FINANCIAL INNOVATION ON FINANCIAL PERFORMANCE OF DEPOSIT TAKING MICRO-FINANCE INSTITUTIONS IN KENYA

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ABSTRACT
Nowadays, financial institution environment information technology, effective service delivery and customer satisfaction are an indispensable competitive strategy. Furthermore, the stiff competition and the compression of the interest rates, has forced banks to set up and put into effect all necessary decision support technological systems. Financial innovation has enabled financial institutions to dynamically plan new locations, evaluate their performance, forecast customers’ attitude to new offered products and services, estimate clients’ switching behavior and finally provide marketing support to their geographically separate branches. Measuring financial performance accurately is critical for accounting purposes and remains a central concern for most organizations. Financial innovation in a firm can be reflected on firm’s return on investment (ROI), return on assets (ROA), value added, profitability, balance sheet strength, growth in deposit accounts, among others and is a subjective measure of how a firm can use assets from its primary mode of business and generate revenues. This study sought to investigate effect of financial innovation on financial performance of Deposit Taking Micro-Finance Institutions in Kenya. The study targeted all deposit-taking microfinance institutions in Kenya. The study adopted stratified sampling with the sample been drawn from the senior management, middle management and lower management staff of the head office branches of the 8 deposit-taking microfinance institutions. The study used both primary data and secondary data. Secondary data accessed from the CBK (2012) report while a semi-structured questionnaire was used for collecting primary data from the respondents. Both qualitative and quantitative analysis was carried out.

Key Words: product, market, process, technology, financial and performance

Introduction

In today's global and dynamic competitive environment, product innovation is becoming more and more relevant, mainly as a result of three major trends: intense international competition, fragmented and demanding markets, and diverse and rapidly changing technologies.1

Competitive advantage is increasingly derived from knowledge and technological skills and experience in the creation of new products. As the world’s financial markets become increasingly integrated and globalized, the demand for new types of investments continues to grow. With greater competition brought by deregulation, globalization and widespread mergers and acquisitions taking place in the banking sector, more branches are being closed down and replaced by self-serviced banking (SSB) facilities like the ATMs as part of a larger rationalization exercise. Even with the massive branch network, the use of phone banking and Internet banking is strongly promoted by the banks in addition to ATMs.

Financial performance is essential to the survival of firms in the competitive and uncertain environment. Financial performance ultimately reflects whether or not service quality is realized in a firm. It is a general measure of a firm’s overall financial health over a given period of time, and can be used to compare similar firms across the same industry or to compare industries or sectors in aggregation. Financial innovation seems to occur in various forms and financial institutions, and can diffuse into any sectors of the economy. This may be reflected in the firm’s return on investment (ROI), return on assets (ROA), profitability, balance sheet strength, growth in deposit accounts, among others and is a subjective measure of how a firm can use assets from its primary mode of business and generate revenues. Financial Innovation as something new that reduces costs and risks or provides an improved product/service/instrument that better satisfies financial system participants’ demands. Financial innovations lower the transaction cost of transferring funds from lower yielding money balances to higher yielding alternatives. Therefore, with financial innovations market participants attempt to minimize risk and to maximize return.

Kenyan microfinance sector is one of the most vibrant in Sub-Saharan Africa and includes a diversity of institutional forms and a fairly large branch network to serve the poor. According to statistics, between 2006 and 2009, usage of MFI services in Kenya doubled, from 1.7% of the population in 2006 to 3.4% of Kenya population in 2009. Similarly, the deposits base stood at KES. 16.4 billion representing a growth of 6.4% from Ksh. 15.4 billion in December 2012. The long-term borrowings by DTMs increased by 6% from Ksh. 8.3 billion in December 2012 to Ksh. 8.8 billion in March 2013. The number of DTMs deposit accounts and loan accounts stood at 1.79 million and 0.47 million respectively in March 2013 compared to 1.76 million deposit accounts and 0.46 million loans accounts registered at end of December 2012 representing an increase of 1.7% and 2.2% respectively. The survey also found out that out of the 17.4 million adults in Kenya, 26.4% have access to financial services through formal and semi formal (MFIs and SACCOs) institutions, 35.2% use informal services (ASCAs, ROSCAs, family/friends) and 32% are financially excluded (FinAccess National Survey, 2009). By December 31st 2007, AMFI had registered 34 MFI’s as its members which comprise DTMs.


NGO’s, companies, trusts, societies and commercial banks, among others. Out of these, twenty one institutions had an estimated 1.1 million institutional savers and 250,000 borrowers with a loan portfolio of Kshs 4.261 billion.

**Objective of the Study**

This study sought to establish effect of financial innovation on financial performance of Deposit Taking Micro-Finance Institutions in Kenya.

**Specific Objectives of the Study**


**Figure 1: Conceptual Framework**

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Financial Innovation on Financial Performance of DTMs

Product Innovation

Humphrey cite ATMs (automated teller machines), telephone banking, internet banking, and e-money as being among the significant innovations affecting the banking distribution system that influence banking performance significantly. Goddard add that client relation management systems, bank management technologies, and various other technologies are among the major changes in internal banking systems that also have exercised a positive influence on banking performance and profitability. The first institutions to adopt successful new technologies earn extraordinary profits because of the high prices they impose or the increased market shares they acquire. Other banks follow their lead in order to avoid losing market share. If the process of innovation continues and new technologies are introduced over time, innovative banks can continue to earn high profits on the various new or improved products. However, extraordinary profits will dwindle as innovations are adopted widely\(^5\).

Market Innovation

Competition has emerged between traditional financial service provider and other financial institutions. The development and globalization of financial markets have intensified the need for modifying the current structure and condition of the financial system. Financial regulations have been modified, usually towards reducing or eliminating constraints on financial activity, such as interest rate liberalization. This type of financial deregulation, as it may be called, triggers off the incentive for innovation. Financial performance of the DTMS sector was rated strong as institutions achieved satisfactory financial performance and improved financial results despite high market competition as each DTMS scramble for a significant market share. Financial innovations have been introduced into the market as a result of raising competition. The financial sector remained well capitalized, shareholders funds deposits and assets increased 35.2\% and 31.9\% respectively\(^6\).

Process Innovation

Financial services firms provide the payment services and financial products that enable households and firms to participate in the broader economy. By offering vehicles for investment of savings, extension of credit, and risk management, they fuel the modern capitalistic society. It is obvious that a well-developed financial system can promote economic growth. It enables economic agents to diversify their portfolios and meet their liquidity requirements. Financial resources are allocated in a more efficient way and risk management solutions are made


available. The existence of these finance elements can push an economy’s production possibility frontier outwards and hence a higher growth potential is expected in the long run\(^7\).

In a study on innovation processes and perceived role of CEO in banking industry, Gitonga (2003) concluded that banks should focus on norms that support creativity and implementation in order to build an innovative process. A study on the relationship between the level of technological innovation and financial performance of commercial banks in Kenya by Nyawira (2011) using census survey to obtain data from primary and secondary sources concluded that commercial banks have continuously employed various technological innovations and these technological innovations had lead to increased financial performance of commercial banks in Kenya through increased bank sales, return on equity and profit increments.

**Technological Innovations**

A study on the effects of technological innovations on financial performance of commercial banks in Kenya depicts that most Kenyans trust the ATM as compared to other technological innovations. It also depicted that online account opening has not been widely used in Kenya. Kariuki conducted an investigation on the relationship between financial engineering and financial performance of commercial banks in Kenya. The objective of His study was to establish various financial engineering strategies adopted by commercial banks in Kenya and their impact on the banks financial performance. The study established that financial engineering strategies affect the financial performance of banks to a great extent. He recommended that similar studies be applied to microfinance institutions\(^8\)

**Research Methodology**

All deposit-taking microfinance institutions with branches in Nairobi were involved in this study. while stratified sampling with the sample been drawn from the senior management, middle management and lower management staff of the head office branches of the 8 deposit-taking microfinance institutions. Both primary and secondary data were used. Secondary data was accessed from the CBK (2012) report while semi-structured questionnaire was used for collecting primary data from the respondents. Both qualitative and quantitative analysis was carried out. Statistical tool, SPSS, was used to code and enter quantitative data.

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Research Findings

Inferential Analysis

Financial ratios analysis and model summary was conducted to compute relationship between dependent variable and the independent variables

Financial Ratios Analysis

This section involves analysis of the financial performance of the deposit taking microfinance institutions in Kenya. The focus of the study was on ROA, Cash flow, ROCE, Balance sheet strength. The results indicate that financial innovation was significant in affecting the various indicators of profitability where Growth in Deposit Accounts had the highest t-values at 2.212, followed by profitability at 1.557, then balance sheet strength at 1.263, while ROA had the least t-value at 0.971. Based on the results, all the explanatory variables are statistically significant (p=0.0411, p=0.0364, p= 0.0409 and p=.0270). In statistics, a significant level of p <0.05 is significant. This means that the four predictor variables are useful for predicting the effect of financial innovation on financial performance of deposit taking micro financial institutions in Kenya.

Table 1: Financial Innovation on Financial Performance of Deposit Taking Microfinance

<table>
<thead>
<tr>
<th>Model</th>
<th>T stats</th>
<th>Mean</th>
<th>Std. Dev</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>(Constant)</td>
<td>0.965</td>
<td>-3.83</td>
<td>9.22</td>
</tr>
<tr>
<td></td>
<td>Profitability (%)</td>
<td>1.557</td>
<td>-4.06</td>
<td>6.50</td>
</tr>
<tr>
<td></td>
<td>ROA (%)</td>
<td>0.971</td>
<td>234112.83</td>
<td>362193.47</td>
</tr>
<tr>
<td></td>
<td>Growth in Deposit Accounts</td>
<td>2.212</td>
<td>-3.83</td>
<td>9.22</td>
</tr>
<tr>
<td></td>
<td>Balance Sheet Strength</td>
<td>1.263</td>
<td>617.17</td>
<td>885.18</td>
</tr>
</tbody>
</table>

Model Summary

Coefficient of determination explains the extent to which changes in the dependent variable can be explained by the change in the independent variables or the percentage of variation in the dependent variable (financial performance) that is explained by all the four independent variables (product innovation, market innovation, process innovation and technology innovation).

The four independent variables that were studied, explain only 66.4% of the organization financial performance as represented by the adjusted R². This therefore means that there are other factors not studied in this research contribute 33.6% of the DTM's financial performance. Therefore, further research should be conducted the other factors (33.6%) that contribute in financial performance of DTM's.
Table 2: Model Summary

<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>0.815</td>
<td>0.664</td>
<td>0.314</td>
<td>0.4211</td>
</tr>
</tbody>
</table>

**Product Innovation**

It was clear that most (85%) of DTM had embraced product innovation. Likewise management support of competitive strategies and information intensity influence organization adoption of product innovation mostly (M=4.01). Additionally, product diversification and product development were the key success factors in product innovation strategies (M=3.74). Improved and radically changed products are regarded as particularly important for long-term DTM growth while products at the DTM have been updated and completely renewed for retaining strong market presence while vision and mission statements influence organization towards a product development to a great extent.

**Market Innovation**

Majority (60%) of organizations have adopted market innovation. Likewise, DTMs were creating and nurturing strong products through pricing, analysis and response to environmental changes to a great extent in organizations. DTM practiced market development to identify better (new) potential markets and that the DTM is involved in market segmentation which is aimed at developing the profitability of a business to the full.
Process Innovation

To process innovation, organizations have adopted process innovation. To the use of process innovation, the study established that process innovation is used mostly on increasing profit, enhancing quality personnel, saving of costs and increasing competitiveness. On the effect of process innovation, the study revealed that process innovation is important in both the supply of the core product as well as in the support part of any offer. Also the study established that financial innovation adopted by DTM is important since it improve organization services while it improves organization quality service of financial performance to a great extent.

Table 3: Process Innovation

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>STDev</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processing Innovation</td>
<td>3.63</td>
<td>1.48</td>
</tr>
<tr>
<td>Increasing profit</td>
<td>4.55</td>
<td>0.67</td>
</tr>
<tr>
<td>Enhancing quality personnel</td>
<td>4.52</td>
<td>0.646</td>
</tr>
<tr>
<td>Saving of costs</td>
<td>4.23</td>
<td>0.777</td>
</tr>
<tr>
<td>Attracting more customers</td>
<td>3.16</td>
<td>1.244</td>
</tr>
<tr>
<td>Increasing competitiveness</td>
<td>4.16</td>
<td>1.043</td>
</tr>
<tr>
<td>Providing the means for safeguarding and improving quality of service</td>
<td>3.56</td>
<td>1.456</td>
</tr>
</tbody>
</table>

Technological Innovation

DTMs have adopted technological innovation such as use ATM deposit and withdrawal, mobile banking, internet banking transaction and agency banking. Technological innovations affect financial performance of DTM to a great extent.

Figure 3: Technological Innovation
Conclusions

DTM have embraced product innovation while management support of competitive strategies and information intensity influence organization adoption of product innovation mostly. Improved and radically changed products are regarded as particularly important for long-term growth of DTMs while products have been updated and completely renewed for retaining strong market presence to a great extent. Further the study concluded that DTM’s vision and mission statements influence organization towards a product development to a great extent while product development is regarded to be important to a great extent in both the supply of the core product as well as in the support part of any offer.

Most of organizations have adopted market innovation as they create and nurture strong products by creating value through pricing and conducting environmental analysis and response to changes. Main purpose of market development for DTM is to identify better (new) potential markets such as market segmentation which is aimed at developing the profitability of a business to the full.

DTMS have adopted process innovation where it is used mostly on increasing profit, enhancing quality personnel, saving of costs and increasing competitiveness. The process innovation is important in both the supply of the core product as well as in the support part of any offer. Financial innovation adopted by DTM is important since it improve organization services while it improves organization quality service of financial performance to a great extent.

Finally, the survey concluded that most organizations have adopted technological innovation such as use of ATM deposit and withdrawal, mobile banking, internet banking transaction and agency banking which they have influenced financial performance of DTM to a great extent.

Recommendations

The study has reviewed the empirical contributions in the field of financial innovation. There arise several implications and avenues for future research from the above review and analysis. Therefore there exists huge scope for further empirical research in the domain of organization financial performance. Thus the following recommendations were made:

1. For organization to be effect on its financial performance particularly financial institution they must recognize product innovation. This due to the realization that consumers are changing their preference as the innovation changes hence organization that will be reluctant to old models be run out of the market by the organization that will embrace product innovation.

2. In order to have large market share, organization have to adopt the modern marketing strategies in order to fit in the current market needs.
3. Organizations have to embrace process innovation since the quality of product starts at the first step hence if the process is conducted poorly, the product will also be of poor quality.
4. Modern gadgets should be used to improve processing practices and that prior measures to be set to ensure that relevant IT appliances are applied in organization performance since ignorance to this will led to low performance of the organization.

References


