

Constraints on Promoting Mobile Banking in Namibia

Albert Mutonga Matongela
Payments, Operations, First National Bank of Namibia
130 Independence Avenue, P.O Box 285, Windhoek, Namibia
Tel: +264-61-299 7239 Email: amatongela@fnbnamibia.com.na

Abstract

The purpose of the study was to establish constraints or challenges on promoting mobile banking Namibia. Data collection instrument used is interviews while data analysis took the form of themes, graphs and tables. The findings indicate that key constraints are connectivity and interoperability followed by regulation, fees, customer education and data sharing. Recommendations such as investment in additional base stations and other related infrastructures as well bringing about interoperability in the Namibian National Payment System are some of the ways that can be implemented so as to promote mobile banking in Namibia.

Keywords: Mobile Banking, Wallet Banking, Namibia, National Payment System

1. Introduction

Mobile banking is the provision of banking services using the mobile technologies such as phones and personal digital assistants (PDAs) (Kato, Otuya, Owunza, and Nato, 2014). Chandran (2014) points out several advantages that include: “time saving, convenience, secure, easy to access finances, efficiency, fraud reduction, mobile connectivity, availability, and opportunity to do transactions and non-transactions related activities.” The author mentions several disadvantages: “likelihood of receiving fake SMS messages and scams; old models of mobile phones and devices are not suitable for mobile banking; regular use of mobile banking can attract significant charges; limited internet connection in rural areas; limited compatibility with anti-virus software; and some banks do not offer the same level of protection for mobile banking compared to online and in-person transactions.”

There are various applications, ways or types that end-users can use to communicate with the banks depending on the capability of each mobile phone technology and services rendered (Khraim, Shoubati, Khraim, 2011). Chandran (2014) says that these push and pull types include inter-bank mobile payment service (IMPS), bank applications (bank apps), unstructured supplementary services data (USSD), short message service (SMS), and internet-based mobile banking or browser.

Mobile banking solutions in Namibia are provided to the banking/financial industry by the two renowned telecommunication operators, that is, MTC and Telecom Namibia. A distinction needs to be made between traditional cellphone banking and wallet transactions. The distinction is based on the type of customer, limits and functionality. A wallet is more for remittances like sending money from one cellphone number to another cellphone number for cash out within a closed loop environment while with traditional cellphone banking one can do financial and non financial transactions such as transfers, payments and balance inquiry.

This paper on constraints on promoting mobile banking in Namibia has several sections. Apart from the introduction, section 2 deals with mobile banking in Namibia followed by the literature review in section 3. Section 4 touches on methodology while section 5 is on discussion of results. The paper provides the conclusion and recommendation in section 6.

2. Mobile Banking in Namibia

There are key stakeholders in the mobile banking industry in Namibia. Banks are established in terms of the Banking Institutions Act, 1998 (Act No. 2 of 1998) to conduct banking business. The Bank of Namibia uses the Payment System Management Act, 2003 (Act No. 18 of 2003) as its principal instrument to oversee the National Payment System and to register payment instruments. The Payment System Management Act establishes a Payment System Management Body, Payment Association of Namibia, to register payment system service providers or system operators. The Communications Regulatory of Namibia is established in terms of the Communications Act, 2009 (Act No. 8 of 2009), to regulate telecommunication services and networks, amongst other responsibilities. Telecom Namibia Limited, established in 1992, and Mobile Telecommunication Limited, established in 1994, are regulated as operators or service providers in the terms of the Communications Act. The Financial Intelligence Centre is involved to ensure that customer due diligence is done for potential and current customers in line with the Financial Intelligence Act, 2007 (Act No. 3 of 2007).

There are regulatory instruments that can be issued by the Bank of Namibia, the central bank, to clarify certain matters. Section 13 of the same Act allows the central bank to issue directives while section 14 gives powers to the central bank to issue determinations. The Determination on Issuing Electronic Money in Namibia (PSD-3) became effective on 1 March 2012 and it provides requirements for authorization and issuing of e-money in Namibia.

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While wallet transactions are processed and settled in a closed-loop environment via certain applications or technologies, there are certain mobile banking transactions that are settled at an interbank level. An example on this one can be given. Let us assume a bank client wants to settle the invoice for rates and taxes with a local authority that has an account with a different bank. The first thing is that beneficiary detail needs to be loaded onto the cellphone. When the bank client chooses a payment option in the cellphone menu, the transaction should follow the normal Electronic Funds Transfer (EFT) clearing and settlement process.

Implementation of mobile banking in Namibia looks impressive (see table 1 below). There is about 6 providers of traditional cellphone banking (TCB) since 2006 and 3 providers as far as wallet solution is concerned. This results in implementation of 86 percent across providers for TCB and 43 percent with respect to wallet. The first time that TCB was implemented in Namibia was in 2006 and the latest is 2014. Besides, the first time a wallet was implemented in Namibia was in 2012 and the latest is 2016. Implementation is concentrated during 2010 and 2014. Only 3 providers implemented both TCB and wallet while others only implemented one of these.

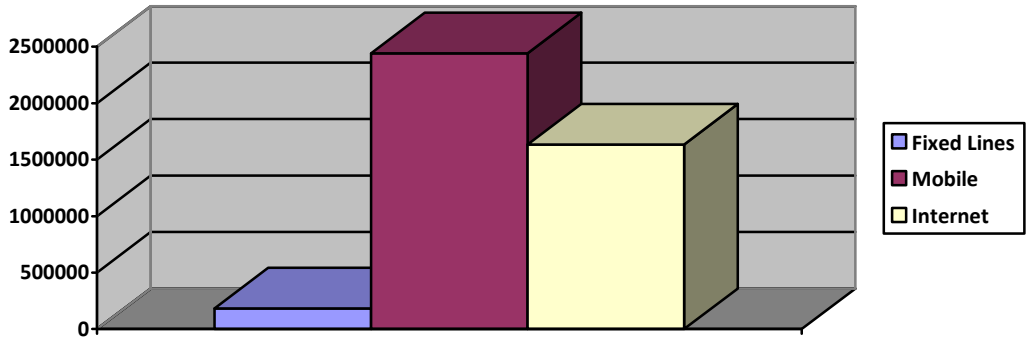
Table 1: Implementation of mobile banking in Namibia

Provider Code	Total		2006		2007 - 2009		2010		2011		2012		2013		2014		2015		2016	
	TCB	W	TCB	W	TCB	W	TCB	W	TCB	W	TCB	W	TCB	W	TCB	W	TCB	W	TCB	W
1	1	0							✓											
2	1	1	✓									✓								
3	0	0																		
4	1	0											✓							
5	1	1									✓									✓
6	1	0													✓					
7	1	1					✓					✓								
Total	**6**	**3**																		

Source: Own Compilation

In terms of Information Communication Technology (ICT) statistics provided by the Communications Regulatory Authority of Namibia (CRAN), there are more mobile phone subscriptions compared to fixed lines and internet (see graph 1 below). Mobile accounts for 57 percent out of the total subscriptions base of 4.3 million while fixed and internet account for 4 percent and 38 percent respectively. There is availability of 4G in Namibia (Mobile Telecommunication Limited, 2014; Telecom Namibia, 2013/2014).

Graph 1: Information Communication Technology Statistics in Namibia, 2015



Source: Communications Regulatory Authority in Namibia (2016)

3. Literature Review

It is beneficial to look at the history of mobile phones or mobile technology before a detailed discussion on mobile banking follows. This is because the two do complement each other. Mobile banking or m-banking cannot exist without mobile technology although the other way around is possible. Motorola was the first company that introduced mobile in 1973 (Saini, 2014). It can be seen here that mobile banking is a revolution that is driven by the world's one of the fastest sectors, mobile communication technology (Islam, 2014). In fact Gupta (2013) indicates that mobile technology is revolutionalizing the global banking and payments industry as it offers new opportunities for banks to provide added convenience to their existing customers in developed countries, and reach a large population of unbanked customers in emerging markets. Banks have changed from paper-based banking solutions provider to the latest of the technologies like online-banking and mobile banking (Chauhan, 2012).

Researchers do agree on the definition and scope of mobile banking. Mobile banking started in 1998 in Finland where a mobile phone was used in retail and transport industries (Saini, 2014). Adoption continued in other countries. For example, the first mobile banking transaction services in India were offered by ICICI bank in January 2008 (Nayak, Nath and Goel, 2014). These three authors indicate that M-Pesa was first offered in Kenya in the year 2007 by Vodafone and Safaricom. In Malaysia, mobile banking can be traced to January 2012

in that country's banking industry (Masrek, Uzir and Khairuddin, 2012).

Okiro and Ndungu (2013) show that 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 coupons, deposit cheques via the mobile phone and instruct payroll based transactions. Mobile banking is the provision of banking services using the mobile technologies such as phones and personal digital assistants (PDAs) (Kato, Otuya, Owunza, and Nato, 2014). Khraim, Shoubati, Khraim (2011) indicate that mobile banking is a channel whereby the customer interacts with a bank via a mobile device such as a mobile phone or PDAs. Mobile banking differs from mobile payments, which involve the use of a mobile phone device to pay for goods or services either at the point of sale (POS) or remotely, analogously to the use of a debit or credit card to reflect electronic funds transfer POS (EFTPOS) payment (Chandran, 2014). Some m-banking platforms provide services, such as money transfers, that are considered forms of mobile payment, while some m-payment are so closely linked to bank accounts as the source of funds that they assume m-banking functions (Khraim, Shoubati, Khraim, 2011).

There are advantages and disadvantages of mobile banking in the literature that are impossible to enumerate completely. Chandran (2014) points out several advantages that include: "time saving, convenience, secure, easy to access finances, efficiency, fraud reduction, mobile connectivity, availability, and opportunity to do transactions and non-transactions related activities." The author mentions several disadvantages: "likelihood of receiving fake SMS messages and scams; old models of mobile phones and devices are not suitable for mobile banking; regular use of mobile banking can attract significant charges; limited internet connection in rural areas; limited compatibility with anti-virus software; and some banks do not offer the same level of protection for mobile banking compared to online and in-person transactions." Masrek, Masrek, Uzir and Khairuddin (2012) provide a good outline of the advantages of mobile banking to end-users, mobile telecommunication providers, and mobile banking provider and these are summarized in the table below:

Table 2: Advantages of mobile banking to end-users, telecommunication provider and banking provider

End-users	Mobile Telecommunication Provider	Mobile Banking Provider
▪ Secure authentication, transaction and data transaction, and easy deleting of content in event of handset loss ▪ Icon-driven, user-friendly interface ▪ Contactless payment that offers quicker checkout at the point-of-sale ▪ Dynamic credit facility and point-of-sale offers ▪ Dynamic account monitoring and around-the-clock alerts ▪ Convenience of micro-payments ▪ Real-time access to account information, outstanding debt and bill payment ▪ Ubiquitous access to banking services	▪ Expand services portfolio, promote brands and create strategic marketing differentiation ▪ Increases revenue by providing subscribers with instant access to airtime purchases and hence increasing traffic	▪ Enhances customer retention satisfaction and by offering new and better services and at the same time provides a direct marketing channel for their products and services ▪ Generates revenue through higher service usage and reduces operational expenses

Source: Masrek, Uzir and Khairuddin (2012)

There are various applications, ways or types that end-users can use to communicate with the banks depending on the capability of each mobile phone technology and services rendered (Khraim, Shoubati, Khraim, 2011). Chandran (2014) says that these push and pull types include inter-bank mobile payment service (IMPS), bank applications (bank apps), unstructured supplementary services data (USSD), short message service (SMS), and internet-based mobile banking. "IMPS lets end-user transfer funds from one account to another across banks and with bank apps, the end-user downloads a bank's application or software on a mobile phone. USSD allows end-user to dial the bank's service code to ask for information on a bank account while sms enable the end-user to get account information. The internet-based mobile banking or browser is a way of banking where the end-user uses the mobile screen like a computer monitor."

The big question is how to promote mobile banking given three ingredients that are essential for its success such as wide uptake of cell phones by all categories of society, incredible amount of people without bank accounts, large population in Africa living in rural communities with limited or no banking infrastructure (Govender, Sihlali, 2014). Different ways on how to promote mobile banking were implemented across the world. The Reserve Bank of India (RBI) issued guidelines for banks to provide mobile banking services in India in 2008 (Nayak, Nath and Goel, 2014). Government can take a leading role in terms of creating legislation that will enhance awareness on the use of mobile banking (Kato, Otuya, Owunza, and Nato, 2014). The RBI allows banks to appoint agents and businesses correspondents like EKO to provide financial services to customers (Gupta (2013). Banks can step-up mass media marketing to highlight services provided, do demonstrations free of charge, provide information on security techniques used with the view to reach postponers or rejecters as well (Elbadrawy and Aziz, 2011).

4. Methodology

The study adopted a qualitative approach. Within the approach, the interview data collection instrument was employed. Originally, the intention was to interview nine institutions in the financial sector. This could not happen as detailed interviews could only be scheduled with five of them due to commitments on the side of those who were not available. As far as those that were available for interviews are concerned, one could not participate at all, one gave some limited information via telephone line, one provided information via email, and the last one gave detailed information via email. It can be concluded that only responses from six participants were considered and these were arranged into themes as section 5 shows. Participants were informed about the purpose of the interviews. Challenges encountered include limited participation from three institutions and no participation from one institution even after repeated follow-ups. Full interviews participation rate is 56 percent and considering one detailed response via email as well this brings the participation rate to 67 percent excluding those that provided limited information via email and telephone.

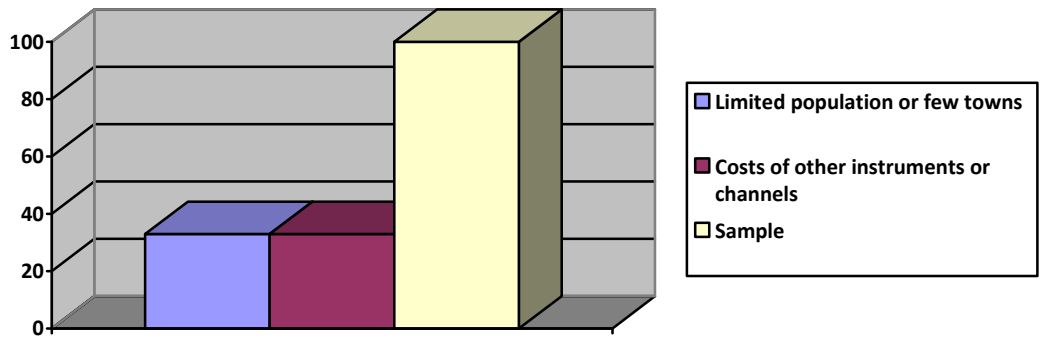
5. Discussion of Results

This section presents the discussion of results based on the methodology adopted for the study. It is broadly divided into two sub-sections. The first one touches on opportunities for mobile banking in Namibia. In other words why is mobile banking ideal in the Namibian context? The second sub-section dwells on constraints hindering the promotion of mobile banking in Namibia. Consequently, the entire discussion proceeds as follows.

5.1 Opportunities for Mobile Banking in Namibia

As per graph 2 below, about 33 percent (2 out of 6 people) of the responds are of the view that mobile banking is ideal for Namibia due to limited population of around 2.3 million people. The country has few towns or cities and there is a huge distance between them.

Graph 2: Opportunities for Mobile Banking in Namibia



On top of that mobile banking is also relevant for Namibia due to costs associated with implementing and maintaining traditional channels. In fact, about 33 percent of the respondents are of the view that mobile banking is suitable because of costs associated with implementing and maintaining traditional channels. In addition, one person mentioned that mobile banking is good for financial inclusion due to cellphone coverage that stands at 95 percent and that about 100 percent of Namibians have cellphones.

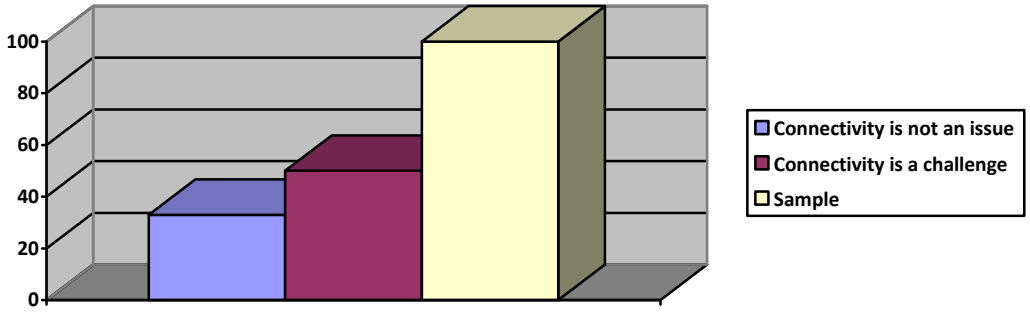
5.2 Constraints to Mobile Banking in Namibia

There are numerous constraints that can hinder the promotion of mobile banking in Namibia in line with responses obtained during interviews. These constraints or limitations are common at an industry level and not necessarily specific to a given participant. These constraints are discussed below.

5.2.1 Connectivity

The results from graph 3 below show that about 2 out of the total sample of 6 (33 percent) of are of the view that there are no connectivity issues for mobile banking in Namibia while 3 (50 percent) said that there are connectivity challenges. Respondents said that connectivity is low in rural and geographically secluded areas. This means that cellphone reception is available in certain areas than in others.

Graph 3: Connectivity Challenges for Mobile Banking in Namibia

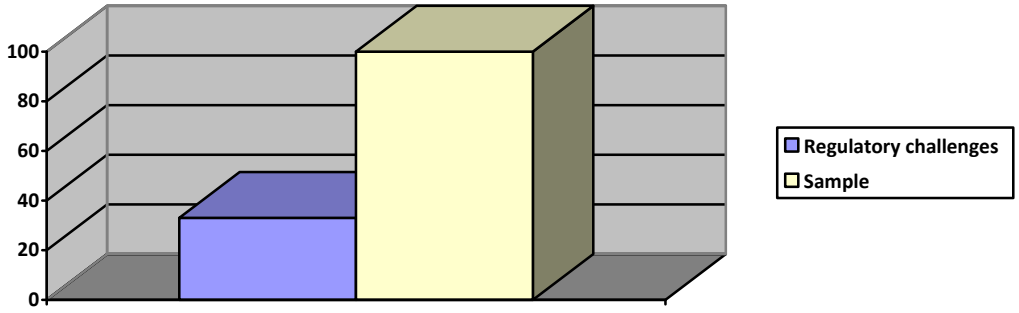


It came clear during interviews that some technologies perform better than others especially in areas where network availability is an issue. In fact, one respondent said that USSD, although less sophisticated compared to an app, performs better where cellphone reception is low and one does not need much cellphone battery power to conclude a transaction.

5.2.2 Regulation

The results from graph 4 below show that about 2 out of the total sample of 6 (33 percent) have an issue on the regulatory framework applicable to mobile banking in Namibia.

Graph 4: Regulatory Challenges for Mobile Banking in Namibia

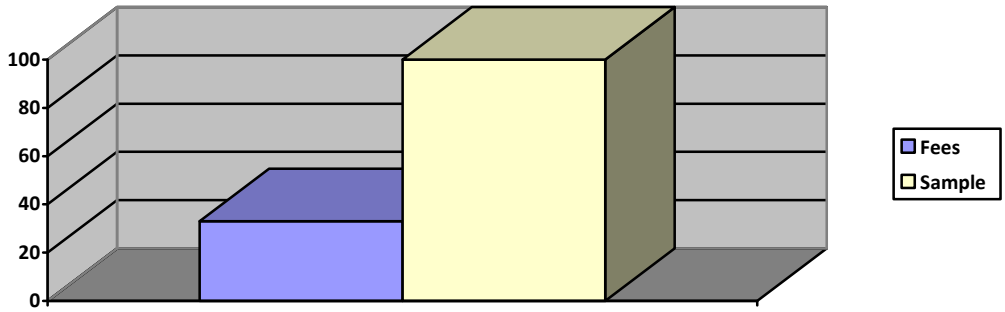


Three issues stand-out in this respect. The first is that although regulations are in place and clear at a high level, they are not aligned to operational processes in respective industries. Second is that regulations in certain respects are interpreted differently. Third has to do with the issue that the current regulatory environment does not regulate mobile.

5.2.3 Transaction and Other Fees

The results from graph 5 below show that about 2 out of the total sample of 6 (33 percent) have an issue on fees applicable to mobile banking in Namibia.

Graph 5: Transaction and other fees for Mobile Banking in Namibia

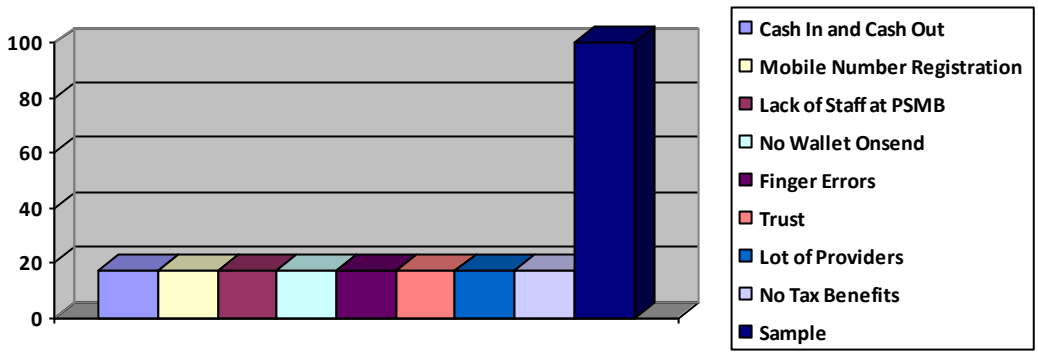


One respondent said that transaction fees are steep and it costs more to send limited amount of money especially the unbanked that do not have much to send. This respondent said that transaction fees should be related to the amount of money sent. The other respondent said that data is expensive to procure and indicated that out of bundle data is expensive that certain prepaid products; there is a need to award frequent users with better prices; and that it is not cheaper to roam especially when transactions should be made any time.

5.2.4 Miscellaneous Challenges

The results from graph 6 below show 1 response out of the total sample of 6 (17 percent) for each item with regard to mobile banking in Namibia.

Graph 6: Miscellaneous Challenges for Mobile Banking in Namibia

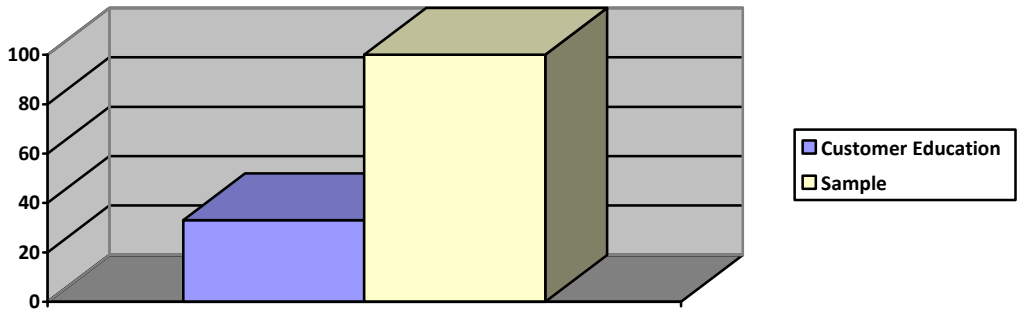


First, a respondent said that distribution channels for cash in and cash out are not sufficient for mobile banking in Namibia. Other challenges were mentioned as per the graph. It was mentioned that a customer needs to get in a branch to register the mobile number before the number gets registered on mobile banking platform. Lack of staff at the Payment System Management Body was mentioned as sufficient staff members are crucial in realizing successes in mobile banking. None availability of on-send functionality prevents a receiver of funds from sending some of the received funds to places where there is a need. Finger error or people pressing wrong button is common and customers normally get refund after a complaint has been raised. Trust is an issue because people are more comfortable with cards, physical presence, branches and tellers compared to cellphone banking. There are a lot of providers according to one respondent. This view is not in line with available data as there are only 3 providers of wallet banking and 6 for cellphone/mobile banking and this cannot be viewed as a lot of providers. One respondent was of the view that, none availability of tax benefits for corporates, involved in mobile banking, is not good for business growth.

5.2.5 Customer Education for Mobile Banking in Namibia

The results from graph 7 below show that about 2 out of the total sample of 6 (33 percent) have an issue on customer education applicable to mobile banking in Namibia.

Graph 7: Customer Education for Mobile Banking in Namibia

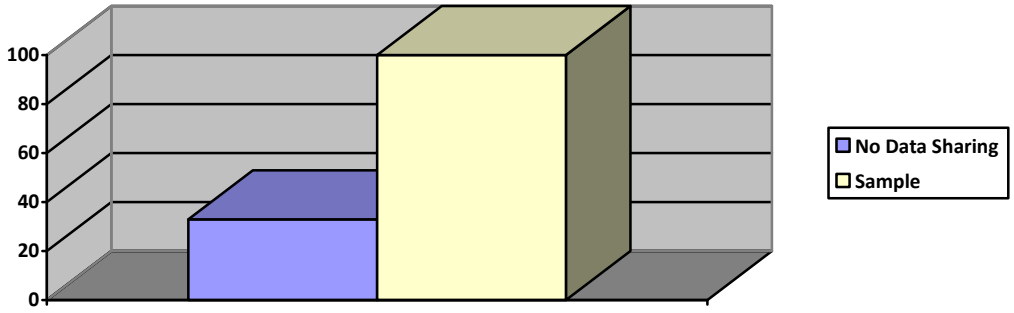


There is a perception that there is no awareness on various aspects of mobile banking. This finding relates to the issue of trust as indicated above as limited education will lead to a situation whereby customers continue to trust traditional channels compared to modern delivery channels including mobile banking.

5.2.6 Data Sharing

The results from graph 8 below show that about 2 out of the total sample of 6 (33 percent) have an issue on data sharing applicable to mobile banking in Namibia.

Graph 8: Data Sharing for Mobile Banking in Namibia

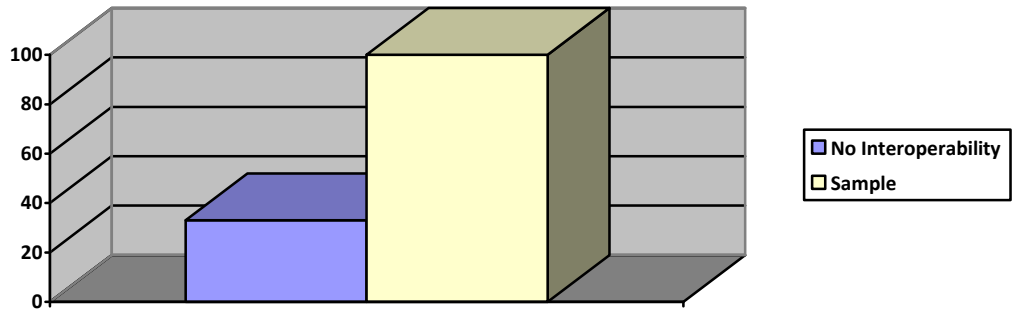


In South Africa a Regulation of Interception of Communications and Provision of Communication Related Act (RICA), 2002 (Act No. 70 of 2002) is in existence and this law requires that all new and existing cellphone numbers should be registered to prevent organized crime including money laundering. It is against this background that respondents said that no RICA implies lack of shared database crucial to the elimination of fraud risk such as sim-swap.

5.2.7 Interoperability

The results from graph 9 below show that about 3 out of the total sample of 6 (50 percent) have an issue on interoperability applicable to mobile banking in Namibia.

Graph 9: Interoperability for Mobile Banking in Namibia



Respondents are of the view that wallet interoperability is non-existent in Namibia because off-us transactions are not allowed from cash-out, cash-in and purchases perspectives. They are of the view that interoperability will be good for customers as transactions can be

performed at channels of other banks as well. Related to absence of interoperability is lack of a switch and Payment Clearing House Participant Group (PCH PG) for mobile as transactions are currently being processed via the EFT stream.

5.3 Summary of Constraints to Mobile Banking in Namibia

Section 5.2 above provided all the challenges to mobile banking as per the results obtained during interviews. The next step is to summarize these in the form of a table for easier reading and comparison on the side of the reader. Table 3 below provides a summary of these challenges.

Table 3: Summary of Challenges or Constraints for Mobile Banking in Namibia

Challenge	Number of Respondents	Total Sample	Percentage of Sample [%]
Connectivity	3	6	50
Regulation	2	6	33
Fees	2	6	33
Cash In and Cash Out	1	6	17
Mobile Number Registration	1	6	17
Lack of Staff at PSMB	1	6	17
No Wallet On-send	1	6	17
Finger Error	1	6	17
Trust	1	6	17
Lot of Providers	1	6	17
No Tax Benefits	1	6	17
Customer Education	2	6	33
Data Sharing	2	6	33
Interoperability	3	6	50

Source: Own Compilation

The key challenges as per the above table are connectivity and interoperability followed by regulation, fees, customer education, and data sharing. Other challenges with one frequency each are not viewed as significant challenges or constraints as far as this study is concerned.

6. Conclusion and Recommendation

The purpose of this article was to establish constraints to promoting mobile banking in Namibia using interviews data collection instrument. Data analysis was carried through arranging the text in categories or themes as well as graphs and tables. In terms of the results,

the key challenges are connectivity and interoperability followed by regulation, fees, customer education, and data sharing.

In view of the above, it is recommended that:

a. Connectivity challenges especially in rural and geographically secluded areas need be addressed. This can take the form of channeling financial resources to invest in more base stations or other infrastructures that will result in improved mobile network availability.
b. Interoperability needs to be promoted in Namibia in line with the industry's resolve to do away with closed loop systems as per the Namibia National Payment System Vision 2020. Interoperability needs to be encouraged in mobile banking as well and not just in traditional delivery channels.
c. Regulatory framework for mobile banking should be introduced as in other countries such as India or revise existing regulatory framework to be more specific on mobile banking.
d. Transaction and data fees need to respond to volume so that fees for high value should not be the same as fees for low value.
e. Customer education should be carried out extensively so that customers will be aware of different aspects of mobile banking.
f. Data sharing needs to be addressed as in South Africa to prevent organized crime. Financial institutions, mobile telecommunication providers and Ministry of Home Affairs and Immigration are key stakeholders in making sure that this happens.

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