

The Rise of Mobile Technology on the Financial Sector in Zimbabwe

Paul Mupfiga and Tafadzwa Padare

Midlands State University, Gweru, Zimbabwe
psmupfiga@gmail.com, tafadzwapadare@yahoo.co.uk

DOI: 10.20470/jsi.v8i2.288

ABSTRACT: The emergence of technology has revolted the way that the financial industry operates and the increasing use of mobile gadgets has changed the banking system from the traditional brick and mortar building to a virtual system. The sudden rise in use and innovation of smart mobile phones, mobile personal computers, tablets and various other mobile electronic gadgets has resulted in the rise of mobile financial products. Rapid quickening innovative headways are making completely new business suggestions, for example, crowd financing, shared loaning, advanced monetary forms, versatile managing an account, online speculation and new instalment frameworks. Zimbabwe's mobile technology use is currently on the rise too as mobile service providers like Econet are enabling the connection between consumers and financial related products. Despite the fact that innovation without a doubt brings benefits, prominent specialized disappointments in the money related part lately are disturbing and several negative factors are to some extent affecting production. Drawbacks like cybercrime, resistance to change, and compatibility of mobile gadgets are affecting the information technology environment. This paper highlights the rise of mobile technology in the financial sector in Zimbabwe.

KEYWORDS: Mobile technology, mobile gadgets and financial sector

1. INTRODUCTION

The revolution of technology has resulted in a boom in the economy and several sectors of the economy are flourishing. Technology has become the backbone of the economy as most fields have become dependent on it. The lives of many people have been made easy through the emergence of technology. The society has become a technology based environment. Currently every other individual young or old is seen with a device or gadget he or she moves around with for various day to day operations. Technology has become vital to the extent that people cannot imagine a life without technology. The world has therefore become a global village as towns, cities, countries and continents are now well connected. Communication, human relations, education, finance, agriculture and transport among others are some of the business sectors that are doing well through the use of technology. The world has become a smart world with people doing all traditional labour intensive and time consuming tasks in a smart way.

The business sector is flourishing because of the positive impact brought by the evolution of computers. There has been continuous innovation and several individuals and various other businesses are continuing to invest their resources in developing unique techniques for increasing productivity in the economy. Mobile technology is among the innovations that have been introduced in the economy. The mobility of people has been made easier as various electronic gadgets are facilitating working from anywhere at any time. That is making it possible for people to work away from their traditional working places. The emergence of mobile phones and various mobile gadgets has resulted in a booming economy where smart phones have greatly become an essential aspect to the lives of many people. There has been a drastic change in production due to the transformation of the traditional ways of banking that is change of the financial related transactions. Convenient and more practical methods of enabling the smooth operation of financial related activities have evolved, thus making the financial sector a prolific segment of the economy.

Much of the current technology concentrates on the advancement of electronic systems that trade data. Monetary exchanges likewise include the trading of data, and the expanding ubiquity of online money agrees with the advances in data innovation. Mobile electronic gadgets as well as mobile phones have become a great and technical innovation at par with other great high tech inventions that have blown the minds of people also, have changed the way individuals live and work. The

examination in correspondence between today's phones, which offer prompt correspondence, to the out-dated paper-and-pen correspondence procedure is out and has got unbelievable aspects.

This mobile technology is not just for calls only but also offers a veritable banquet of computer access at ones fingertips. There are currently over a billion advanced mobile phones worldwide and the pervasiveness of SMS and broadband administrations on every single cell telephone implies that billions more individuals have portable access to money related administrations day in and day out regardless of how far they live from physical monetary branches. Many people are fast moving away from the traditional way of banking because of the various challenges they are facing. For one to open a bank account several formalities are followed and having to produce several documents such as proof of residence, national identification as well as having to wait for the account to be processed and activated. Such formalities have therefore caused consumers to move away from the brick and mortar type of banking system.

2. Mobile technology

Taylor and Francis (2012) defines mobile technology as a tool that allow users to reconnect to a sense of place electronically, psychologically while physically being on the move. (Nbusinessinfo.co.uk) It is also defined as technology that is portable through use of devices like laptops, tablets, smart phones and netbook computers. Mobile technology is also defined as that which powers mobile devices such as Smartphones and tablets.

2.1 Finance sector

(Investopedia.com) characterizes the financial sector as a classification of stocks containing firms that give monetary administrations to business and retail clients and it incorporates banks, venture reserves, insurance agencies and land. Alexander P Baden (2000) alludes that the financial sector is an arrangement of establishments, instruments and the administrative system that licenses exchanges to be made by acquiring and settling obligations that is by augmenting credit.

2.2 General background of mobile technology in the finance sector

According to Reed et al. (2014), numerous individuals do not have accounts with banks, however it is progressively likely that they will have a mobile phone and this has displayed an open door for the versatile to fill a niche in the financial administrations base. This development in information use is making new business open doors on the landmass, in giving network, as well as in offering advanced administrations including portable budgetary administrations, e-trade and computerized content. A portable record gives the capacity to perform works regularly underestimated, for example, saving and pulling back money, putting away finances safely after some time and sending and getting electronic installments including to and from organizations, governments and budgetary foundations. In the old days before the emergence of smart phones and the internet financial related activities transactions where done from the conventional banking hall.

People would have to travel long distances to banking halls to do various transactions such as making deposits, money transfers and withdrawals. Those who live in rural areas would have to travel to townships, growth points or travel to the city centre to find a banking hall. Banking back then was only done manually and one would have to fill in banking booklets and banking slips for them to make a transaction. Lots of time would lapse whilst people would stand in a queue waiting for their chance to be served. In those old days banking was restricted to a certain time period where it was only done during working hours and one was unable to do any banking activities after hours. This was because the banking activities where only confined to the actual physical banking hall.

According to Knieger (2001) several procedures were done manually and whenever one visited a bank just to make a simple transaction. Customers had their information stored in individual post cards like sheets. For one to make a withdrawal one would have to write a cheque or withdrawal slip and a company it with a bank booklet. Lots of personnel would be found in the bank running up and down, these clerks would then check the ledger to see if one had a balance in their account so as to process withdrawal request. Checking for authentication of signatures and money was also done manually. This old day manual banking system therefore took lots of time for just single transaction to take place.

2.3 Mobile technologies in Africa

Peter Ondienge (2010) states that new technology-based financial services, such as mobile phone banking, have the possibility to generously build access to financial services. In South Africa, the DRC, Zambia and Kenya for example, cellular telephone saving money is taking administrations to remote regions where traditional banks have been physically truant. Supporters can now open records, check their parities, pay their bills, exchange cash, and provide food for their everyday fundamental needs.

2.3.1 M-PESA in Kenya

History: Olga Morawczynski and Mark Pickens (2009) States that MPESA is the most generally embraced cellular telephone based money related administration on the planet. M-PESA (M is an abbreviation for "Mobile" and PESA is the Swahili word for cash). M-PESA was propelled by Safaricom, the predominant versatile system administrator in Kenya, which as of now has a 62% cell telephone infiltration rate at the season of M-PESA's dispatch. M-PESA has become exponentially since its dispatch in 2007 to achieve 14 million enlisted clients by April 2011. Daniel Runde (2015) says M-Pesa has turned into a transformative cellular telephone based stage for money exchange and monetary administrations. M-Pesa has experienced exponential development: in 2013, a stunning 43 percent of Kenya's GDP moved through M-Pesa, with more than 237 million man to-individual exchanges. M-Pesa has changed monetary connection in Kenya. Its prosperity reshaped Kenya's saving money and telecom areas, developed monetary consideration for about 20 million Kenyans, and encouraged the making of a huge number of little organizations. M-Pesa has been particularly effective in achieving low-salary Kenyans: new information shows that the rate of individuals living on under \$1.25 a day who use M-Pesa ascended from under 20 percent in 2008 to 72 percent by 2011. Groups that commonly have constrained access to formal monetary administrations have profited from the budgetary items offered through M-Pesa. Specifically, its transient Pay Bill Account administration permits clients to gather pledges for an assortment of purposes, including costs identifying with restorative needs, instruction, and catastrophe alleviation. M-Pesa has additionally engaged business creation—numerous little organizations depend on M-Pesa for almost all exchanges, or give an administration that is a subordinate of the stage itself.

2.3.2 WIZZIT in South Africa

WIZZIT is a web-based installment office empowering people and associations to make Electronic Funds Transfers and to pay compensations and leasers by means of the web. It is a supplier of essential keeping money administrations for the unbanked and under managed an account (individuals or undertakings that have no or just restricted access to saving money administrations) in South Africa. Its administrations depend on the utilization of cell telephones for getting to financial balances and directing exchanges, notwithstanding a Maestro platinum card that is issued to all clients upon enrollment. Wizzit is a branchless business, implying that its administrations are composed so clients can by and large direct exchanges without the need to visit bank offices.

Peter Odinge (2010) cites several companies such as first National Bank (FNB) of South Africa has the biggest portable saving money client base in South Africa. Right now, it has more than 2 million clients and draws in around 90,000 on a month to month premise. In 2009, FNB portable managing an account clients made 56 million exchanges worth the estimation of ZAR7.2 billion. The MTN Banking Mobile Money Account is also said to give customers complete access to saving money adaptability. Giving access to customer account from anyplace on the planet, and whenever, Mobile Money places clients in control of their funds through a protected association utilizing MTN cell phones. The author also further asserts that South Africa's biggest cell telephone administrator Vodacom has collaborated with Ned bank to reveal a M-PESA versatile based money exchange administration, like the effective one working in Kenya. It will at first permit clients without access to financial balances to exchange cash utilizing handsets and in the end pay bills and purchase products. On account of cellular telephone goliath Vodacom, and its cash exchange administration M-PESA, poorer South Africans may at last have the capacity to spare, pay charges, and send money.

2.3.3 MAP in Uganda

Eria Hisali (2007) In 2007, New York-based MAP International was built up with nearby central station in Kampala, Uganda. The money related administrations supplier tries to enhance access to managing an account and monetary administrations to under-served populaces. The inspiration to build access

to budgetary administrations depended on MAP's energy about the life-changing sway that giving money related access to the unbanked and under-managed an account can have, including: monetary strengthening, livelihood era and endeavor creation in this way tending to one of the main drivers of destitution.

2.4 Trends in mobile money penetration in Zimbabwe

According to Jekins B (2008) mobile money has greatly penetrated African nations. Zimbabwe having a proportion of versatile cash membership to portable membership of 18.18 percent demonstrating a quicker versatile innovation entrance rate. The higher rate of infiltration is because of a higher number of the unbanked primarily country populace. Zimbabwe with an unbanked populace of 70 percent is consequently helpful for the multiplication of portable cash as noted by the notoriety of versatile cash items in Africa. Stacey Birkett (2012) says that while we have seen these occasions there has been different advancements in how banks are attempting to advance inside the computerized age. The way that clients bank has changed in Zimbabwe. In the 90s the utilization of the paper-based check was at its pinnacle. Nonetheless, from that point forward the quantity of checks utilized has significantly declined, to such an extent that, the Payments Council considered scrapping checks.

In 2011, they reevaluated this intense move and declared that they would keep on supporting checks the length of clients need them. As indicated by one futurist and portable forecaster Chetan Sharma (2010) it is said that the brilliant age for versatile innovation in nations like Zimbabwe is just beginning. Despite the fact that the versatile business all around has been the quickest developing goliath industry the planet has ever seen, going from zero to one trillion dollars in yearly incomes in just 29 years. We will soon cross the two trillion dollar yearly incomes level, and this industry will go ahead to pass four trillion dollars in the following decade.

2.5 The rise of mobile technology in the financial sector in Zimbabwe

According to Biriwasha KM (2012) versatile cash arrived as of late in Zimbabwe and has set off a ton of exercises. Media transmission and managing account foundations are scrambling for their offer of the portable budgetary items.

Table 1: Money products in Zimbabwe

Institution	Mobile Product
Econet	Wireless Ecocash
CABS	Textacash
Interfin Bank	Cybercash
CBZ Bank	Mobile banking
Netone	One wallet
Telecel	Skwama
FBC	Mobile moola

According Biriwasha KM (2011) versatile cash innovation touched base in Zimbabwe setting off a ton of action as media transmission and managing an account foundations scramble for their offer of the portable monetary items. Portable cash exchange (MMT) which rose as an endorser of supporter broadcast appointment exchange, is as yet being utilized by lower wage bunches for deal exchanging with different items, was later utilized as intermediary money , and has seen light in Zimbabwe. Contending on the premise of mechanical pervasiveness and the lower cost nature of portable cash exchange administrations, Merritt (2009) highlighted that settlements are being ruled by remote transporters demonstrating an unfaltering movement from conventional suppliers. In Zimbabwe, Econet's EcoCash with a specialist system of more than 1000 gives a wireless to mobile phone brisk, simple and secure cash exchange.

Merritt says that Zimbabwean state claimed portable system administrator Net One dispatched its versatile cash exchange administrations under the One Wallet brand. Around 1, 1 million individuals in

Zimbabwe have a financial balance (9% of the aggregate populace). More than 70 out of each 100 individuals have a cell telephone and possession is relied upon to achieve 100% by 2015 henceforth the open door for Mobile Money. Despite the fact that Zimbabwe is at level one it is on a high development direction. The creator says Aligning Mobile and Organizational Infrastructure and Processes Networks of associations and people and also fitting bases and procedures must be set up and be all around adjusted for portable cash to flourish, multiply and go to scale. This system constitutes a versatile cash biological system which is a group upheld by an establishment of associating associations and people to accomplish a specific objective. The scientist likewise says that members and partners in the versatile cash biological community in Zimbabwe incorporate portable system administrators, hardware producers, controllers, banks, broadcast appointment deals specialists, retailers, service organizations, managers, different foundations, and clients.

This segment in this manner looks to audit versatile and authoritative procedures and foundation in Zimbabwe and attempt to perceive how well they incorporate operationally into the Strategic Alignment model by Henderson et al. Another case is of how our own local Zimbabwe's Ecocash has shown impressive growth according to THE MOBILE MONEY FOR THE UNBANKED, Tuesday, July 10, 2012. Econet, Zimbabwe's driving versatile system administrator, dispatched its "Ecocash" portable cash offering, and has dashed to more than 1.5 million enrolled clients since.

Econet has utilized its lion's offer of the business sector, a generous interest in versatile cash, and some imaginative showcasing strategies to quickly join 1.5 million portable cash clients. Kombis (open smaller than usual transports) conveying Ecocash promoting all over Harare and other urban focuses contribute enormously to portable cash brand mindfulness. Country clients are focused through radio syndicated programs, which are significantly more famous than print and electronic media in those regions. Ecocash's specialist system is additionally inspired to enlist clients that are prone to be dynamic, as operators get a commission – as of now \$1.00 – at whatever point a client who registers with them makes aggregate exchanges that scope \$50.00. Claire Penicaud, in her blog entry Benchmarking with the Best, likewise sketched out the attributes of the 8 quickest developing portable cash benefits ("the Sprinters") in GSM's Global Adoption Survey, and it's certain to see that Ecocash fits solidly inside this profile. This demonstrate the portable cash is prospering and driving the money related and media transmission market.



Fig 1 below shows how mobile money has improve development outcomes for the unbanked in Zimbabwe, Wayan Vota (2013)

2.6 Categories of Mobile technology services in the finance sector:

Mobile Money administrations fall into three general classifications:

Table 2: Different types of mobile financial services, Gencer (2011)

Mobile finance	Mobile banking
Mobile payments	

2.6.1 Money transfer (M-transfers)

United Nations Conference on Trade and Development (UNCTAD) (2012) state that M-exchange is the place cash is exchanged starting with one client then onto the next, regularly without a going with trade of products or administrations. These are likewise alluded to as Person to-Person (P2P) exchanges and might be household or universal. Residential m-exchanges however rule amongst the portable cash administrations in Zimbabwe and even crosswise over East African Community. The heft of these exchanges happen amongst urban and country zones, as transients to urban zones send cash back to the provincial ranges to bolster their more distant families. For this situation, versatile cash replaces conventional casual strategies like sending cash with somebody or by transport. Part of the achievement of versatile cash is ascribed to the absence of scale and unwavering quality of casual techniques. Jack and Suri (2011) says that previously, the nonappearance or high cost of dependable exchange administrations has restricted utilization of these sorts of trades. The presentation of portable managing an account has permitted people to exchange stores by straightforward SMS innovation or content informing. This has drastically decreased the expense and difficulties of sending cash long separations. Prior to the innovation was accessible, most family units conveyed payments by means of hand or casually through companions or transport drivers. This procedure was full of postponements and much of the time included generous misfortunes because of burglary.

2.6.2 Mobile payments (M-payments)

Kumar K, Mino T (2013) defines M-payments as cash traded between two clients with a going with trade of products or administrations. From m-exchanges, portable system administrators (MNOs) have expanded versatile cash administrations to incorporate a scope of m-payments. MNOs began by focusing on elements that get intermittent payments from different clients like service organizations (e.g. power, water, sewage, Pay TV, and so forth.) and those that make mass payments (e.g. pay rates and school expenses).

2.6.3 Mobile financial services (M-financial services)

United Nations Conference on Trade and Development (UNCTAD) (2012) state that M-budgetary administrations is the place portable cash might be connected to a ledger to furnish the client with an entire scope of exchanges (reserve funds, credits) that they would conventionally access at a bank office. In different cases, clients can get to novel monetary related administrations like protection, speculation, investment funds, miniaturized scale money, versatile cultivating administrations and numerous more by means of their cell telephones. A few exchanges traverse diverse administration classifications, for case a client can get to his or her financial balance and exchange cash to another ledger holder or portable cash wallet without a going with trade of products or administrations.

2.7 Benefits of mobile technologies in the Zimbabwean finance sector

Mobile technologies and other financial systems provide vital services: they evaluate, screen and allocate capital, monitor the use of that capital, and facilitate transactions and risk management. If financial systems provide these services well, capital will flow to the most promising and deserving firms, promoting and sustaining economic growth. Financial innovation, which is the creation of new securities, markets and institutions, can improve the financial services sector and thereby accelerate economic growth (Abel: 2015). Mobile phones can perform several financial functions conveniently and securely from their mobile. Kadenge (2016) states that it enables one to check their balance, review recent transaction, transfer funds pay bills, locate ATMs, deposit cheques and manage investments. Anytime, anywhere availability- mobile banking is accessible around the shroud all day, every day of the year; it is in this manner a simple and helpful decision for getting to budgetary administrations for most cellular telephones proprietors. More often than not Zimbabweans have been using other mobile technologies such as ecocash, textacash, skwama which bring convenience to them as they are linked to supermarkets, district offices and other public organisations such as electricity distribution companies. Therefore, mobile technologies have played a big role in many Zimbabweans' lives and the financial sector at large.

2.8 Drawbacks of mobile technologies in the finance sector

Not all financial institutions have so far been able to counter the problems associated with use of mobile technologies and as such they have suffered in terms of their clientele bases and market share. The reserve bank of Zimbabwe gazetted the reduction of charges on ATM and POS machines which has since been a blow to mobile technologies as clients resort to using bank cards as oppose to mobile technologies. Security and privacy - cell phones are inclined to robbery in this manner if an individual has put away their card points of interest and other individual record data on their cell phone, they are liable to losing it and being a conceivable casualty of master card extortion and wholesale fraud.

2.9 Mobile security issues

Further developments to improve mobile technologies in the finance sector in Zimbabwe include guaranteeing the most elevated amounts of security is crucial for the achievement of any portable managing an account advertising. The requirement for security in the utilization of versatile cash is progressively essential for clients hence they should have the capacity to confirm themselves safely with regards to getting to their accounts. There should be much more use of advanced technologies such as biometric and other authentication methods when one uses the various mobile money services. These methods offer greater convenience and allow users to prove their identity without having to remember a password. Security of money related exchanges being executed from some remote area and transmission of the monetary data over the air are the most convoluted difficulties that should be tended to together by versatile applications designers remote system administrations suppliers and the banks IT offices. The accompanying security perspectives ought to along these lines be tended to: security of any thick-customer application running on the gadget on the off chance that the gadget is stolen, verification of the gadget with administration supplier before starting an exchange to guarantee unapproved gadgets are not associated with perform money related exchanges, serious encryption of the information being transmitted over the air to guarantee no misrepresentation happens and amazing encryption of the information that will be put away in the gadgets for later disconnected investigation by the client.

3. Recommendations to the Zimbabwean financial sector on how they can harness mobile technologies to enhance competitive advantage

There is need for the Zimbabwean government to foster technological trainings through ICT institutions so as to improve the countries IT think tanks. Furthermore by taking up the recently gazetted ICT policy, the government of Zimbabwe can improve the understanding to the citizens of ICT policies and other important security measures.

4. CONCLUSION

The rise of mobile technology in Zimbabwe and the world around has there resulted in efficient and effective ways of doing day to day transactions. The lives of many Zimbabwean in both rural and urban areas have been enhanced as convenience and security of money has been improved compared to the traditional ways of banking. Mobile technology has enabled consumers to access bank services using mobile phone that is mobile banking, pay for products and administrations utilizing cell telephones that is mobile payments, and shop for goods facilitated by use of mobile phones. The Banking and financial industry has therefore witnessed a real revolution due to the fast growth of mobile technology. Paperless and cashless transactional systems have replaced the traditional long queues at banks.

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JEL Classification: G10, L80