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Assessing the Impact of Government Regulations on Microfinance Banks (MFBs) Performance

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ABSTRACT: *After several reforms in Nigerian banking sub-sector, the regulatory and supervisory framework policy of Central Bank of Nigeria (CBN) has not adequately improved performance of Microfinance banks (MFBs). In view of this, this paper assessed the impact of government regulations on MFBs performance between 2007 - 2016. The paper used secondary source of data by assessing the financial statements of MFBs. A pooled Ordinary Least Square (OLS) technique was used for the analysis of data. The result showed that coefficient values of capitalization (4.64) and reserve (7.21) were positive and consistently associated with higher MFBs performance, while investment in Treasury bill (-4.30) was negative but statistically significant in driving MFBs performance at (P<0.01). The study concluded that regulatory frameworks via strong capitalization and reserves influenced and improved MFBs financial performance.*

Key words: *Microfinance bank, Government regulation, Capitalization, Reserves, Performance, Central Bank of Nigeria.*
JEL Classification: *G20, G21, G28.*

1. Introduction

Microfinance banks were financial institutions that were nearest to the people in the grassroots (Schreiner, 2002; Oladejo, 2013). Microfinance bank was designed by the Nigerian Government as a specialized development bank to promote grassroots banking towards achieving rapid integrated rural development and entrepreneurship development. According to Orodje (2012), prior to CBN's intervention, microfinance in Nigeria took a swift decline into the abyss. The sector was riddled with fraud and mismanagement of funds. Furthermore, the released of microfinance bank policy on December 15, 2005 by the Central Bank of Nigeria (CBN) was the formal commencement of microfinance banking in Nigeria. The policy was prepared in exercise of the powers conferred on the Central Bank of Nigeria (CBN) by the provisions of section 28, subsection (1) (b) of the CBN Act of 1991 (as amended by the CBN Act 2007) and in pursuance of the provisions of sections 56-60 (a) of the Banks and Other Finance Institutions Act (BOFIA) 25 of 1991, as amended. To strongly affirm the readiness of CBN in implementing microfinance banking in Nigeria, a further circular issued on February 3, 2006 and addressed to all chairmen, directors and managers of community banks and the public on the requirement for the conversion of community banks to microfinance banks (CBN, 2005). The microfinance banking scheme came on board at a time when rural branches of commercial banks (CBs) could no longer satisfy the expectation of rural development aspirations as these

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banks started to experience operational losses that could not be sustained for long. But government involvement calls for immediate and serious attention. Though, government was always expected to provide a thriving business environment and to avoid counter-productive policies for the sustainability of MFBs sub-sector. Furthermore, the microfinance bank was designed to fill the credit delivery gap created by then People's Banks, the Community Banks and the conventional Banks (Nwankwo, 2008). However, unlike the people's bank, the community bank was owned and managed by the community itself; it inculcated a sense of belonging and commitment to the success of such banking project (Adamolekun, 1994).

The question is, how sustainable is MFBs, without increase in deposit mobilisation? Since the bank cannot easily rely on donors and government available funds. The extent of government participation goes a long way to influence the performance of MFBs by ensuring a healthy competition and continuous regulatory and supervisory reform; vis-a-vis microfinance supervisory and regulatory framework policies that help to examine the banks' capitalisation base, investment in treasury bills, reserves and shareholder's funds. This however, led to the report of Consultative Group to Assist the Poor –CGAP (2011), that microfinancing remains a financial weapon to ameliorate level of poverty among people.

It must also be noted that the performance of the MFBs has been characterized as porous and very insignificant; however, these traits were traced to lack of proper and existing financial structures to stimulate growth and development in the MFBs subsector. The weak performance showed how large number of licensed MFBs operates in a system with lack of capacity building among employees of the bank. Therefore, this constituted the need for financial sustainability in banking sub-sector. Financial sustainability helped to measure efficiency, profitability and productivity. The ability of a microfinance institution to cover all operational expenses from income earned through financial services after adjusting for inflation, subsidies, risks and other exposures made it institutional and financially sustainable. However, evaluation performance techniques need to be reliable and accessible with data to ascertain operating and administrative cost ratios, bank lending rates, market interest rates, portfolio quality rate (Adamolekun, 1994; Rosenberg, 2009).

2. Literature Review

2.1. Microfinancing, Government Regulation and Supervision

Obadeyi (2015) reported that microfinance banks were institutions that specialised in the provision of financial services to low-income clients and active poor people in the society. Oladejo (2013) believed that microfinance were institutions that specialized in making very small loans available to micro and small Enterprises particularly in less developed economies. Regulation and supervision of microfinance banks remained an integral part of the mechanism for ensuring safe and sound banking practices. The regulatory and supervisory apex body in the banking industry was the Central Bank of Nigeria (CBN). The Nigerian Deposit Insurance Corporations (NDIC) exercised shared responsibility with the CBN for the supervision of insured banks. Active cooperation exists between these two agencies on focus and modality for regulation and supervision of insured microfinance banks. This was exemplified in the coordinated formulation of supervisory strategies and surveillance on the activities of the insured MFBs; which included elimination of supervisory overlap, establishment of credible data management and information sharing system, on-site examination of the institutions and off-site analysis of periodically rendered prudential returns. The two activities were mutually reinforcing and designing to ensure timely identification and diagnosis of emerging problems on each of MFBs with a view to prescribing most-efficient resolution option. Moreover, on-site examination could be routine, target or special. Routine examinations involved consistent physical examination of bank financial records and affairs to ascertain financial condition and compliance with prescribe rules, principles, standards and regulations. Target and special examinations could be conducted to examine specific aspects of a bank's operations. On-site examination has been intensified to ensure a cycle of one year for every bank and shorter interval for problem banks (CBN, 2011 and 2014).

But there were diverse views whether the government should regulate the activities of Microfinance Banks or not, and what microfinance institutions regulation consist of. Oluyombo (2014) reported that financial regulation constituted principles, standards and compliance procedures that applied to financial institutions, characterised by examination and monitoring of organizations for compliance. Regulation allowed supervision to ensure proper compliance by operators particularly warranted regulation. Consequently, regulation required coherent prudential guidelines that enhanced the growth of the

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microfinance sector, and while protecting the interest of small savers helped in supporting the integrity of the financial sector as a whole (Campbell, Chan, and Marino, 1992; Oluyombo, 2014).

Prudential regulation and supervision were designed to either avoid or minimize any banking crisis and maintain the integrity of the payment system, protect depositors and encourage financial sector competition and efficiency (Baron and Myerson, 1982). Prudential regulation could be classified as preventive, protective and supportive. The preventive regulations were designed to limit the risk incurred, the protective regulations offered protection in the event of failure. The supportive regulation on the other hand, was essentially in form of lender of last resort as the major role of Central Bank (CBN, 2011; Oluyombo, 2014).

In line with prevailing international standards, these agencies (CBN and NDIC) have continued to emphasize risk-focus bank supervision in Nigeria. Similarly, the agencies have adopted the 25 core principles for effective banking supervision as enunciated by the Basel Committee on Banking Supervision as the pivot of the framework for bank supervision. Other integral features of the present approach to bank supervision included but not limited to; regular contact with bank management, consolidated supervision of banks with non-bank financial affiliates and independent validation of supervisory information. Internationally stipulated supervisory processes and standards have been adopted and modified to suit the peculiarities of the Nigerian banking system. The enabling laws of the two agencies and other relevant legislations have largely provided for sufficient and comprehensive supervisory powers and operational autonomy in bank supervision (Ledgerwood, 1999; Ledgerwood and White, 2006; Oluyombo, 2014).

Furthermore, as part of efforts to ensure the stability of the banking industry and in response to the lingering problem of distress in the sub sector, the regulation/supervisory authorities have been applying various failure resolution measures depending on the severity and peculiarity of the distress. The NDIC has been collaborating with the CBN over the years to adopt different control measures such as provision of liquidity support through accommodation bill, imposition of prompt corrective actions, assumptions of control and management, restructuring and sale of some distressed banks as well as liquidation of terminally distressed banks as a last but unavoidable option. To this extent, the objectives of regulation in a banking environment are manifold and include but not limited to the following; prevention of collapse of payment mechanisms in the economy; ensuring monetary stability and ensuring soundness in the financial industry.

2.1.1. Prudential Requirements

The regulatory and supervisory framework for microfinance banks in Nigeria stipulates but not limited to; that every MFB shall comply with the following requirements (a). compulsory investment in treasury bill - all MFBs shall be required to maintain not less than 5% of their deposit liabilities in treasury Bills (TBs); (b). Liquidity Ratio - the operation of MFBs requires the maintenance of high level of liquid assets to meet frequent request for funds from clients and for field operations. All MFBs shall be required to maintain a minimum ratio of twenty percent (20%) of their deposit liabilities including 5% compulsory investment in the treasury bills in the liquid assets; (c). capital funds adequacy - a MFB shall at all times maintain a minimum capital adequacy ratio as may be prescribed by the CBN from time to time. The capital adequacy ratio shall be measured as a percentage of the capital base of a MFB to its risk-weighted asset exposure in accordance with the provisions which the CBN shall prescribe. The minimum Capital Adequacy Ratio (Capital/Risk Weighted Assets Ratio) for each MFB shall be 10%. The MFB shall be required to submit within a specified period, a recapitalization plan acceptable to the CBN, failure to comply with the above may constitute grounds for the revocation of the operating license of the MFB. No MFB shall be allowed to finance any of the following other than from the shareholders' funds, unimpaired by losses (i) Acquisition of fixed assets; (ii) Equity investments and investments in long-term debentures. In consideration of a request for any or a combination of the above options, reference shall be made to the aggregate value of the listed items against the shareholders' funds unimpaired by losses. (e) Maintenance of Capital Funds: MFBs are generally accepted to pay less emphasis on collaterals in granting credits. The impact of delinquent risk assets, which may result in capital erosion, calls for stringent maintenance of capital funds. Every MFB shall therefore maintain a reserve fund into which shall be transferred out of its net profits for each year before it declares any dividend and after it has made provision for any taxes. A MFB shall not appropriate any sum or sums from the balance in its reserve fund unless prior approval in writing is obtained from the CBN for the purpose, which may be granted for such amount and subject to compliance with such conditioned as the CBN may determine. The CBN may, from time to time vary the proportion of net profit transferable to statutory reserves (CBN, 2011 and 2014).

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2.1.2. Microfinance Performance

The microfinance practice in Nigeria could be traced back to several decades ago, yet to attain the desired level of global best practice and performance. This may be as a result of lack of access to credit by MFBs from the regulator, CBN – playing the roles of last resort and inability to access funds from microfinance development funds (MDFs); discrepancies between the mode of operation by MFBs, the weak economic characteristics (high inflation rate, economic recession, high cost of funds etc.) and inability to meet the financing needs of low-income households. Therefore, it is believed that Microfinance Institutions (MFIs) worldwide have shown that micro and small enterprises loans could be profitable for borrowers and lenders alike, making microfinance one of the most effective poverty reducing strategies. The performance of MFB since 2007 to 2016 shows the value of loans at 102.6 million, active and non- active borrowers at 1,158,540; both deposits' value and number of depositors that are estimated at 90.7 million and 858, 734 respectively. Despite the revocation exercise of operating licenses of 224 MFBs after the Target Examination conducted on 820 MFBs in 2010 by Central Bank of Nigeria (CBN); two-third of it skewed more to the South-West (CBN, 2011).

Performance of MFBs has improved significantly as a result of the growth in deposits generated over the period of evaluation. The study attributes the deposit growth to improved grass root banking habit, increase in number of borrowers and savers. Though, the aggregate loan portfolio to agriculture and rural based real sector activities increase nominally over the period, the credit exposures are relatively much lower than their exposure to the overall commerce. These further underscore the need to increase the service delivery capacity of these MFBs amidst the enormous potentials in the market. However, to improve the performance of MFBs, it becomes expedient to reduce costs, increase outreach, and boost overall profitability. Consequently, tight regulation system and unhealthy competition may result to counter-production to policy efforts at boosting and promoting the informal sector growth (CGAP, 2011; Rodman, 2012).

2.1.2.1. Bank Regulation and Financial Performance

Banking sector remains one of the major components of any country's financial system. Banks often improve development of the economy by mobilizing and allocating funds to achieve investment opportunities with economic values and benefits. However, a well-structured banking system helps to define its supervisory and regulatory practices to achieve financial performance and economic stability (Caprio and Levine, 2006). To promote sound and stable banking practices, it becomes a difficult task in any financial system particularly without transparent and stable regulatory and supervisory framework policies. The global economic recession of 2007-2009 could be identified as a lesson for the need to regulate financial institutions, (Sherman, 2009). Some of the reasons why banks activities are regulated include; protecting investors, creditors and depositors' interest, and promoting the integrity of financial system (Gully, 2005). According to Hubka and Zaidi (2005) and Founanou and Ratsimalahelo (2016), reasons why banks are regulated include banks' ability to create money, credit allocation, to maintain healthy competition and to mitigate against the problem of asymmetric information (hidden information).

2.1.3. Microfinance Banks (MFB) Performance Indicators

Studies have shown the comparison of ratios of the expected MFBs with the global average for MFBs as reported by the Central Bank of Nigeria (CBN). However, global aggregate for all countries irrespective of the degree of development have huge variance with the ratios obtained from the Nigerian Microfinance Sub-sector. The performance indicators include but limited to:

ii. Return on Asset (ROA)

Return on Asset (ROA) depicted the management of the MFBs assets to maximize profit. It indicated the profitability of the MFBs before leverage. It measured the amount of profit the MFBs would make per naira of its assets. Return on Assets (ROA) indicates how well a MFB was managing its assets to optimize its profitability. The ratio included not only the return on the portfolio, but also all other revenues generated from investments and other operating activities. If an institution's ROA were fairly constant, this ratio could be used to forecast earnings in future periods. Unlike ROE, this ratio measured profitability regardless of the institution's underlying funding structure; but did not discriminate against MFBs that were funded primarily through equity (Chandra, 2005).

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iii. Return on Equity (ROE)

It measured the rate of return on the shareholders' equity of the MFBs. It showed the MFBs' efficiency at generating profits from every unit of shareholders' fund. Return on Equity (ROE) was the most important profitability indicator. It measured MFB's ability to reward its shareholders' investment, build its equity base through related earnings, and raised additional equity investment. It must also be noted that, ROE indicated its ability to build equity through retained earnings and increased equity, which enabled the MFBs to leverage more financing to grow its portfolio. By excluding donations and non- operating revenues, this ratio demonstrated an institution's ability to generate income from its core financial service activity (Chandra, 2005; Crabb and Keller, 2006).

iv. Reserves

It is regarded as assets to banks. The reserve requirement is always set by the CBN as one of the monetary tools that is used to control money supply and price stability in the economy. Reserve is the ratio of cash reserves that are deposited with the CBN to total deposit liabilities. The total liabilities include demand, savings and time deposits. The ratio is subject to review by CBN depending on the monetary conditions of the economy (CBN, 2011).

v. Treasury Bills (T-bills)

Treasury bills are short term debt instruments of Nigerian government with typical maturities of 91 days to 356 days. The return on the bill is difference between the face value and purchased value of the instrument. It is effective instrument which could be used by CBN to achieve its credit control. It is conducted mostly in treasury bills holding of CBN (Merton, 1990; CBN, 2011).

vi. Capitalisation Base

It is the difference between total value of an institution's assets and liabilities. It is also known as the required capital base a bank must satisfy before operation as stipulated in the guidelines. Capital is an essential supervisory and regulatory requirements to assist financial institutions' safety (CBN, 2005). For the purpose of this study, capitalisation base is the amount that is required by CBN to operate as a microfinance bank in Nigeria (Unit MFBs –twenty million naira; while State MFBs – hundred million naira and national MFBs –two billion naira).

2.2. Theoretical Framework

2.2.1. Microfinance Development Theory

According to microfinance development theory that is formalized by Yunus Mohammad (1976), during the establishment of Grameen Bank in Bangladesh. The theory makes small loans (known as microcredit) to help impoverish people without requiring collateral. The theory believes that rural financial institutions have a pivotal role in development of the economy, as they provide a positive institutional alternative to the exploitative commercial institutions and promote livelihood options through enhancing the availability of credit for productive investment. The theory further believes that developing countries are characterized by multiple linkages of credit with livelihood strategies, high poverty level, and under-developed rural economy; hence, there is need to emphasize on targeted credit delivery programmes to expand the outreach of the formal lenders to the rural poor via a stable and sound regulatory policy guidelines. The theory further emphasizes rural credit market as an institution, which has not fulfilled its objective efficiently in meeting the credit needs of the poor in the low- income countries due to weak supervisory principles and standards. The lack of access to credit for the poor has negative consequences for various rural-household level outcomes including but not limited to; employment, agricultural productivity, information technology, food security, nutrition, health-care and education. This theory attempts to examine the emergence and the rapid expansion of MFBs as a result of shortcomings of regulatory strategies, particular in the area of development finance. By providing financial services, MFBs have a problem of political interference with development finance and unstable government policies.

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2.3. Empirical Review

Benh-Khedhiri, Casu, and Sheik-Rahim (2005), study on profitability and interest rates differentials in Tunisian banking industry. The authors focus on the determinants of credits unions' net interest margins as indicators of the sector's efficiency. The study seeks to establish the direct effects of capital regulations and capital requirements. Färlie and Robb, (2008) find that capital could significantly influence bank cost, profit and measure efficiency. Disney *et al* (2003) in their cross-country study of European banks, find that capital influences bank efficiency. Bastie, Cieply and Cussy (2013) carries out a survey between 1998 and 2000, which is funded by the World Bank. The survey investigates the relationship between bank regulations and bank performance and stability. The survey collects information on bank regulations and practices in supervision in 107 countries; and use regression technique to analyze the survey. They conclude that there is a positive association between bank regulations and bank performance and stability. According to CBN (2011), the microfinance policy recognizes informal institutions and brings them within the supervisory purview of the Central Bank of Nigeria (CBN). The apex bank claims that the total register MFBs in Nigeria as at the end of 2011 stands at 993 indicating presence in all the 774 local government in Nigeria.

The following economic factors which are not limited to inflation rate, high unemployment rate and exchange rate are uncontrollable factors to achieve MFBs performance. Firms are trying to survive instead of profit making. The firms are growing at a dwindling trends due to the unfriendly business, financial and economic environments in Nigeria since partly moving out of recession. The Nigerian economic decline was tailored towards the recent economic recession and global economic downturn. The interest rate (Monetary Policy Rate) at 14% had been on increase and official exchange rate at #365/$1. All these were factors affecting the success of MSEs in Nigeria. Socio-political environment explained the social justification of business enterprise and immediate purpose of its establishment in order to achieve healthy synergy between the firm and its business environment. Socio-political environment reported issues such as roles of religion, beliefs, ethnicity differences, peoples' values and norms in a society towards firms' business activities and the ability of the firm to succeed. The religious beliefs affected profits of firms. For instance, the sale of alcohol and cigarettes in some part of the country affected the turnover and revenue of some enterprises. And also it would be difficult for MFBs to provide credits for such business enterprise.

2.4. Conceptual Framework

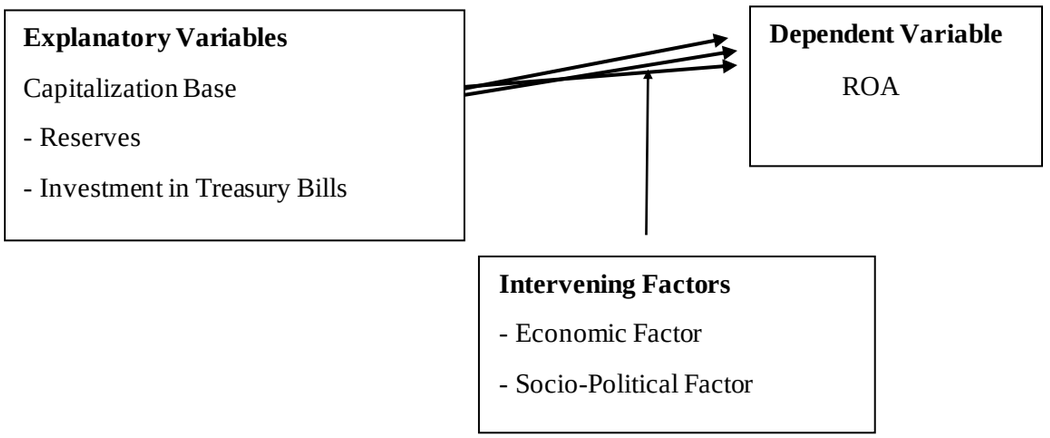


Fig-1. Assessing the Impact of Government Regulations on Microfinance Banks (MFBs) Performance.

Source: Researchers' compilation, (2018).

3. Methodology

Secondary data was adopted. The purposive sampling technique was chosen to select the MFBs, whose financial statements were assessed. MFB Performance was measured by using return on asset (ROA) as a

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proxy; via increase in profit, earnings and decrease in credit exposures. The model specifications were given thus: $MFBPer_i = f(X_i \ldots X_n)$ ..... (1)

Where: MFBPer = Dependent variable was a measure of return on asset (ROA).

f = a function to be specified; 'i', = the ith observation; X = an explanatory variables of MFBs characteristics.

From equation 1 above, it has been adjusted to equation 2:

$MFBPer = \eta_0 + \eta_1 X_1 + \eta_2 X_2 + \eta_3 X_3 \ldots\ldots +, \eta_n X_n + \mu$ ..... (2)

η_0 = intercept term; $\eta_1, \eta_2, \eta_3 \ldots \eta_n$ = partial regression coefficient; X_1 = explanatory variables / regressor

μ = the stochastic disturbance term (revealed the strength of $\eta_1 X_1, \eta_2 X_2, \eta_3 X_3 \ldots \eta_n X_n$).

The predictor variables were given as $X_1 \ldots X_3$;

Where: X_1 = Compulsory investment in Treasury bills (TBs); X_2 = Capitalization; X_3 = Reserves

Therefore the equation was written newly as;

$MFBPer = \eta_0 + \eta_1 CITB + \eta_2 C + \eta_3 R + \mu$ ---------- (3)

4. OLS Result on MFBs Performance

This described the influence of government regulations' variables which were proxy by reserves, bank capitalization and investment in T-bills and MFBs' performance proxy by return on asset (ROA). The result displayed in table 1. Table 1 showed OLS assessing the effect of government regulation on microfinance bank performance. The results in table 1 showed the influence of government regulation variables (capitalization, reserve and investment in treasury bills) on MFBs performance. The dependent variable in this regression was the ROA of sampled MFBs. The result showed that coefficient values of capitalization (4.64) and reserve (7.21) were positive and consistently associated with higher MFBs performance, while investment in Treasury bill (-4.30) was negative but statistically significant in driving MFBs performance. For every regulation on capitalization by CBN, performance of MFBs would be 4.64 and on reserve bank performance would increase by 7.21. But contrarily to investment in T-bills as bank performance would be negatively affected at -4.30. The positive result in both capitalization and reserve showed that regulation has positive impact of bank performance by being able to absorb losses and improved on credit payment system while negative value of investment in T-bills might be due to low returns of investment in T-bills without significant impact on the bank operations. Capitalization was statistically significant ($P<0.01$), reserve was statistically significant ($P<0.01$) and investment in treasury bills were statistically significant ($P<0.01$). All the variables were statistically significant ($P<0.01$). The variables combined accounted for 0.624021 (62.4%) of the variation in the bank performance that was explained by government regulation as shown by the R-squared value while the remaining 28% was accounted for by other factors affecting bank performance. While the adjusted R^2 at 0.590904 (59%) showing the variation in MFBs performance at 59% by government regulation variables. The Durbin Watson (DW) was 1.385003. This was closed to 2. This explained no sign of autocorrelation.

The fixed effect result showed capitalization (2.90) and reserve (4.73) and investment in Treasury bill negatively (-5.40) influenced MFBs performance. Capitalization was positive and statistically significant ($P<0.1$) in driving MFBs performance. Reserve accumulation was statistically significantly ($P<0.01$) and positively associated with bank performance while Investment in Treasury bill negatively influenced bank performance but was statistically significant ($P<0.05$). 65% of the overall variation in the dependent variable was explained by government regulation while the remaining 35% was accounted for by other factors affecting bank performance.

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Table-1. Influence of Government Regulations on MFBs Performance

	OLS	FE
	ALL	ALL
RESERVE	7.21E-06* (1.22E-06)	4.73E-06* (0.046403)
CAP	4.64E -07*	2.90E-07*
	-2.67E-07	-0.003746
INV_TBIL	-4.30E-06*	-5.40E-07**
	-6.57E-07	-4.07E-08
CONSTANT	----------	0.705098
R^2	0.624021	0.653469
OBSERVATION	79	79
N	8	8

Source: Authors Compilation, 2018

Note: All explanatory variables are differenced to ensure stationarity and thereby avoiding spurious regression while the dependent variable profit is in log form. The level of significance is denoted as *P< 0.1, **P < 0.05 and ***P < 0.01. Figure in the parentheses are (standard error).

- **Heteroscedasticity Test**

The assumption of variance of the error was that it must be constant. This otherwise known as homoscedasticity. Contrary to assumption of constant variance could be regarded as heteroscedastic. The Breusch-Pagan-Godfrey was adopted to effectively test the assumption. The values of Chi-square $(\chi)^2$ and 'F'-statistical tests were examined.

The influence of MFBs credit administration variables on MSEs performance showed non-existence of heteroscedasticity as evidence in the values of 'F'- and $\chi 2$ -test statistic. Furthermore, the P-values in all cases were greater than 0.05 (p>0.05) as depicted in table 2. The null hypothesis of non-homoscedasticity should be accepted at (p>0.05). Conclusively, it could be generalized that all regression models adopted in the research work claimed that variance of the error term was completely homoscedastic.

Table-2. Heteroskedasticity Test: Breusch-Pagan-Godfrey

Heteroskedasticity Test: Breusch-Pagan-Godfrey			
F-statistic	1.470771	Prob. F(10,72)	0.1682
Obs*R-squared	14.07879	Prob. Chi-Square(10)	0.1694
Scaled explained SS	33.09574	Prob. Chi-Square(10)	0.1573

Source: E-View 9.5 Version.

- **Normality Test**

Normality test was adopted to investigate if the data were satisfactorily modelled via a normal distribution and to further examine the likelihood of an underlying random variable's normality. Gujarati (2004), claimed that where residuals were normally distributed, there would be bell-shaped and Jarque-Bera statistical result would be insignificant. This further explained that the p-value must greater than 5% (p>0.05). Therefore, insignificant result of the test showed that normal distribution occurred vice-versa. Jarque-Bera test further examined the residuals for normal distribution and test if coefficient of skewness was close to zero (0) and kurtosis near three (3). Skewness determined the degree of symmetry of a distribution about its mean value while kurtosis measured the degree of peakness of the distribution. The Jarque-Bera probability values were statistically insignificant at 5%. This conformed to the claim of Bruce, (2005), that the data was normally distributed.

4.1. Unit Root Test

This showed the unit root test. The result was shown in table 3. Table 3 showed the unit root tests on all the variables were carried out using Levin, Lin and chu and Lm, Pesaran, test. The result showed the variables

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I(0) and I(1) that is, all were stationary at first difference except investment in treasury bill which was at levels.

Table-3. Unit Root Test

VARIABLES	Statistics	Values	Sig	Conclusion
NOE	Levin ,Lin and chu	-9.0776	0.0080	I(1)
	Lm, Pesaran,	-5.1983	0.0000	
ROA	Levin ,Lin and chu	-6.82677	0.0000	I(1)
	Lm, Pesaran,	-2..8157	0.0024	
	Lm, Pesaran,	-0.34525	0.3650	
Reserves	Levin ,Lin and chu	-2.07199	0.0191	I(1)
	Lm, Pesaran,	-0.25932	0.3977	
Capitalization	Levin ,Lin and chu	-1.64842	0.0496	I(1)
	Lm, Pesaran,	1.02189	0.8466	
Investment in Treasury bill	Levin ,Lin and chu	-5.60239	0.0000	(0)
	Lm, Pesaran,	0.19243	0.5763	

Source: Authors Compilation, 2018

5. Findings

Findings showed that capitalization (4.64) and reserve (7.21) were positive and consistently associated with higher MFBs performance, while investment in Treasury bill (-4.30) was negative but statistically significant in driving MFBs performance. For every regulation on capitalization by CBN, performance of MFBs would be 4.64 and reserve would increase bank performance by 7.21. Contrarily, for every investment in T-bills bank performance would decrease by -4.30. Findings also depicted that the positive values of capitalization and reserve showed that regulation has positive impact of bank performance by being able to absorb losses and improved on credit payment system while negative value of investment in T-bills might be due to low returns of investment in T-bills without significant impact on the bank operations.

Findings showed that MFBs have adequate reserves that covered expected liabilities. Treasury bills were liquid instruments and served as a sources of earnings to the MFBs thereby contributing less to the total value of MFBs asset. The low statistical significance of the investment in Treasury bill might stem from overall heterogeneity of firms that was pooled together. Findings from the study also revealed that positive value of MFBs capital base explained the increase in minimum capital of MFBs to improve financial performance; as unit MFBs capital base was twenty million naira (#20,000,000), state MFB was one hundred million naira (#100,000,000) and national MFB was two billion naira (#2,000,000,000).

Findings further revealed that $R^2 = 0.624021$ with adjusted $R^2 = 0.590904$. The variables combined accounted for (62.4%) of the variation in the bank performance that was explained by government regulation as shown by the R-squared value while the remaining 28% was accounted for by other factors affecting bank performance. The Durbin Watson (DW) was 1.385003. This was closed to 2. This explained no sign of autocorrelation. Capitalization was statistically significant ($P<0.01$), reserve was statistically significant ($P<0.01$) and investment in treasury bills were statistically significant ($P<0.05$). More variables were statistically significant ($P<0.01$).

6. Conclusion

The study showed that regulatory framework has a great influence on MFB performance. The period under review has shown how MFBs operations and performance has improved tremendously through the increase in reserve and bank capitalization for each form of MFBs ranging between twenty million naira (#20m) to (#2billion) over a short period. This improvement on the part of the regulators showed an effective and efficient microfinance regulatory and supervisory framework policy since 2005. But decline in the investment on T-bills required a holistic and pragmatic approaches from policymakers and government ministries, departments and agencies (MDAs). Hence, adequate reserves and significant capitalization base of MFBs strongly improved financial performance of these banks under review.

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