Relationship between Financial Inclusion Strategies and profitability of Commercial Banks in Kenya

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Abstract

Commercial banks are grappling with profitability challenges. Yet, the government of Kenya is leveraging on these banks to finance the ambitious Big-Four Agenda. Consistent posting of losses of commercial banks creates doubts on whether the government will achieve the aforementioned Big-Four Agenda. This study sought to establish the relationship between agency banking and mobile banking with profitability of commercial banks in Kenya. The study was guided by the financial intermediation theory, the modern portfolio theory, the agency theory and the technology acceptance model theory. An explanatory descriptive research design was adopted, targeting 41 commercial banks in Kenya. Secondary data was collected from central bank reports and publications, as well as the respective banks between years 2016-2020. The study collected data on a number of mobile banking agents, volume of transactions through mobile banking, the value of net income and the total equity from the respective commercial banks. Data was analyzed descriptively and inferentially prior to the diagnostic tests. Statistical Package for Social Sciences was used to analyze data, while findings were presented using tables and figures. The study established that mobile banking (β=.261, p<0.05) had significant effect on return on equity among commercial banks in Kenya and this is significantly moderated by bank size. The study concluded that the relationship between financial inclusion strategies and profitability of commercial banks in Kenya is significant. The study recommends that business development managers, and regional marketing managers working in commercial banks in Kenya should increase the agency network, while creating awareness among customers on use of bank agents to carry out transactions like payment of bills. The management team should borrow experience of the Kenya Commercial Bank by slashing all the transaction costs of mobile banking.

Keywords: Agency banking, mobile banking, commercial banks

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1.0 Introduction

Profitability is one of the objectives that guide existence of commercial banks. Today, commercial banks are striving to improve their profitability through innovation, governance and services. The ability of financial institution to deliver products and services in the most efficient and effective manner is therefore key to performance and profitability of the banking sector. However, generation of revenues and thus profitability requires that commercial banks apply strategies that allow the unbanked population to have access to banking services, hence financial inclusion strategies (Ratnawati, et al., 2018). Technology has introduced new ways of delivering banking products and services, such as ATMs, and internet banking to the customers. This results to increased bank gains.

These developments in the banking industry have positive impacts on service quality and future of the banking activities. The ability of financial institution to deliver products and services in the most efficient and effective manner is therefore key to performance and profitability of the banking sector (Tan et al, 2017). Innovative channels which have been adopted by banks as service delivery mechanisms such as mobile banking, agency banking and ATMs avail financial services to the populace and consequently earn banks revenue, without necessarily using the traditional branch networks. Innovative channels have helped banks to reach the unbanked population. This has consequently enhanced the level of formal financial inclusion in unserved and underserved areas, and as a consequence impacted positively the banks revenues and profits (Okoye, et al. 2017).

However, commercial banks experience financial crises ranging from peaks in nonperforming loan ratios, loose credit, and inferior capital adequacy ratios, over banking due to excessive competition, less profitability and lack of innovation. The modern commercial banks are trying to improve their profitability by innovating in products, governance and services among other innovations (Maherali, 2017). In Sub-Saharan Africa, Nsiah, et al (2021) avers that financial inclusion enhances profitability of banks, which contribute to alleviation of poverty. Nsiah et al. (2021) recommended the need for government and the development partners in sub-Saharan region to come up with policies that would encourage financial institutions to avail financial facilities that are affordable and available.

“Financial inclusion involves ensuring that surplus is deposited with the financial institutions so that the same is lend to units having deficit in an economy.”

There is a relationship between financial inclusion and banks profitability. This relationship is derived from low costs,
location of banks, and little deposits which together add up to increased levels of banks’ profits. In a typical sense, loans are offered collateral-free; meaning that they are charged at very high-interest rates. The financial institutions gain from such strategy (Okoye, et al., 2017). Another source of profits is the multiple small loans, offered at good interest rates and high repayment period leading to higher profitability. Mwaniki (2014) found that mobile banking has transformed money transfer businesses and created various innovations that have cut on the transaction costs for banks.

A study by Nzyuko and Jagongo (2017) did not capture the moderating outcome of variables like bank size and regulations by the Central Bank of Kenya that as affect the profitability of commercial banks. Samuel and Mbugua (2019) looked at financial inclusion initiatives and financial performance, with focus on SMEs owned by women and not commercial banks. There are 44 commercial banks in Kenya which, based on ownership, are categorised into public and private institutions. The private institutions are further classified as either locally or foreign owned entities (Central Bank of Kenya [CBK], 2020). However, in the recent past, most of these commercial banks have consistently posted poor records of financial performance, thereby threatening their closure.

These commercial banks include the National Bank of Kenya (NBK), Consolidated Bank of Kenya Ltd (CBKL) and Development Bank of Kenya (DBK). Much of their woes has been blamed on their risk management frameworks (Barasa et al. 2017). Financial inclusion strategies seek to ensure that the unbanked population has access to formal financial services within the economy (Otiato, 2016).

**Statement of the Problem**

Most commercial banks in Kenya are grappling with profitability challenges. The financial losses posted by commercial banks have raised the question of whether they are able to acquire any profit. However, profitability is the main aspect of commercial banks which contribute largely to their performance. The link between financial inclusion, agency banking and commercial banks profitability remains an unresolved issue. This study seeks to establish the relationship between agency banking and profitability of commercial banks in Kenya.

**Research Objective**

i. To find out the relationship between agency banking and profitability of commercial banks in Kenya

ii. To assess the relationship between mobile banking and profitability of commercial banks in Kenya

**Research Hypotheses**

The following hypotheses guided the study:

H₀₁: Agency banking has significant relationship with profitability of commercial in Kenya

H₀₂: Mobile banking has significant relationship with profitability of commercial banks in Kenya
**Literature review**

**Theoretical Review**
The study was guided by the financial intermediation theory, the modern portfolio theory, the agency theory and the technology acceptance model (TAM) theory.

**Financial Intermediation Theory**
Financial intermediation recognizes commercial banks as intermediaries that seek to enhance financial inclusion in the economy. The rationale for existence of intermediaries is to lower the transaction costs and asymmetry of information. According to Gurley et al (1960), financial inclusion involves ensuring that surplus is deposited with the financial institutions so that the same is lend to units having deficit in an economy. When there is a market that supports huge intermediaries, the quality of financial commodities availed to customers, including lenders and the borrowers, are enhanced (Thakor & Boot, 1997). The resultant effect of this is a widened acceptance of the products and services by the final consumers. This theory explains how different strategies like the use of mobile and agency banking platforms may enhance financial inclusion among commercial banks, thereby boosting the level of profitability.

**Empirical Review**

**Agency Banking and Profitability**
Ndambuki (2016) conducted a study on agency banking and how it is connected with profitability. The study adopted longitudinal descriptive survey. In total, 20 banking entities were covered by the inquiry focusing on a period from 2006 all through to 2015. The selection of the banking entities was done purposively, based on the available information and the degree of consistency in financial reporting. Information from second hand sources was gathered from CBK publications and reports. The study failed to establish a significant link between agency banking and profitability.

Argamo (2015) considered variables such as accessibility, cost of service and customer transactions through agency banking. To select the participants, stratified method was embraced. The inquiry noted that agency banking is significantly linked to profitability. The recommendation raised was for the banking institutions to grow the
number of bank agents. A study by Kingori and Gekara (2015) was done in Thika covering the agents of the Cooperative Bank, Kenya Commercial Bank and Equity Bank. Information was gathered from primary sources. The study concluded that agency banking and financial performance are linked. A study by Karimi (2018), noted that the costs of transaction of agency banking were so high and that security of the transactions and customers were still evident. The study recommended the need to strengthen internal control systems to enhance the effectiveness of the agents.

In Zimbabwe, Santu, et al. (2017) did an evaluation of agency model of banking that had been embraced by banking institutions. The study adopted descriptive design and information was gathered from banking entities that had embraced agency banking. In total, 5 entities were selected and included in the inquiry. The study demonstrated that banking entities that had embraced agency banking had expanded into other regions, a move that had widened the customer base. In operating the agency model of banking, a number of constraints, both legal, reputational and protection of consumers risks were identified.

Odhiambo and Ngaba (2019) adopted descriptive design and obtained a sample of 120 participants to find out the connection between agency banking and bank profitability The inquiry suggested the need to improve level of customer care and to increase the level of awareness of the agency banking services to the end users. It was noted that the costs of transaction of agency banking were so high and that security of the transactions and customers was still evident. The study, further recommended the need to strengthen the internal control systems to enhance the effectiveness of the agents.

Mobile Banking and Profitability
An inquiry conducted in Bangladesh by Islam, Kabir, et al. (2019) emphasized the adoption of online banking to enhance profitability. Both ROA and ROE were the proxies of performance and a total of 30 listed banking entities were targeted and included in the inquiry. It was shown that unlike banking entities without online platforms, those banks that have embraced online banking have higher ROA and ROE. In Jordan, Zalloum et al. (2019) focused on services of mobile banking and their link with electronic word of mouth (EWM). In Uganda, Nondo (2020) conducted a case study of students of Cavendish University to provide the link between mobile banking and their saving behavior. The variables used in the inquiry include adoption and growth of m-banking, m-banking money saving tools, cost of m-banking and effectiveness resulting from m-banking. It was noted that mobile banking boosts the ability of users to save.

In Nigeria, Usman (2020) did an assessment of mobile banking and its connection to financial performance. The findings indicated that mobile banking has no direct and significant link with financial performance. Thus, the inquiry inferred that an increase in the rate of adoption of mobile banking may lower performance in financial terms. A related study in Nigeria by Uwalaka and Eze (2020) looked at mobile banking and
how it is linked to satisfaction of the customers. The key emphasis of the inquiry was on security, proficiency, ease of usage and responsiveness related with mobile banking and how these attributes enhance satisfaction of the end users. Information was gathered from first hand sources. It was shown that responsiveness, ease of utilization, proficiency and security of mobile banking are all linked with satisfaction of the end users.

Figure 1
Conceptual Framework

Conceptual Framework
Independent Variable

Agency Banking

Mobile Banking

Dependent Variable

Profitability

2.0 Materials and Methods

Research Design
A descriptive explanatory research design was adopted in this inquiry, so as to bring out the link between strategies of financial inclusion and bank profitability. According to Aduaka and Awolusi (2020), descriptive design provides issues underlying an inquiry, and it shares evidence in settings that are natural.

Population of the Study
Population covers the elements that have related attributes which form the basis of the inquiry. In total, 41 banking institutions excluding Charterhouse Bank Limited, Imperial Bank Ltd and Chase Bank (K) Limited (CBK, 2020) were targeted.

Sample Design and Sample Size
Sampling involves selection of the elements from the target population which need to be covered in the final inquiry. The essence of sampling was to establish a manageable sample that can easily be covered. This study adopted census and thus no sampling was conducted. The essence of census was to cover all the banks.

Data Collection
Data was collected from secondary sources including the CBK reports and publications.
by the National Treasury, as well as the respective banks. Annual data collected covered the 5-year period; that is, 2016-2020). The period was selected because it was relevant in obtaining the required data.

**Data Analysis and Presentation**

The information collected from the field was coded into SPSS tool in readiness for analysis. Multiple regression helped to test the effect of financial inclusion strategies on profitability. Besides regression analysis, correlation analysis was also carried out. The following regression model was used to estimate the link between financial inclusion and profitability:

\[
P = \beta_0 + \beta_1 AB + \beta_2 MB + \varepsilon
\]

Where;

P- Profitability

AB- Agency banking
MB- mobile banking
\(\varepsilon\) is the error term
\(\beta_0\) is the regression beta coefficient

**Diagnostic Tests**

Diagnostic tests covering normality test, multicollinearity test and autocorrelation test were conducted prior to inferential analysis. Figures and tables aided in the presentation of the findings of the study.

**3.0 Results and Discussion**

**Summary of Descriptive Statistics**

The values of means and standard deviations were generated and appropriately interpreted to describe the data as summarized in Table 1.

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std. Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency banking</td>
<td>2.561</td>
<td>.609</td>
</tr>
<tr>
<td>Mobile banking</td>
<td>3.781</td>
<td>.845</td>
</tr>
<tr>
<td>Profitability (ROE)</td>
<td>.064</td>
<td>.376</td>
</tr>
</tbody>
</table>

Table 1 gives the values of means and standard deviations on agency banking as 2.561 and 0.610, mobile banking, having 3.782 and 0.846 and ROE with 0.064 and 0.377. This means that commercial banks in Kenya do leverage on financial inclusion to generate 6.4% of their profits using their equities.

Tindal and Bogonko (2017) observed that in order for commercial banks to generate positive ROE, they need to enhance their existing mobile banking and ATM banking platforms. The findings indicate the value of R square as 0.617, which deduces that 61.7% change in ROA among commercial banks in Kenya is explained by their financial inclusion strategies.

Thus, compared to ROE, financial inclusion strategies contribute more towards ROA of the commercial banks in Kenya. The results indicate that mobile banking (\(\beta=.034\), p<0.05) exerted the greatest and significant
effect on ROA of commercial banks in Kenya, followed by ATM banking (β=.021, p<0.05), internet banking (β=.016, p<0.05) and agency banking (β=.008, p<0.05). This means that mobile banking, ATM banking, internet banking and agency banking are all significant factors contributing towards ROA of commercial banks in Kenya.

**Correlation Analysis**

Correlation analysis was performed to establish the strength and nature of relationship between financial inclusion and profitability. The study had two measures of profitability; ROE and ROA. The findings are as presented in the subsequent sections.

**Correlation Results with Return on Equity as Measure of Profitability**

<table>
<thead>
<tr>
<th>Profitability</th>
<th>ROE</th>
<th>Agency Banking</th>
<th>Mobile Banking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agency Banking</td>
<td>.323</td>
<td>1</td>
<td>.600</td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>.600</td>
<td>.461**</td>
<td>1</td>
</tr>
</tbody>
</table>

The results in Table 2 show that mobile banking has a strong and positive correlation with ROE of commercial banks in Kenya (r=.600, p<0.05). On the other hand, agency banking (r=.323, p<0.05) had a moderate and positive relationship with ROE among commercial banks in Kenya. The general inference drawn from the findings is that financial inclusion exerts a positive effect on ROE of commercial banks in Kenya. This means that strengthening financial inclusion would see an improvement in ROE reported by commercial banks in Kenya.

**Regression Results and Hypothesis Testing**

The tables in the subsequent sections outlines evidence

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R Square</th>
<th>Adjusted R Square</th>
<th>Std. Error of the Estimate</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>.646a</td>
<td>.417</td>
<td>.404</td>
<td>.29079</td>
</tr>
</tbody>
</table>

**Table 3**

*Model Summary linking Financial Inclusion Strategies and Return on Equity*
Table 3 shows the coefficient of determination R square as .417, which infers that 41.7% change in ROE of Kenyan banking entities is explained by their financial inclusion strategies.

**Table 4**

**ANOVA Linking Financial Inclusion Strategies and Return on Equity**

<table>
<thead>
<tr>
<th>Sum of Squares</th>
<th>Df</th>
<th>Mean Square</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regression</td>
<td>10.592</td>
<td>4</td>
<td>2.648</td>
<td>31.317</td>
</tr>
<tr>
<td>Residual</td>
<td>14.797</td>
<td>175</td>
<td>.085</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>25.390</td>
<td>179</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 infers that the overall regression model linking financial inclusion strategies and ROE was significant (F=31.317, P<0.05).

**Table 5**

**Beta Coefficients and Significance of Financial Inclusion Strategies and Return on Equity**

<table>
<thead>
<tr>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
</tr>
</thead>
<tbody>
<tr>
<td>(Constant)</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>.959</td>
</tr>
<tr>
<td>Agency Banking</td>
<td>.031</td>
</tr>
<tr>
<td>Mobile Banking</td>
<td>.261</td>
</tr>
</tbody>
</table>

Table 5 shows that m-banking (β=.261, p<0.05) had significant link with ROE. This finding means that mobile and ATM banking technologies are key contributors towards ROE of commercial banks in Kenya. The findings are supported by Joshi (2019) who explored the link between the service quality of ATMs and the level of satisfaction of the end users. It emerged from the analysis that ATM services and satisfaction of the end users are positively connected with each other (Shieh, 2010).

On the other hand, agency banking (β=.031, p>0.05) had insignificant effect on ROE of commercial banks. This means that internet and agency banking channels are not core drivers of ROE of the commercial banks in Kenya.

**4.0 Conclusion**

Agency banking is a moderate but positive correlate of both ROA and ROE generated by Kenyan banks. Agency banking takes a significant role in driving ROA of Kenyan banks. However, its contribution towards
ROE of Kenyan banks is negligible (Pasukodewo & Susanti, 2020). Bank size is a weak but positive correlate of both ROA and ROE. Similarly, bank size significantly moderates the relationship between financial inclusion strategies and ROA as well as ROE. This means that the size of the bank is important when it comes to application of the financial inclusion strategies to remain profitable. Mobile banking is strongly and positively correlated with both ROA and ROE generated by Kenyan banks. Mobile banking is a significant predictor of both ROA and ROE generated by the Kenyan banks. However, the contribution of mobile banking towards ROE is far above the one exerted to ROA of the commercial banks in Kenya.

5.0 Recommendations
The business development managers, together with regional marketing managers working in commercial banks in Kenya should increase the agency network, while creating more awareness among customers on the need to use bank agents to carry out transactions like payment of bills. The management team of the commercial banks in Kenya should borrow experience of the Kenya Commercial Bank by slashing all the transaction costs of mobile banking. This will increase its uptake and the average value and volume of transactions which would in turn improve ROE.

References


Barasa, C., Obura, W., & Anyira, F. A. (2017). Effect of Internet Banking On Financial Performance of Commercial Banks in Kisumu City-


