

FINANCIAL INCLUSION AND PERFORMANCE OF DEPOSIT MONEY BANKS IN NIGERIA

BY

OYETOYAN Samuel Adebayo: Department of Banking and Finance, Kwara state Polytechnic Ilorin; E-mail: yetoyan.osa@gmail.com

AJIBOYE Wale Thomas: Department of Banking and Finance Kwara State Polytechnic Ilorin
&

POPOOLA Tajudeen Abolaji: Department of Business Administration Kwara State Polytechnic Ilorin

Abstract

This study sought to determine the effect of financial literacy programs, usage of agents and representatives, increased proliferation of ATMs and Mobile banking services on the financial performance of listed banks in Nigeria and to determine the effect of bank branch spread on performance of listed banks in Nigerian. The main theories reviewed in this study were the Bank Led Theory and Contemporary Banking Theory. The study adopted a descriptive research design, and the study population included management and operational level employees of the 5 Deposit Money Banks listed on the Nigerian Securities Exchange. A census study was conducted with primary data being collected using questionnaires. The analysis of data based on SPSS software (version 23) and regression analysis presented using tables. The results of the study determined that financial inclusion elements have a positive and strong impact on the financial performance of banks in terms of return on equity (ROE). The study determined that financial literacy programs have positive but weak impact on financial performance of selected banks. The use of agents and representatives had positive and strong effect on performance of sampled banks. The proliferation of ATMs and Mobile banking services had positive but weak effect on financial performance of selected banks. Bank branch spread had positive but weak effect on financial performance of selected banks. The study recommends that policy makers in the financial institutions such as banks should make use of financial inclusion elements to improve financial performance of Nigerian banks.

Keywords: *Financial inclusion, financial literacy, ROE and Financial performance*

Introduction

In the past, Nigerian banks have been accused of not reaching out in areas where the transaction or deposit size is very low (Nyako, 2017). In places with low deposits, the volumes are usually low, and the costs of serving are high. The relationship between financial inclusion and banks profitability forms two ideological perspectives. It is a multiple of low costs, multiple locations and small deposits that amounts to huge deposits and high levels of profitability (Okun, 2012). The low costs incurred by banks mean that the population in the rural and semi-urban settings can gain access to loans. In a typical sense, the loans are given collateral free, meaning that they are charged at very high-interest rates. The financial institutions gain from such strategy because the repayment rate is around 90% since most people from the rural setup fear to default on their loan obligations (Develtere & Huybrechts, 2002). The second perspective of profits is determined as a multiple of small loans, good interest rate and high repayment leading to higher profitability.

The reliance on the informal sector has led to a vicious cycle within the population (Waihenya, 2012). The high costs mean that the individuals in the rural setting must earn an average income higher compared to those with access to finance at a lower cost. The second effect is that a huge portion of the income pays back the moneylenders within the informal sector hence the people remain in poverty. The second reason as to why there has been a financial exclusion in the past is the high costs incurred in financial services. The poor people living in the living in urban and rural areas have failed to utilize important financial services since they believe that they are unaffordable and costly. Even though the financial services could be available, they remain unutilized due to the costs associated with them.

The most common banks that offer such services include UBA, Eco Bank, Diamond Bank, Stanbic Bank, Sterling Bank, Union Bank, First Bank Zenith Trust Bank. The Central Bank of Nigeria intended to improve financial inclusion in Nigeria and created an environment for agency banking in May 2010 when it created the guideline on agent banking after a study that indicated the advantages it had for countries that had engaged in it (Adam, 2013). The regulatory framework that had created by the Central Bank led several banks to adopt the practice that has improved financial inclusion.

From a global perspective, according to (2018) estimates show that 2 billion working age adults, which is more than half the total adult population, do not have formal accounts with financial institutions. Financial inclusion efforts seek to ensure that all the businesses and households gain access and utilize financial services regardless of their levels of income. Digital payment terminals are important elements of financial inclusion around the world. In Russia there are over 70 million individuals using terminals once every month (CGAP, 2018). In Azerbaijan, there is about 10 bank branches for every 100,000 adults hence the use of payment terminals seven times more than Russia. The use of payment terminals in other countries such as Brazil, Colombia, India and the USA works as per expectations (CGAP, 2018).

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Financial Inclusion through an agency and mobile banking offer banks opportunities to improve their revenue generation. Past researches done on the branchless form of banking show the importance of mobile phones and agents play in certain models (Mwange, 2011). The outcome of the researchers is consistent with the idea that electronic money brings about increased efficiency and reduction in transaction costs. From a theoretical point of view, the use of mobile and agency banking in the electronic form promises to raise the levels of efficiency and reduce the costs of the transaction (Mwangi, 2014). It translates to better financial performance since better financial inclusion results in more profits for banks through commission and interest income and reduction in overhead expenses such as marketing and administration costs.

Mutua (2010) researched mobile banking and financial performance of banks and determined that there is a weak positive relationship between financial performance and mobile banking. Ondieki (2015) researched the effect of Agency Banking on the financial performance of commercial banks and determined that the number of agents operated by commercial banks does not have a direct correlation with the financial performance measured on the return on equity.

According to CBN (2018), financial inclusion is growing at a fast rate. The adults in Nigeria excluded from any form of financial services went down from above 40% to 17% between the years 2006 and 2016. Access to different forms of formal financial services increased from 27% to above 75% (CBN, 2018). The growth is continuing as the number of Nigerians not using formal financial services went down from 25% in 2013 to 17.4% in 2016 (CBN, 2018). Many banks keep innovating and inventing with an aim of satisfying the ever-changing customer demands. Bank customers benefit from financial inclusion through reduced costs of transactions, ease of access to services and increased level of efficiency. Financial inclusion influences the performance of banks (Adam, 2013). According to Jegede (2014), better financial inclusion improves the financial performance of banks.

Mwaniki (2014) and others found financial inclusion to be affecting performance negatively (Ondieki, 2015; Oruo, 2013) while some find financial inclusion to be affecting performance under a weak positive relationship (Mutua, 2010). The general objective of this study was to determine the effect of financial literacy programs, use of agents and representative, increased proliferation of ATM and branches expansion on the financial performance of banks listed in the Nigerian Securities Exchange in Nigeria.

Objectives of the Study

The specific objectives were:

- i. To determine the effect of financial literacy programs on financial performance of deposit money banks in Nigeria,
- ii. To investigate the effect of usage of agents and representatives on financial performance of Deposit Money Banks in Nigeria,
- iii. To evaluate the effect of increased proliferation of ATMs and Mobile banking services on financial performance of banks in Nigeria and
- iv. To assess the effect of bank branches spread on financial performance of banks listed in Nigeria.

Literature Review

Theoretical Framework

This section analyses theory advanced to explain the relationship that exists between financial inclusion and financial performance of banks. The main theories explored in this area include the Contemporary Banking Theory and Bank Led Theories.

Bank Led Theory

The bank led theory arose under various efforts by banks to come up with new models of reaching their clients through agents. Under the model, a financial institution licensed to operate in a country, in most cases a bank, uses retail agents to deliver financial services. The banks create the financial products and services and then distributed them to the retail agents who

handle all the interactions with the customers. The ultimate providers of the financial services are the banks, and the customers have to maintain an account with the primary bank. Under this arrangement, the retail agent maintains a face-to-face contact with the customer in the same manner as a teller at a branch. They handle cash functions through taking deposits and processing of withdrawals. In other countries, the use of retail agents is at an advanced level where they open accounts, identify customers and service them with loans (Kiburi, 2016). The outlets that provide cash services are close to the customers and at the same time perform as retail agents. The retail agent has a direct electronic communication with the bank that they serve. The bank led theory is critical in this research as it forms the basis of agency banking which is an important element of financial inclusion. While looking at the use of agents and proliferation of ATMs and mobile banking services, what comes to mind is the bank led theory (Kendell, 2016). The analysis of the theory explains why banks have continued to use the elements prescribed under the variables as modes of enhancing financial inclusion. Even though the theory forms the backbone of the element of agency banking, it has not established the outcome of the practice regarding the returns to the banks and the customers. In a simple form, it has highlighted the manner in which the process of agency banking occurs within business environment.

Contemporary Banking Theory

Bhattacharya and Thakor advanced the Contemporary Banking Theory in 1993 and it is an extension of financial intermediation theory. The theory states that commercial banks together with other financial intermediaries are important when it comes to proper distribution of capital resources in the economy. The financial intermediaries play an important role in the economy through reduction of the transaction costs for the services. In review of the contemporary theory of financial intermediation, the main areas of focus include the contribution it has had over the past decade, and the advancement of the understanding of the existence of the financial intermediaries. Even though the theory has helped in understanding the elements of financial intermediation, it includes the financial intermediation theory elements. The second aspect is that it has complicated regulation of financial intermediaries due to its expansion of scope of financial intermediation (Bhattacharya & Thakor, 1993). The contemporary banking theory is relevant to this study in relations to bank branch spread variable. Commercial banks can operate in a single branch, but due to competition and the need for financial inclusion, they operate a network of branches. The operation of a network of branches is one of the roles of the contemporary banks that seek to narrow the distance between the customer and the services rendered.

Conceptual Clarifications of Financial Inclusion

Financial Literacy Programs

Financial Inclusion includes double aspects that include the demand and the supply side. The financial literacy programs make up the demand side and it is inclusive of elements such as financial literacy credit counseling, knowledge of the products and the credit absorption capacity. The elements are satisfied through the supply side (Joshi, 2011). The strategies that are used by the banks to meet the demands include refining the existing credit delivery mechanisms, strengthening the credit absorption capacities and development of new models for effective reach (Joshi, 2011). The strategies used to ensure that they attain the desires of the sub variables of financial inclusion, which include personal financial management, information on different

financial management services and products and the operational knowledge. When financial inclusion is successful in meeting the sub variables highlighted above, the financial performance of banks is better (Joshi, 2011). The main aspects of performance of the banks include establishing proper business delivery models; ensure access to the financial services and targeting all the sectors of the economy.

Use of Agents and Representatives

Agent banking is one of the innovative models of delivering banking services to the population. The strategy has brought trained financial service providers within the reach of millions of people in Nigeria. However, there is little knowledge regarding the effect of agents and representatives on financial inclusion and performance of banks (Sanford, 2014). The agents and representatives have managed to ensure person-to-person payments and ensuring that there is delivery of credit, savings and other financial products to the poor. The agents perform customer's services (deposits and drawings), account openings, and customer care services (Sanford, 2014). The use of the agents has however not opened up to accessing new financial services other than the ones above. The extent to which such services have influenced the financial performance of banks must be determined through analysis of the different sub variables. The agents have ensured that there is increase in financial inclusion through serving the part of the population that was underserved (Sanford, 2014). The individuals that make use of agents and representatives include the poor, less educated and female members of the society. The impact of agents and representatives on financial inclusion in Kenya is not clear. This study has highlighted three critical areas that are customer care services, deposits and drawings and opening of accounts as the main elements of inclusion.

Proliferation of ATMs and Mobile Services

Through mobile banking, millions of people gain financial access as long as they have a cell phone. The use of mobile banking has made basic financial services access easy. It reduces the time and distances to the neared bank branches. In any case, an individual customer does get to the branch; the ATMs make it easy for them to access deposit and withdrawal services rather than queuing at the teller. According to CGAP (2018), the use of ATMs and Mobile banking services reduces the bank's overhead and transaction related costs. The use of mobile banking is an opportunity for institutions to extend the banking services to the new customers hence opening up their market. The main areas of mobile banking services and use of ATM that are of interest to this research include the mobile banking services and products, the effect they have on the volume and the cost of transactions for the banks and the customers. According to Constable (2017), e-banking relies on the need to reduce the operating cost and maximizing the revenues. It is evident that in developed markets the use of online banking and ATMs has an impact in terms of reduced costs hence the increase in terms of revenues.

Bank Branches Spread

However, with the growth in financial inclusion, banks have to opening up branches in different parts of the country. The biggest concern is whether the spread of the branches have an effect on financial inclusion and whether it amounts to better financial performance. As banks open up branches to rural areas, the biggest concern is whether the number of branches amount to higher volumes of transactions. The opening up of branches is aimed at ensuring that the customers gain access to new services, which cannot be provided using agents, representatives, or mobile

banking (Musyoka, 2011). In the past, banks were reluctant to open up branches due to the element of cost. It is important to study whether proper spread of branches across different geographical location can have an impact on the financial performance of banks. The main areas of concern for this study under the fourth variable include the number of branches and their spread across the country, the effect in terms of changes in volume of transaction, and the cost incurred in the operations.

Financial Performance

Financial performance is a subjective process through which an analysis of how the business can utilize its primary assets (Mutua, 2013). It is as a measure of the financial health of a firm, and it is a means of comparison of the performance of various firms that operate in the industry. Several measures apply in analysis of financial performance, but the most important thing is that financial measures are in aggregate. The measures can use line items such as operating income or cash flows, revenues from annual operations and the total sales units. Net Interest Margin of a bank is the difference between interest income generated by a banking financial institution and the interest paid out to the lenders about the assets of the company. Financial institutions earn percentage income from the loans within a given period and the other assets less the interest paid by the firm on the borrowed funds (Mwangi, 2014). The return on investment is what the shareholders look forward to gaining from the organization at the end of the financial period. It shows the profit that earned about the total equity that held by the shareholders. Financial inclusion using mobile and agency banking can have a huge contribution to the performance of banks. Improved performance leads to better customer satisfaction, increased customer share, and expanded the range of productivity (Mwangi, 2014). Mobile banking and agency banking are important tools that enhance acquisition and retention of customers. A strategy leads to increased profitability of the organization if properly implemented.

Empirical Review

Nthambi (2015) sought to determine the effect of financial inclusion on the performance of banks using the moderating and intervening variables of bank stability and bank ownership respectively. The research concluded that the joint effect of financial inclusion, NPL and Z score was greater than the effect of financial inclusion on the financial performance of commercial banks in Kenya. The researcher failed short of determining how the moderating and intervening variables would influence the data if they had not been included as part of the research.

A study by Muema (2013) sought to determine the impact of financial inclusion strategies on the financial performance of banks but in the variables did not include financial literacy as one the variables that were to be tested. The study determined that financial inclusion strategies had an impact on the performance of commercial banks in Kenya since there was greater variation in performance of banks due to changes in agency banking, micro banking, Islamic banking and Micro banking. It did not capture the element of financial literacy as one of the strategies of financial inclusion.

The research on the effect of Agency Banking on the financial performance of banks in Kenya has partly indicated that there is a positive relationship between agency banking and financial performance (Belita, 2013; Monica, 2015). At the same time, another research indicates that there is no relationship between agency banking factors and financial performance of banks

(Ndirangu, 2011). The contradiction creates a gap in the study that needs filling through further research of agency banking and financial performance of banks.

Methodology

The study used descriptive survey design. The descriptive research design was suitable for this study as it allows the analysis of the relationship between the variables under study. The study targeted all the senior management staff of the 5 selected Deposit Money Banks in Kwara State, and the staff working the various departments. The sampling frame in this study included managers and staff from all the 5 listed banks. These banks were GTB, Stanbic Bank, Zenith Bank, Diamond Bank, and the Sterling Bank. The Study used judgmental sampling technique and simple random sampling to pick five respondents from the senior management and five employees from operational level staff for each of the 5 listed banks in Nigeria. The senior management used in the study was the heads of departments. The study used census method since it was not possible to sample all listed banks in Nigeria. Hundred and ten (110) respondents were part of the sample size for this study. The scores by the respondents in the questionnaire were determined using the Likert Scale. In the study, the data was edited, coded, classified and tabulated using SPSS. The SPSS analysis based on the multiple regression equation below:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

Whereby:

Y = Financial Performance of Listed Banks X₁ = Financial literacy programs

X₂ = Use of agents and representatives

X₃ = Increased proliferation of ATMs and Mobile Services

β₀ = Constant and

ε is the error term.

β₁- β₃ = Coefficients of variables in the regression model

Findings and Discussion

Test for Normality

When testing for normality, the Shapiro-Wilk model applied because the respondents were less than 100. In the case of the study the respondents were 93 hence the Shapiro-Wilk test of normality applied. In examining the normality of the variables, Skewness and Kurtosis applied. Based on the information provided below, the study rejected the null hypothesis and accepted the alternate hypothesis because the sig. value was less than 0.05. The data was not normally distributed as per the outcome of table hence it was important to normalize it using logarithm method.

Table 1: Result for Test of Normality

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	Df	Sig.	Statistic	Df	Sig.
ROA	.273	93	.000	.774	93	.000
NIM	.474	93	.000	.422	93	.000
ROE	.251	93	.000	.687	93	.000

Source: Field Survey, 2021

Test for Reliability

To determine the reliability level of the study, Cronbach’s alpha test applied. The Table 2 below is an indication of the outcome of the Cronbach’s test on the questionnaires used in the collection of the data.

Table 2: Cronbach’s Alpha Test

Variables	Cronbach's
Financial Literacy Programs	0.721
Use of Agents and Representatives	0.76
Proliferation of ATMs and Mobile Banking	0.78
Bank Branch Spread	0.756

Source: Field Survey, 2021

The average value from the Cronbach’s test is 0.75425, which indicates that the data collection instrument was reliable as the value is above the rule of thumb value of 0.7 (Cronbach, 2010).

Results of Substantive Test

Regression Analysis Tests

The research sought to determine the relationships that existed among the variables. Simple and multiple regression were used to help in understanding how the values of the dependent variable (Financial Performance) changes when one of the variables that are independent are altered while the other remain fixed.

Regression Results on Net Interest Margin

Table 3: Regression Results on Net Interest Margin

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.429 ^a	.184	.029	.179625273283709

a. Predictors: (Constant), Number of Customers, Number of Agents, Number of ATMs, Number of Bank Branches

From the Table 3 to determine strength and direction of the relationship between the dependent and independent variables the study used regression analysis. The relationship between the net interest margin and the number of customers, agents, ATMs and branches is positive and weak.

The finding contradicted Hung et al (2009) and agreed with Onyango (2014) and Jegede (2014). According to Hung et al. (2009), there was no systematic model of determining the effect of financial inclusion on performance. The finding of this study means that number of customers, number of agents, number of ATMs and number of branches explains 18.4% of Net Interest Margin. Additional variables to the study are a possibility since the outcome of the model is less than 50%. It is appropriate to accept the null hypothesis and state that the number of customers, branches, ATMs and Agents influences the Net Interest Margin. The meaning of the finding above is that the variables of the study positively influence the Net Interest Margin, even though the influence is weak. It means that positive changes in any of the variable will have positive effect on the net interest margin even if the change is minimal.

Table 4: Results of Net Interest Margin

Model	Unstandardized Coefficients		Standardized Coefficients	T	Sig.
	B	Std. Error	Beta		
(Constant)	.215	.092		2.331	.030
1 Number of Bank Branches	-.002	.001	-.953	-1.601	.124
Number of Agents	4.733E-006	.000	.184	.576	.571
Number of ATMs	.001	.001	.416	.707	.487
Number of Customers	1.879E-009	.000	.063	.169	.867

a. Dependent Variable: NIM

Regression Results on Return on Asset

Table 5: Regression Results on Return on Asset

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.432 ^a	.187	.032	.03926747431978

a. Predictors: (Constant), Number of Customers, Number of Agents, Number of ATMs, Number of Bank Branches

From the table above it is evident that there is a weak but positive relationship between ROA and the number of customers, the number of agents, number of ATMs and Number of bank branches. R square of 18.7% means that the remaining 81.3% of ROA refers to other variables that are not part of the study. The number of customers, agents, ATMs and bank branches has significant impact on ROA. The finding above is in line with Benita (2013) who established that number of agents is an important part of the assets of the banks, meaning that the increase in the size of the bank asset had a positive impact on financial performance of banks. Monica (2015) agreed that increase in bank agents and ATMS leads to positive performance of the assets of the company. The study contradicted Jegede (2014) which stated that it was not clear as to whether increase in number of agents, bank branches, and mobile banking transactions had positive impact on performance of banks.

Table 6: Coefficients of Return on Asset

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	.034	.020		1.670	.110
1 Number of Bank Branches	-.001	.000	-1.290	-2.172	.041
Number of Agents	1.421E-006	.000	.252	.791	.438
Number of ATMs	.000	.000	.954	1.623	.119
Number of Customers	4.800E-010	.000	.073	.197	.845

a. Dependent Variable: ROA

Regression Results on Return on Equity

Table 7: Regression Results on Return on Equity

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.934 ^a	.873	.849	.15073245198807

a. Predictors: (Constant), Number of Customers, Number of Agents, Number of ATMs, Number of Bank Branches

The results from the summary above shows that 87.3% of Return on Equity is explained by the number of customers, number of agents, number of ATMs and number of Bank Branches. It is an indication that the elements are good predictors of Return on Assets and that no other variable should be included. This is an indication that we reject the null hypothesis and accept the alternative hypothesis. The number of customers, agents, ATMS and Bank Branches has significance on the ROE. The finding above is in line with the findings in Asia (2015) which stated that ATMs, e-transactions, and mobile banking services had positive effect on the net interest margin of banks. The reason for contradiction is the significance level where Asia (2015) had significance level of 0.01 that is higher than significance level of this study. The study was in contradiction with Jegede (2014) which stated that there was less benefit from use of ATMs and mobile banking n the net interest margin of banks. Adam (2013) established that the number of banking agents, the number of branches and the number of online transactions the banks engaged in positively influences the net interest margin.

Summary and Conclusion of the Study

The results of the study indicated a strong and positive relationship between financial performance and financial literacy levels. Many of the respondents indicated that financial literacy levels have improved over the past five years, which has subsequently increased the number of people seeking formal financial services. Subsequently it leads to better financial performance of the banks. It was also evident from the study that costs of services have reduced due to agency banking. It is in line with the findings of Monica (2015) who indicated that elements of agency banking have cut on the cost of services for the customers and the banks as well. The other elements studied include the effect of account opening agents on the financial performance of banks. It was determined that 25% of the respondents agree that accounts opening agents have improved the performance of banks (Supported by Monica, 2015).

The study further determines the effect of proliferation of ATMs and Mobile on the financial performance of banks. The study also revealed that cost of banking reduced extensively through adoption of mobile banking and ATMs services. Morayo (2010) stated that mobile banking is likely to have a big impact on the profitability of commercial banks as the operations become smoother and mobile internet banking becomes part of the conducting business.

Lastly, the study determined that there is no significant relationship between bank branch spread and financial performance of banks. However, it is contrary to the outcome of Nyatika (2017) that established a positive and significant relationship between bank spread and financial performance. This study established that bank branch has no significant effect on the return on asset of the company, which is in line with the findings of Akande (2017) that return on asset is

not subject to bank branch spread. It is in line with the findings of Jegede (2014) who determined that there is negative relationship between bank branch network and financial performance.

Conclusion

The results of multivariate estimates are quite insightful. Financial inclusion requires particular attention to specific portions of the population historically excluded from the formal financial sector either because of level of financial literacy, distance from banks' location, their income levels and volatility, and low knowledge of operational activities of ATM. This study concludes that there is significant relationship between financial inclusion and the performance of bank in Nigeria. That financial inclusion policy significantly and positively impacts on the operations of deposit money banks. However, distance to finance financial services access points and infrastructural and literacy deficiency could challenge how fast and effectively clients access financial services in Nigeria.

Recommendations

- i. The study recommended that policy makers of the banking financial institutions should continue to invest in financial literacy programs through arrangement of workshops and seminars in which potential customers learn different aspects of financial inclusive management.
- ii. Financial institutions of the same nature as banks should also be encouraged to come up with policies that aim towards increasing the number of agents. Such policies open up the banks to new clients and new sources of revenues and increase number of ATM machine
- iii. This research established that financial inclusion elements are critical in making access to financial services better. Therefore, government policy makers, especially at the Central Bank should encourage banks to continue using aspects of financial inclusion in expanding their businesses across the country due to its effectiveness.

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