Determinants of Mobile Banking Adoption by Customers of Microfinance Institutions in Nairobi County in Kenya

John Wamai¹, John M. Kandiri (PhD - IS, Msc. IS)²

¹,²Kenyatta University

Abstract: Mobile technology usage has had various impacts on individuals and enterprises at different levels. Several factors have been sighted by different researchers as contributing either positively or negatively to the adoption of Mobile banking technology. Banks have implemented this technology to enable them reach more customers due to its ubiquitous nature and to reduce the cost of putting up new branches in their areas of operations. For this effort to be felt and for the technology to be implemented effectively, there is need to understand the factors contributing to its adoption by the customers. This study was carried out to investigate the effects of important factors that affect adoption of mobile banking technology by customers of Microfinance Institutions in Nairobi County, Kenya. A sample of 210 customers were selected randomly and the researcher extended the Technology Acceptance Model (TAM) framework. The study found that both perceived usefulness and perceived ease of use positively correlate and affects adoption of mobile banking technology positively. On the other hand, Perceived Risk and Perceived transaction costs were found to have negative correlation with the adoption of mobile banking technology.

Keywords: Mobile Banking, Microfinance Institutions, Risk, Perceived Usefulness, Perceived Cost, Perceived Ease of Use

1. Introduction

In most part of the world and especially the developing countries, Microfinance has been a powerful tool for fighting poverty for low-income individuals. With increased access to good and services supported by microfinance, the effect is felt beyond individual levels to the whole business chain [2]. The First Deposit Taking Microfinance Institutions (DTM) ware licensed in 2009 under Microfinance Act 2006 and are supervised directly by the Central Bank of Kenya (CBK) [39]. Microfinance banks play a crucial role of financial intermediation by providing services to poor and low income households enabling them to develop economic base that is necessary for the growth and development of every economy. Such services include deposit collection, funds transfer and loans provisioning. Traditionally, banking services were offered in the banking halls with the customer filling paper requests and a bank staff providing the service. It depended on the physical presence and face to face meeting of the customer and the bank employee.

In the recent past, banking has moved from the tradition brick and motor banking to on line and self-service model and customer no longer need to spend time to travel to the distance placed bank branches. Low income communities have unsatisfied financial services demands especially due to lack of banks nearby and lack of the necessary infrastructure to facilitate banking. The cost of setting up banking halls by banks forces the banks to push the cost to customers in form of transaction cost, which makes it difficult for poor people to afford banking services.

Mobile-banking services are valued more by the poor people in (a case of South Africa) and are more affordable than traditional banking [38]. In 2007, Kenya pioneered Mobile money transfer with the introduction of M-Pesa, which has revolutionized the banking. The same benefits can be beneficial to microfinance banking customers if applied.

Mobile banking is the provisioning and availability of banking and financial services by use of mobile technology where the scope of services offered may include facilities to conduct bank and stock market transactions, as well as enabling users to access customized information [1][8].

M-banking is defined as use of mobile devices like a mobile phone to access financial services or perform banking transactions where the mobile enables clients in the remote locations with network connectivity to access their accounts from anywhere and at any time in what is referred to as ubiquitous [7].

A Financial Access study (Kenya, 2014) by the Central Bank of Kenya and Financial Sector Deepening identified that 83.8% of urban population own a mobile phone while 54.7% of population in Nairobi aged 18 years and above have access to formal financial services. The study further notes that mobile phone financial services rose from 28% in 2009 to 62% in 2013- Nairobi having highest by 84.1%. The report further notes that while bank use has risen from 13.5% in 2006 to 29.2% in 2013, while that one of MFIs has remained at 3.5% between 2009 and 2013. Poor people are more likely to use mobile phones to undertake financial transactions than rich people [5]. Literature have shown that adoption of m-banking, microfinance institutions can be in a position to provide faster efficient money transfer and monitoring services than in the traditional cash based systems. However, there is great need to understand the factors that influence its adoption and usage. Most of literature and research is on Commercial banks. There is need to investigate further on the determinants of adoption of m-banking services by Microfinance banks in Nairobi County. This study seeks to contribute to the literature by trying to answer questions like: What are these factors and
how do they influence the adoption of m-banking services by Microfinance banks’ customers in Nairobi County.

The rest of the paper is will contain: Theoretical framework in Section 2. Section 3 details the research methodology. The research findings are presented in Section 4, while discussion, conclusion and future direction are found in Section 5.

2. Literature Survey

This study was carried out to explore the factors that determines the adoption of mobile banking technology in Kenya. The study specifically explored the extent to which the perceived usefulness, perceived ease of use, Cost of transaction and Risk affects the adoption of mobile banking technology in MFIs in Nairobi county.

Various researchers in the line of adoption of technologies have identified several factors that influence the adopters. Various theories have been developed and extended to explain the adoption of technology.

Diffusion of Innovation Theory

Diffusion of Innovation Theory (DIT) is a social science theory developed by [11]. It explains how an idea or a product gains momentum and spreads (diffuse) over time through specific social system. The extended theory posits that adoption of innovation is determined by five perceived attributes of such innovation [11][12]. These are: Relative advantage meaning the degree to an innovation is perceived to be better than the previous one, Compatibility is degree to which innovation is perceived to be consistent with previous values, experience and need of the potential adopters, Complexity is how the innovation is perceived as relatively difficult to understand and use, Trialability refers to ability of innovation to be experimented on a ‘limited basis’ while observability refers to whether the results of innovation are visible to others [11]. This theory is in line with this study as mobile banking is an idea or innovation and the study sought to find the factors affecting its adoption or spread.

Technology Acceptance Model

The Technology Acceptance Theory (TAM) is an information system theory that models how users will come to accept and use a given technology. It supports two constructs, Perceived usefulness (PU) and Perceived ease-of-use (PEOU).

TAM posits that one can use Perceived usefulness (PU) together with Perceived ease-of-use (PEOU) to predict users’ behavior intention to adopt a given technology. (PU) - This was defined by Fred Davis as "the degree to which a person believes that using a particular system would enhance his or her job performance while Perceived ease-of-use (PEOU) is "the degree to which a person believes that using a particular system would be free from effort" (Davis 1989).

Perceived Usefulness and Adoption of M-Banking

Convenience, usefulness or ease of use can also be taken to mean relative advantage that the customer gets from the usage of technology. In a research ‘An Empirical Study On Consumer Adoption Of Mobile Payments In Bangalore City – A Case Study’ concluded that perceived ease of use has a crucial role in facilitation of mobile payment systems [13]. Customer’s Perceived Usefulness and perceived Ease of Use have a significance effect on the adoption of M-banking [16]. There is time saved by user when he uses m-banking [16]. This time would have been lost in form of waiting for service at banking hall, commuting to and from bank branches and shortened transaction time. These are important drivers of m-banking which can be viewed as Perceived usefulness in m-commerce [17].

Perceived usefulness directly affected attitude towards adoption of mobile banking while attitude had the most influence in Turkey [18]. A research on current consumers of mobile banking in Malaysia found perceived usefulness having significant influence on the intention of these services [19]. Perceived usefulness had a significant positive impact on intention to adopt mobile banking by consumers [21].

Perceived Ease of Use and Adoption of M-Banking

In the research ‘An empirical study on consumer adoption of mobile payments in Bangalore city – a case study’ concluded that perceived ease of use has a crucial role in facilitation of mobile payment systems [13]. Customer’s perceived ease of Use and Perceived Usefulness has a significance effect on the adoption of M-banking [16]. In Malaysia, a research found out that perceived ease of use is positively related to intention of adopting mobile banking services [22]. In Kenya, as study carried on ‘factors influencing the intention to adopt mobile banking services’ found perceived ease of use as one of the significant factors affecting usage [23]. A research conducted [24] found perceived ease of use as a factor that significantly influence the intention to adopt mobile banking in Zimbabwe.

Perceived ease of use was found to have significance
positive influence on consumers’ intention to adopt mobile banking services among the low income sector in Pakistan [21].

Cost of Transaction and M-banking Adoption

Perceived cost refers to the quantifiable cost of acquisition and the eventual use of technology [25]. Perceived cost is the extent to which a person believes they will incur money as a result using mobile banking [26]. It was found out that Perceived cost is a significant factor that influences the adoption of mobile banking and therefore makes perceived cost a barrier for users of mobile banking [16]. Perceived cost plays a big role in determining adoption of M-banking and significantly influence consumer process of decision making. The budget of the customer, the availability of the money and the cost will highly determine customer’s ability to use a service. For a customer to migrate to a different channels of payment like mobile banking, he/she assesses the total cost of switching which include the service levied by the banks as well as other service providers like telecom charges [27].

Mobile Phone technology services reduce cost leading to increased income by increasing mobility and at the same time extend social and business networks while substituting business intermediaries, brokers and journeys to the service location [28][29]. Mobile banking systems provide early users with good money transfer services but better marketing and training to help the customers understand the capability of the system and better policy measures that ensure even distribution of mobile banking benefits to all sectors and consumers need to be put in place [30][31].

Perceived Risk and Adoption of M-Banking

Risk of performance refers to loss as a result of malfunctioning of mobile services while privacy/security risk is potential loss due to fraud or hacking that are compromise security of mobile banking service user [32]. Financial risk is the potential financial loss as a result of bank accounts misuse or transaction errors. Social risk is the possibility of getting disapproval by user’s family or friends. Difficult and inconveniences experienced in navigating and delays in receiving the payments result to loss of time hence time risk. A study on factors affecting mobile banking adoption in Malaysia found out that perceived risks negatively affected adoption of mobile banking [22].

Many people feel exposed to possible theft of their cash, misuse of bank accounts if hackers get the credentials or access by relatives [33]. According to Poon the customers may end up not enjoying the benefits of using online-banking as they may feel exposed to insecurity and uncertainty hence get anxious about adopting it [34]. Trust is a key variable that reduces that plays an important role in increasing perceived ease of use [35]. Perceived risk has a positive impact on consumer’s intention to adopt mobile banking services [21].

Conceptual Framework

This study extended the TAM framework by adding Perceived cost and Risk to Perceived use and perceived ease of use.

3. Problem Definition

The great need and demand to provide efficient, effective, flexible, easy to use and customer focused services to the customer cannot be over emphasized.

A Financial Access study (Kenya, 2014) by the Central Bank of Kenya and Financial Sector Deepening identified that 83.8% of urban population own a mobile phone while 54.7% of population in Nairobi aged 18 years and above have access to formal financial services. The study further notes that mobile phone financial services rose from 28% in 2009 to 62% in 2013- Nairobi having highest by 84.1%. The report further notes that while bank use has risen from 13.5% in 2006 to 29.2% in 2013, while that one of MFIs has remained at 3.5% between 2009 and 2013. Poor people are more likely to use mobile phones to undertake financial transactions than rich people [31]. Literature have shown that adoption of m-banking, microfinance institutions can be in a position to provide faster efficient money transfer and monitoring services than in the traditional cash based systems. However, there is great need to understand the factors that influence its adoption and usage. Most of literature and research is on Commercial banks. There is need to investigate further on the determinants of adoption of m-banking services by Microfinance banks in Nairobi County. This study seeks to contribute to the literature by trying to answer questions like: What are these factors and how do they influence the adoption of m-banking services by Microfinance banks’ customers in Nairobi County.

4. Methodology and Design Approach

This study applied correlational research and a quantitative survey was carried out during the research. The study focused on MFIs’ customers within Nairobi County.

The population of the study comprised the Nairobi County Customers of the three large MFIs (Kenya Women, Faulu and Rafiki MFIs which has an aggregate market share of 92.74% (CBK Annual Report 2014) which are all licensed and registered in Nairobi County, Kenya as at 2014. The study made use of stratified random sampling method on the
three MFBs with respondent customers of each MFB forming the strata. To identify individual respondents to be issued with questionnaires to respond to research statements, simple random sampling was applied on each stratum. This study used structured questionnaires to collect qualitative data for the analysis. A total of thirty four questions were formulated for the survey consisting demographic questions. A sample of three hundred and eighty four (384) was considered for the survey and the questionnaires were administered, one on one through assistants, to the correspondents. Likert scale was applied in the study.

The study applied both construct and content validity where questionnaires were divided into various sections to ensure each section assesses information for every objective as well as close tie with the conceptual framework while some customers were randomly selected to discuss the questionnaire. A random sample of thirty questionnaires were coded and input into SPSS for running the Cronbach reliability test. The data analysis output was presented in graphs, tables, descriptive statistics and inferential statistics.

5. Research Findings

The researcher managed to get 210 responses out of possible 384 questionnaires issued, which is 55% response rate which was considered sufficient for the study.

Demographic Characteristics

The research results showed the results of fairly even split between male and female with male slightly dominating with 53.81% and female 46.19%. From the study findings, 84.21% of the respondents were aged between 36 and 45 years, 10.43% were above 45 years, while 5.26 were below 25 years. Out of all the respondents, 97.5 % had either Secondary Certificate, Tertiary Certificate or University Degree. Majority of the respondents (50.0%) had Technical and Vocational certificates followed by University graduates at 27.6%, secondary level at 20.5% while Primary and informal education trailed with 1% each. It was also found out that 41.4 % of the respondents earn less than Kshs. 30,000 which is the majority. Those who earn monthly income between Kshs. 30,000 and Kshs. 50,000 was 37.6% while those who earned over Kshs. 90,000 was the least at 1.9%. Sixty one point 4 (61.4%) are employed, self-employed formed 35.7% and those not employed and students were both at 1.4%.

The distribution of respondents was 38.1% from KWFT, 32.4% from Rafiki and 29.5% from Faulu with 61.4% of the respondents 100% owned a mobile phone while 99% owned a bank account. Majority of the respondents (44.3%) considered convenience followed by those who considered risk (28%) then Ease of use (12%) while the least (10%) considered Cost of transaction. Same trend was found with majority of those who responded (40.5%) feared security of the transaction, 9% felt there was no benefit, 4.8% found the technology complicated, 2.9% did not know how to use, while 0.5% found the services expensive. On the services provided, funds transfer is the most used (27.1%), pay bills (20.6%), cash withdrawal (20.3%), check balance (17.2%) while Buy Airtime and Loan Borrowing trailed with7.8% and 6.5% respectively with 0.5% not using any service at all.

Descriptive Analysis

Perceived Usefulness and Adoption of Mobile Banking

Table 4-10: Descriptive Statistic on Perceived Usefulness.

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is advantageous to use mobile banking</td>
<td>210</td>
<td>1.85</td>
<td>.968</td>
</tr>
<tr>
<td>By using mobile, I save a lot of useful time</td>
<td>209</td>
<td>1.86</td>
<td>.925</td>
</tr>
<tr>
<td>Using mobile banking would make it easier for me to carry out my tasks</td>
<td>210</td>
<td>1.90</td>
<td>.953</td>
</tr>
<tr>
<td>Using mobile banking is useful as it enables me to accomplish my task more quickly</td>
<td>210</td>
<td>1.92</td>
<td>.942</td>
</tr>
<tr>
<td>It is easy to use mobile banking to accomplish my banking tasks</td>
<td>207</td>
<td>1.98</td>
<td>.968</td>
</tr>
</tbody>
</table>

Source: Research data, 2015

On the question of ‘It is advantageous to use mobile banking’ one respondent did not answer while on question ‘It is easy to use mobile banking to accomplish my banking tasks’, two respondents did not answer. On the overall, Perceived Usefulness of Mobile banking technology, the table shows mean of 1.9. This means that respondents agree that mobile banking technology is useful.

Perceived Ease of use and adoption of mobile banking Technology

Table 4-11: Descriptive statistics on Perceived Ease of Use (PEOU)

<table>
<thead>
<tr>
<th>Statement</th>
<th>N</th>
<th>Mean</th>
<th>Std Dev</th>
</tr>
</thead>
<tbody>
<tr>
<td>It is easy to learn to use mobile banking system</td>
<td>210</td>
<td>2.10</td>
<td>.992</td>
</tr>
<tr>
<td>It require less effort to navigate mobile banking</td>
<td>210</td>
<td>2.30</td>
<td>.913</td>
</tr>
<tr>
<td>using mobile banking need no training</td>
<td>210</td>
<td>2.95</td>
<td>1.460</td>
</tr>
<tr>
<td>It takes too long and effort to learn how to use mobile banking services</td>
<td>210</td>
<td>3.64</td>
<td>.999</td>
</tr>
</tbody>
</table>

Source: Research data, 2015

Table 4-11 shows that on question of ease of learning and that less effort is required to navigate mobile banking have a mean of 2.1 and 2.3 respectively meaning that respondents agreed that it is easy to learn and navigate. On question on Mobile banking need no training has a mean of 2.95 meaning neutral while the question that it takes too long and effort to learn how to use mobile banking has a mean of 3.64 meaning the respondents disagreed.
Perceived Cost and adoption of Mobile Banking Technology

Table 4-12: Descriptive statistics on Perceived Cost

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I think mobile service providers have affordable cost of sending or receiving money</td>
<td>210</td>
<td>2.57</td>
<td>0.942</td>
</tr>
<tr>
<td>I think M-banking charges by bank is expensive to use</td>
<td>209</td>
<td>3.49</td>
<td>0.936</td>
</tr>
<tr>
<td>I think the cost of subscription is high</td>
<td>210</td>
<td>3.56</td>
<td>0.874</td>
</tr>
<tr>
<td>It is expensive to buy a mobile enabled mobile phone</td>
<td>210</td>
<td>3.65</td>
<td>0.932</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>209</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data, 2015

The table 4-12 shows that on question of mobile providers having affordable cost having a mean of 2.57 meaning neutral feelings from respondents. The question I think M-banking charges by bank is expensive to use had one respondent restraining. On questions on Mobile charges being expensive, the cost of subscription being high and that it is expensive to buy a mobile phone, all shows mean of 3.5 and above. This means that on average, respondents disagreed with the statements.

Perceived Risk and adoption of Mobile banking technology

Table 4-13: Descriptive statistics on Perceived Risk

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
<th>Std. Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I feel safe in carrying out mobile banking</td>
<td>210</td>
<td>2.21</td>
<td>1.043</td>
</tr>
<tr>
<td>Network problems may make mobile banking services fail</td>
<td>210</td>
<td>2.33</td>
<td>1.222</td>
</tr>
<tr>
<td>In case of mistakes during transaction, I fear I will lose a lot time doing the corrections</td>
<td>210</td>
<td>2.4</td>
<td>0.959</td>
</tr>
<tr>
<td>When transacting, I fear I may make mistakes by inputting wrong amount or account number</td>
<td>210</td>
<td>2.41</td>
<td>0.888</td>
</tr>
<tr>
<td>Mobile banking services may fail hence cause incorrect payment processing</td>
<td>210</td>
<td>2.99</td>
<td>1.058</td>
</tr>
<tr>
<td>I feel unsafe to provide my private banking information over mobile phone</td>
<td>210</td>
<td>3.01</td>
<td>1.216</td>
</tr>
<tr>
<td>If I transact on mobile and error occurs, I fear the bank may not compensate my money</td>
<td>210</td>
<td>3.04</td>
<td>1.121</td>
</tr>
<tr>
<td>By using mobile banking, I fear other people may access my details</td>
<td>210</td>
<td>3.12</td>
<td>1.363</td>
</tr>
<tr>
<td>Valid N (list wise)</td>
<td>210</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Research data, 2015

From table 4-13, the first four questions have a mean of 2.0 to 2.5 meaning customers agree that they feel safe carrying doing mobile banking. If network problems make transactions fail, they fear if transaction fail they may lose a lot time doing corrections and they fear they may input wrong transaction amount or account number while transacting. On the questions of failure of services causing incorrect payment processing, the feeling unsafe to provide private banking information on phone, fear of lack of compensation by bank in case of transaction errors and fear that other people may access customers details have a mean of 3 meaning neutral feeling from the respondents.

Inferential Statistics
Perceived Usefulness (PU)
Perceived usefulness (PU) correlation analysis is shown in table 4-14 below:

Table 4-14: Correlation analysis on Perceived Usefulness

<table>
<thead>
<tr>
<th></th>
<th>Mobile_Use</th>
<th>PU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile_Use</td>
<td>Pearson Correlation</td>
<td>.721</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>210</td>
</tr>
<tr>
<td>PU</td>
<td>Pearson Correlation</td>
<td>.721</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>210</td>
</tr>
</tbody>
</table>

Source: Research data, 2015

From table 4-14 PU significant (p=0.000) affects the adoption of mobile banking technology. This value is significantly different from 0 since P=0.000 <0.10. The coefficient of PU (0.721) is positive indicating PU has a very strong positive relationship with mobile banking adoption. This results agree with the earlier research that found out that Perceived usefulness has a significance effect on the adoption of M-banking [16][21].

Perceived ease Of Use (PEOU)

Table 4-15: Correlation analysis of ease of use

<table>
<thead>
<tr>
<th></th>
<th>Mobile_Use</th>
<th>PEOU</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile_Use</td>
<td>Pearson Correlation</td>
<td>.556</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>210</td>
</tr>
<tr>
<td>PEOU</td>
<td>Pearson Correlation</td>
<td>.556</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>210</td>
</tr>
</tbody>
</table>

Source: Research data, 2015

From table 4-15 PEOU (P=0.000) significantly explain the adoption of mobile banking technology. There exists a positive coefficient (0.556) indicating a positive relationship between Perceived ease of Use and adoption of mobile banking technology. This agrees with a research in Malaysia which found out that perceived ease of use is positively related to intention of adopting mobile banking services [22]. The same results were done in Zimbabwe [24] which concluded that perceived ease of use significantly influences intention to adopt mobile banking.

Perceived Cost

Table 4-16: Correlation analysis on perceived cost

<table>
<thead>
<tr>
<th></th>
<th>Mobile_Use</th>
<th>P_COST</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile_Use</td>
<td>Pearson Correlation</td>
<td>-.452</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>210</td>
</tr>
<tr>
<td>P_COST</td>
<td>Pearson Correlation</td>
<td>-.452</td>
</tr>
<tr>
<td></td>
<td>Sig. (2-tailed)</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>N</td>
<td>210</td>
</tr>
</tbody>
</table>

**. Correlation is significant at the 0.01 level (2-tailed).
Table 4-16 gives P_COST as moderately explaining and affecting the adoption of mobile banking technology. The coefficient (-0.452) is negative indicating that there exists a negative relationship between Perceived risk and adoption of mobile banking technology. This is in line with findings that concluded that Perceived cost is a significant factor that influences the adoption of mobile banking and that it acts as a barrier for users of mobile banking [16].

Perceived Risk

Table 4-17: Correlation analysis on perceived risk

<table>
<thead>
<tr>
<th>Mobile_Use</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
<th>P_RISK</th>
<th>Pearson Correlation</th>
<th>Sig. (2-tailed)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mobile_Use</td>
<td>1</td>
<td>0</td>
<td>P_RISK</td>
<td>-0.397</td>
<td>1</td>
</tr>
<tr>
<td>P_RISK</td>
<td>N</td>
<td>210</td>
<td>210</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note:** Correlation is significant at the 0.01 level (2-tailed).
Source: Research data, 2015

From table 4-17, P_RISK is moderate in explaining adoption of mobile banking technology since significance P=0.000 < 0.01. The coefficient (-0.397) is negative. This indicates a negative relationship between perceived risk and the adoption of mobile banking technology. This is quite in agreement with a research [22] in a study on factors affecting mobile banking adoption in Malaysia that concluded that perceived risks negatively affected adoption of mobile banking. The results also agree with findings that perceived risk has a positive impact on consumer’s intention to adopt mobile banking services [21].

From analysis PU has the greatest coefficient (0.721) as compared to the PEOU (0.556) followed by P_Risk (-0.397) and the least is P-COST (-0.452). This makes the Perceived Usefulness as the strongest unique contribution that significantly explain the dependent variable the adoption of Mobile Banking Technology having all other predictor variables controlled. This means that given 0.721 as .5198 shows that PU explains 51.98% of the adoption of Mobile banking technology.

The analysis therefore, shows that Perceived Usefulness and Perceived Ease of Use have a positive correlation and significance towards adoption of Mobile banking technology. This means that if customers perceive a technology as useful and easy to use, then they will adopt the technology. On the other hand, Perceived Risk and Perceived transaction costs have negative correlation towards adoption of Mobile banking technology. When the community perceive a technology as Expensive and risky, they will refrain from using that technology.

6. Summary, Conclusion and Recommendation

6.1 Summary

The purpose of this study was to find out factors that affect the adoption of mobile banking technology by customers of MFIs in Nairobi County specifically, the study was to first establish the effect of Perceived Usefulness (PU) on mobile banking technology adoption by customers of microfinance institutions. The second was to assess the effect of perceived ease of use (PEOU) on mobile banking technology adoption by customers of microfinance institutions. Third was to assess the extent to which the Perceived Cost on mobile banking technology adoption by customers of microfinance institutions. And fourth was to explore the effect of perceived Risk on mobile banking technology adoption by customers of microfinance institutions within Nairobi County. This study adopted the descriptive and correlation model to analyze the research data.

The study findings according to the objectives are summarized as below:

Perceived Usefulness was found to be the strongest single unique contributor to adoption of mobile banking with 48.6% this means majority of the respondents agreed with the statement that Mobile banking technology is useful. The various variables tested were time saving, quick accomplishment of tasks, ease of carrying out transactions and advantages of mobile banking. Many people feel that technology must be useful in their life for it to be accepted by them. This is in line with the research that found out that Perceived usefulness has a significance effect on the adoption and the intent to adopt M-banking [16] [21].

Perceived Ease of Use was another factor found be influencing adoption of mobile banking positively in a moderate way. Though no customer strongly agreed that Ease of use is most important, 35.2% agreed with the statement. Descriptive statistic showed that majority of customers agreed that mobile banking is easy to use. This agrees with a research [22] which found out that perceived ease of use is positively related to intention of adopting mobile banking services. The same results were done in Zimbabwe which concluded that perceived ease of use significantly influences intention to adopt mobile banking [24].

Perceived Cost clearly influence mobile banking technology adoption negatively. Majority of the respondents were neutral in their response. From the descriptive statistics, Cost moderately affect adoption of mobile banking technology. The findings are in agreement with other that found Perceived cost is a significant factor that influences the adoption of mobile banking and that it acts as a barrier for users of mobile banking [16].

Perceived Risk negatively influences the adoption of mobile banking technology in a moderate way. From the descriptive statistics, Risk is the most single insignificant of the four variables in explaining the adoption of mobile banking. This is quite in agreement with a study on factors affecting mobile banking adoption in Malaysia that concluded that perceived risks negatively affected adoption of mobile banking [22]. The results also agree with other findings perceived risk has a positive impact on consumer’s intention to adopt mobile banking services [21].
6.2 Conclusion

From the discussion, it can be concluded that PU has the most influence on adoption of mobile banking technology. This calls for mobile banking services providers to lay more emphasis on functions and benefits accruing from its use. If the customers perceive the mobile banking technology as useful to them in their daily work, they will adopt and use it. Perceived Ease of Use also have positive influence on use of Mobile banking technology. The easier and user friendlier mobile banking technology is, the more the customers will use it. The mobile banking services providers have to ensure it is easy for customers to learn and use the mobile banking technology. The Cost of transaction, moderately affects usage of mobile banking technology by customers. It shows that if customers are happy with the rest of the factors, cost may not deter them from using mobile banking technology. The providers may take advantage of this factor by ensuring the customers find the technology to be useful which may make them ignore the cost factor. Perceived Risk inhibits adoption of mobile banking technology. The customers will refrain from using mobile banking technology if they fear that it will result to a loss. It is therefore important for mobile banking providers to ensure security measures are put in place to safeguard customers using this technology.

Finally, although these factors explain the adoption of mobile banking technology, none of them explains 100%. Therefore, it is recommended that more research be carried out on factors affecting adoption of mobile banking technology especially on the side of the Microfinance Banks as the respondents.

6.3 Suggestion for further Research

The findings and conclusions of this study gave factors that affect adoption of mobile banking and the outcome shows there is need for further research into the area. Further research should be done to find other contributors other than the ones in this study (Perceived Usefulness (PU), Perceived Ease of use, perceived cost and perceived Risk). This is because among the four considered, PU which was the highest single contributor could only explain 51% of mobile banking adoption. Since this study was based on the customers, future researchers should base their research on the MFIs as the respondents.

References


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