), and shareholder's funds (4.079467) are showing positive skewness while general reserve (-2.536997) is showing negative skewness. The range of skewness can be mathematically expressed as  $-1 < x < 1$ .

**Hypothesis one (H0<sub>1</sub>):** there is no significant relationship between relationship between Paid-up capital and Adjusted Capital of MFBs in Nigeria.

Dependent Variable: AC

Method: Least Squares

Date: 01/11/21 Time: 16:30

Sample: 1 20

Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
PU	0.850071	0.029111	29.20143	0.0000
C	-7.733713	16.79163	-0.460569	0.6506
R-squared	0.979328	Mean dependent var		150.2400
Adjusted R-squared	0.978179	S.D. dependent var		481.2547
S.E. of regression	71.09052	Akaike info criterion		11.46042
Sum squared resid	90969.50	Schwarz criterion		11.56000
Log likelihood	-112.6042	Hannan-Quinn criter.		11.47986
F-statistic	852.7234	Durbin-Watson stat		1.790641
Prob(F-statistic)	0.000000			

Source: Author's Computation (2021)

Hence the linear equation model will be used to evaluate the stated hypothesis above

$$AC = \beta_0 + \beta_1 PU + e$$

$$AC = \beta_0 + \beta_1 PU 0.85 + e$$

The paid-up capital variable had a coefficient of 0.850071 which means there was a positive relationship with the adjusted capital of MFBs in Nigeria. This meant that a unit increase in the Paid-up capital of MFBs will lead to an increase in adjusted capital by 0.85%. The linear regression result shows that the coefficient of determination,  $R^2$  (97%), indicates that almost all the variation that in the dependent variable is explained by the model. The significant value of the F-statistic is lesser than 0.05, which means that the variation explained by the model is due to chance ( $f=852.7234$ ,  $P<0.05$ ), which also tests for the overall significance of the independent variable. The Durbin-Watson (D.W), which tests for autocorrelation in the residuals from a statistical regression analysis is 1.79, indicating the absence of autocorrelation.

**Hypothesis two (H0<sub>2</sub>):** there is no significant relationship between Share Premium and Capital Adequacy Ratio of MFBs in Nigeria.

Dependent Variable: CAR  
 Method: Least Squares  
 Date: 01/11/21 Time: 16:32  
 Sample: 1 20  
 Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SP	-40.79869	66.25758	-0.615759	0.5458
C	33.50065	24.19128	1.384823	0.1830
R-squared	0.020630	Mean dependent var		26.66687
Adjusted R-squared	-0.033780	S.D. dependent var		94.54642
S.E. of regression	96.13003	Akaike info criterion		12.06392
Sum squared resid	166337.7	Schwarz criterion		12.16349
Log likelihood	-118.6392	Hannan-Quinn criter.		12.08336
F-statistic	0.379159	Durbin-Watson stat		1.668364
Prob(F-statistic)	0.545762			

Source: Author's Computation (2021)

Hence the linear equation model will be used to evaluate the stated hypothesis above

$$CAR = \beta_0 - \beta_1 SP + e$$

$$CAR = \beta_0 - \beta_1 SP 40.79 + e$$

The share premium variable had a coefficient of -40.79869 which means there was a negative relationship with the capital adequacy ratio of MFBs in Nigeria. This meant that a unit increase in the share premium of MFBs will lead to a decrease in capital adequacy ratio by 40.79 %. The linear regression result shows that the coefficient of determination,  $R^2$  (0.2%), indicates that almost all the variation that in the dependent variable is explained by the model. The significant value of the F-statistic is greater than 0.05, which means that the variation explained by the model is due to chance ( $f=0.379159$ ,  $P>0.05$ ), which also tests for the overall significance of the independent variable. The Durbin-Watson (D.W), which tests for autocorrelation in the residuals from a statistical regression analysis is 1.66, indicating the absence of autocorrelation.

**Hypothesis three (H0<sub>3</sub>):** there is no significant relationship between statutory reserve and profit before tax of MFBs in Nigeria.

Dependent Variable: PBT  
 Method: Least Squares  
 Date: 01/11/21 Time: 16:32  
 Sample: 1 20  
 Included observations: 20

Variable	Coefficient	Std. Error	t-Statistic	Prob.
SR	0.659491	0.347991	1.895135	0.0743
C	-15.73998	10.68325	-1.473333	0.1579
R-squared	0.166340	Mean dependent var		-7.773000
Adjusted R-squared	0.120026	S.D. dependent var		46.82212

S.E. of regression	43.92240	Akaike info criterion	10.49737
Sum squared resid	34725.19	Schwarz criterion	10.59694
Log likelihood	-102.9737	Hannan-Quinn criter.	10.51680
F-statistic	3.591538	Durbin-Watson stat	2.121029
Prob(F-statistic)	0.074251		

Source: Author's Computation (2021)

Hence the linear equation model will be used to evaluate the stated hypothesis above

$$PBT = \beta_0 + \beta_1 SR + e$$

$$PBT = \beta_0 + \beta_1 SR 0.65 + e$$

The statutory reserve variable had a coefficient of 0.659491 which means there was a positive relationship with profit before tax of MFBs in Nigeria. This meant that a unit increase in the statutory reserve of MFBs will lead to an increase in profit before tax by 0.65%. The linear regression result shows that the coefficient of determination,  $R^2$  (16%), indicates that almost all the variation that in the dependent variable is explained by the model. The significant value of the F-statistic is lesser than 0.05, which means that the variation explained by the model is due to chance ( $f=3.591538$ ,  $P<0.05$ ), which also tests for the overall significance of the independent variable. The Durbin-Watson (D.W), which tests for autocorrelation in the residuals from a statistical regression analysis is 2.12, indicating the presence of autocorrelation.

### Conclusion

The study examines the impact of adequate capital on microfinance banks performance in Nigeria. The study adopted the ex post facto research design and used content analysis of corporate financial statements to extract relevant data from sampled microfinance banks for the last quarter of 2019. The study further deployed some descriptive and regression analyses to evaluate how the mean outcomes deviate from each other and establish the level of association between variables.

The analysis indicates that paid-up capital, statutory reserve and general reserves have a positive and significant association with adjusted capital, profit before tax and portfolio at risk of MFBs in Nigeria. Findings of the study further reveal that share premium and shareholder funds has a negative and significant association with capital adequacy ratio and liquidity ratio of MFBs in Nigeria. In line with the findings of this study, it recommended that commercial banks particularly the MFBs should establish capital adequacy measures that clearly outline the management's view of organization priorities on financial and regulatory performance, which should exceed the minimum regulatory capital requirements for MFBs in Nigeria. The capital adequacy measures should be continuously updated to reflect changes in the economic outlook of the MFBs' customers.

### Recommendations

1. Based on the findings of the study, paid-up capital, statutory reserve and general reserves positively influences financial performance of the selected MFBs in Ibadan, Oyo state. Therefore, the study recommends that the regulatory authority should strengthen the statutory reserve and general reserves for microfinance banks even more to ensure optimal performance and industry growth.
2. Adequate capital structure was found to have a positive significant relationship with firm performance. Microfinance banks need to devise strategies that are effective to monitor their debt profile, and grant more quality credit in order to achieve better performance.

3. The study also recommends that CBN should ensure strict regulations to share premium and shareholders' funds among microfinance banks since they were found to have negative influence on financial performance of microfinance banks in Nigeria.

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