

# Technological Adoption in Africa

## A Case Study on the Adoption of Mobile Banking in Botswana Compared to Kenya Experience

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### Abstract

The purpose of this study was to compare the models and the critical factors that made this innovation a success in Kenya and see the possibility of replicating it in other countries facing similar market environment. Mobile banking has not only brought convenience to the banked customers, but also provided opportunity for banking services in previously unbanked rural population in Kenya where the mobile banking has penetrated and was adopted. Mobile banking was introduced in several countries. However in most of these countries these services proved to have failed or took long time for adoption and diffusion to take place. Kenya is one of the countries in which this innovation was very successfully adopted and diffused country-wide with ease. The study reviewed the available literature on adoption of mobile banking technology as well as the available literature on Botswana mobile banking. The success of the adoption and the diffusion of the mobile banking in developing countries will highly depend of the perception of the consumers but also managerial and technical aspects of the adopted technology.

**Keywords:** Technological-adoption, Mobile-banking, Technology-diffusion, M-pesa, innovation, Botswana, Kenya

## 1. Introduction

Technological innovation, changing customer needs and competitive pressure have brought about changes to the retail banking sector. The internet and mobile banking has not only brought convenience to the banked customers, but also provided opportunity for banking services in previously unbanked rural population in countries such as Kenya where the mobile banking has penetrated and was adopted. This has been brought about by an increase in the emergence and adoption of technological innovations. At the same time organisations steadily adopted and moved away from the traditional customer - client interaction service to convenience and innovative service deliveries. Mobile banking is one of the innovative service deliveries which have been adopted by banks and other organisation dealing with financial services in the market. Mobile banking applies to customers using their mobile device to perform banking activities (Peevers, et al, 2010). Wessels, and Drennan, (2010) and (Zhou, 2011), defines mobile banking as an emerging facet of electronic banking that, unlike traditional banking services, offers a rich platform for automated banking and other financial services. Mobile banking harnesses mobile technology to conduct payment, services such as balance enquiry, transfer of funds, bills payment among others by anyone, anytime and anywhere.

Peevers, et al , (2010) looked at mobile baking as services diversification, in that the bank offers increased value to customers. It has multiple or a variety of transactions that can be carried out through it. These transactions vary from one bank to the other depending on what that bank chooses to offer customers. Mobile banking services allow customers to carry out banking transactions such as balance enquiries, ordering cheque books, and completing funds transfers, using a mobile device. The mobile banking however does not necessarily have to include a bank. The Mpesa in Kenya was solely and successfully run by a mobile telephone company before the banks started to adopt it.

Mobile banking is advantageous to both the financial service provider and the customer. The organisation decreases the cost per transaction, and offers convenience to the customer while the customer enjoys quality services at lower rate. This service delivery of banking services through a mobile phone or devices has the ability to transform the developing economies as it uses the existing mobile communications infrastructures. The adoption of mobile telephone technology has successfully diffused across the urban and rural areas, providing possible access to the unbanked populations in most developing countries.

The unbanked people mostly earn low income yet most of them have access to mobile phones or own a mobile phone. Approximately third of people in Africa and especially Botswana and Kenya lack bank accounts, but nevertheless own a mobile telephone or have access to one (Kapoor, et al. 2007). One of the mobile operator forecasts an average mobile penetration of 80% by 2012 in its 15 African markets (Smith, 2009). With this high adoption rate of mobile communication, it would be interesting to note the use of mobile banking services and its adoption rate. The purpose of this study therefore was to identify model and the critical factors that can make adoption and diffusion of this innovation a success especially in a developing country.

## 2. Research Objectives

- To compare the factors that have led to successful adoption of mobile banking innovation in Kenya and its possibility of replicating in other countries facing similar market environment
- To find out the key motivators and inhibitors of consumer usage and adoption of mobile banking thereby suggesting a usable model for developing countries.

## 3. Methodology

The study reviewed the available literature on adoption of mobile banking technology as well as the available literature on Botswana mobile banking. The literature was compared with the Kenyan mobile banking environment in order to get the similarity, models used and gaps that can be replicated in other developing countries thus ensuring success adoption or lack of it of mobile banking technology.

### 3.1 Mobile Banking Services in Botswana

Botswana has three service providers dealing with mobile banking.

#### (a) FNB cell phone banking

In 2006 First National Bank Botswana became the first organisation to introduce mobile banking services in Botswana. The service was simply known as “cell phone banking”. Other banks followed its move only six years later after this launch. The first National Bank’s cell phone banking was received fairly well in Botswana and it attracted most off the bank’s customers. However, in spite of all these it was only restricted to those consumers who had bank accounts with First National Bank. It was also limited in its services to buying of phones units, transferring money across the accounts in the same bank, and checking balances. In 2010 the FNB introduced the e-wallet service where the receiver does not need to have a bank account or a bank card to access the money (Mmegi 2010).

#### (b) MyZaka Mascom Money

The most recent is the mascom MyZaka mobile money service was the second mobile financial services to be introduced in Botswana. It provides Mascom subscribers the convenience to manage their money on their mobile phone (The Voice Newspaper, *July 15 2011*). It is an innovative and secure mobile phone-based money transfer service that enables Mascom customers to conduct simplified banking affairs at their convenience. Mascom subscribers that have MyZaka accounts are able to transfer money to both registered and unregistered customers (Tshukudu, 2011). In addition, MyZaka, money can be sent to anyone whether they have a mobile phone or not (Ditlhase, 2011).

#### (c) Orange Money

Orange Money was the third mobile financial services to be introduced in Botswana. Orange Money is an innovative, mobile phone-based payment system that allows customers to carry out simple banking operations and transactions in total security. The service allows mobile customers to deposit and withdraw money, to transfer money, to easily buy call credit, to pay

for goods at certain retail partners and to pay bills. Orange is also studying customer needs in each market, with the intention of developing additional, more advanced mobile payment services such as international money transfers (Orange press release 25 May 2010). Such services offered a huge potential in Botswana where less than 30% of the population have access to a bank account and yet nearly half have a mobile phone (Wright, Audra, 2010, Mmegionline, 2012).

Botswana being a developing country have similar market environment with Kenya. At the same time the introduction of the mobile banking by both banking and mobile companies bring more similarities in the financial environment. However the adoption rate of the mobile banking seems to be slower than the Kenyan market environment.

### *3.2 Factors Which Lead to the Success of M-Pesa in Kenya*

M-Pesa is a short message service (SMS)-based money transfer system that allows individuals to deposit, send, and withdraw funds from a virtual account on their cell phones and that is separate from the banking system (Jack, Suri, and Townsend, 2010). According to Hughes, and Lonie, (2007) “Pesa” is the Swahili word for cash; the “M” is for mobile. It was first launched in Kenya in March 2007 by the mobile communications company Safaricom. At the time of the launch of MPesa, it was only seen as a means of overcoming the high transactions costs associated with sending cash but after more people subscribed to its use, the service became rather an efficient way for carrying out financial services especially for the unbanked in Kenya and thus it continues to lead the market. Several factors contributed to its fast adoption and diffusion in the Kenyan market:-

#### *3.2.1 Targeting cell phone users*

M-Pesa is a service which is offered through a mobile phone and according to Jack, and Suri, (2010) cell phones have been adopted more than five times as fast as fixed line telephone services, which took 100 years to reach 80% of country populations. Because of the rapid adoption and acceptance of mobile phones, more than 93% of the Kenyan population own a cell phone (Hahn, and Passell 2012). As a result of this MPesa was a success because it was targeting cell phone users or people who owned mobile phones. It is a service which unlike other financial services does not require a customer to have a bank account. It thus caters for the unbanked. M-Pesa allows subscribers to send and receive money using a cell phone at any time of the day everywhere provided there is a network, even when they do not have a bank account. With its ability to store money as e-cash, this service benefits more than 80 per cent of the Kenyan population who do not have bank accounts, (Mogusu, 2007).

#### *3.2.2 Low-Cost Modern Technology*

According to Kimenyi, and Ndung'u, (2009) M-Pesa represents a good example of how low-cost approaches that use modern technology can effectively expand the financial services frontier. For an individual to have a bank account with any bank of their choice they would be required to deposit a minimum amount with the bank first for them to have their own personal account. Therefore to the low income earners or the poor, bank accounts are a constraint as in most cases they do not earn enough for them to save up or use the bank. M-Pesa is affordable to

almost everybody as it does not require a customer to have a bank account. A research carried by Jack, and Suri, (2011) supported Kimenyi, and Ndung'u, (2009) as it explained that users thought it to be faster, cheaper, more reliable, and safer, and as such a very large majority believed that they would suffer significant negative consequences if it were to be shut down.

### 3.2.3 Reduce the Distances That Separate Individuals

M-Pesa has the potential to effectively reduce the distances that separate individuals, particularly urban and rural residents especially in cases where an individual who works and stays in the city, has relatives in the villages, or business persons in diverse corners of the country transacting with each other. M-Pesa was able to close the gap between these people because they no longer had to send money through buses, post office or even through friends. Mobile banking has the potential to effectively reduce the distances that separate individuals, literally and figuratively, thereby lessening the frictions that characterize models of incomplete intermediation, relaxing liquidity constraints, and reducing the need for monetary interventions (Jack, et al, 2010). As a result of this M-Pesa was very successful in Kenya because it helped individuals to transact, send and receive money even in long distances and thus they subscribe to this service, as they thought it to be very beneficial.

### 3.2.4 Agents Everywhere in Kenya

Wide coverage across the country was another factor that led to M-Pesa's success story in Kenya. Safaricom made sure that it had visible agents everywhere in Kenya, even in villages. This enabled it to target the unbanked. Jack, et al. (2010) stated that a large part of M-Pesa's success is attributed to the broad and dense network of over 16,000 agents across Kenya, which provides the retail interface with consumers. Hughes, and Lonie, (2007) share the same sentiments with Jack, et al. (2010). Safaricom established a large network of several hundred thousand airtime dealer outlets across the country where consumers bought prepaid airtime credit. These outlets were used as initial sources of agents for providing the services offered by M-Pesa. Therefore this strategies used by Safaricom made this service a success.

### 3.2.5 Reliability

M-Pesa provided reliable services. It ensured that as long the network was working, the customers could transact. At the same time the perceived safety of the customer's money was ensured and enhanced more especially due to face to face interaction with the agents. This reliability brought in trust, and ease with customers

### 3.3 *Mobile banking in Botswana compared to Kenya*

Mobile banking has been introduced in some several countries including the United States of America, South Africa, Tanzania and Kenya. However in most of these countries the services proved to have failed or took long for adoption and diffusion to take place. Kenya is one of the countries in which this innovation was very successful in both adoption and diffusion country-wide and with ease.

In March 2007, Kenya's largest mobile network operator, Safaricom (part of the Vodafone Group) launched M-Pesa, an innovative payment service for the unbanked (Hughes, and Lonie, 2007). Kenya's M-Pesa was probably the most celebrated success story of mobile banking in a developing country (Kimenyi, and Ndung'u, 2009). It only began as a mobile money transfer but it became a success story of financial services development with a technological platform that makes it cost effective and safe. Kenya like Botswana is a developing country. Its population mostly comprise of low income earners which are mostly unbanked. Majority of the population reside in the rural areas and in villages. They engage in farming and micro business and a large segment has access to mobile phones. This provided a similarity in environment and such it can be postulated that mobile banking if well implemented would be successful in Botswana as it was in Kenya.

In Botswana the introduction of mobile phone banking was through the First National Bank. It was received fairly well in Botswana and it attracted most off the bank's customers. However, it was only restricted to those who had bank accounts. In 2010 First National Bank introduced the e-wallet service where the receiver does not need to have a bank account or a bank card to access the money (Mmegi 2010) however it usage has not permeated to whole population and is still restricted to FNB customers.

In 2011 the mobile communications companies in Botswana Mascom and Orange also launched their new products of mobile banking the Myzaka Mascom Money and the Orange Money. These products like the First National Bank's e-wallet "Send money service" cater for the unbanked who are mostly low income earners or the poor and do not require the subscriber to have a bank account. Initially, the service was be available on the Mascom cellular network, which has approximately 500 000 subscribers. The cell phone banking service later became available via the country's second cellular mobile operator, Orange. However the population of Botswana is about two million compared to Kenya's forty million. This makes the economy of scale almost impossible and thus the cost of implementation passed to the consumer becomes more expensive than in Kenya.

Botswana like Kenya is a third world country and therefore it is still a developing country. As such, an incredible percentage of its population either has no bank accounts or has no access to the internet so they neither use the traditional banking system or online banking. The sole concern of this research is the consumer usage, acceptance and perceptions on the mobile banking service such as e-wallet. It is to determine if consumers will be interested in becoming subscribers of these products or they are going to reject them without any trial usage.

### *3.4 Mobile Banking Innovation acceptance Model*

The M-pesa success in its adoption highlights several factors that can be well explained by the technology acceptance model (TAM) and theory of reasoned action (TRA) models. Though these models are applicable in the mobile banking technology adoption, the necessity of home grown technology, managerial aspects and the technical aspects are not well covered by the models. The models give more significance to the consumer's perceptions. However the success of M-pesa adoption was more than just the perceptions. It is thus postulated that, to explain the adoption and diffusion of mobile banking in the developing countries, there is a



need to look at diverse factors that play major role in the individual country market environment and thus develop a model that can be replicated in the in the developing countries .

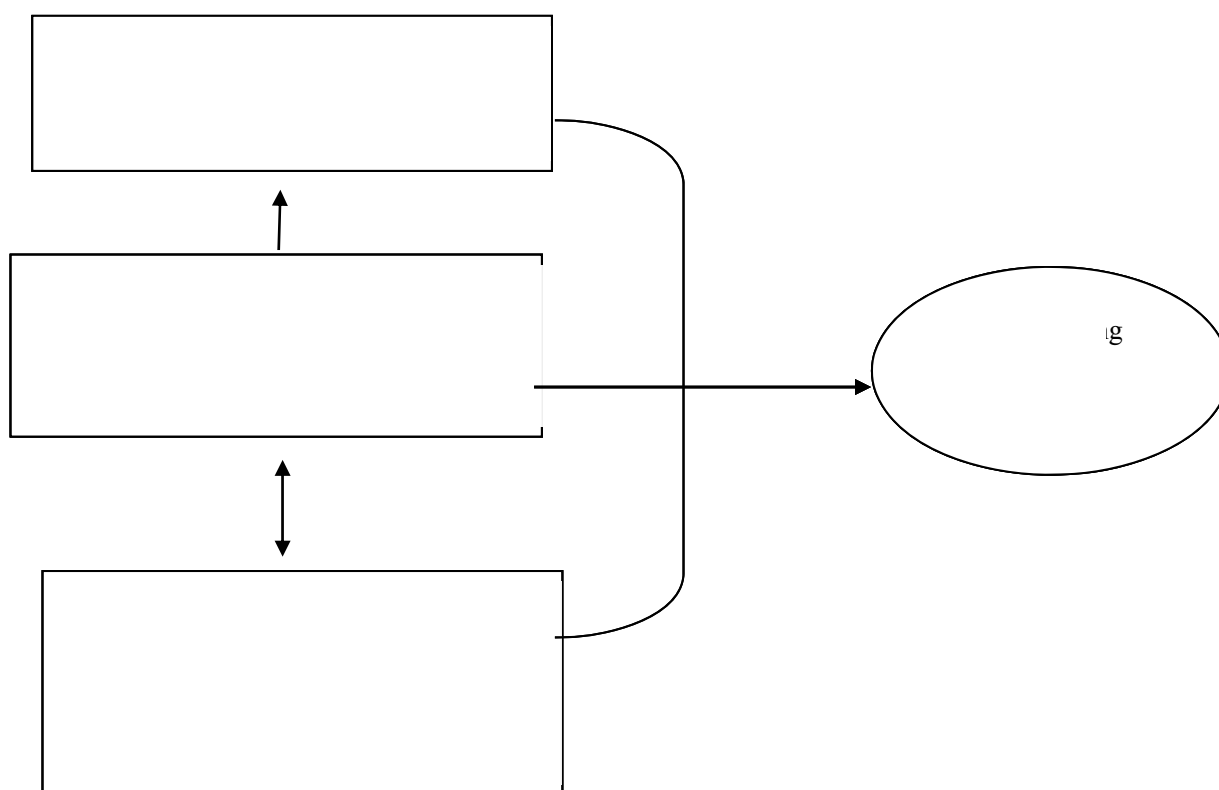
The technology acceptance model (TAM) developed by Fred Davis and Richard Bagozzi. (Bagozzi et al., 1992; Davis et al, 1989, Mallet,. et al, 2006, Wu, and Wang, 2005) was an extension of theory of reasoned action (TRA), which focused on the drivers of consciously intended behaviours. TAM replaces many of the TRA attitude measures with the technology acceptance measures, ease of use, and usefulness. The theory assumes assume that when someone forms an intention to act, they will be free to act without limitation. It recognised that within the normal operating environment there are many constraints that limit one's ability to act such as limited ability, time constraints, environmental or organizational limits, or unconscious habits (Bagozzi et al., 1992). Several studies on technology adoption based on diffusion of innovation have been done such as the study by Rogers (1995), Niina Mallat, (2006), and Mallat et.al, (2008). Diffusion is the process by which an innovation is communicated through certain channels over time among the members of a society. Diffusion of an innovation occurs through a five-step process such as knowledge, persuasion, decision, implementation, and confirmation. (Rogers, 1995) indicated relative advantage; Compatibility, Complexity, Trial-ability and Observe-ability determine an innovation's rate of adoption. This was later on extended on by (Venkatesh and Davis, 2000), to include perceived usefulness and usage intentions where the perceived usefulness was explained in terms of social influence and cognitive instrumental processes. Social influence processes (measured using indicators of subjective norm, voluntariness, and image) and cognitive instrumental processes (measured using indicators of job relevance, output quality, result demonstrability, and perceived ease of use) were found significantly influencing user acceptance of an innovation.

Mallet, et al. (2006), and Wu, and Wang, (2005) further explains that the original TAM consisted of perceived ease of use (PEOU), perceived usefulness (PU), and attitude toward using (ATU), behavioral intention to use (BI), and actual system use (AU). The author further supports Mallet, N. et al (2006) when he stated that PU and PEOU are the two most important determinants for system use. Perceived usefulness (PU) is the degree to which a person believes using a particular system would enhance his or her job performance and Perceived ease of use (PEOU) is the degree of to which a person believes that using a particular system would be free of effort Young, (2005) defined the two concepts. Kim, . et al, (2009) stated that the perceived usefulness of a technology changes user attitudes towards it, subsequently affecting adoption and diffusion behavior. Extending the discussion to the context of mobile banking, it was expected that the perceived benefits of M-Pesa would influence a person's use interest in the service and subsequent intention to use it.

Mobile banking offers benefits in mobility and convenience that traditional off-line processes or non-mobile internet banking cannot match (Kim, et al, 2009). Consumers take into consideration the ease of use and the usefulness of technology before they decide to use or not use it. This means that consumers' decision making process of mobile banking or cell phone banking involves taking into account the ease- of-use and the usefulness of this service.

Moreover, after a careful evaluation of the advantages and disadvantages of using a new technology that is when consumers will decide to either start using it or reject it.

The adoption and the diffusion of the mobile banking technology is dependent on trio factors which are (a) the perception of the consumers in regards to perceived usefulness, perceived security or risks involved and perceived ease of use. (b) The management of the services, ensure reliability, that innovation or the technology is affordable, adequacy of network for ease of transfer and banking backup thus security customers funds, and consistency. (c) The other factors are the technical back up. This include the availability of manpower to run the mobile banking technology successfully, innovate and do trouble shooting, where necessary, elaborate infrastructure layout either by the government or the organization, availability of affordable smartphones and other required gargets, low cost of modern technology thus providing affordability among others.



Adopted from TAM model by (Niina et al. 2006).

**Technology Acceptance of Mobile Banking** is directly affected by *Perceived Usefulness*, and *Perceived Ease-of-Use*. Customers will identify the perceived benefits of an innovation or technology before they make the decision of buying or using that particular product. This is the perceived usefulness of a product. If the customers feel that the perceived benefits of the product are enough or satisfactory to them, that is when they will decide to buy or start using



the product. Customers at the same time may decide to use a product after considering whether or not they will be required to put on a lot of effort for them to use the product or technology. The easier the innovation is perceived to be, the easier it is to get diffused in the market.

### ***Perceived Usefulness***

Perceived Usefulness is a factor of three elements, number of subscribers, perceived security of the new technology (risk) and the visibility and layout of agents. The number of subscribers using a technology is directly linked to the perceived security of the new technology and the layout of agents in the sense that if the new technology is worth the risk and there is an equal distribution of agents who can help the subscribers anytime, then the number of subscribers will surely increase.

***Perceived Security (Risk)*** of a new technology has a positive influence on the *Perceived Usefulness* of a new Technology. The customers will add the security of the new technology to the perceived benefits of using the technology thus if it is worth the risk they will start using it or at least give it a try. In the case of Mobile banking the perceived security includes a customer having a secret security code only known to them which is used to both send and receive money. This is one of the examples of the perceived security of mobile banking. If customers feel that the security of the new technology is enough and is worth the risk they will start using it.

***Number of subscribers*** of the new technology directly affects *Technology Acceptance of Mobile banking* in the sense that if consumers have adapted to using the technology it means that the technology has been accepted and its launch has been successful. Adoption of technology by customers also has a positive influence on the Perceived Usefulness of a technology. If consumers have widely adopted a new technology and are using it that indicates that they have evaluated and identified its usefulness and thus they feel it is worth their money and their trial.

***Layout of agents Network*** is also another factor which has a positive influence on the Perceived Usefulness and also on the Adoption of Technology by customers or subscribers. Consumers will adapt to a new technology more easily and more efficiently if there are sites where they can ask, get new information and learn more about a technology. Furthermore, consumers are more likely to start using a new technology if they find that it is not difficult for them to find the information they want about it, this adds to the Perceived ease-of-use of mobile banking.

***Banking sector back-up*** provides perception that the customer's funds are insured. Perceived ease-of-use is a factor of three elements, cost, banking and mobile network. Cost of technology should be affordable to ensure that the services is used at least price, willingness of the bank or governmental regulatory authority to back up the innovation providing assurance to the customers who use the innovation and technology, especially since they are banking related, and the availability of the mobile network to the banking target segments.

***The management of the services*** ensures that there are least interruptions. This provides reliability and trust among the innovation users and thus fast adoption. The organization

marketing the services have to ensure that the technology (including the cellphones) is affordable, there is adequate network for ease of transfer and or transaction to take place (Reji et. al, 2012), necessary arrangements with trusted bank for banking backup thus security customers funds, and provision of service quality, visibility of the face to face interphase which provide human touch and consistency in service delivery.

**Cost of Technology Adoption** has a positive influence on the perceived ease-of-use of a product. If a large number of people are using a new technology and have accepted it entirely the economies of scale provides cost benefits. The low cost ensure that late majority or the laggards will be forced to give it a try or start using it. This will become the case as they would be the only ones left behind or not using it and thus they will decide to use it anyway. Moreover, if the cost using the new technology is low customers do not find any harm in starting to use it. This element is also linked to the business sector back-up because as businesses realise that more people are using a technology the more they become interested in investing in and adopting the new technology and thus align their strategies to innovation adoption.

**Availability of require gargets**, the mobile banking innovation requires the use of affordable cell phone, or other gargets that can be user friendly. This included the availability of phone charging facilities, especially in the rural areas where there is no electricity, booster for necessary network, garget required by the agents for verification of the customer information, secure customer data storage gargets among other. The affordability and availability of these gargets will greatly affect the adoptability of the innovation.

**Technical backup**, involve the ability of trouble shooting in case there is a problem in the system on the process of proving customer service. A home grown technology ensures that technical hiccups are solved as fast. At the same time the technology or the innovation can be adopted to the needs of the customers as well as the market environment conditions. The more the customers are assured of flawless technology the more likely they are about to adopt the technology or the innovation and the fast it diffuses.

**Availability of Network** has a positive influence on the Perceived Ease-of-Use. When there is a secure network available everywhere and it reaches everyone even in rural areas then subscribers will be more than willing to start using the service or technology being offered. Customers always have some expectation about a new technology and in the case of mobile banking they expect a secure network which runs smoothly and which gives them an assurance that they will not face any difficulties when using it. If they are assured of this then they will start using the new technology. The availability of a network is linked to the layout of agents because if they are evenly distributed then it will be a guarantee that if customers encounter a problem with the network they will have somewhere to make enquiries about it.

#### **4. Conclusion**

This research has generated some insights and lessons for research on the consumer adoption of mobile money. The results of the study highlight that mobile money is credited by the consumers for being convenient in terms of ease of use, high accessibility time efficiency and cost effective. People don't need to spend time travelling to banks nor wait for a long time

before they can perform banking services thanks to mobile banking. However irrespective of these benefits the success of the adoption and the diffusion of the mobile banking in Botswana and other developing countries will highly depend of the perception of the consumers in regards to perceived usefulness, perceived security or risks involved and perceived ease of use. The efficiency and consistency in managing the service process and the ability to provide quality service would ensure adoption and fast diffusion of the innovation. The technical back up that include the availability of home grown innovation, manpower that can run the mobile banking technology successfully and do trouble shooting, as well infrastructure layout would aid the adoption. The availability of smartphones and other required gargets is also a necessity. The experience indicates that the people who are likely to use a new technology are not necessarily the educated people youth or those who are already exposed to technology. It includes old and uneducated rural population, based on the Kenyan experience. It is thus a useful innovation that provides necessary services required for enhancement of economic wellbeing of the rural population in Africa and its adoptions and diffusion should be enhanced.

## References

- Amaratunga D., Baldry D., Sarshar M., & Newton R. (2002). Quantitative and Qualitative research in the built environment: application of "mixed research approach". *Work study*, 51(1), 17-31. <http://dx.doi.org/10.1108/00438020210415488>
- Eriksson P., & Kovalainen A. (2008). *Qualitative methods in business research*. (3<sup>rd</sup> ed) Sage, Los Angeles
- G. Peevers, G. Douglas, D. Marshall, & M. A. Jack. (2010). On the role of SMS for transaction confirmation with IVR telephone banking. *International Journal of Bank Marketing*, 29(3), 206-223. <http://dx.doi.org/10.1108/0265232111117494>
- Gimun Kim, BongSik Shin, & Ho Geun Lee. (2009). Understanding dynamics between initial trust and usage intentions of mobile banking. *Information Systems Journal*, 19, 83-311. <http://dx.doi.org/10.1111/j.1365-2575.2007.00269.x>
- Hahn,R., & Passell P. (2012). How Cell Phones Are Boosting Kenya's Economy. *Economic Intelligence*.  
[http://www.usnews.com/opinion/blogs/economic-intelligence/2012/04/12/Innocent Tshukudu](http://www.usnews.com/opinion/blogs/economic-intelligence/2012/04/12/Innocent_Tshukudu)  
(2011). The Voice Newspaper.  
<http://www.thevoicebw.com/2011/06/17/mascom-introduces-myzaka/>
- Jen-Her Wu, & Shu-Ching Wang. (2005). What drives mobile commerce? An empirical evaluation of the revised technology acceptance model. *Information & Management*, 42, 719-729. <http://dx.doi.org/10.1016/j.im.2004.07.001>
- Jogulu U. D., & Pansiri J. (2011). Mixed methods: a research design for management doctoral dissertations. *Management Research Review*, 34(6), 667-701. <http://dx.doi.org/10.1108/01409171111136211>

- Kenneth C.C. Yang. (2005). Exploring factors affecting the adoption of Mobile commerce in Singapore, *Telematics and Informatics*, 22, 257-277.  
<http://dx.doi.org/10.1016/j.tele.2004.11.003>
- Lisa Wessels, & Judy Drennan (2010). An investigation of consumer acceptance of M-banking. *International Journal of Bank Marketing*, 28(7), 547-568.  
<http://dx.doi.org/10.1108/02652321011085194>
- Malina M. A., Norreklit H.S.O., & Selto F. A. (2011). Lessons learned: advantages and disadvantages of mixed method research. *Qualitative Research in Accounting and Management*, 8(1), 9-71. <http://dx.doi.org/10.1108/11766091111124702>
- Mmegionline. (2012). Two out of three "unbanked" in Botswana – Report, [http://www.mmegi.bw/index.php?sid=4&aid=574&dir=2012/April/Friday27 18/8/20121](http://www.mmegi.bw/index.php?sid=4&aid=574&dir=2012/April/Friday27%2018/8/20121)
- Mwangi S. Kimenyi, & Njuguna S. Ndung'u. (2009). Expanding the financial services Frontier: Lessons from Mobile Banking in Kenya.
- Nick Hughes, & Susie Lonie. (2007). M\_PESA: Mobile Money for the “unbanked” Turning Cell Phones into 24-Hour Tellers in Kenya
- Niina Mallat, Matti Rossi, Virpi Kristiina Tuunainen, & Anssi Öörni. (2006). The Impact of Use Situation and Mobility on the Acceptance of Mobile Ticketing Services, Proceedings of the 39th Hawaii International Conference on System Sciences – 2006
- Rejikumar. G., & Ravindran S. D. (2012). An Empirical Study On Service Quality Perceptions And Continuance Intention In Mobile Banking Context In India. *Journal Of Internet Banking and Commerce*, 17(1). Available online <http://www.arraydev.com/commerce/jibc/>
- Tau Zhou. (2011). *Examining the critical success factors of mobile website adoption*, 35(4), 636-652.
- Tom Mogusu. (2007). [http://www.eastandard.net/hm\\_news/news.php?articleid=1143965733](http://www.eastandard.net/hm_news/news.php?articleid=1143965733).
- Tom Wright, & Sébastien Audra. (2010). Orange partners with Equity Bank for launch of Orange Money in Kenya and beyond, Press Release, Paris 9 November.
- William Jack, & Tavneet Suri. (2010). *The Economics of M-PESA*.
- William Jack, & Tavneet Suri. (2011). Mobile Money: The Economics of M-PESA, NBER Working Paper Series, Working Paper 16721, from website <http://www.nber.org/papers/w16721>
- William Jack, Tavneet Suri, & Robert Townsend. (2010). Monetary Theory and Electronic Money: Reflections on the Kenyan Experience. *Economic Quarterly*, 96(1), 83-122.
- Yvonne Dithase. (2011). Botswana Guardian Newspaper. <http://www.botswanaguardian.co.bw/newsdetails.php?nid=2236&cat=BG%20Business>