

ASSESSING THE ADOPTION OF MOBILE BANKING SYSTEMS AMONG CUSTOMERS: A CASE OF TANZANIA FINANCIAL INSTITUTIONS.

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ABSTRACT

Banks are seemed to be one of the business that are really interested in a system which provide a better service to its customers effectively and efficiently. Mobile banking through an application is a recent technological innovation with enormous potential to improve the banking experience of retail bank customers and to streamline the banks' operations. However, the successful implementation of mobile banking application (app) fundamentally depends on how much customers are fully motivated to adopt it. In fact, mobile banking adoption is in development stage of its growth in Tanzania. The study examines how user adoption of mobile banking services in financial institution through practices and challenges. The study is descriptive in nature and the convenience sampling units were used. The total sample size was 200 individuals including staff members of service providers and customers from commercial banks in Tanzania. The findings indicate that transaction costs, online theft, stranded platforms, network bottleneck, user perception and network providers' security is not guaranteed. The findings contribute to the debate around technological innovation and transforming the banking industry. Also, they have policy implications with regard to the user-need approach to mobile banking services and network providers.

Keywords: *Mobile Banking, Innovation, financial institutions and Customer Service*

INTRODUCTION

Background Information

The increase of financial services in Tanzania has led to innovation of technology such as electronic banking(BoT, 2018). Commercial banks offer their services using different distribution channels such as automated teller machine (ATM) services, internet banking, bank agents (NMB Wakala) and over the counter services (MOFP-URT MOFP-RGoZ, 29). Today it is not hard to see that mobile technology has become a part of our lives, be it in the form of equipment or mobile services such as mobile banking (Liaw, Marek, & Hsiu-Mei, 2010).

Mobile devices are significantly changing human-computer interaction, communication, and learning activities (Sanakulov & Karjaluo, 2015). Moreover, the use of devices such as mobile phones, iPads, laptops, and other smart phones are rampart to access variable services. A growing number of these devices are also equipped with internet access (Laukkanen & Lauronen, 2005). Users of mobile phones now can access the internet, search for information, play games, watch videos, check stocks online and more (Aghdaie & Faghani, 2012). All these developments have resulted from technological advancements. After all, consumers prefer to obtain their services from various channels rather than one and hence mobile phone have become an integral part of consumers' lives.

In Tanzania, the mobile and telecommunication sector has experienced significant growth over recent years. Indeed, there are seven (7) mobile operators that are competing to each other. It is reported that, 80% of the Tanzania population are using mobile and telecommunication services with 40% accessing internet services (TCRA, Communicatio Statistics, 2017). Accordingly, Tanzania banks have recently started to launch their services using mobile and phone channels (Bank, 2017). The advent of low cost, smart phones coupled with low-cost tariffs has enabled more customers to join the mobile internet bandwagon (Deepak & Himanshu, 2017)

The major public and private banks in Tanzania expects the mobile devices to be the dominant electives for customer to access their accounts. They have developed mobile apps integrated with their network systems to offer the right blend of convenience, functionality, and user experience to their customers. (Deloitte, 2016). Currently mobile banking allows customers to make transfers, pay utility bills, check their balances, top up their phone credit, and much more all from their mobile phones (Liaw, Marek, & Hsiu-Mei, 2010).

Accordingly, it could be argued that the biggest challenge for the successful adoption of this technology is convincing customer to use it as a full alternative for traditional channels. In fact, mobile banking is in the early stage of its growth in Tanzania, and quite few numbers of studies have been conducted (i.e. (Kumar, Claudia , & Sarah , 2010; Rumanyika & Robert, 2015; Gupta, 2013; Lawuo, W.L, & S.P, 2013). Albeit having stable economic growth, regulations and good banking infrastructure in the country, the adoption of mobile banking to Tanzanian is still lagging behind. There are various factors such as external environment, culture, access to banking services, service values and intrinsic motivation calls for explanation in Tanzanian context. Therefore, the study examines how adoption of mobile banking affects development of financial Institution through practices and challenges.

LITERATURE REVIEW

The evolution of mobile banking channel can be attributed to technological development and changing needs of customers in terms of convenience, choice, affordability and flexibility (Asongu & Odhiambo, n.d.; Liaw, Hatala, & Huang, 2010). After liberalisation, Tanzanian banks have undergone transformations resulting in diffusion of newer technologies like ATM, telephone banking, SMS banking and internet banking. While electronic banking in general has been subjected to scholarly research which includes ATM banking, telephone banking, personal computer banking and internet banking (Chandio, Irani, Abbasi, & Nizamani, 2013; Laukkanen & Pasanen, 2008), some of the recent studies have concentrated on mobile banking. The first self-service technologies (SSTs) emerged in 1970s when banks installed the first ATMs. This was followed by telephone banking services in 1980s and emergence of internet and web-based banking in 1990's. It can be seen as an extension of internet banking through a mobile device with its own unique characteristics (Bhas, 2014).

The long vision of information and telecommunications technology (ICT) in the United Republic of Tanzania is “To be a world-class communication regulator creating a level of playing field among communication service providers and promoting environmentally friendly accessible and affordable services to consumers” (TCRA, Tanzania Communications and Regulatory Authority, 2017). Furthermore, telecommunication subscriber base has risen from 2.96 million in 2005 to 32 million in December 2014 which is equivalent to an average increase of 3.23 million subscribers per year (TCRA, National ICT policy , 2016). Consequently, there is significant increase of users of mobile services as TCRA has put more effort in providing services and policy development. Those services include but not limited to internet services, utility payments and mobile banking.

In Tanzania, mobile phone services were first liberalised in 1993 since then they have tried to provide services and their modes have been improving a day after the other and of recent mobile and internet-based services have been added to their list (Tanzania, 2007). The emergence of mobile banking channel can be attributed to technological development and changing needs of customers in terms of convenience, choice, affordability and flexibility (Farah, Hasni, & Abbas, 2018). Recently mobile banking had formal regulation, definition, namely the capacity of an accounting holder or client to access their accounts and financial services through mobile devices (IMF, 2016). It is the mobile money which brought the revolution by bringing into formal financial system the under-banked and unbanked population, the telecommunications companies led the revolution and since then they have been reaping the fruits of such revolution (Zhou, 2018).

The development in financial institutions is primarily driven by a rapid improvement in access. Indicators of financial access for households show significant progress, particularly when innovations such as mobile money and banking are considered (Bank, 2017: IMF, 2016). Most large banks in Tanzania like CRDB, NMB, NBC, KCB, EXIM bank and Standard Chartered have made substantial investments in mobile banking capabilities and smaller banks are not far behind (Masamila, 2014). They have established departments which deal with mobile banking which is directly linked with customer services.

Mobile banking services include full access to the details and transactions of personal bank accounts, making credit installment and utility bill payments and transferring funds instantly (Farah et al., 2018). Customers intending to use mobile banking must register for the service through the bank website, ATMs, over the counter (branches) and download the mobile banking application to their phones using online Appstore (Pal, Herath, De', & Rao, 2020). Once they install the application, customers are free to use the mobile banking services at their own convenience, wherever and whenever they are, completely free of charge (Pal et al., 2020). The only cost is the normal communication cost by the mobile operators (Asongu & Odhiambo, 2019).

Users of mobile banking access bank services through mobile devices with internet or not at any time without visiting counters of financial institutions. Study conducted by Zhou (2012), concluded that users of mobile technology will access services depending on the trust and assurance provided by service providers. Mobile banking is taken as the easiest way of accessing services at any time when needed. The factors of collectivism, uncertainty; short term and power distance influence the acceptance (Baptista & Oliveira, 2015)

The constraints of mobile terminals such as small screen and inconvenient inputs affects user adoption. (Zhou, 2012). In Tanzania, mobile banking adoption is still at the developmental phase as more than 50% of user is composed by informal sectors with incomplete education. User are aware about mobile technology but still do not prefer accessing banking services through mobile gadgets (Chawla & Joshi, 2017)(Okiro & Ndungu, 2013).

A study conducted by (Baptista & Oliveira, 2015) revealed that, mobile banking use behaviour, the habit and culture moderator effects on behaviour intention over use behaviour were the most important drivers on mobile adoption by users. Moreover, collectivism, uncertainty avoidance, short term and power distance were found to be the most significant cultural moderators (Kemal, 2019). Not only that, but it was also revealed that performance expectancy, hedonic motivation, and habit are antecedents of behaviour intention. Mobile banking acceptance is low depending on perceived network providers risk (Mullan, Bradley, & Loane, 2017).

Moreover, literatures have identified other bottlenecks hampering acceptance of mobile banking as including structural assurance, ambiguity, perceived ease of use, personal innovativeness, network effects and transactional costs (Liaw et al., 2010); Wu, Chen, & Chang, 2016);(Okiro & Ndungu, 2013). However, the study conducted by Alalwan et al. (2017) revealed that social reference is not considered as one of the factors making adoption of mobile banking to be adopted slowly.

In this study, we examined the constraints of low mobile banking adoption by users, benefits of mobile banking to users and suggest possible measures to foster mobile banking adoption to continue in promoting customer loyalty and retention.

RESEARCH METHODOLOGY

The research design for the study was descriptive in nature and the sampling unit were people having a bank account and using mobile banking services. Convenience sampling was used and the survey was conducted from May 2020 to November 2020. Convenience sampling is a type of non-probability sampling method and it involves collecting data from respondents who are a part of the population as desired under the study and are conveniently available to participate in the study (Creswell, 2014). The sample was originated from local commercial banks and their respective customers in Tanzania. The total sample size was 200 individuals including staff members of service providers and customers. The sample was obtained through commercial bank branch offices and home visit. Focus group discussion comprising 10 members from customers were conducted through structured questionnaire constructed for the study. However, care was taken that the selected respondents were holding a bank account and using mobile banking services.

RESULTS AND DISCUSSION

The findings of the study were built upon research questions. The findings were obtained from interviews administered, FGD and documentary review from respondents in three selected cases.

Benefits of mobile banking

The study interviewed three clusters of mobile banking service users which included service providers, service users and network agents. To access mobile services, you only need to have mobile phone registered with local networks in Tanzania. Mobile service customers may access bank to wallet, wallet to bank, balance enquiry (BE), mini-statement (MS), loan balance enquiry (LBE), and loan mini-statement (LMS), utility bill payments, government bill payments (GePG), change pin and change of language. Then, these services can be accessed when the customer has opened the account with a correspondent bank and filled mobile banking application forms. However, before enjoying these services terms and conditions must be observed.

Customers have been satisfied with the service provided but they claim withdrawal limit to exceed to be more than Tshs 1,000,000 (eq. to US \$ 434.78) up to Tshs 10,000,000 (eq. to US \$ 4,347.83). The service has no foreign exchange services like knowing current exchange rate and purchase the currency when needed. The findings showed that, customers are aware of services provided by mobile banking service providers. Moreover, customers use mobile banking to access banking services without visiting branches on paying utility bills like electricity, water, food, top ups, paying tax to TRA, Police fines and penalty, fund transfers and digital networks.

“...huduma za mobile banking ni nzuri na huwa nazitumia sana ila, kiwango cha kutoa pesa kwenye akaunti yangu kuja kwenye simu ni kidogo, kingeongezwa na kufikia shilingi million kumi ingependeza Zaidi...”. [...Mobile services are good, and I use them, but withdrawal limit should be extended to Tshs ten million...]

Field (2020)

User constraints of adopting mobile banking

Mobile banking adoption in Tanzania is small compared to the number of account holders in Tanzania. Moreover, number of mobile users is stagnant as it is not growing fast as it was expected to be. The study revealed that potential customer who opened account for the first time were reluctant to access mobile banking services. This was revealed during the interview with respondents. One of the respondents revealed that:

“...huduma hii siyo salama kwa pesa zangu kwa sababu mimi madhumuni yangu ni kuhifadhi sehemu salama. Nikiibiwa simu wezi wanaweza pakua hela zangu zote....” [...This service is not secure for my money as I intended to open an account for serving purposes only, if my phone is stolen thieves may withdraw my money...]

Field (2020)

The most constraints observed to many users was security issues. It was revealed that, withdrawal of money from bank to wallet is unsecure as the process involves intermediary and once the problem arises customers do not understand how to deal with them. Once money is not received by either client, then it will take time to make follow ups to three days. This tendency has made customers lose their trust among banks and their mobile services believing that money could be stolen in such way. Furthermore, risk knowledge is not properly disseminated to users (Krishna Kishore & Sequeira, 2016)

Based on the business background, withdrawal limit is too small to the extent that it failed to reduce bank queue. For one day customers demanded a withdrawal of at least Tshs 10,000,000 for facilitating business. Moreover, the system does not accept special request for customers who want extension of withdrawal limit. The study revealed that, customers do not consider MB as the best solution for their business operation especially when dealing with large transactions.

The respondents were asked whether they are satisfied with transactional charges. The study indicated that, charges were very high due to double charging when transferring funds from bank to wallet. Moreover, there is no agreement between mobile networks and financial institutions. In Tanzania, customers are very price sensitive compared to the income level, most of the population are considered poor to handle such transaction costs. Customers are happy to move to branches to withdraw monies rather than using MB.

The study further revealed that charges for transferring funds from bank to wallet vary significantly from one network provider to another while transacting from same bank account. Furthermore, it is impossible to perform any transaction using MB if your phone has insufficient credit balance. Consequently, it has developed to the unfair treatment when someone wants to access the account for utility payments including mobile top up.

Furthermore, user interface is not user friendly as it does not display charges or balance on the account after performing any transaction. Moreover, to know the balance more cost is required. Additionally, customers are seen to incur more charges than a physical branch visit. Charges for utilities are yet minimal and are unaffordable by many users. On top of that, customers are only motivated to use mobile banking for accessing utility services as they can access them when needed compared to other services.

It was further argued that most of bank account holders somehow have low literate level. Consequently, to have an account is to be older than eighteen years and above. We reveal that literate level to users is one of the bottlenecks of acceptance of Mobile Banking (MB) as they do not understand how MB works. Moreover, they failed to adopt by the fear of being seen that they are not literate.

Language used to communicate is English, many users of MB are not familiar with this language as only few could understand. Moreover, they do not know which option to select Kiswahili language. It was revealed that, users prefer to use Kiswahili as the language they use in doing business and which enable them to keep records as well.

According to the study, customers' knowledge basing on financial services is not adequate. Moreover, they believe that financial information is confidential and should not be viewed by any person. For instance, when mobile devices are lost or stolen by street bandits their financial status is at risk. Not only that, but also tailored process for the re-registration is also found rampart for the continuation of using mobile banking.

Solution to foster mobile banking in Tanzania

Recently, individual economy is found challenging as business growth is still stagnant to individuals. Moreover, increase in competition to business is better for MB service providers to reduce transactional charges. Charges are very sensitive to performance volatility. Affordable charges will create more desire for existing and potential customers to use mobile banking. The findings showed that, customers are registered for mobile banking but they do not access the service as charges are not substantial.

Limitation and areas for further studies

Even though the findings of this study provide useful incremental insights into adoption of mobile banking technology by users, it is restricted by number of limitations. For instance, the data were obtained using convenience sample of Tanzanian banking customers in only two cities (Dar es Salaam and Mwanza) which in turn could negatively reflect the generalisability of other regions in Tanzania. The sample descriptions showed that respondents on the current study were young having a medium income, well-educated and have adequate experience about computer and internet applications. Therefore, this raises a concern about other side who have inadequate education, low-income level and those who do not own the bank account.

Basing on the results, in this study cross sectional data were used, a longitudinal study on user mobile adoption could provide further understanding of this problem and how the proposed factor could change the effect over time.

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