

Factors Affecting the Subscription to Mobile Banking By JKUAT University Students: A Case of M-shwari in Kenya

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Abstract: Purpose of the study: This study sets out to examine the factors affecting the Subscription to Mobile Banking by JKUAT University Students. The study focused on the following objectives: perceived benefits, compatibility, performance risk and social risk as factors affecting the subscription to mobile banking by Jomo Kenyatta University of Agriculture and Technology (JKUAT) university students focusing on the M-shwari service. Research methodology: A descriptive survey was adapted to target all 2,850 university students in JKUAT who were subscribers to the M-shwari service. The research sample size consisted of 72 university students in JKUAT. The sampling technique used was snowballing sampling technique which involved 72 participants. Questionnaires were the main tool for data collection. A pilot study was conducted using 30 university students in campus. It enabled the researcher to improve on reliability of the instrument used and familiarize researcher with data collection process. Data obtained was both quantitative and qualitative. Quantitative data was coded and keyed into an SPSS package for statistical analysis. Qualitative data was put under themes consistent with research objectives. The results for data analysis were presented in form of frequency tables, pie charts and bar graphs. Findings: The study revealed that the main perceived benefits of M-shwari by the JKUAT students were: time saving, cost saving and convenience. It was also established that the M-shwari services were compatible with the students' current banking needs and that the mobile banking M-shwari service did not have a high impact on the students' social status among friends and family members. Recommendations: The study recommends that M-shwari should increase the number of mobile banking services it offers to its consumers. This will ensure services are not just limited to borrowing and saving money, thus the likelihood of increasing the number of subscribers using this service.

Keywords: Application, Compatibility, Innovation, Perceived, Prepay, Salient, Self-efficacy, Social Norms, Subscribers and Subscription.

1. INTRODUCTION

Mobile banking refers to a set of applications that enable individuals to use their mobile telephones to manipulate their bank accounts, store value in an account linked to their handset, transfer funds and access credit or insurance products (Donner et al., 2008). The scope of offered services in mobile banking may include facilities to conduct bank and stock market transactions, administer accounts and to access customized information. Mobile networks in Kenya offer m-money services in the name of M-pesa by Safaricom, Orange money by Orange, Yu-cash by Essar, and Airtel money by Airtel. Currently the mobile money market size is about 15 million users transferring Kshs. 2 billion daily, of these over 14 million are Mpesa customers (Okiro,2013). M-money providers have partnered with commercial banks such as Equity Bank, I & M Bank, and Kenya Commercial Bank, Barclays and Co-operative to offer mobile based financial products that aim to reach the unbanked (Okiro, 2013).

During the 21st century mobile banking advanced from providing mere text messaging services to that of pseudo internet banking where customers could not only view their balances and set up multiple types of alerts but also transact activities

such as fund transfers, redeem loyalty vouchers, deposit cheques via the mobile phone and instruct payroll based transactions (Vaidya, 2011). The world has also become increasingly addicted to doing business in the cyber space, across the internet and World Wide Web. Internet commerce in its own respect has expanded in various innovative forms of money, and based on digital data issued by private market actors, has in one way or another substituted for state sanctioned bank notes and checking accounts as customary means of payments (Cohen, 2001).

ATM banking is one of the earliest and widely adopted retail e-banking services in Kenya (Nyangosi et al. 2009). However, according to an annual report by Central Bank of Kenya its adoption and usage has been surpassed by mobile banking in the last few years (CBK, 2008). The suggested reason for this is that many low income earners now have access to mobile phones. The rise in mobile usage has been facilitated by prepaid cards and inexpensive handsets. Hundreds of millions of first-time mobile phone owners have made voice calls and text messages part of their daily lives. However, many of these same new mobile users live in informal cash economies, without access to financial services that others take for granted. Indeed, across the developing world, there are probably more people with mobile handsets than with bank accounts (Porteous, 2006).

According to a study by Amin et al., (2008) in Malaysia, on factors that affect university students to subscribe to mobile banking are perceived benefits, perceived ease of use, perceived credibility, perceived risk, the amount of information and normative pressure. In Taiwan perceived benefits, self-efficacy, financial cost and credibility were found to have influence on the behavioral intention of university students to use mobile banking (Yu, 2012). A study carried out on university students in Brazil found that perceived benefits, visibility and compatibility significantly will influence an individual's attitude and self-efficacy. Therefore these factors will impact individual's perceived behavioral control which significantly affects his or her intention to subscribe to mobile banking. The conclusion of the study was that perceived benefits in terms of cost, ease of use of service and time saving will influence university student's decision to subscribe to mobile banking (Puschel et al., 2010).

Riquelme and Rios (2010) surveyed 681 Singaporean consumers of whom a significant percentage were university students and concluded perceived benefits, social norms and performance risks and social risks were crucial factors influencing the adoption of mobile banking. In India 325 valid responses from university students supported those six factors which were perceived image, perceived benefits, perceived ease of use, perceived value, self-efficacy; perceived credibility and tradition influenced the subscription to mobile banking (Dasgupta et al., 2011). In Germany a survey conducted among individuals in the age bracket 18-35 years indicates that perceived benefits compatibility and risk are significant factors contributing to the subscription of mobile banking. However, perceived costs, ease of use, credibility and trust are salient factors that affect subscription to mobile

In Kenya by 2011 the mobile phone users has increased to 17.1% (Central bank, 2011). According to World Bank (2008), only 40% of Kenyans have access to formal financial services. With regard to vision 2030 objective of increasing the number of people who can be able to access financial services. Safaricom has partnered with Commercial Bank of Africa (CBA) to launch a product which will facilitate this objective which is M-shwari which will provide financial access to all Kenyans using mobile banking platform. Kim et al., (2009) note that mobile banking is implemented through three different technology solutions which include browser based applications, messaging based applications and client based applications. M-shwari in Kenya uses messaging based applications where the customer and bank communicate via text messages (Camner and Sjoblom, 2009). M-shwari was launched in November 2012 by Safaricom in partnership with CBA to offer financial services to the unbanked population. According to Central Bank (2010) out of a population of 20 million adults only 12 million Kenyans have access to formal financial services.

M-shwari is available only to M-pesa subscribers since the service uses the M-pesa platform to transfer funds from individual bank account in M-shwari to M-pesa. M-shwari enables individuals to save and earn interest on their savings and also borrow amount of money ranging from shs.100, 000 to as little as shs.100. M-shwari service is convenient since there are no ledger fees, no limits on frequency of withdrawals, no filling of forms, no minimum operating balance and no charges of transfer of funds from M-pesa to M-shwari. To qualify for M-shwari loan one needs to be a subscriber of M-pesa for at least six months and use other Safaricom services such as voice data and M-pesa (Safaricom, 2012).

M-shwari loan is payable after duration of 30 months on a 7.5% interest and defaulters lose their phone numbers (World Bank 2012). M-shwari product is offered in conjunction with M-pesa which is associated strongly in Kenya with the financial services using mobile phones. It is a progression of M-pesa service that offers its subscribers opportunities for saving and short term borrowing. The M-shwari service is simple, convenient and user friendly since one is able to apply

for a loan within a short time by following the instructions on the menu. Also it is easy to access agents to cash out savings through M-pesa agents in the country (World Bank, 2012).

In Kenya, there are limited studies which have been done which focus on factors affecting the subscription to mobile banking specifically focusing on university students. For example, in a study conducted by Ksyoka (2012) to determine the factors affecting the adoption of mobile phone banking by customers of Commercial Banks in Kenya, it was established that perceived usefulness and perceived ease of use had positive relationship in examining the intention to adopt mobile banking in Kenya. This study however focused on all customers, not specifically the university students.

Another Kenyan study by Oluoch (2012) on factors affecting the adoption of mobile banking by bank customers within Nakuru Municipality established that perceived usefulness and perceived ease of use were the key factors that positively influenced adoption of mobile banking. This study was conducted among the general bank customers, while the current study will focus on university students as the key respondents. Kithinji and Gekara (2014) carried out a Kenyan research to determine the factors influencing adoption of mobile money services among institutions of higher learning. The target population of this study comprised of the senior management staff in finance and accounting departments in institutions of higher learning within Nairobi County. The study concluded that the banking alternative quality and the awareness of the mobile money transfer services influenced the adoption of mobile money services to a great extent. This study was more focused on the finance departments within the Kenyan universities while there were no students who were involved in the study.

2. METHODOLOGY

2.1 Data Source and Sampling Technique:

The target population comprised of university students in Jomo Kenyatta University of Agriculture and Technology main campus. The number of university students enrolled in Jomo Kenyatta University of Agriculture and Technology main campus is approximately 5,000 (JKUAT 2014). Therefore the study focused on university students who are subscribers to Safaricom which offers the M-Shwari service. The study was carried out in Jomo Kenyatta University of Agriculture and Technology main campus. Jomo Kenyatta University of Agriculture and Technology is one of the public universities in Kenya. The main campus is situated at Juja along Thika Superhighway Road.

The study adopted snowball sampling technique to calculate the sample size. In Central Kenya region 75% of the population use mobile money services according to Financial Access Report (2013). The Central Bank (2013) report indicates that 57% of the population use M-pesa to transfer money among friends and relatives. The M-shwari service uses the M-pesa platform. The sample size was determined by considering the report of finances survey which indicated that 57% of the population use M-pesa services. Taking the population of 5,000 students and calculating 57% of students' population gave the number of university students who are subscribers to the M-shwari service which is 2,850. From this accessible population, a representative sample was determined using the formula by Krejcie and Morgan (1970), which is used to calculate a sample size (S), from a given finite population (P) such that the sample was within plus or minus 0.05 of the population proportion with a 95 per cent level of confidence.

In the data collection process questionnaires were administered to the JKUAT university students. Confidentiality was assured so as to enhance participation by university students in filling the questionnaires and also to ensure that data gathered was accurate.

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$$S = \frac{X^2 NP(1 - P)}{d^2(N - 1) + X^2 P(1 - P)}$$

Where:

X^2 = table value of Chi-Square for 1 degree of freedom at the desired confidence level (in this case 3.84)

N = the population size, in this case 5,000 students

P = the population proportion (assumed to be 0.5 since this would provide the maximum sample size)

d – the degree of accuracy expressed as a proportion (0.05)

2.2 Analytical Methods:

Data analysis plan involved a detailed analysis to cover all areas of study in relation to the university students i.e. the effect of the independent variables on their subscription to M-shwari service. Each independent variable i.e. perceived benefits, compatibility, performance risk and social risk were analyzed individually to determine its effect on the subscription. Data for each theme was appropriately summarized, coded and keyed into the computer data base Microsoft Excel Application Programme to generate descriptive characteristics of the data vis- a-vis frequencies and percentages. Microsoft Excel Application Programme and SPSS package Version 18 was used since the researcher is conversant with the programme and it is user friendly.

3. RESULTS AND DISCUSSION

3.1 Perceived Benefits Effect on Subscription to Mobile Banking:

The study results revealed that majority of the students 55(76.4%) were subscribers to the mobile banking M-shwari service. It clearly emerged that time saving; cost saving and convenience were the main perceived benefits of M-shwari which positively influenced JKUAT's students subscription to M-shwari. The study also indicated that more than 60% of the JKUAT students were satisfied with the M-shwari service. Majority of the students (56.9%) who took part in the study strongly agreed that mobile banking improved the quality of banking for JKUAT university students.

3.2 Compatibility Effect on subscription to Mobile Banking:

The study found out that majority of the students said that the M-shwari services helped them increase their saving capacity even when they were still students. It also emerged that 35 (48.6%) students were of the view that the M-shwari service was tailor made to meet their needs, mainly those of saving and borrowing money. 32(44.4%) of the students also agreed that the M-shwari service was very fit for their students' lifestyle and more than 70% of the students agreed that the eservice helped them as students, meet their current banking needs.

3.3 Performance Risk Effect on Subscription to Mobile Banking:

With regard to this objective the study findings indicated that 55.6% of the students were of the view that M-shwari was a secure mobile banking service. This was confirmed by 79.2% of the students who stated that their financial transactions had never been exposed to theft. The study also established that 32 (44.4%) students were of the view that the M-shwari network connectivity was good. It also emerged that in case of low network connectivity; the service providers were completely concerned and provided appropriate assistance. However, it was found that more than 45% of the JKUAT students never reported to the service providers in case they experienced low network connectivity with M-shwari.

3.4 Social Risk Effect on Subscription to Mobile Banking:

With regard to this objective, the study results revealed that 26 (36.11%) of the students agreed that M-shwari impacted on the students' social status among their family and friends. However an almost similar number of 22 (30.5%) students were of the contrary opinion. Regarding whether the students were criticised in case a transaction error occurred, 29 (40.3%) of the students said that they received some form of criticism while 27(37.5%) were not criticized at all. It also emerged from the study that majority 40 (55.6%) agreed that they would recommend their friends and family to use M-shwari mobile banking service.

4. CONCLUSION

Based on the study findings summarized above, the study concludes that: Most of the JKUAT university students were M-shwari subscribers, The main perceived benefits of m-shwari by the JKUAT students were: time saving, cost saving and convenience, In terms of technical performance of the M-shwari service and performance in terms time saving and convenience positively influenced the subscription to mobile banking, thus M-shwari met the expectations of the university students, The cost saving aspect was found to positively influence the university student's to subscribe to M-shwari, The M-shwari services were compatible with the students' current banking needs, because it positively influenced

their saving capability and how to manage finances. Also the fact that the M-shwari service was tailor made to meet the specific needs of students positively influenced the students to subscribe to M-shwari service, The students felt that M-shwari was secure since the network connectivity was good and rarely were their financial transactions been exposed to theft and The mobile banking M-shwari service did not have a high impact on the student's social status among friends and family members.

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