Customers’ Adoption of Online Banking on Financial Performance of Micro Financing Institutions in Kisumu City, Kenya

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Globally Online Banking has gained worldwide acceptance as a new delivery channel for performing banking transactions. In Kenya 44.12% of the population has access to online banking with majority accessing the service through mobile. Recent studies on online banking focused on commercial banks. However, little is known on the usefulness of online banking to Micro financing institutions in Kisumu city. The purpose of the study was customers’ adoption of online banking on financial performance of micro financing institutions in Kisumu city, Kenya. The study was anchored on transaction costs theory. Time series design was adopted, and a sample of 384 employees comprising of 11 branch managers of MFIs, 11 product development managers, 11 research and development managers and 351 employees were obtained from the target population of 436 employees of the MFIs. The study adopted primary data collection method using questionnaires. Data collected was analyzed using descriptive and inferential. The study revealed that customer adoption of online banking had a positive impact on financial performance of MFIs (β=.331, p=.000). The study concluded that all the selected factors had an impact on financial performance of MFIs and recommended that MFIs should improve their online banking among their customers in order to increase their return on equity. The research findings will enable managers and staff of MFIs to formulate marketing strategies, make policy changes and give empirical findings on relationship between online banking and financial performance.

Key words: Online Banking, micro financing institutions

INTRODUCTION

Micro financing institutions play a vital role in the economic development of many developing countries through the provision of wide range of financial products and services to the poor, low-income households and small and medium sized enterprises, Arianto (2004). Lawrence (2004) states that micro financing institutions cannot progress without the intervention of financial innovations to spearhead its growth. Financial institutions have continued to use huge investments in e-banking based on innovations and training of manpower to handle new technologies such as personal computer (PC) banking, mobile banking, automated teller machines (ATM), electronic funds transfer, account to account transfer, paying bills online, online statements, credit cards among others. According to Steve (2002) online banking is use of internet and telecommunication networks to deliver a wide range of value-added products and services to bank customers. It provides customers with the opportunity to conduct banking transactions at their convenience. Online banking has gained prominence in recent years as a result of the rapid and massive adoption of new technologies, mainly the Internet. Bitpipe (2005) defines it as a system allowing individuals to perform banking activities at home, via the Internet. DeYoung, Lang and Nolle (2006) refer to the Internet banking as a process innovation that functions mainly as a substitute for physical branches for delivering...
banking services. Customers are able to access services at the comfort of their homes without travelling to the banks physical premises 24 hours a day 7 days a week without relying on the banks working hours.

Online banking was first adopted on October 6, 1995 in the United States of America, when the Presidential Savings Bank offered its customers an online alternative to traditional banking, (Presidential Savings Bank, 2005). Online banking usage has grown very rapidly, according to current estimates by Pew research; more than 50 million adults in the United States do their banking online, (Sullivan, 2005).

The rapid development in Africa’s ICT sector, particularly online banking is sending a strong message about the continent’s potential to innovate. Africa is now considered as the fastest emergent continent in the ICT sector growth. In South Africa, online banking is growing rapidly, according to internet analysts World Wide Wory (WWW) The South African Technology Vanguard (Savant), a recently launched partnership between the government and key industry players, argues that while South Africa is firmly part of the technology mainstream, applying the world’s best technology and keeping pace with progress in the industry, the country simultaneously adapts and applies these technologies to the local market.

In Kenyan context, Internet banking has become an important tool of accessing information and communicating. About 44.12 % of Kenyan population has access to internet, with majority accessing the service through mobile phones, Communication Commission of Kenya (CCK 2012). Over the last ten years, the financial sector in Kenya has seen dramatic changes. In February 2009, Standard Chartered Bank became the first bank to introduce internet banking in the Kenyan market through the Unstructured Supplementary Service Data platform. Their customers were able to check their bank balance, view mini statement for the last 3 transactions, change their pin anytime, anywhere, request bank statements, transfer of funds in between personal accounts and nominated accounts, enquire for FX rates, pay utility bills, request cheque books, top up their mobile balances. This has been made possible by factors including; development in the wider economy, policy and regulatory reforms, increased competition and new technology. Even though Kenya did not embrace electronic banking early compared to developed countries, this concept has gained recognition in the microfinance industry and it is considered as a means of gaining competitive advantage (Muriuki, 2009).

Studies by Irissappane (2004), Jarvenpaa and Todd (1997), Lee (2000), Szymanski and Hise (2000), Palumbo and Herbig (1998), Bailey and Pearson (1983), Bhatnagar (2000), Srinivasan (1990), Kolsaker (2004) highlights a positive relationship between performance and customer adoption of online banking. Convenience, Accessibility, Scope, Attraction, Reliability, Experience and Clarity are the important factors that affect intention to do online banking. In the recent years there has been increased use of Mobile– Internet access which has opened up a new avenue and more customers’ which significantly leads to wide coverage of customers on adoption of online banking thus positively affecting the financial performance of the entity. Previous literatures, reveals that a number of studies have been conducted in recent years concerning customer adoption of online banking, these studies majorly focused on commercial banks, no studies were conducted on MFIs and there is need therefore for the researcher to conduct a study on customer adoption of online transactions on financial performance of MFIs in the present study.

**Transaction Costs (Innovation) Theory**

The transaction costs (innovation) theory’s main pioneers are Hicks and Niehans (2006). They thought that the dominant factor of financial innovation is the reduction of costs and in fact, financial innovation is the response of advance in technology which caused the transaction cost to reduce, an aspect that enables it to be at the forefront of improving the financial performance of micro financing institutions.

Transaction costs (innovation) theory (TCT) investigates if a transaction can be undertaken at a lower cost via the market or within the hierarch of the firm (Williamson, 2003). It consists of the negotiating, monitoring and enforcements cost which arise when a transaction between two or more parties takes place (Jones & Hill, 2008). The presence of transaction costs causes external motivations for companies to diversify. Therefore, the reduction of transaction costs can stimulate financial innovation and improve on financial services. According to Mbogo (2010) online banking has emerged as a strategic resource in the banking industry for achieving higher efficiency, control of operations and reduction of cost by replacing paper based and labour intensive methods with automated processes thus leading to higher productivity and profitability. This study was anchored on this theory since upon adoption of online banking products MFIs may substantially reduce transaction costs and administrative costs as it enables efficient coordination, management and use of information. Internet-connected IT may further lower transaction costs as it provides off-site access to the firm’s internal database and other relevant sources of information.

**Empirical Literature**

Muriuki (2009) identified the factors that affect the adoption of e-banking by MFIs in Kenya. The objective of the study was to assess the factors that affect the adoption of e-banking by MFIs in Kenya; and to rank the importance of such factors. A descriptive research design was adopted and data collected using a questionnaire administered to each respondent. Among the factors were organizational
factors, perceived technological factors, perceived external factors. Results indicate that MFIs with a strong support and commitment to e-banking from top management are more likely to adopt it. MFIs that have requisite IT and business resource (Infrastructure and skills) for e-banking adoption stands a better chance at adopting e-banking. MFIs are not exempt from technological advancement especially for fast service delivery and therefore to remain relevant and reap the benefits that come with technology including improved financial performance.

Sayar and Wolfe (2007), Internet banking is attractive because of its convenience and lower fees. Internet banking users can perform financial transactions at anytime and anywhere without queuing at bank branches. Polasik and Wisniewski (2009) Internet banking offers lower fees or better rates on deposit and loans which enable the cost savings to be passed on to consumers. Furthermore, Internet banking provides customer rapid updating, richness-information (Palmer, 2002; Shapiro, 1999), speedy transaction access (Mavri and Loannou, 2006) and absolute self-service (Eriksson and Nilsson, 2007).

Yilmazer (2005) Internet banking has become one of the most popular banking channels and the decision to provide Internet banking is perceived to be a vital strategy for customer retention and remaining competitive for banks and financial institutions. Nahian Riyadh (2005), investigating customers’ perception on internet banking practices. The findings were that customers hesitate adoption of new technology due to low computer literacy and lack of trust in technology. He recommended the government to increase the internet penetration rate through media in order to familiarize customers on online banking services.

Lee (2007) on the possible barriers hindering adoption of internet banking by customers in Pakistan. He found that customers perceive more value and satisfaction in the conventional banking system compared to internet banking. He recommended strengthening of customer-banker relationship. Gilaninia (2011) examining on specific factors affecting customer usability and self-efficacy in Australia. The key finding is that there is greater level of internet risk acceptance by Australians than what was previously recognized by internet adoption studies. Also, there is need for extensive and deep levels of consumer support from banks especially in terms of the immediate availability of support-oriented knowledge provided by knowledgeable bank personnel using interactive channels. Isaeva (2012) and Nath (2001) as well argue that Internet banking expands the customer base. The study by Nath collects data from 75 banks in the United States and examines the views of bankers on providing banking services via the Internet. They see Internet banking as an opportunity to reduce transaction costs, expand the customer base and increase cross-selling.

Maroofi and Nazarpour (2012), Raza (2013) concentrate on how quality of online services influences customer’s satisfaction. Looking at individual response and controlling for such factors as trust and reputation results into positive, but not significant effect of e-banking quality. Floh and Treiblmaier (2006) take into account a role of consumer characteristics such as age, gender or technophobia and conclude that the loyalty of e-banking customers is affected by trust, Web site quality and services quality. The described results are based on data from surveys where customers of the one Australian online bank were questioned. Respondents were not compared to non-e-banking users.

According to the literature reviewed the studies which were carried out in different places using different sample sizes and different population sizes and different research designs such as descriptive statistics, have indicated that customers’ adoption of online banking had a significant positive, regression methods, descriptive research design gave differing opinions on the impact of customer adoption of online banking. While others indicated insignificant impact on financial performance of MFIs. However, the impact of customer adoption on financial performance of MFIs in Kisumu City, Kenya is unknown

**METHODOLOGY**

This study has employed time series research design on a target population of 216 employees comprising of 12 branch managers, 12 product and development managers, 12 research and development managers, and 180 employees from all the 12 micro finance institutions in Kisumu city. A sample of 155 was obtained from the population using Mason, Lind and Marchal (1999:292) and Nargundkar (2003). Data was collected primarily using structured questionnaires, observation and interviews and secondary data through the relevant books, journals and periodicals. This study used descriptive statistics to analyze quantitative data and was guided by the following Model Regression Model.

The linear regression model:

\[ Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \varepsilon \]

Where: -
- Y = Return on Equity
- X_1 = Online banking transactions volume
- X_2 = Online Products
- X_3 = Customers’ adoption of online banking
- \beta_0 = constant.
- \beta_1, \beta_2, \beta_3, \beta_4 = Regression Standardized Co-efficient
- \varepsilon = error term,

**Findings**

The study sought views from a total of 384 respondents after successfully determining the sample size from all the employees of MFIs in Kisumu City, Kenya. Table 1 presents the results on the response return rate of successfully achieved questionnaires.
The employee position was also important to the study such that it gave a hint of the authenticity of the information sought from the respondents. Therefore, the results for the category of the employee are presented as shown in table 4.

<table>
<thead>
<tr>
<th>Valid</th>
<th>Teller</th>
<th>252</th>
<th>66.3</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manager</td>
<td>19</td>
<td>5.0</td>
<td></td>
</tr>
<tr>
<td>Customer care</td>
<td>109</td>
<td>28.7</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>380</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

Table 4 results indicates that majority of the respondents were MFI tellers, 252(66.3%). This represents a true reflection of the nature of MFIs who mainly employ the tellers. The second are the customer care 109(28.7%) and the final ones are the managers, 19(5.0%) who are always few in numbers due to the managerial position they hold.

The final characteristic of importance is the duration of operation of MFI in years. This could give an indication of the age of MFI and establishment. The findings are presented as shown in table 5.

<table>
<thead>
<tr>
<th>Valid</th>
<th>1-2 years</th>
<th>10</th>
<th>2.6</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 years</td>
<td>232</td>
<td>61.1</td>
<td></td>
</tr>
<tr>
<td>4 years</td>
<td>89</td>
<td>23.4</td>
<td></td>
</tr>
<tr>
<td>5 years and more</td>
<td>49</td>
<td>12.9</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>380</td>
<td>100.0</td>
<td></td>
</tr>
</tbody>
</table>

From the findings, it is clear from the respondents’ estimation of the age of the MFIs that majority of them are 3 years old as indicated by 232(61.1%) of the respondents, followed by those who indicated that they are 4 years old, 89(23.4%), 5 years old 49(12.9%) and finally 1-2 years old 10(2.6%).

The study objective was Impact of customers’ adoption of online banking on financial performance of micro financing institutions in Kisumu city, Kenya. The study hypothesis stated that “There is no impact of customers’ adoption of online banking on financial performance of micro financing institutions in Kisumu city”. In order to achieve the objective of the study, three steps were used. First, the frequency of use of online banking services was sought on a questionnaire and the results presented. In the second step, the study sought to establish the extent to which MFIs customers adopted online banking, and finally, its impact on performance of MFIs.

In the first step, respondents were asked to indicate how often the MFIs customers used online banking per months. The results are presented using frequency counts and percentages as shown in table 6.
Table 6: Frequency of use of Online Banking among MFIs in Kisumu City, Kenya

<table>
<thead>
<tr>
<th>Use of Online Banking products</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-2 times</td>
<td>49</td>
<td>12.9</td>
</tr>
<tr>
<td>3-4 times</td>
<td>50</td>
<td>13.2</td>
</tr>
<tr>
<td>5-6 times</td>
<td>155</td>
<td>40.8</td>
</tr>
<tr>
<td>more than 6 times</td>
<td>126</td>
<td>33.2</td>
</tr>
<tr>
<td>Total</td>
<td>380</td>
<td>100.0</td>
</tr>
</tbody>
</table>

The results in table 6 indicates that MFIs customers use online banking products 5-6 times in a month as indicated by majority, 155(40.8%) of the respondents. The second category, 126 (33.2%) indicated that they used these services more than 6 times in a month. At least 50(13.2%) indicated that the MFIs customers used these services 3-4 times and 49(12.9%) indicated that these services were used 1-2 times in a month. These findings imply that online banking is highly practiced among the MFIs customers in Kisumu City, Kenya.

Table 7: Frequency on the extent of adoption of online banking among the MFIs customers

<table>
<thead>
<tr>
<th>Adoption of Online Banking</th>
<th>VSE</th>
<th>SE</th>
<th>ME</th>
<th>LE</th>
<th>VLE</th>
<th>mean</th>
<th>Std. dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>General use of pesa-link</td>
<td>20</td>
<td>49</td>
<td>40</td>
<td>59</td>
<td>212</td>
<td>4.04</td>
<td>1.28</td>
</tr>
<tr>
<td>General use of Paypal accounts</td>
<td>98</td>
<td>89</td>
<td>97</td>
<td>39</td>
<td>57</td>
<td>2.65</td>
<td>1.36</td>
</tr>
<tr>
<td>Cash payments through online banking</td>
<td>10</td>
<td>20</td>
<td>49</td>
<td>39</td>
<td>262</td>
<td>4.38</td>
<td>1.06</td>
</tr>
<tr>
<td>Cash transfer through online banking</td>
<td>0</td>
<td>10</td>
<td>20</td>
<td>78</td>
<td>272</td>
<td>4.61</td>
<td>.709</td>
</tr>
<tr>
<td>Check of bank balances</td>
<td>10</td>
<td>30</td>
<td>10</td>
<td>49</td>
<td>281</td>
<td>4.48</td>
<td>1.04</td>
</tr>
</tbody>
</table>

The findings in table 7 show the extent to which MFIs customers adopted online banking. From the results, it is clear that cash transfer through online banking was the most widely adopted online banking as indicate by a mean of 4.61 with the majority of the respondents, 272(71.6%) indicating that it was adopted to a very large extent. The second aspect that was adopted to a very large extent is the bank balance enquiry as indicated by majority 281(73.9%) of the respondents. Cash payment through online banking was the third aspect that was adapted to a very large extent as indicated by majority 262(68.9%) of the respondents with an overall mean of 4.38 and a standard deviation of 1.04. Other aspects such as use of pesa link were also adopted to a large extent (mean=4.40) except use of paypal accounts. In general, the findings indicate that adoption of online banking among MFIs in Kisumu City was to a large extent.

The study therefore sought to determine the impact of customer adoption of online banking on performance of MFIs in Kisumu City, Kenya. First, the results on the model coefficients that represent the unique contribution of the predictor to the model are presented as shown in table 8

Table 8: Effect of Customer Adoption of Online Banking on Performance of MFIs

<table>
<thead>
<tr>
<th>Model</th>
<th>Unstandardized Coefficients</th>
<th>Standardized Coefficients</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>(Constant)</td>
<td>3.929</td>
<td>0.228</td>
<td>17.212</td>
<td>.000</td>
</tr>
<tr>
<td>y3 customer adoption of online banking</td>
<td>.379</td>
<td>.056</td>
<td>.331</td>
<td>.682</td>
</tr>
</tbody>
</table>

a. Dependent Variable: Performance of MFI

The findings in table 8 indicates that customer adoption of online banking has a unique contribution on performance of MFIs in Kisumu City, beta=.331, t(281)=6.822, p=.000. This finding first, indicates that there is a relationship between the two variables, and secondly, the predictor variable (adoption of online banking) uniquely determines the performance of MFIs. Further implication is that a change in the adoption of online banking is likely to lead to an increase in the performance of MFIs in Kisumu City.

It was therefore of paramount importance to establish the percentage variance in performance accounted for by adoption of online banking. The findings are presented as shown in tables 9.

Table 9: Variance in Performance of MFIs as result of Adoption of Online Banking

<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>
<th>Change Statistics</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>.331a</td>
<td>.110</td>
<td>.107</td>
<td>.86350</td>
<td></td>
</tr>
</tbody>
</table>

a. Predictors: (Constant), y3 customer adoption of online banking
From the findings in table 9, there is a correlation between adoption of online banking and performance of MFIs based on return on equity (R=.331). This means that the two variables are related. The findings also indicate that customer adoption of online banking accounts for 10.7% variance in performance of MFIs after shrinkage. These findings were found to be significant thus indicating the model significance, F(1, 378)=46.538, p=.000. This implies that customer adoption of online banking significantly determines performance of MFIs in Kisumu City, Kenya. The null hypothesis is therefore rejected an alternative hypothesis adopted, which states that “There is an impact of customers’ adoption of online banking on financial performance of micro financing institutions in Kisumu city” This leads to the conclusion that customer adoption of online banking has an impact on financial performance of MFIs in Kisumu City, Kenya.

The above findings are in line with those obtained by Maroofi (2012), Muriuki (2009), Yilmazer (2005), on the impact of customers’ adoption of online banking on financial performance of MFIs. The study concluded that there is positive impact on customers’ adoption of online banking on financial performance of MFIs.

CONCLUSION

The objective of the study was to determine the impact of customers’ adoption of online banking on financial performance of micro financing institutions in Kisumu city, Kenya. The study established that customer adoption on online banking was to a great extent, particularly used on cash transfers and cash withdrawals. Finally, this adoption had an effect on financial performance of MFIs and explained 10.7% change in financial performance.

Based on the conclusions, the study recommends, MFIs should carry out proper measures to ensure that customers adapt to online banking since this will help them reap much profit from the adoption.

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