DETERMINANTS OF PROFITABILITY OF DEPOSIT MONEY BANKS IN NIGERIA

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ABSTRACT

The study examined determinants of profitability of deposit money banks in Nigeria. Branch network, IT deployment and number of staff were used as independent variables while Return on Asset (ROA) was used as a proxy of profitability which served as dependent variable in the study. This study adopted a descriptive research design; and sampled six (6) deposit money banks listed on the Nigerian Stock Exchange in using purposive sampling technique. First Bank, Union Bank, UBA Bank, GT Bank, Zenith Bank and Access Bank were surveyed in the study. The study used secondary data obtained from annual financial statements of the listed deposit money banks and respective banks' annual report between the periods of 2006 and 2019(14 years). Panel regression was used to analyze the data. The study found that branch network has positive but insignificant effect on ROA of deposit money banks in Nigeria while IT deployment and number of staff were found to have positive and significant effect on ROA of deposit money banks in Nigeria. The study recommend that management of deposit money banks in Nigeria should improve branch networks and install internet services and other modern equipment so as to aid the operations and services of the branches in order to encourage customers to keep banking with them and improve their return on asset.

Key words: Branch network, IT deployment, number of staff, profitability

INTRODUCTION

The rapid the installation of branch networks, deployment information technology and employment of qualified and competent staff to improve banking operations and services notwithstanding, most deposit money banks in Nigeria publish financial statements that show low profit (ROA) volumes while some even run at loss. This worrisome trend has been a subject of concern to management of deposit money banks and their investors. In addition, banks adhere to laid down rules regarding corporate governance, prudential guidelines and other extant corporate regulations. It therefore means that their level profitability is driven by another set of variables inherent in their management strategy and not factors in the external environment. It is in the light of this challenge that this study seeks to investigate the determinant of profitability of money deposit banks in Nigeria. The objective of the study therefore, is to examine the effects of branch network, IT deployment and number of staff on return on asset of money deposit banks in Nigeria.

LITERATURE REVIEW

Concept of Profitability

Saptarshi and Tasnima (2018) defined profitability as the ability to make profit from all the business activities of an organization. Profitability, demonstrate how efficiently, the management of a firm is using resources available to exploit available market or marketing opportunitiess. Paul and Agbo (2014) viewed profitability as the ability of a firm to earn returns on investment made in its assets that has a positive net present value. Similarly, Pouraghaljan and Milad (2012) describe profitability as the ability to generate revenue in excess of cost of generating such revenue. Essentially, the term is relative, and measurable in terms of profit and its relation with other elements that can directly influence profit. Profitability measures indicate measuring managerial efficiency and is reflected in various indicators, including Return on Asset (ROA), Return on Equity (ROE), and banks efficacy and Profit to Total Expenses (PER). Higher profitability ratios indicate better performance of banks (Mangla & Rehman, 2010; Ajlouni & Omari, 2013). This study adopted Return on Asset (ROA) as a measure profitability.

Returns on Asset (ROA)

ROA is an indicator of managerial efficiency; as it measures management's capability of converting assets into net earnings. In other words, it measures the ability and efficiency of banks to generate profit by using its assets (Merchant, 2012). ROA = profit after tax/ total asset. ROA) is a good and common measure of performance and profitability (Wasiuzzaman & Gunasegavan, 2013; Najjar, 2013; Elsiefy, 2013; Almukharreq, 2013). It is a financial ratio that measures a firm’s profitability. It explains corporate earnings generated from utilizing invested capital or assets. The ratio from ROA gives potential investors and creditors the impression of an effective management of fewer funds to generate more income (AlKulaib, *et al*., 2013). The ratio is widely used as a proxy for profitability and is an important tool for indicating operational efficiency (Siraj & Pillai, 2012). ROA is computed by dividing net income plus interest expense by the company’s average investment in asset during the year (Hoque, *et al.,* 2015).

Determinants of Deposit Money Banks’ Profitability

Branch network

According to Adelowotan and Oshadare (2016), branch network is the different channels which come in the form of branches (physical and e-branch) and other electronic service points used by banks to drive service delivery to customers in various locations. Branch of a bank is a place of business, outside the head office, where banking operations with full products are offered. For instance, cash centre is a banking outlet that provides banking services i.e. cash deposits and withdrawal to customers, excluding foreign exchange transactions and credit facility extension. Electronic banking office or Automated Teller Machine (ATM) centre means an electronic banking outlet which offers cash withdrawal and deposit services via ATM to customers without the aid of a branch representative or teller. It may also include self-service internet banking and telephone services (Hirtle, 2014).

Information technology (IT) deployment

I.T is a generic term that covers the acquisition, processing, storage and dissemination of information (Anonymous, 2014). It is the application of computers and communication technology in the task of information handling, and information flow from generation to utilization. Information Technology is defined as hardware and software products, information system operations and management processes, IT controls frameworks, and the human resources and skills required to develop, use and control these products and processes to generate the required information (Greenstein-Prosch & Quick, 2018). Information technology (IT) is the application of computers to store, study, retrieve, transmit and manipulate data, or information, often in the context of a business or other enterprise, IT is considered a subset of information and communications technology (ICT) (Choo & Shahryar, 2013).

Number of Staff

According to Egbunike and Ogbodo (2016), number of staff refer to the total number of persons who work in the observation unit (employees receiving remuneration, working proprietors and unpaid family workers) as well as outside working persons who belong to the unit and are paid by it. It includes all persons who are on the payroll of the enterprise, whether they are temporarily absent (excluding long-term absences), part-time, seasonal or home workers, apprentices, etc. Oyewo (2013), opined that the human asset is the total knowledge, skills, creative abilities, talents and belief of an organization workforce as well as values, attitude and belief of the individuals involved.

Empirical Review

Boateng (2018) examined determinants of profitability of banks in India and Ghana; and found that credit risk, net interest margin, capital adequacy and inflation were the most important factors that significantly affect profitability of banks in both Ghana and India. The study also found that cost to income ratio and bank size had an insignificant impact on profitability of Indian banks but impacted significantly on Ghanaian bank's profitability. Nwakoby *et al*. (2018) conducted a study on impact of information and communication technology on the performance of deposit money banks in Nigeria. The study examines the impact of information and communication technology on the performance of deposit money banks in Nigeria from 2006 to 2015. The study found that the adoption of various forms of information and communication technology has greatly influenced the quality of banking operations, performance and has specifically increased banks return on equity.

Kondo (2017) investigated whether branch network size positively influence performance of Japanese regional banks. Specifically, the effects of numbers of regional bank branches on their credit businesses and profits were examined. The study found that regional banks with more branches can increase loans and bills discounted as well as their small and mid-sized enterprises (SME) loans and bills discounted. Yesmine and Bhuiyah (2015) conducted a comparative investigation of determinants financial performance (profitability) of nationalized and local private commercial banks in Bangladesh. The study found that asset utilization and operating efficiency have significant positive impact on banks' financial performance (profitability) whereas credit risk has significant negative impact. However, for PCBs, asset utilization is the most critical factor to performance. On the other hand, result shows that in case of NCB increase in credit risk is responsible for negative return.

Wilson *et al*. (2014) examine the impact of information and communication technology on profitability of quoted banks on the Nigeria stock exchange. The study found that IT spending in the study period had no significant impact on future operating performance. However, the study concludes that technology investment is inevitable for banking institutions to enable them to continue to operate efficiently in the current competitive banking industry.

Theoretical Underpinning

This study is anchored on the liquidity-profitability trade-off theory. According to Uremadu and Efobi (2012), the liquidity-profitability trade-off theory was propounded by Modigliani and Miller in 1958. The theory posits that a trade-off exists between the liquidity and the profitability of a firm, and that a firm cannot pursue the two objectives of being profitable and being liquid at the same time; without one automatically affecting the other. The theory presupposes that the regulation of banks is necessary to maintain safety and soundness of the banking system, to the extent, which put banks in a position to meet their liabilities without difficulty. One outcome of the recent financial crises is the recognition that liquidity is as important to banks' stability, as capital requirements. Previous studies showed that banks with higher liquidity and larger capital buffers are less vulnerable to failure during financial crisis (Bagyenda *et al*., 2011) and this makes it imperative for regulatory authorities to compel greater solvency and liquidity on individual banks than making it optional. This theory is adopted because it captures the financial performance of banks and the determinants variable, which measures short-term liquidity positions of banks in the model adopted in the study.

METHODOLOGY

The study examined the determinants of profitability of deposit money banks in Nigeria. The study used branch network, IT deployment and number of staff as independent variables and used Return on Asset (ROA) as a proxy of profitability which served as dependent variable. The study adopted a descriptive research design. The study covered the listed deposit money banks in Nigeria and sampled six (6) listed deposit money banks on the Nigeria Stock Exchange using purposive sampling technique. The study selected First Bank, Union Bank, UBA Bank, GT Bank, Zenith Bank and Access Bank. The study used secondary data which was obtained from annual financial statements of the listed deposit money banks in the Nigerian Stock Exchange (NSE) and respective banks annual report between the periods of 2006 and 2019 (14 years). Panel data regression analysis was used to analyze the data.

The Model Used for the Study is stated below:

$$ROA = \pi_0 + \pi_1 BN + \pi_2 ITD + \pi_3 NS + \varepsilon_t$$

Where: ROA = Return of Assets, BN = Branch Network, ITD = Information Technology deployment, NS = Number of staff, π_0 = Constant parameter, $\pi_1 - \pi_3 =$ Coefficient of bank determinants which are: Branch Network, IT deployment and Number of staff and ε_t = Error term.

Measurement of Variables

Profitability (dependent variable), proxy by Return on Asset (ROA)
Branch network (independent variable)
IT deployment (independent variable)
Number of staff (independent variable)

RESULTS AND DISCUSSION

Panel Regression
Dependent Variable: ROA
Method: Panel EGLS (Cross-section random effects)
Date: 04/27/21 Time: 15:03
Sample: 2006 2019
Periods included: 14
Cross-sections included: 6
Total panel (balanced) observations: 84
Swamy and Arora estimator of component variances

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	0.026142	0.010581	2.470591	0.0156
BN	5.842105	5.595705	1.044037	0.0522
ITD	3.462805	1.206405	2.870350	0.0077
NS	8.761508	3.201106	2.737025	0.0082
	Effects Specification			
			S.D.	Rho
Cross-section random			0.003938	0.0086
Idiosyncratic random			0.042280	0.9914
	Weighted Statistics			
R-squared	0.826224	Mean dependent var		0.015638
Adjusted R-squared	0.190292	S.D. dependent var		0.042498
S.E. of regression	0.042716	Sum squared resid		0.145971
F-statistic	0.718150	Durbin-Watson stat		1.868096
Prob(F-statistic)	0.000005			
	Unweighted Statistics			
R-squared	0.029098	Mean dependent var		0.016561
Sum squared resid	0.147234	Durbin-Watson stat		1.843506

Source: E-view computation (2021)

The result from the analysis above showed that the model is fit, given the F-Statistic value of 0.718150 and its corresponding P-value of 0.0005. The regression line ROA = 0.026 + 5.842BN indicates that an increase of branch network (BN) will lead to 5.842 increase in return on asset (ROA) of money deposit banks in Nigeria. The Std. Error value of 5.595, t-Statistic value of 1.044 with its corresponding P-value of 0.052 indicates that branch network (BN) has positive but insignificant effect on ROA of deposit money banks in Nigeria at 5% level of significant. This implies that branch networks installed by the deposit money banks surveyed, is not effective enough to improve their profitability (ROA).

Also, the regression line ROA = 0.026 + 3.462 ITD indicates that an increase of information technology deployment (ITD) will lead to 3.462 increase in return on asset (ROA) of deposit money banks in Nigeria. The Std. Error value of 1.206, t-Statistic value of 2.870 with its corresponding P-value of 0.007 indicates that ITD has positive and significant effect on ROA of money deposit banks in Nigeria at 5% level of significant. This implies that information technology deployment (ITD) by the selected money deposit banks in Nigeria is effective and has influence their profitability (ROA). The study has provided evidence that information technology deployment has no significant effect on the Returns on Assets of the selected money deposit Banks in Nigeria.

Furthermore, the regression line ROA = 0.026 + 8.761NS indicates that an increase of number of staff (NS) will lead to 8.761 increase in ROA of deposit money banks in Nigeria. The Std. Error value of 3.201, t-Statistic value of 2.737 with its corresponding P-value of 0.008 indicates that NS has positive and significant effect on ROA of deposit money banks in Nigeria at 5% level of significant. This implies that increase in number of staff (NS) by the surveyed deposit money banks in Nigeria influence their profitability (ROA). The study provides evidence that number of staff has no significant effect on the Returns on Assets of the selected money deposit Banks in Nigeria.

CONCLUSION AND RECOMMENDATIONS

The study examines the determinants of profitability of deposit money banks in Nigeria. The study found that branch network has positive but insignificant effect on ROA of deposit money banks in Nigeria while IT deployment and number of staff were found to have positive and significant effect on ROA of deposit money banks in Nigeria. Based on these findings, the study concludes that branch network has no significant effect on the ROA of deposit money banks in Nigeria. This could be because of poor branch network management or inferior network facilities provided by the head offices of deposit money banks. The study also concludes that IT deployment and number of staff has significant effect on ROA of deposit money banks in Nigeria. This could be because of effective information technology and qualified staff employed by the deposit money banks in Nigeria. Based on the findings and conclusion drawn, the study, recommends that:

1) Management of deposit money banks in Nigeria should improve on network of their branches by installing powerful network facilities such cables, modems, internet services and other modern equipments so as to aid the operations of the branches in order to encourage their customers to keep banking with them and improve their return on asset.
2) Management of deposit money banks in Nigeria should maintain their IT deployment in order to continue improving their return on asset.
3) Management of deposit money banks in Nigeria should employ qualified staff in order to keep improving their services, and their return on asset.

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