Influence of Some Company Attributes on the Financial Performance of Some Registered Microfinance Banks in Nasarawa State of Nigeria

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Abstract

This study measures the extent of influence of some company attributes in terms of customer deposit, capital adequacy, bank lending, liquidity and bank efficiency on the financial performance of microfinance banks in Nasarawa State of Nigeria. The study utilized descriptive research design using a cross-sectional panel data of nine years period covering 2009 to 2017. The population of the study is the seven registered microfinance banks and purposive sampling technique is used to select four microfinance banks with consistent data set covering the nine years study period. Panel data regression analysis is used with the aid of E-Views 9 and the study finds significant influence of capital adequacy, bank lending, liquidity and bank efficiency on the financial performance [Return on Assets (ROA) and Return on Equity (ROE)]. There is no statistical evidence to suggest that customer deposit has significant influence on the financial performance (ROA and ROE). The study therefore recommends that microfinance banks in Nasarawa State should continue to intensify effort in the utilization of capital requirements of the bank, lending out facilities to customers with collaterals, maintain strong liquidity position and be thoroughly efficient in all bank operations bearing in mind the profit motive of the banks.

Keywords: Influence, Attributes, Adequacy, Lending, Liquidity and Efficiency

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Background to the Study

Financial performance is a subjective measure of how well a firm can use assets from its primary mode of business and generate revenues. It a general measure of a firm's overall health over a given period. Profitability indicates the financial performance of any business entity therefore every business is most concerned with its profitability. Profitability is the ability to make profit from all the business activities of an organization, company, entity, firm or an enterprise (Jamali and Asadi, 2012). The main aim of setting up organizations is to make profit and giving back sufficient returns to its shareholders. According to Obehiove, Aderin and Augustine (2013), corporate financial performance is defined basically as the degree to which an organization can effectively utilize its available funds and assets, and coverts them into profits. Profitability of an entity enables it to withstand negative shocks and enhance the stability of the business environment. Profitability is therefore a necessity for successful business in this period of growing competition in financial market. The basic motive of any organization is to achieve profit and that is the essential requirement of conducting any business affairs (Bobakova, 2003). It is required that a sound and profitable business environment is achieved through profitability in microfinance industry in order to withstand negative shocks and contribute to the stability of banking industry in Nasarawa State. The financial performance of firms can be determined by either internal factor such as bank specific determinants or external factors such as industry specific determinants and macro determinants (Njeri, 2014).

According to Cull et al (2007) previous studies consider profitability as a high standard measure of microfinance banks performance. Profitability is a state of an organizations financial performance where income exceeds its total costs (Elliott and Elliott, 2008) cited in (Ganka, 2010).

In accounting, profitability implies a state of an entity's financial performance where the amount of income exceeds the total cost incurred by an entity. Profit is therefore the function of income and expenses. An increase in profit can either result from increase in income while holding expenses constant or by holding income constant and reducing expenses. With accounting profitability in mind, this research study viewed financial performance of microfinance banks as the ability of microfinance bank to generate income that exceeds its total costs in order to earn the profit.

Measurement of profitability is very important to company owners and managers. Profitability ratios show a company's overall efficiency and performance. Ratios that show return represent the firm's ability to measure the overall efficiency of the firm in generating returns for its shareholders. The Return on Assets ratio is an important profitability ratio because it measures the efficiency with which the company is managing its investment in assets and using them to generate profit. It measures the amount of profit earned relative to the firm's level of investment in total assets. The Return on Equity ratio is perhaps the most important of all the financial ratios to investors in the company. It measures the return on the money the investors have put into the company. It is the ratio potential investors look at when deciding whether or not to invest in the company. A firm must be adequately profitable and

can cover both financial and operational costs before being said to be performing. Profitability is an appropriate mechanism for achieving long term viability and sustainability of the microfinance industry (Muriu, 2011).

Statement of the Problem

The issue of financial performance in banking industry is an important one as it reflects the effectiveness of the management. The financial performance of the microfinance banks is essential to measure management as the individuals and groups within the organization that contributes towards the financial objectives of the banks. Companies facing a reduced market share from lower consumer demand or a downturn in the business cycle may be forced to reduce operational output. This reduction may include laying off employees, selling equipment or assets and closing underperforming business facilities. When a bank fails, it may try to borrow money from other solvent banks in order to pay its depositors. If the failing bank cannot pay its depositors, a bank panic might ensue in which depositors run on the bank in an attempt to get their money back. A good definition of profit is "the reward or return for taking risks and making investments". For most businesses, making a profit is a key business objective. You also need to appreciate that profit is also the most important source of cash flow and finance for a business. Several studies have been conducted in various countries on the issue of financial performance of microfinance institutions and there are a lot of inconsistencies in their findings. In Nigeria, such studies include the study of Anyanwu (2004), AchaIkechukwu (2012), Adekunle (2011) Muhammed and Hassan (2008) and Mejeha and Nwachukwu (2008). A major criticism of these studies conducted in Nigeria is that some of the studies were exploratory as they only try to explore the challenges and prospect for the stability of MFBs. Some of the studies used primary sources data which findings cannot be heavily relied upon due to its subjectivity. This study is therefore unique from existing studies as it tries to source for documentary evidence which are certified by professional auditors. This is based on the fact that documentary source of data from MFBs are hardly accessible. In the light of the foregoing, this study was able to have access to certified financial statements of microfinance banks in Nasarawa State by which reliable and objective findings can be achieved.

The major objective of the study is to examine the influence of some company attributes on the financial performance of microfinance banks in Nasarawa State. The specific objectives are to:

- 1. Investigate the influence of customer deposit, capital adequacy, bank lending, liquidity and bank efficiency on the financial performance (ROA) of MFBs in Nasarawa State.
- 2. Examine the influence of customer deposit, capital adequacy, bank lending, liquidity and bank efficiency on the financial performance (ROE) of MFBs in Nasarawa State.

The study therefore hypothesized as follows:

Ho₁: There is no significant effect of customer deposit, capital adequacy, bank lending, liquidity and bank efficiency on the financial performance (ROA) of MFBs in Nasarawa State

HO₂: There is no significant effect of customer deposit, capital adequacy, bank lending, liquidity and bank efficiency on the financial performance (ROE) of MFBs in Nasarawa State.

Scope of the study covered the sample of eleven (4) microfinance banks with consistent data set covering the nine years study period from 2009 to 2017.

Concept of Customer Deposit

According to Njeri (2017), customer deposit is the placing of an amount as deposits with financial institution with the expectation that the customers will receive the full value of their funds plus the actual return upon withdrawal. Deposit mobilization is all about financial institutions calling and persuading customers to place their deposits as savings with them. This requires the financial institutions to become safe and sound institutions where customers can place their deposits (Njeri, 2017). Njeri (2017), definition of customer deposit emphasizes on the return on deposit but not all deposits are meant for return but the safe keeping of the amount is a saving grace to the depositor. Mekonnen (2015), stated that deposit ratio is measured by the amount of total deposits held by a bank to total assets and this rate reflects the measurement of deposits that is attracted by bank to contribute to financing its assets. According to Ahmed and Hassan (2011) in Mekonnen (2015) deposit is considered by all banks as it is regarded as the simple source of fund compared to borrowing and similar financing instruments. Mekonnen (2015) regards deposit as a simple source of fund not minding the fact that the depositor can demand back the deposit any time without notice.

Keynes and Achmad (2015), defined deposit as an amount of money that is kept by customer in bank in order to gain interest. The deposit is an account in bank balance sheet on liability side. These account become liabilities to the bank because they need to pay interest to customers for using their money since the major source of bank credit are from customer who has deposits in the bank (Keynes and Achmad, 2015). The main motive of keeping deposit in banks can also be to patronize the banks and also have the deposit saved from misuse. Bokhari et al (2012) asserted that funds deposited by the bank clients is a major factor that contributes in determining the capital adequacy ratio for the banks and deposits are the cheap source of finance as compare to external source of finance. As portrayed by Eric, Yao and Victor (2015), deposits are the heart of financial institutions like banks. Bank deposit is one of the important factors in financial system that account for growth in a country's economy (Eric et al, 2015). They further stated that deposits are subject to numerous conditions and the most imperative and observable one is the rate the bank pays over the amount of savings. Deposit is important for both developed and developing countries such that it help depositors to earn on their funds which they have no immediate use for and it also create a platform for bank to channel such fund to businesses and individual who have urgent use of such fund (Eric, et al, 2015). Finger and Hesse (2009) pointed out that the liquidity situation of bank also plays a significant role in determining bank deposit growth while a higher loan/asset ratio suggests that banks with a more pronounced degree of financial intermediation attracts higher deposit growth. Ferrouhi (2017), considered deposit as part of income placed in banks and are the main source of bank's liquidity. Dereje (2017), defined deposit account as a savings account, current account

or any other type of bank account that allows money to be deposited and withdrawn by the account holders. The account holder has the right to withdraw any deposited funds. Dereje (2017) mentioned the most common type of bank deposit such as demand deposit which consists of funds held in account from which deposited funds can be withdrawn at any time without any advance notice to the depository institution; Savings Account which is a deposit account held at a bank or other financial institution that provide principal security and a modest interest rate and time deposit or certificate of deposit held for a fixed term, with the understanding that the depositor can make a withdrawal only by giving notice.

Concept of Capital Adequacy

Capital adequacy according to Njeri (2017) is the amount necessary to absorb losses while providing financial stability. Mekonnen (2015) defined capital adequacy ratio as a measure of the amount of bank's capital expressed as a percentage of its risk weighted credit exposures. According to him, minimum capital adequacy ratio for the banks are required because they can absorb a reasonable level of losses before becoming insolvent and applying minimum capital adequacy ratios serves to protect depositors and promote the stability and efficiency of the financial system (Mekonnen, 2015). Williams (2011) defined capital adequacy as the percentage ratio of a financial institutions primary capital to its assets (loans and investments), used as a measure of its financial strength and stability.

Concept of Bank Lending

Ladime, Emmanuel and Kofi (2013), defined bank lending as the fundamental role of a bank which implies the intermediation by way of collecting savings from depositors and making these savings available as loans to borrowers. According to them lending decision by banks cannot be overlooked as they are the principal providers of funds to government, corporate bodies and individuals as a whole. Bank lending, according to Hanh (2015) refers to the credit provided by the banking sector to any individual or sector. According to Ladime et al (2013) banks mobilize funds from the surplus spending units in order to bring down financial costs and according to Diamond and Rajan (1998), banks mostly transform liquid assets like deposits into illiquid assets like loan. Imran and Nishat (2013), considered bank lending as the loan granted from financial institutions like banks and it is the key source among the major external sources of finance for a business. In order to fulfill their financial needs, businesses, especially small firms which have inadequate source of raising capital, mostly don't build their capital structure entirely from within their internal funds. Therefore the availability of bank credit plays a crucial role to boost up the economic growth. The global financial crisis of 2007 to 2009 experienced the need for banking system to be more liquid, more transparent, less leveraged and less prone to take on excessive risk (Hanh, 2015). According to Keynes and Achmad (2015), Bank lending are the total amount of money that bank lends to borrower either in local currency or foreign currency and this can derive income to the bank since the borrower of that amount of money from the bank needs to pay interest. Share of loan is a ratio of total loan to total asset and at banks level, the loans are assets with risk such that their large share in the bank assets implies a growth of the bank exposure to risks, particularly the credit risk. Bank lending are the main income source for the bank thus registering a growth of interest income for the bank (Mekonnen, 2015).

Bank lending refers to credit facilities offered by bank to its customers on demand to enable them improve on their financial and business situations. Lending is the use of asset particularly, financial asset for a period of time on the understanding that it or its equivalent will be returned. It simply means obtaining something on the condition that it will be returned to the owner. According to Mbat (2006), bank lending entails funds advanced to individuals or organizations to meet their short term or long term deficit operations. Bank lending relates to short, medium and long term loans and advances and can be characterized into two i.e. lending to either private or public sector (Aliyu and Yusuf, 2014).

In the aspect of banking, lending could be stated as the facilities which a banker offer to his customers or non-customers on the ground that the banker, after a specified time period, is on repayment of the loan and some charges by the customer as interest on loan. It is interesting to note that when the banker is lending, customers are also depositing and that their role as lenders is as important as that deposit taking. These two major views explains the bank role of financial institutions accept savings from household and lend the savings to business. According to Njeri (2014), loan is the major asset of most financial institutions from which they generate income and the quality of loan portfolio determines the financial performance of a firm. Ong'era and Onditi (2016) defined bank lending as guidelines and procedures put in place for employees to observe in granting loan assets. It is known to be a vital function of commercial banks because of its direct effect on economic growth, development and financial performance of commercial banks. Rabab'ah (2015) considered bank lending as one of the important functions carried out by banks where it contribute to the provision of the necessary funding for all the sectors in the country including household sectors. According to him, the credit growth to those sectors is considered important for exercising their tasks in business operations and investment which helps them to achieve real growth in output which can reflect positively on the economy as whole. Hanh (2015) opined that the health of domestic banking system plays a relevant role in boosting bank lending. A better functioning banking system can alleviate the external financing constraints that impede credit expansion and the expansion of firms and industries (Miskin, 2007) and according to Ibrahim (2018) banking institutions are lenders and provide funds for variety of reasons such as mortgage, automobile loan or small business loan.

Concept of liquidity

Chagwiza (2014) defined market liquidity as the ability to transform financial asset into cash at current market prices and the balance sheet liquidity focuses on the institution's cash holdings. The institution should be able to convert the underlying asset into cash which is referred to as the funding liquidity. Vodova (2012) defined liquidity as the ability of banks to fund increases in assets and meet obligations as they falls due without incurring unacceptable losses. The liquidity ratio as a measure of bank's liquidity assumed to be dependent on the individual behavior of banks, their market and macroeconomic environment. Liquidity ratios are various balance sheet ratios which should identify main liquidity trends. These ratios reflect the fact that bank should be sure that appropriate low-cost funding is available in a short time (Vodova, 2011). Liquidity according to Njeri (2017) refers to the ability of the financial institutions to obtain the liquid funds required to be able to return the full value of deposits plus interest to depositors as well as meet the withdrawal demands of borrowers and cover the institution's expenses.

Concept of Bank Efficiency

Bank efficiency is an important component of corporate financial management because it directly affects the profitability of banks. It shows how efficiently the management can make profit by using all the resources available in the market (Jamali and Asadi, 2012). The ability to maximize output at a given level of input and it is the most effective way of delivering small loan to the very poor in the context of microfinance. This implies the minimization of cost and maximization of income within a certain level of operation and according to Kinde (2012), it impacts on financial sustainability of microfinance institutions. Efficiency in expenses management should ensure a more effective use of microfinance banks loanable resources which may enhance profitability. Higher ratio of operating expense to gross loan portfolio implies a less efficient management (Muriu, 2011). Hussain and Khan (2016) posit that the efficiency of microfinance institutions could be measured by its productivity.

Efficiency refers to attaining more output at the same level of input. Microfinance bank can be considered more efficient if compared to other microfinance bank and more output tends to be achieved at the same level of input. In terms of microfinance sustainability, Woller (2000) defined efficiency as the most effective way of delivering small loans to the very poor. According to Ganka (2010), there are many indicators of microfinance bank efficiency and can be categorized into three namely; asset and liability management; human resources management and loan portfolio quality. These measures of efficiency indicate that the more the output at a given level of input the better the contribution towards financial performance.

While microfinance banks are required to be efficient, they are also expected to earn a positive return from their operations as well and this is measured by the return on portfolio. The return on portfolio is also measured by portfolio yield and interest spread and the portfolio yield refers to effective interest rate which is measured by total interest income over average loan portfolio.

The interest spread indicates the extent to which microfinance is pricing its products to cover its administrative costs (Woller, 2000). This represents the extent to which the interest income covers costs incurred. The interest spread is obtained by taking the difference between portfolio yield and administrative expenses to average portfolio ratio. The efficiency parameters of microfinance banks are controllable by microfinance bank management (Ganka, 2010). According to Gebrehiwot and Chawla (2016), efficiency and productivity indicators are performance measures that exhibit how well the microfinance banks are streamlining their operations and they reflects the amount of output per unit of input. This reflects how efficiently microfinance banks are using their resources (assets and personnel) in order to maximize returns. Efficiency indicators consider the cost of the inputs and /or the price of outputs. According to Vincent and Gemechu (2013), management efficiency refers to the capability of management to deploy its resources efficiently with the ultimate goal of income maximization and reduction of operating costs. Nuviyanti (2014) measured management efficiency as operating expenses to operating income in order to measure the efficiency of banks using their costs and income. According to Sileshi (2015), Efficiency is the performance in controlling the administrative costs incurred by an entity within a specified period of time.

Empirical Review

Customer Deposit and Financial Performance

Okun (2012), studied the effect of level of deposits on financial performance of commercial banks in Kenya. The study adopted a causal research design. The population of the study was all 44 commercial banks. The study used secondary data spanning 8 years from 2004 to 2011 from the banking supervision department of central bank. A cross-sectional regression model was adopted. The regression was conducted using statistical package for social sciences. The regression result indicates that there is a positive and significant relationship between deposit ratio and ROE. The result also indicates that there is a positive and significant relationship between deposit ratio and ROA. The greatest weakness of the use of SPSS for statistical analysis is that it lacks many regression analysis techniques and it is difficult to edit output. In addition, the main focus of the research work is not captured.

George and Akanbi (2014) investigated whether Microfinance Banks are important in deposit mobilization in Nigeria. The data spanned from the period 1990 to 2010 and employs the ordinary least squares (OLS) method of regression analysis to determine the extent of deposit mobilization capacity of banks. It was discovered that a very small portion of savings go to microfinance banks compared to deposit money banks. This is as a result of the following limitations; Microfinance banks deal with low volume of money, as such there is a limitation on the amount that they can deal with, they provide loans against no collateral and at any time the risk of nonpayment can arise, their bad debts are quite high and they can't service more than a certain number of customers.

Muriu (2011) investigated the determinants of microfinance institutions profitability. The study seeks to contribute to the current state of knowledge and research on microfinance profitability by investigating the potential determinants of microfinance institution profitability with a focus on Africa. Further empirical work is carried out to examine: profit persistence and the speed of convergence; impact of financing choice on microfinance profitability; and the impact of institutional environment of the host economy where MFI is located on profitability. This thesis used two-step system generalized method of moments (GMM) estimators in studies of determinants of microfinance profitability which help to control for possible endogeneity. The analytical framework uses an unbalanced panel data set comprising of 210 MFIs across 32 countries operating from 1997 to 2008. The study found that the microfinance profitability is positively and significantly influenced by customer deposit. Unbalanced data can be used for regression model, but have some limitations on analysis of non-linear model such as probit or logit. System Generalized Method of Moments (GMM) estimator and its constituent levels do not really focus on panel data estimators, but on cross-section estimators which exploit just one time-shift of the panel.

Aza (2018) examined the influence of customer deposit on financial sustainability of some selected microfinance banks in Nigeria. The study utilizes secondary data sourced from the certified annual report of the selected microfinance banks and the data were analysed using OLS regression and fixed effect regression and it was observed that there is no statistical evidence to suggest that customer deposit has significant influence on financial sustainability.

Capital Adequacy and Financial Performance

Mwangi and Murigu (2015) investigated the determinants of financial performance in general insurance companies in Kenya. The study was therefore to establish the factors that affect the profitability of general insurers in Kenya. The study employed multiple linear regressions, with return on asset as the dependent variable and considered all the general insurance companies in Kenya for the period 2009-2012. Profitability was positively related to leverage, equity capital, management competence index and negatively related to size and ownership structure. The regression analysis for the four years period may not allow detail analysis statistically towards reliable finding.

Osuka and Richard (2013) examined the major determinants of the financial performance of deposit money banks quoted on the Nigeria Stock exchange from year 2001 to 2010 using three banks, the first bank of Nigeria (FBN) plc, United Bank for Africa (UBA) plc and Zenith Bank plc as case study. The study used the regression analysis method and established that; asset quality, capital adequacy and employee motivation apart from profits are key success factors in the financial performance of banks. The study relates to quoted banks in Nigeria but with selection of three banks which cannot be representative. Since the selection lacks basis, there is selection bias and the findings cannot be generalized.

Ngumo, Collins and David (2017)examined the determinants of financial performance of micro finance banks in Kenya. The study adopted a descriptive research design and used secondary data from 7 microfinance banks for a period of five years from 2011 to 2015. The data collected was analyzed using correlation and regression analysis. The study found a positive and statistically significant relationship between operational efficiency, capital adequacy, firm size and financial performance of microfinance banks in Kenya. For the reliability of findings the number of study period should be 10 years and above in order to allow some detailed statistical analysis.

Bank Lending and Financial Performance

Njeri (2016) examined the effect of lending practices on financial performance of commercial banks in Kenya. Purposive sampling was used to select 57 respondents to participate in the study that relies on a structured questionnaire as the main tool for data collection. The study found a significant positive relationship between the variables. The use of purposive sampling composed of the following limitations; it's vulnerability to errors in judgment by researcher with Low level of reliability and high levels of bias and above all, inability to generalize research findings.

Ong'era and Onditi (2016) analyse the influence of loan lending policies on financial performance of commercial banks in Kenya adopting a descriptive research design. Data of 18 selected commercial banks in Kiisi town is used. Pearson correlation analysis and multiple regression models were used to establish the relationship between loan lending policies and financial performance for the period of five years (2011 to 2015). The study found positive relationship between commercial banks financial performance and loan lending policies. In order to allow for more detailed statistical analysis for robust finding, at least a study period of

10 years and above should be allocated to a study. Also the use of pearson product moment correlation coefficient outputs misleading results if nonlinearity is involved in the data. PPMCC might not be applicable under the circumstances where the data are corrupted by impulsive noise.

Liquidity and Financial Performance

Njeri (2014) studied the effect of liquidity on financial performance of deposit taking microfinance institutions in Kenya. The study analyzed the liquidity and financial performance of deposit taking microfinance institutions in Kenya for the period 2009 to 2013. The data for the purpose of this study was extracted from the published institution's annual audit reports, association of microfinance institutions report (AMFI) and CBK'S banks supervision annual reports for the five years under examination. The study used inferential statistics to explain the main features of a collection of data in quantitative terms while correlation and linear regression analysis are used for analyzing the data. Financial performance was measured using return on assets while liquidity of Deposit Taking Micro Finance Institutions was measured by cash and cash equivalents divided by total average assets. The results revealed that there is a positive relation between liquidity and financial performance as the coefficient of determination was found. The study concluded that efforts to stimulate the MFIs liquidity would see the microfinance sector realize increase financial performance which would result to increase efficiency in the sectors operations. The number of years study period and the data for analysis are too small to allow for reliable statistical analysis. Obehioye, Aderin and Augustine (2013) investigated the determinants of profitability in developing economies, with main emphasis on the Nigerian context. The study analyzed the relationship between capital structure, firm size, cash liquidity, financial leverage and corporate profitability. The study utilized secondary data sourced from the financial statements of the companies under review. Data was sourced from the sample of 40 companies listed on the Nigerian stock exchange. The companies were randomly selected across industries and the data covered the period of five years from 2006 to 2010. The data for the various years consist of corporate profitability (proxied by ROA), Capital structure (measured as the sum of; re-invested profit, new equity capital and long term debt financing), firm size (represented by sales turnover), Cash liquidity (measured by cash and cash equivalents), and financial leverage (measured as the sum of fixed interest bearing funds). A model was constructed in order to analyze the existence of relationship between the dependent and independent variable, and also, plausible relationship between and amongst the variables. The variables were analyzed through descriptive statistics, and the various relationships amongst the variable analyzed through the correlation matrix. The model specified is estimate using the ordinary least squares (OLS) regression technique. The study found a positive relationship between firm size and corporate profitability and financial leverage and corporate profitability. Capital structure and cash liquidity exhibited negative relationship with corporate profitability. The five year period is too short to allow detail statistical analysis for robustness of result.

Bank Efficiency and Financial Performance

Mwangi and Murigu (2015) investigated the determinants of financial performance in general insurance companies in Kenya. The study was therefore to establish the factors that affect the profitability of general insurers in Kenya. The study employed multiple linear regression, with

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Theoretical Framework

The life-cycle theory is a theory that was developed by Franco Modigliani and his student Richard Brumberg in the early 1950s. It is an economic theory that describe the spending and saving habits of people over the course of a lifetime. Life-cycle theory of microfinance development refers to the expected sequence of advancements experienced by microfinance banks. The relevance of a biological life cycle relating to the growth of microfinance banks was discovered by organizational researchers many years ago. This was apparent as corporate bodies had a distinct conception, periods of expansion and eventually, cessation. These stages of microfinance developments are linked to the sources of financing appropriate to the specific stage of development for microfinance requirement of sustainability. Various theorists were involved in the development of the organizational life cycle model. Mason Haire is commonly identified as the pioneer and profounder of this theory in 1950. Prior works that utilized the theory includes the work of Bogan (2012); Fehr and Hishigsuren (2004), Helm (2006); Robinson (2001); Von Pischke (2007), Aza (2017) and others.

Bogan (2012) stated that the life cycle theory generally implies that there are linkages of sources of financing to the stages of microfinance bank development and that in the formative stages of the organization, donor grants and soft loans are the majority of the funding. Private debt capital becomes available as the microfinance banks become mature but the debt structures have restrictive covenants or guarantees. According to Fehr and Hishigsuren (2004) traditional equity financing becomes available in the last stage of microfinance bank evolution.

Profit-incentive Theory

The profit-incentive theory of motivation was propounded and developed by Burrhus Frederick Skinner (BF) in 1904. The theory explains the motivation of firms that operate so as to maximize their profit as profitability ensures sustainability of microfinance banks. Microeconomic theory posits that the ultimate goal of a business is to make profit. The main reason for a business's existence is to make a profit. The profit motive is a key tenet of incorporation of entity as businesses seek to benefit themselves and/or their shareholders by

maximizing profit. Profitability is the appropriate mechanism for achieving long term viability and sustenance of microfinance industry therefore profit incentive is the main theoretical underpinning of this research work. Prior works that utilized the theory includes the work of Bogan (2012); Fehr and Hishigsuren (2004); Helm (2006); Robinson (2001)

Research Design

The study employed a descriptive research design using a panel data regression for the period of nine years (2009-2017) to explore the effects of firm attributes on financial performance of MFBs in Nasarawa State of Nigeria and the nature of relationship that exist among the variables. Descriptive research design is appropriate as it enable the findings of the study to be generalized to a large population.

Population of the study comprises the seven registered MFBs in Nasarawa State as follows;

Table	1:	Population	and Sample
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S/N	Population	Sample	Year of incorporation
1.	Nasarawa MFB Ltd	Nasarawa MFB Ltd	17/9/2008
2.	FPN MFB Ltd	FPN MFB Ltd	17/9/2008
3.	Amba MFB Ltd	Amba MFB Ltd	23/4/1992
4.	Keffi MFB Ltd	Keffi MFB Ltd	1/2/2008
5.	Josad MFB Ltd	-	-
6.	Sky-line MFB Ltd	-	21/4/2011
7.	Waiter MFB Ltd	-	-

The study therefore employ the use of OLS regression and fixed effect regression analysis to examine the effect of independent variables (customer deposit proxied by DTA, capital adequacy proxied by ETA, bank lending proxied by L&ATA, Liquidity proxied by C&STF and Bank efficiency proxied by OETA) on the dependent variables (Financial Performance proxied by ROA & ROE) of MFBs in Nasarawa State.

Table 2: Variable Measurement

S/N	Variables	Measurements
1.	Financial Performance	ROA
2.	Financial Performance	ROE
3.	Customer Deposit	Deposit to Asset
4.	Capital Adequacy	Equity to Total Asset
5.	Bank Lending	Loans and Advances to Deposit
6.	Liquidity	Cash and Short-term Fund to Asset
7.	Bank Efficiency	Operating Expenses to Total Asset

Model Specifications

$$\begin{split} ROA &= \beta_0 + \beta_1 cdep + \beta_2 cade + \beta_3 blen + \beta_4 liq + \beta_5 beff + \epsilon \\ ROE &= \beta_0 + \beta_1 cdep + \beta_2 cade + \beta_3 blen + \beta_4 liq + \beta_5 beff + \epsilon \end{split}$$

Where;

ROA = Return on Assat

ROE = Return on Equity

Cdep = Customer Deposit

Cade = Capital Adequacy

blen = Bank Lending

liq = Liquidity

beff = Bank efficiency

 β_0 = constant

 $\varepsilon = \text{error term}$

Table 3: Descriptive Statistics of Company Attributes on Fin. Performance

	ROA	ROE	CDEP	CADE	BLEN	LIQ	BEFF
Mean	0.123931	0.277129	0.303323	0.316806	5.233787	0.233887	0.114856
Median	0.053990	0.099023	0.362801	0.348989	6.016394	0.176057	0.086393
Maximum	0.796270	0.988214	0.631741	0.631741	9.619948	0.660125	0.829958
Minimum	0.000774	0.002338	0.000341	0.047487	1.027063	0.001771	0.020908
Std. Dev.	0.184249	0.306108	0.216933	0.163959	2.787302	0.191602	0.132334
Skewness	2.550092	0.866606	-0.092066	0.184460	-0.384893	0.899880	4.512754
Kurtosis	8.604015	2.457411	1.427724	2.203860	1.806439	2.620245	25.10919
Jarque-Bera	86.12529	4.947639	3.758937	1.154912	3.025738	5.075027	855.4141
Probability	0.000000	0.084262	0.152671	0.561325	0.220277	0.079063	0.000000
Sum	4.461501	9.976632	10.91964	11.40501	188.4163	8.419916	4.134805
Sum Sq. Dev.	1.188163	3.279580	1.647096	0.940890	271.9169	1.284897	0.612931
Observations	36	36	36	36	36	36	36

Source: Researcher's Computation using E-views 9

Table 3 is the descriptive statistics with respect to ROA, ROE, CDEP, CADE, BLEN, LIQ and BEFF. The table describes the features of the study variables. The average scores for the respective variables are 0.123roa, 0.277roe, 0.303cdep, 0.316cade, 5.233blen, 0.233liq and 0.114beff. The study revealed that blen has the highest maximum reached of 9.619 and cdep and cade have the lowest maximum reached of 0.631. blen has the highest minimum of 1.027 and cdep has the lowest minimum of 0.000. The Jarque-Bera probability value of 0.000 and 0.084 for the residual roa and roe respectively indicates normality of the data.

Table 4: Correlation Matrix of Company Attributes on ROA

	ROA	CDEP	CADE	BLEN	LIQ	BEFF
ROA	1.000000					
CDEP	0.178326	1.000000				
CADE	0.405190	0.548243	1.000000			
BLEN	0.296432	-0.211872	0.218517	1.000000		
LIQ	-0.329379	0.335167	0.452941	0.140780	1.000000	
BEFF	0.433443	0.275121	0.272926	0.030381	0.100298	1.000000

Source: Researcher's Computation using E-views 9

Table 4 is the correlation matrix that explains the association between the dependent and independent variables. This clearly depicts negative and positive correlation/association between the explained and the explanatory variables. The table depicts an insignificant correlation between ROA, and CDEP of 0.17, CADE of 0.41, BLEN of 0.29, LIQ of -0.32 and BEFF of 0.43.

Table 5.

Dependent Variable: ROA Method: Panel Least Squares Date: 04/04/21 Time: 11:10

Sample: 2009 2017 Periods included: 9 Cross-sections included: 4

Total panel (balanced) observations: 36

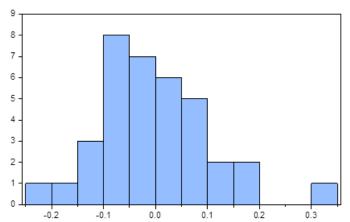
Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.083260	0.055801	-1.492097	0.1461
CDEP	0.084216	0.120224	0.700491	0.4890
CADE	0.558841	0.163307	3.422035	0.0018
BLEN	0.019301	0.007874	2.451178	0.0203
LIQ	-0.636457	0.115392	-5.515585	0.0000
BEFF	0.456603	0.154918	2.947383	0.0061
R-squared	0.665887	Mean depen	ident var	0.123931
Adjusted R-squared	0.610202	S.D. depend	ent var	0.184249
S.E. of regression	0.115033	Akaike info	criterion	-1.336176
Sum squared resid	0.396981	Schwarz crit	terion	-1.072256
Log likelihood	30.05117	Hannan-Qu	inn criter.	-1.244061
F-statistic	11.95800	Durbin-Wat	son stat	1.380953
Prob(F-statistic)	0.000002			

Source: Researcher's Computation using E-views 9

Table 5 Presents the Panel least square regression analysis result. The line of the regression is ROA = -0.083 + 0.084CDEP + 0.558CADE + 0.019BLEN - 0.636LIQ + 0.456BEFF, and this depicts that, ROA increases insignificantly with increase in customers' deposits ratio (CDEP) and increases significantly with increase in CADE, BLEN and BEFF but decreases

significantly with increase in LIQ. CDEP have insignificant effect on ROA while CADE, BLEN, LIQ and BEFF have significant effect on the ROA. The R-Square of 0.665887 indicates that, about 67% of variation in ROA of microfinance bank in Nasarawa State of Nigeria can be explained by CDEP, CADE, BLEN, LIQ, and BEFF. The remaining 33% can be explained by other variables that are not captured in the regression line (error term). The F-statistics and its probability value of 0.000002, which is less than the t-value of 0.05 depicts the fitness of the model.

Table 6: Histogram Normality Test



Series: Standardized Residuals Sample 2009 2017 Observations 36 Mean -8.48e-18 Median -0.006284Maximum 0.301466 Minimum -0.218956Std. Dev. 0.106500 Skewness 0.485581 Kurtosis 3.553493 1.874264 Jarque-Bera 0.391750 Probability

Source: Researcher's Computation using E-views 9

Table 6 Present the histogram table for test of normality. The histogram table for test of normality reveals normal distribution. It is therefore posited to note that the Jarque-Bera statistics value of 1.874 indicates presence of normality.

Table 7.

	ROE	CDEP	CADE	BLEN	LIQ	BEFF
ROE	1.000000					
CDEP	0.161524	1.000000				
CADE	0.187094	0.548243	1.000000			
BLEN	0.282186	-0.211872	0.218517	1.000000		
LIQ	-0.271616	0.335167	0.452941	0.140780	1.000000	
BEFF	0.440221	0.275121	0.272926	0.030381	0.100298	1.000000

Source: Researcher's Computation using E-views 9

Table 7 is the correlation matrix that explains the association between the dependent and independent variables. This clearly depicts negative and positive correlation/association between the explained and the explanatory variables. The table depicts an insignificant correlation between ROE, and CDEP of 0.16, CADE of 0.18, BLEN of 0.28, LIQ of -0.27 and BEFF of 0.44.

Table 8.

Dependent Variable: ROE Method: Panel Least Squares Date: 04/04/21 Time: 12:35

Sample: 2009 2017 Periods included: 9 Cross-sections included: 4

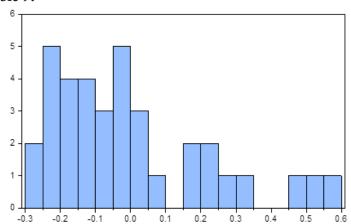
Total panel (balanced) observations: 36

Variable	Coefficient	Std. Error	t-Statistic	Prob.
С	-0.015650	0.117526	-0.133162	0.8950
CDEP	0.356755	0.253211	1.408925	0.1691
CADE	0.150675	0.343951	0.438070	0.6645
BLEN	0.041137	0.016584	2.480497	0.0190
LIQ	-0.773797	0.243036	-3.183880	0.0034
BEFF	0.892493	0.326284	2.735329	0.0104
R-squared	0.463046	Mean depen	ident var	0.277129
Adjusted R-squared	0.373554	S.D. depend	ent var	0.306108
S.E. of regression	0.242280	Akaike info	criterion	0.153563
Sum squared resid	1.760982	Schwarz crit	terion	0.417483
Log likelihood	3.235862	Hannan-Qu	inn criter.	0.245678
F-statistic	5.174148	Durbin-Wat	son stat	1.367425
Prob(F-statistic)	0.001535			

Source: Researcher's Computation using E-views 9

Table 8 Presents the Panel least square regression analysis result. The line of the regression is ROE = -0.015 +0.356CDEP + 0.151CADE + 0.041BLEN - 0.774LIQ + 0.892BEFF, and this depicts that, ROE increases insignificantly with increase in customers' deposits ratio (CDEP) Capital Adequacy and increases significantly with increase in BLEN and BEFF but decreases significantly with increase in LIQ. CDEP and CADE have insignificant effect on ROE while BLEN, LIQ and BEFF have significant effect on the ROE. The R-Square of 0.463046 indicates that, about 46% of variation in ROE of microfinance bank in Nasarawa State of Nigeria can be explained by CDEP, CADE, BLEN, LIQ, and BEFF. The remaining 54% can be explained by other variables that are not captured in the regression line (error term). The F-statistics and its probability value of 0.001535, which is less than the t-value of 0.05 depicts the fitness of the model.

Table 9.



Series: Standardized Residuals Sample 2009 2017 Observations 36		
Mean	-2.31e-17	
Median	-0.048250	
Maximum	0.567000	
Minimum	-0.276947	
Std. Dev.	0.224307	
Skewness	1.004418	
Kurtosis	3.251418	
Jarque-Bera	6.147944	
Probability	0.046237	

Source: Researcher's Computation using E-views 9

Table 9 Present the histogram table for test of normality. The histogram table for test of normality reveals normal distribution. It is therefore posited to note that the Jarque-Bera statistics value of 6.147944 indicates presence of normality.

Summary

This study examined the effects of some company attributes in terms of customer deposit, capital adequacy, bank lending, liquidity and bank efficiency on financial performances measures as ROA and ROE of microfinance banks in Nasarawa State. The study employed panel regression for analysis and found out that, Capital adequacy, bank lending, liquidity and bank efficiency have significant effect on the financial performance (ROA) while customer deposit have no significant effect. These findings coincide with the findings of Muriu (2011), Njeri (2016), Ong'era and Onditi (2016), Njeri (2014), Mwangi and Murigu (2015), Ngumo et al (2017), Osuka and Richard (2013) but disagree with the findings of Aza (2018) and Obehioye et al (2013). The findings therefore support the theory of profit incentive which is the theoretical underpinning of this study. This implies that the tendency of microfinance banks to generate and maximize profit through the utilization of bank asset is highly attributable to their capital base, lending capacity, liquidity position and efficiency of banking operations but not attributable to customer deposits.

Conclusion

Based on the findings of the study, it is concluded that microfinance banks in Nasarawa State are not utilizing their customer deposit to generate profit through the utilization of asset and equity of the banks. Capital base is also not considered in the struggle for performance through the use of equity capital.

Recommendations

Capital adequacy, bank lending, liquidity and bank efficiency indicates significant influence on the financial performance of microfinance banks therefore management should continue to intensify effort in building, maintaining and utilizing the capital base, lending capacity with

reliable collaterals, the liquidity position for urgent customer needs and be efficient and prudent in the spending of bank resources in order to achieve the objectives of the banks.

References

- AchaIkechukwu, A. (2012). Microfinance banking in Nigeria: Problems and prospects, International *Journal of finance and Accounting* 1(5), 106-111.
- Adekunle, B. (2011). Determinants of microenterprise performance in Nigeria, *International Small Business Journal*. 29 (4) 360-373.
- Aliyu, M. & Yusuf, A. H. (2014). Impact of bank lending on economic growth in Nigeria, *Research Journal of Finance and Accounting* (online) 5, 18, 2014.
- Anyanwu, C. M. (2004). *Microfinance institutions in Nigeria: Policy, practice and potentials*, Paper presented at the G24 Workshop on "Constraints to Growth in Sub Saharan Africa," Pretoria, South Africa, November 29-30, 2004.
- Aza, I. E. (2017). Effect of funding structure on financial sustainability of microfinance banks (MFBs) in Nasarawa State of Nigeria, *Research Journal of Finance and Accounting*. (Online) 8 (24), 2017.
- Bobakova, I. V. (2003). Raising the profitability of commercial banks, BIATEC, 11, 21-25.
- Bogan, V. L. (2012). Capital structure and sustainability: An empirical study of microfinance Institutions, *The Review of Economics and Statistics, November, 2012*, 94(4) 1045-1058.
- Bokhari, I. H., Ali, S. M. & Sultan, K. (2012). Determinants of capital adequacy ratio in banking Sector: An empirical analysis from Pakistan.
- Chagwiza, W. (2014). Zimbabwean commercial bank's liquidity and its determinants, International Journal of Empirical Finance, 2(2), 2014, 52-64.
- Cull, R. Demirguk-kunt. A. & Morduch, J. (2007). Financial performance and outreach: A global analysis of leading microbanks, *The Economic Journal*, 117, F107-F133.
- Dereje, H. A. (2017). Determinants of deposit in Ethiopian private commercial banks, Thesis submitted in partial fulfillment of the requirements for the degree of Master of Science in accounting and finance
- Diamond, D. & Rajan, R. (1998). Liquidity Risk, Liquidity Creation and Financial Fragility: A Theory of Banking, University of Chicago working paper.
- Eric, K. B., Yao, L. & Victor, C. L. (2015). Determinants of bank deposits in Ghana: Does interest rate liberalization matters? *Modern Economy*, *6*, 990-1000.

- Ferrouhi, E. M. (2017). Determinants of bank deposit in Morocco.
- Finger, H. & Hesse, H. (2009). *Determinants of commercial bank deposits in a regional financial center*, IMF Working Paper.
- Ganka, D. N. (2010). Financial sustainability of rural microfinance institutions in Tanzania, A Thesis Submitted in Partial Fulfillment of the Requirements for the Award of the Degree of Doctor of Philosophy (PhD), University of Greenwich, Australia.
- Gebrehiwot, G. & Chawla, A. S. (2016). Outreach and sustainability of microfinance institutions of Ethiopia: A Case Study on Specialised Financial and Promotional Institutions (SFPI), *Research Journal of Finance and Accounting*. (Online) 7 (5)
- Hanh, P.T.H. (2015). Determinants of bank lending LEMNA, Institute of economics and management, University of Nantes.
- Helms, B. (2006). *Access for All: Building Inclusive financial systems* (Washington, DC: International Bank for Reconstruction and Development).
- Hossain, M. S. & Khan, M. A. (2016). Financial sustainability of microfinance institutions (MFIs) of Bangladesh, *Developing Countries Studies*. (Online) 6 (6), 2016.
- Imran, K. & Nishat, M. (2013). Determinants of bank credit in Pakistan: A supply side approach, *Economic Modeling 35* (2013) 384–390.
- Jamali, A. H. & Asadi, A. (2012). Management efficiency and profitability in Indian Automobile Industry: from theory to practice, *Indian Journal of science and technology.* 5 (5). ISSN: 0974-6846.
- Keynes, I. & Achmad, H. A. (2015). A study of capital adequacy ratio and its determinants in Indonesian banks: A panel data analysis,
- Kinde, B. A. (2012). Financial sustainability of microfinance institutions (MFIs) in Ethiopia, *European Journal of Business and Management*. (Online) 4(15), 2012.
- Ladime, J., Emmanuel, S. K. & Kofi, A. O. (2013). Determinants of bank lending behavior in Ghana, *Journal of Economic and Sustainable Development*. ISSN 2222-1700 (paper) SSN 2222-2855 (Online) 4 (17)
- Mbat, D. O. (2006). Monitoring and assessing credit/loan behaviour, Calabar: University of Calabar
- Mishkin, F. S. (2007). *The economics of money and financial markets*, Pearson/Addison Wesley.

- Muriu, P. W. (2011). Microfinance Profitability. A Thesis Submitted in Fulfillment of the Requirements for the Degree of Doctor of Philosophy in Finance at the Birmingham Business School, University of Birmingham.
- Mejeha, R. O. & Nwachukwu, I. N. (2008). *Microfinance institutions in Nig*eria, MPRA Paper No. 13711.
- Mekonnen, Y. (2015). Determinants of capital adequacy of Ethiopia commercial banks, *European Scientific Journal*, September, 2015 edition 11 (25) ISSN 1857-7881.
- Mwangi, M, & Murigu, J. W. (2015). The determinants of financial performance in general insurance companies in Kenya, *European Scientific Journal*, January 2015 edition 11 (1) ISSN 1857-7881 (Print) e-ISSN 1857-7831.
- Njeri, C. M. (2017). *Determinants of capital adequacy in Kenya's SACCOs: A case study of deposit taking SACCOs in Nairobi*, A project report submitted to the school of business in partial fulfillment of the requirement for the degree of masters of business administration (MBA).
- Ngumo, K. O. S. Collins, K. W. & David, S. H. (2017). Determinants of financial performance of microfinance banks in Kenya, *Research Journal of Finance and Accounting*. (Online) 8, 16, 2017.
- Nuviyanti, A. H. A. (2014). Determinants of capital adequacy ratio in 19 commercial banks, *Journal of Business and Management 3* (7), 752 – 764. 2014:
- Obehioye, U. E. O., Aderin, A. & Augustine, O. E. (2013). Determinants of corporate profitability in developing economies, *European Journal of Business and Management*. (Online) 5, (16), 2013.
- Okun, D. M. (2012). The effect of level of deposits on financial performance of commercial banks in Kenya, A research project submitted in partial fulfillment of the requirement for the degree of masters of business administration, University of Nairobi.
- Ong'era, J.O. & Onditi, L. A. (2016). Influence of loan lending policies on financial performance of commercial banks in Kenya. A case of selected Banks in Kisii town, Kenya, *International Journal of Economics, Commerce and Management*. IV, (11), November 2016. ISSN 2348–0386. United Kingdom.
- Osuka, B. O. & Richard, O. C. (2013). The determinants of financial performance of quoted banks in Nigeria: a study of selected deposit money banks (DMBs) (2001-2010). *International Journal of Education and Research*, 1 (10) October
- Rabab'ah, W. (2015). Factors Affecting the bank credit: An empirical study on the Jordanian commercial banks, *International Journal of Economics and Finance*, 7(5)

- Robinson, M. S. (2001). *The microfinance revolution: Sustainable finance for the poor*, (1), World Bank Publication, Washington DC,
- Sileshi, M. (2015). *Determinants of financial and operational sustainability of microfinance Institutions in Ethiopia*, A thesis submitted to Addis Ababa University in partial fulfilment of the requirement for the degree of masters of Science in accounting and finance.
- Vincent, O. O. & Gemechu, B. K. (2013). Determinants of financial performance of commercial banks in Kenya, *International Journal of Economics and Financial Issues*, 3 (1),237-252.
- Vodova, P. (2012). Determinants of commercial bank's liquidity in Poland, Proceedings of 30th international conference mathematical methods in economics.
- Vodova, P. (2011). Determinants of commercial bank's liquidity in the czech republic
- Woller, G. (2000). Reassessing the financial viability of village banking: Past performance and future prospects, *Micro-banking Bulletin, Microfinance Information exchange (MIX)*, No 5, 3-8,