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Determinants of cashless society, a case of Inyati Mine in Rusape

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Abstract
Purpose: This study aimed to identify the variables affecting the Inyati community in Inyati Mine's adoption of mobile money.
Research Methodology: A descriptive research design was employed using a stratified random sampling technique.
Results: A target population of 300 households was contacted, and the research concluded that some rural residents find it difficult to access mobile money because of their inferior technological skills, while others believe that network coverage is limited to certain areas of the community, and rural residents are adopting mobile money more slowly than their urban counterparts.
Limitations: The study was restricted to a small community; hence, the findings may not be applicable to a wider community.
Recommendations: This research recommends that network operators ensure network consistency and wide coverage if potential members of the communities are to be included in the mobile wallet. It further recommends some improvements to mobile app systems to remove application complexity; it recommends that mobile money operators partner with international remitting agencies to include excluded groups of potential customers who receive their income from abroad. It also recommends abolishing end-to-end transaction fees to reduce overall transaction costs.
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1. Introduction

Mobile money has become one of the major transacting means in Zimbabwe, but the uptake of mobile money in rural communities is far different from that of cities; communities in some areas are far ahead, while other communities lag behind in mobile money uptake. In Zimbabwe, before the introduction of mobile money, remitting money to rural areas from urban centers was a challenge (Bara, 2013). Bara (2013) suggested that this involved paying bus drivers to take the money or sending someone to hand deliver the money to its intended destinations. This logistical process was marred with challenges that involved meeting extra costs to send money or even loss of money due to non-collection or getting stolen in the process (Zhou, 2011). The alternative was to use registered mail, which was also very expensive and beyond the reach of many, and could not reach many places in rural areas (Bara, 2013). The growth of mobile money in Zimbabwe began in January 2011 when Telecel and Netone launched their mobile money platforms, followed by the Econet in September 2012. The slow introduction of quicker means of transacting has reduced some levels of financial exclusion in some communities, such as Inyati (Zhou, 2011). Inyati resettlement is among communities that slowly come to terms with the realities of mobile money consumption. Mobile money facilitates payments that are specifically designed to facilitate payments between people separated by wide geographical boundaries, which makes it a unique payment platform and an ideal payment vehicle in rural communities (Zhou, 2011). For one to be able to use, mobile money transfer and payment platform, one has to have a functional mobile phone, a registered line with a mobile e-wallet and e-wallet balance to facilitate payment.

Mobile money serves transaction purposes, payment of debts, and settlement of dues. The major mobile payment platforms in Zimbabwe include Ecocash and OneMoney. Regrettably, coverage of these mobile payment networks leaves a lot to be desired, as in some communities, mobile platform networks are not available at all, while in some areas, the strength of their networks is severely reduced due to the rugged geographic terrain surrounding some areas and their proximity to the network boaster (Zhou, 2011). Despite numerous windows available to grow the uptake of mobile money, end-to-end costs incurred in the transaction process are a setback in some communities. Backward communities who do not have reliable access to electricity find it relatively scary to adopt mobile money for transacting purposes. Kikulwe, Fischer, and Qaim (2013) showed that not all people in rural areas use mobile money for transacting purposes; hence, there is a need to understand the hindrances in the uptake of mobile money in rural communities as a way to develop a robust strategy to improve the adoption of mobile money in payment systems (Donovan, 2012). The integration of communities to improve the structural acquisition of means of transacting plays a pivotal role in emancipating communities into the globalization of the monitory transaction system (Etim, 2014).

1.1 Background to the study

Payment systems change and develop but vary in their efficiency and popularity in countries across the globe, let alone in some remote communities. New innovations need better inventive solutions, and, as with the definition of innovation, better solutions meet new requirements, unarticulated needs, or existing market needs (Donovan, 2012). Over the past decade, digital payments have been growing in different parts of the world, impacting economic growth, government costs, and financial transparency. New innovative solutions in combination with the continuous trend of less usage of cash may lead to a situation where accepting cash is no longer profitable for a society, leading to a society where cash is no longer accepted as a means of payment, a cashless society.

The word cashless first evolved from United States bankers who were looking for ways to digitize money with the help of an electronic system that would replace coins, notes, and paper checks. Money is the means of exchange used as a financial payment (Bordo & Levin, 2017). The conversion to another means of payment was referred to as conversion to a cashless system (Cámara & Tuesta, 2014). Hence, the economic setting in which transactions occur without cash involvement is cashless transactions (Nasri & Charfeddine, 2012).

Mobile phone adoption in sub-Saharan has grown considerably from 2000 to 2014, probably because of its affordability and portability, which influence the adoption of mobile money in rural areas (Markovic, 2017). Owing to poor fixed-line infrastructure, Sub-Saharan Africa almost completely skipped the era of fixed-line services and embraced mobile phones for the use of both voice and Internet services (Markovic, 2017). Markovic (2017) stated that before the deployment of mobile phone infrastructure, most individuals, especially those living in remote areas, did not have access to telecommunications services at all. Sharma (2020) also highlighted that the number of mobile phone subscriptions increased from 9.3 million in 2000 to 396.3 million in 2014. At the same time, the number of fixed-line connections stagnated, growing from approximately 6.8 million in 2000 to 7.8 million in 2014.

This exponential growth in mobile phone adoption can be attributed to the introduction of prepaid mobile services as mobile phones became affordable to a broader group of consumers (Scott & Thomas, 2017). There are substantial differences in the growth rate and the average number of SIM cards across these countries (Sharma, 2020). In 2014, Botswana had the highest subscription rate with approximately 167 SIM cards per 100 inhabitants, followed by South Africa with (150 SIM cards), Ghana (115 SIM cards) and Namibia (114 cards). By contrast, Ethiopia has 32 SIM cards per 100 inhabitants (Shrier et al. 2016).

Many researchers have attempted to comprehend the impact of mobile money on community development and the sustainability of mobile money in rural areas; this leaves a gap in understanding the determinants of mobile money uptake in rural communities (Rea & Nelms, 2017). Burns (2015) highlighted that in as much as we seek to address a hold-up in financial inclusion of rural community

folks, it is imperative that we need to have a strong understanding of determinants of mobile money uptake in communities. Regrettably, the growth of mobile money in remote areas has been hindered by factors, some of which are far hidden from policy implementers (Rea & Nelms, 2017). In view of the foregoing, this study aims to determine the factors influencing the adoption and use of mobile money in rural areas of Inyati and surrounding areas.

1.2 Statement of the problem

Although there are several African rural-specific studies in relation to mobile money adoption in Africa, there are no specific studies carried out in the Inyati community on factors affecting the adoption and use of mobile money in the communities. Factors affecting communities tends to vary depending on geographic area and community perceptions, which is key driver behind this research (Thulani, Kosmas, Collins, & Lloyd, 2011). Community-specific studies are essential for understanding the factors that influence communities' adoption and use of mobile money in particular places. Some studies have advanced the notion that they are carried out from a broader perspective. However, researchers believe that studies specific to particular communities have an intense and in-depth understanding of the drivers of mobile money adoption in rural communities.

2. Literature Review

2.1 Mobile Money

Etim (2014) describes mobile money as the delivery or provision of financial services through linked mobile devices. This definition encompasses a range of services, including payments and receipts of mobile money from one person to another through cell phones linked to the mobile money transfer agent, finance, and banking (Donovan, 2012). Mobile money is sometimes referred to as a mobile bank e-wallet because of its portability and the use of electronic technologies in storage and transfer (Donovan, 2012). Donovan (2012) also suggested that mobile money is expected to improve productivity by increasing efficiency and lowering transaction costs, improving security, generating new employment opportunities, and creating a platform on which other businesses can grow.

It also frees users from distance and temporal limitations and enables them to conduct global payments, thus providing great convenience to users (Zhu, 2014). Mobile money payment uses special software known as a mobile money application embedded in a sim card that manages the storage and transfer of wired money (Donovan, 2012). For effective transactions to take place, there has to be an agent to whom the people (mobile money users) approach for receipt and payment for the transfer of mobile money (Zhou, 2011). As cited in Donovan (2012) and Zhou (2011), there are key drivers of effective mobile transactions such as mobile phones, mobile money agents, and mobile applications. The absence of these key features derails the adoption of mobile money in communities, especially in remote isolated places, such as the Inyati mine.

2.2 Mobile phones

These are multifunctional cell devices that allow a variety of communication methods, which are key to texting messaging for effective mobile money transfer functions (Cámara & Tuesta, 2014; Shrier et al., 2016). Text messages are essential to inform the recipient of the mobile money of the forgoing transaction. Messages can be sent and received in a short time, thus enabling real-time financial solutions between the sender and receiver (Ismail & Masinge, 2012). However, mobile money platforms can be used to transfer money between bank accounts and mobile phone users and vice versa (Tobbin, 2012). Rea and Nelms (2017) also indicated that in rural areas, the mobile money function is minimal as most of people are seasonal farmers whose bank accounts are fat during produce selling season, due to seasonal nature of agricultural production in Zimbabwe.

Mobile money has gained traction as a low-cost way of transacting (Burns, 2015), especially compared with traditional financial institutions and traditional ways of sending money. In the SADC region, Zimbabwe is among the countries that have a high penetration of mobile money while Madagascar, Mozambique, Malawi and the Democratic Republic of Congo are some of countries that are ranked the lowest (Thulani et al., 2011). The penetration and widespread use of mobile phones, which is somehow

linked to development, is central to the growth of mobile money uptake (Thulani et al., 2011). Mobile wallets that come with mobile money have also provided a sense of security, as the theft of a mobile phone does not always translate into the perpetrator getting access to one's money wallet because of passwords, pins, and other security measures that mobile phone technology comes with.

Thulani et al. (2011) mobile money service is transformational financial product linked to the use of a mobile cell phone. This is a paradigm shift from traditional banking methods. It is targeted at the unbanked, low-income people and it complements services offered by banks". Mobile money services lead to the creation of new accounts and customers that do not necessarily foil existing accounts (Thulani et al., 2011).

Mobile money platforms offer a convenient additional method for managing money without directly handling cash (Etim 2014). Different models are used for mobile money implementation, according to Donovan (2012), some are offered entirely by banks, others are offered entirely by mobile network operators (MNO), others involve a partnership between a bank and a telecommunication provider for instance (MTN Banking in South Africa and Steward bank in Zimbabwe) whilst some are independently provided by the mobile network operator for example (Nettcash in Zimbabwe). In Zimbabwe, all four models exist: text cash and mobile moola money (entirely by banks), Ecocash and Telecash (MNO), and netcash (independent) (Kikulwe et al., 2013).

According to Tobbin (2012), there is a shortage of research that properly conceptualizes why unbanked and poor people sluggishly adopt mobile banking because it is a convenient method of transacting. Existing research has used information technology adoption theories such as the technology acceptance model (TAM) (Nasri & Charfeddine, 2012), innovation diffusion theory (IDT) (Kikulwe et al., 2013), and the unified theory of acceptance and use of technology automation theory (UTAUT) (Nasri & Charfeddine, 2012) to examine mobile banking user behavior.

Rea and Nelms (2017) strongly contended that these models do not incorporate qualitative factors such as different world views and technological frame of reference. Nasri and Charfeddine (2012) lambasted technology acceptance model for having a deterministic cause-effect approach and for neglecting group, social and cultural aspects of decision making. In Zimbabwe, research on new technology adoption has also relied heavily on the technological acceptance model, either by testing or extending it (Thulani et al., 2011). The research does not clearly contextualize the reasons for the adoption of such technologies by the poor. However, Zhou (2011) found perceived usefulness, relative advantage, trust, performance expectancy, and gender. This study uses an exploratory approach without any preconceived determinant factors of mobile money usage by the rural population in Zimbabwe. This will enable further detailed research on why the rural unbanked and poor adopt mobile banking. In doing so, further contributions are made to the findings of Tobbin 's (2012) study.

Theoretically, mobile money is simply the provision of financial services and the transfer of money to parties using mobile phones (Bara, 2013). Zhu (2014) defined mobile money services as a broad array of financial services that can be accessed by customers via a mobile phone device. To be financially included in the era of mobile money, one needs a mobile phone and access to mobile money through a registered chip (Sim card); when registered, one begins transacting (Rea & Nelms, 2017). The following features characterize mobile money facilities: balance inquiries (checking the balance, depositing, and withdrawal of cash (cash-in and cash–out), transfer of funds, savings, access to lines of credit, offshore remittances, payments of bills, and purchase of airtime (Etim, 2014).

The distance walked to access a service is also a significant determinant in assessing the effectiveness and inclusiveness of the service (Cámara & Tuesta, 2014). Etim (2014) noted that there is no one size that fits all types of mobile money, and supporting structures tend to be country-specific. Mobile money offers the potential for financial inclusion for people living in marginalized areas that have access to mobile phones, yet they remain excluded from the financial mainstream because of their geographical location (Ismail & Masinge, 2012). Previously unbanked and marginalized communities experienced life-changing access to financial services through mobile money. Marginalized populations present

potential markets for mobile money service providers to access services that were previously regarded or preserved by the urban and rural elite (Ismail & Masinge, 2012).

Exclusion from financial services is a major challenge for the poor, as they are left behind in many developmental processes of their nation or state (Zhou, 2011). In Zimbabwe, a mobile money system run by a few mobile network operators, deposits do not attract interest, as provided in banking regulations (Thulani et al., 2011). The money dispensed and circulating corresponds to the actual funds in the system, as mobile money providers cannot use it for lending or savings purposes (Thulani et al., 2011).

Recently, through partnerships with banks, mobile money operators have been able to provide a full range of financial services, such as lending, savings, and insurance services (Shrier et al., 2016). This is especially relevant for a country such as Zimbabwe, where even banked populations find it difficult to access hard cash from traditional financial systems, expressing the need for mobile money for transaction purposes (Bara, 2013). In terms of deposited funds not earning interest in countries such as Zimbabwe, even the money deposited in the bank does not earn interest (Bara, 2013). Instead, the money in one's account depreciates over time, as banks charge very high service charges and transaction charges, and Zimbabwean banks have limited saving options (Thulani et al., 2011).

2.3 Theoretical reviews

The aim of this study is to understand the determinants of mobile money adoption in rural communities. It must be understood the financial inclusion is a broad based topic that needs a lot of research. Outlined theories are skewed toward financial inclusion and align well with the topic.

2.4 Public good theory

veritas.com (2020) the public good theory of financial inclusion argues that the delivery of formal financial services to the entire population and ensuring that there is unrestricted access to finance for everyone, should be treated as a public good for the benefit of all members of the population. As a public good, individuals cannot be excluded from using formal financial services and individuals cannot be excluded from gaining access to financial services (Ozili, 2020). All individuals enjoy basic financial services, without paying for them. Access to financial services to one individual does not reduce its availability to others, which means that all members of the population can be brought into the formal financial sector, and everyone will be better off (Ozili, 2020).

Under this theory, all members of the population are beneficiaries of financial products and nobody is left out. Under the public good theory, any individual or small business that opens a formal bank account can be offered free debit cards and can also use ATM machines to perform transactions without being charged a transaction fee (Ozili, 2020). In addition, the suppliers of financial services, such as financial institutions, will have to bear the cost of offering financial services as a sunk cost of the banking business (Ozili, 2020). Additionally, the government can grant subsidies to financial institutions to help them cope with any resulting cost problems that may arise from offering free financial services (Ozili, 2020). A government can even offer a lump-sum cash deposit into the bank account of all citizens and make owning a formal account the only requirement for individuals to access free deposits. This means that individuals who cannot pay their debts and meet their basic needs at the micro level will stand a chance to be economically empowered when financial inclusion is viewed as a public good (Ozili, 2020).

This theory has two main advantages. First, the public goods theory suggests that everyone benefits from financial inclusion regardless of status or income level. This means that both the rich and the poor, the financially included citizens, and the financially excluded citizens will enjoy the benefits of financial inclusion. Second, as a public good, achieving financial inclusion would require public funding rather than private funding, because investors would require a premium on private funding, which is costly when private funds are used to achieve financial inclusion objectives. Third, as a public good, it gives the government the opportunity to take responsibility for promoting financial inclusion. Finally, the

public goods theory of financial inclusion does not recognize private sector agents as promoters of financial inclusion.

Glennow and Granström (2019) highlighted that the public good theory has four demerits. First, treating financial inclusion as a public good does not address the real cause of financial exclusion. Second, treating financial inclusion as a public good that requires public funding can divert public funds away from other important public projects to fund financial inclusion projects. Third, public good theory assumes that financial inclusion as a 'public good' is free of charge and has no cost to the end users of financial services (Glennow & Granström, 2019). When financial inclusion is treated as a public good, the level of financial inclusion may not be sustainable in the long term, even when supported by public funding if it comes at no cost to end users. Fourth, the public goods theory of financial inclusion may have little relevance for developing and emerging economies because financial institutions and banks operating in developing countries and emerging economies are mostly funded by private investments rather than public investments. Thus, it can be difficult to make financial inclusion a public good in these countries (Glennow & Granström, 2019).

2.5 Vulnerable group theory

Ozili (2020) stated that the vulnerable group theory of financial inclusion argues that financial inclusion activities or programs in a country should be targeted at vulnerable members of society, such as poor people, young people, women, and elderly people who suffer the most from economic hardship and crises. Vulnerable people are often the most affected by financial crises and economic recessions; therefore, it makes sense to bring these vulnerable people into the formal financial sector (Harare, 2022). One way to achieve this is through government-to-person (G2P) social cash transfers into the formal account of vulnerable people (Burns, 2015). Making G2P social cash transfer payments into the formal account of poor people, young people, women, and elderly people will encourage other poor people, young people, women, and elderly people to join the formal financial sector to own a formal account to take advantage of social cash transfer benefits, thereby increasing the rate of financial inclusion for vulnerable groups (Ozili, 2020). Also, when social cash transfer is working, and other tools for achieving financial inclusion are provided to vulnerable people in society, it can make vulnerable people feel that they are being compensated for the current income inequality that affect them, which gives them an opportunity to catch up with the other segments of society (Ozili, 2020). The implication of the theory is that it identifies some members of the population to be vulnerable and suggests that financial inclusion efforts should be targeted to vulnerable people in society (Ozili, 2020).

Glennow and Granström (2019) highlight some merits of the theory of financial inclusion. First, it attempts to reduce the financial exclusion problem by targeting groups vulnerable to financial inclusion and bringing them into the formal financial sector. Second, under this theory, it is easy to identify the financially excluded members of the population. Vulnerable members of the population can be identified by their degree of vulnerability, income level, gender, age, and other demographic characteristics. Third, it may be cost-effective to target only the vulnerable members of the population for financial inclusion compared with achieving financial inclusion for the entire population (Veritas. com, 2020).

Ozili (2020) stated that the vulnerable group theory has some disadvantages. First, it does not prioritize financial inclusion for everyone in the population. Second, it ignores non-vulnerable people outside of the formal financial sector. Non-vulnerable people also require access to the formal financial sector. Third, it assumes that women are a vulnerable group, implying that men are not a vulnerable group (Shrier et al., 2016). This idea is critical because, in modern societies, women and men compete for equal opportunities; therefore, labelling women as vulnerable groups to the exclusion of men could have unintended consequences for financial and social inclusion (Scott & Thomas, 2017). This could lead to societal resentment among men towards women. Finally, achieving financial inclusion by targeting vulnerable people may lead to increasing social inequality when social policies are designed to favor vulnerable people over others. This may also lead to income inequality if vulnerable people receive better access to financial services than others.

2.6 Empirical reviews

Zhu (2014) highligthed that in 2015, an M-Pesa health micro-insurance product, launched during the previous year, was discontinued through failure to gain traction. The annual premium (Kshs12,000) had bought family cover worth Kshs 290,000 for maternity, dental, and optical care, and hospital and funeral expenses. In late 2015, M-Tiba ("mobile care"), a dedicated health savings "wallet" to pay for care at selected affordable health providers, was launched by Safaricom with two partners, enabling users to save and pay for healthcare. Donors and insurers can use M-Tiba for targeted products including vouchers, managed funds, and low-cost health insurance**.**

Kenya received an estimated US $1.7bn of international remittances in 2016 (Zhu, 2014) In 2014, Safaricom partnered with MoneyGram to enable remittances from over 90 countries worldwide to be sent to M-Pesa users, and now has similar agreements with Western Union and several other partners. In 2015, Vodafone and MTN announced an interconnection of mobile money services enabling affordable regional remittances between M-Pesa customers in Kenya, Tanzania, Democratic Republic of Congo, and Mozambique, and MTN Mobile Money customers in Uganda, Rwanda, and Zambia. In 2016, Vodafone partnered with HomeSend (a joint venture created by MasterCard, eServGlobal and BICS) to extend remittances for M-Pesa users in Africa, Albania, and Romania.

Vodafone has concentrated on the proliferation of its mobile money platform in markets that are heavy cash users. M-Pesa is used in several countries other than Kenya, by order of roll-out: Tanzania, Fiji, South Africa, Fiji, Democratic Republic of Congo, India (launched in 2013), Mozambique, Egypt, Lesotho, Romania (2014), Albania (2015), and Ghana (2015).

2.7 Conceptual review Mobile Money cycle

In Zimbabwe, Mobile Money operators offer the most common mobile money products are being offered by Mobile Money operators (MMOs) in partnership with banking institutions (Bara, 2013). The Reserve Bank of Zimbabwe conducts the 'licensing' and supervision of mobile money, since mobile money is regarded as a financial product/service. A simplified version of the mobile money cycle is illustrated in Figure 1.

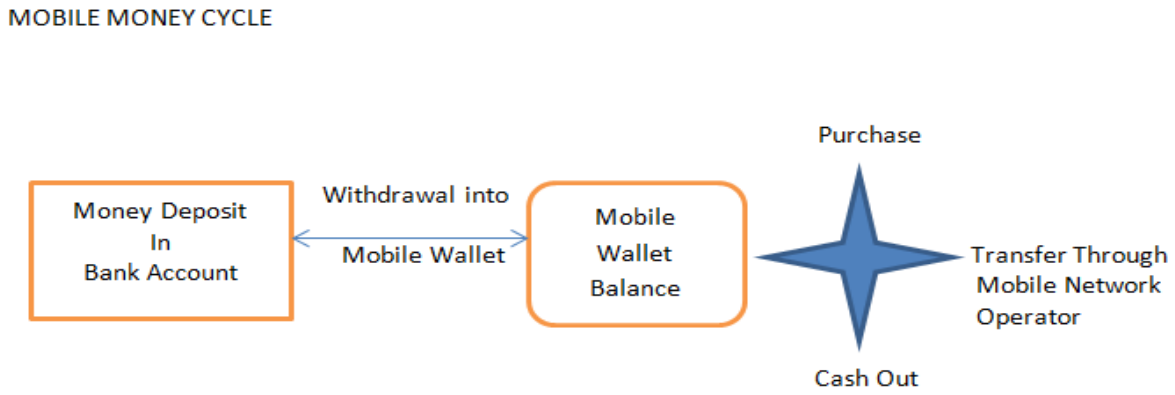

Figure 1: Mobile Cycle
Source: Own Mobile System Assessment

3. Methodology

The research adopted a stratified random sampling technique to gather data from the respondents. In this regard, the researcher marked the boundaries of Inyati communities and then used a stratified random technique to distribute questionnaires to potential respondents. A target population sample of 300 respondents was interviewed, and their responses were analyzed graphically and qualitatively. The tables were used to categorize respondents' responses in line with their similarities. The individual responses were assessed for their relevance to the topic at hand; this was done to address some bias towards responses that had nothing to do with mobile adoption in rural areas. The researcher believed

that some respondents were very keen to give answers that had nothing to do with the questions asked in a questionnaire, as such reviews help eliminate some bias in the obtained data.

4. Result and discussions

Table 1. Model Summary

Step	-2 Log likelihood	Cox & Snell R Square	Nagelkerke R Square
1	260.004[a]	.085	.64

Primary source

The model summary provides the -2LL and R-squared values for the full model, the R squared tells us approximately how much variation was explained by the model. From the results, R squared suggested that the model explains roughly 64% of the variation in the outcome.

Table 2. Hosmer and Lemeshow Test

Step	Chi-square	df	Sig.
1	.000	6	1.000

The Hosmer–Lemeshow test for goodness of fit suggested that the model we employed for our data analysis is a good model that fits the data. As p=1 (>0.05), this means that our data fit the model, and we can therefore analyze our data.

Table 3. Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)	95% C.I.for EXP(B)	
								Lower	Upper
Step 1[a]	Phone	18.002	3350.888	.000	1	.996	65.644	.000	.
	Relatives	.042	.323	.017	1	.896	1.043	.554	1.964
	Network	-.003	.286	.000	1	.991	.997	.569	1.745
	Transactions	.418	.538	.603	1	.437	1.519	.529	4.359
	Costs	-.226	.503	.201	1	.654	.798	.298	2.139
	Technology	-.175	.368	.225	1	.635	.840	.408	1.728
	Constant	-17.103	3350.889	.000	1	.996	.000		

a. Variable(s) entered on step 1: Phone, Relatives, Network, Transactions, Costs, Technology.

4.1 Effects of Phone, Relatives, Network, Transactions, Costs and Technology on the mobile money uptake in rural communities a case of Inyati Mining area in Rusape Zimbabwe

4.1.1 Effects of having cell phone on mobile money uptake

Looking at **t**he results for phone, p=.996(>0.05), which were not statistically significant, we conclude that having a phone had an impact on whether rural residents of Inyati were to adopt and use mobile banking. Exp (B) is 65817485.488, which indicates that if the phone variable changes by one unit, the mobile money uptake will change by 65.644.

4.1.2 Effects of having relatives who use mobile money on uptake of mobile money

The second variable, relatives, was not statistically significant (p=.896, >0.05), and we conclude that this variable influenced the uptake of mobile money in the rural communities of Inyati. Since Exp (B) of the Relatives independent variable is 1.043, it indicates that if the independent variable changes by one unit, the dependent variable will change by 1.043.

4.1.3 Effects of Network on mobile money uptake

The third variable, Network, had a p-value of 0.991 > 0.05, which was not statistically significant; therefore, we concluded that the network had an impact on whether the rural residents of Inyati took up mobile money. With Exp (B) 0.997, the dependent variable changes to 0.997 if the independent variable Network changes by one unit. This concurs with the findings of Ricardianto et al. (2023), who suggest that networks play an important role in the delivery of mobile transactions.

4.1.4 Effects of Transactions on mobile money uptake

Looking at **t**he results for transactions, p=.437(>0.05), which are not statistically significant, we conclude that transaction points had an impact on whether rural residents of Inyati adopted and used mobile banking. Exp (B) is 1.519, which indicates that if the transaction variable changes by one unit, the mobile money uptake would change by 1.519.

4.1.5 Effects of Costs on mobile money uptake

The fifth variable, Costs, has a p value of 0.654 > 0.05, which is not statistically significant; therefore, we concluded that costs had an impact on whether the rural residents of Inyati took up mobile money. With Exp (B) 0.798, the dependent variable would change by 0.798 if the independent variable changed by one unit.

4.1.6 Effects of Technology on mobile money uptake

Lastly, Technology was statistically significant with a p value=0.635(<0.05); therefore, we concluded that technology had an impact on whether rural residents took mobile money. With Exp (B) 0.840, the dependent variable changes by 0.840 if the independent variable technology changes by one unit. According to Wasserstein and Lazar (2016), P-values are an indicator of the potential effect that an explanatory variable has on the dependent variable. Thus, all outline variables have an effect on the uptake of mobile money in rural communities.

4.2 Summary of Findings

From the investigations carried out in the Inyati mine community, there were various responses from the respondents. The majority sited a lack of network coverage in the area they live in; this is against the realization that they live within the vicinity of the network boaster. Respondents suspected that the network was prevented by the raggedy terrain in which they lived. In Inyati mine, the majority of the people who responded in this way cited that they had a cell phone but were not motivated to use the mobile wallet because of the distance they had to travel to access the network. Hence, the service becomes irrelevant to them given their locality. This concurs with the view propounded by Etim (2014), who suggests that network coverage leaves many potential customers outside the spheres of inclusion in the financial system.

Another group of respondents indicated that they did not have gadgets to access services. They specified that they do not have funds to purchase a cell phone, which is the key gadget to access the services of mobile money providers. They mentioned a lack of excess funds to purchase cell phones, as their finds were committed to acquiring resources for the family. One respondent pointed out that they survive farming, which provides them with a single stream of income once a year. Even if they want to buy gadgets, they may end up selling them in times of financial distress. Hence, a mobile wallet is not a priority.

However, a small group of respondents also suggested that they do not have relatives who are willing to send them money through a mobile wallet. In this case, they pointed out that most of their relatives who usually send them money reside outside the country; as such, they normally use their accounts and other world transfer agents, such as Mukuru. Under these circumstances, they see mobile wallets as useless as they will never use them for transacting purposes. Some even indicated that they once had linked lines, but since they lost faith in them, they never replaced them.

In addition, respondents suggested that even if they were to have a mobile wallet, all of the available shops in their locality do not accept mobile money transactions. When services are found, they tend to charge exorbitant prices, which eventually compels them to use cash. They also said that they usually go to town once or twice a year during the winter season when they have harvested tobacco or maize. Most of the time, they receive their income, and they quickly buy their inputs for the next farming season. Thus, they see mobile money as not an essential transacting service in their setup. In light of the above arguments, some respondents were of the notion that if mobile money could provide them with USD denominated wallet, which could facilitate the storage of their income, they would consider having them since storing money at home is generally perceived as dangerous.

The respondents have argued that using mobile money is preferred over other methods of payment, but they posit that they do not use mobile wallets because they are very expensive. They even suggest the existence of a three-tier pricing system in their community shops. They pointed out that prices are pegged in USD, but once they approach them with the intent to buy using mobile wallet money or cash, they can give prices that are different for cash and wallets. This generally deafens the motivation behind using mobile money in their community to the extent that people are willing to use cash and United States dollars other than wallets. This supports the findings of Bara (2013), who reiterated that transaction costs must be minimal to enhance product uptake.

Moreover, the suggested reason for their lack of adoption of the mobile money wallet sited by the elderly is linked to their inability to use the gadgets. Some respondents indicated that they were unable to read and write, so they usually faced challenges when using mobile wallet platforms. Some suggested that some time ago, they used to call a neighbor son to help him transact on mobile money platforms or even send them to buy. Eventually, they encountered problems in the process; they lost some money to a young neighbor who stole from her wallet. Some suggested that children are naughty and end up stealing from their victims once they have access to their secret identity. The majority of elderly people in the area abandoned the use of mobile wallets as they were no longer interacting well with their neighbors over issues emanating from theft and their inability to use mobile wallet facilities. The idea is supported by the findings from the research carried by Glennow and Granström (2019) which suggested that the application complexity has a potential to scare away customers from the service.

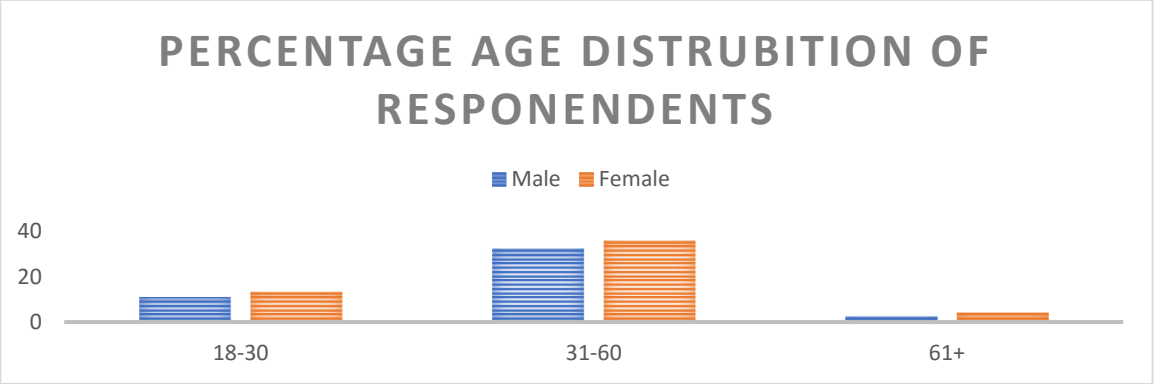

Figure 1. Age analysis
Source: Primary data

The age distribution of the respondents follows a normal distribution, with 18 to 30 years of age comprising 11% male and 13% of the total respondents, 31 to 60 comprising 32% and 36%, and the 60+ age group comprising 3% and 4%. From this chart, it is clear that the population of respondents was positively skewed towards the age group of 31 to 60 years.

The majority of the respondents fell within this range, probably because they were the most active population in the area under consideration. The 18 t0 30 age group was fairly represented, but the researcher believes that this is the most mobile population in the rural setting up, and they might have migrated to urban areas for employment and other opportunities. The 61+ age group provided the least respondents, probably because they fell within the pensionable age group and fewer people in this age group are found in the rural area where the type of labor is usually manual and requires strong middle-aged people.

From Table 1, the age group of people above 60 years cited that they do not have cell phones and are affected by the fear of technology adoption. Those in the age group 18-30 years, some did not respond to the questions asked, perhaps due to the fear of political victimization though the researcher had explained, cited high transaction costs, had nowhere to use mobile money, did not have relatives who were willing to send them money through mobile money, and some did not have a cell phone. For the age group 31 to 60, they cited high transaction costs, they had nowhere to use mobile money, some did not have a cell phone, some cited network challenges, and lastly, some did not have relatives willing to send them money using the mobile wallet.

5. Conclusion

The conclusions of this study indicate that mobile money adoption in rural areas is significantly influenced by the availability of cell phones. A person's ability to access the networks used for transactions depends on their cell phones. This perspective supports the claim made byTobbin (2012), who stated that text messages are necessary to notify both the sender and recipient of the mobile money of the transaction.

Additionally, it is shown that a critical factor in the adoption of mobile money in rural areas was the presence of a money transmitter or receiver. It is important to have relatives who are prepared to pay or receive money via mobile platforms, since without them, a mobile wallet would be useless. Because of this need, the majority of people living in distant places typically receive mobile money from relatives who can afford to pay for their daily necessities.

It was concluded that network coverage is a barrier to the uptake of mobile money in rural areas. There is a chance that some potential users of the network will be unable to access it. People find it challenging to access mobile wallets when there is no network coverage because they are unable to access payment methods in the first place. This supports the argument of Etim (2014), who stated that a large number

of potential clients are left outside the financial system's inclusion spheres due to network coverage. If all community members are to be enrolled in mobile money, the issue of network consistency must be resolved.

The expenses associated with transitioning also act as barriers for customers who want to use mobile money. This is because mobile platforms in Zimbabwe have transaction costs that cover the entire process, potentially leading customers to seek more affordable alternatives for accessing their funds and causing them to refrain from adopting mobile wallets.

The rapid evolution of mobile technology means that older individuals must stay current with the latest developments in mobile financial services. The emergence of cybercrimes within the industry has heightened concerns among elderly and rural populations who may struggle to keep up with technological advancements **Recommendations to Mobile Money Operators**

Based on the findings of this study, the following recommendations were made for mobile money wallet providers.

5.1 Network accessibility

Network coverage is considered a setback for the adoption of mobile money uptake in remote areas. This concurs with the view propounded by Etim (2014), who suggests that network coverage leaves many potential customers outside the spheres of inclusion in the financial system. Lack of network consistency should be addressed if all members of the communities are to be included in mobile money.

5.2 Application

It seems that the application in use excludes other members of society, especially the elderly. This research recommends some changes to the mobile app system so that the elderly may be able to use mobile wallets for transaction purposes with ease. The process involving numbers, particularly for the uneducated, causes some confusion, which eventually leads to technological resentment.

5.3 Mobile Money Partnerships

The mobile money platforms that are currently available do not facilitate other international funds remittances, a drive behind some people residing in the countryside not eager to use mobile money platforms as they have little to benefit. Inclusion and partnerships will go an extra mile in aiding rural folks to access funds or buy their groceries without travelling long distances. It is recommended that mobile money operators partner with other international remitting agencies so that the excluded group of potential customers may embrace mobile money technology.

5.4 Transacting Cost

The researcher also recommends abolishing end-to-end costs in the mobile transaction process to reduce the overall transaction cost. If the sender pays the sending charges, the recipient should be exonerated from meeting other costs. This was most common in transactions involving Ecocash and OneMoney in Zimbabwe, which slowly eliminated the concept of financial inclusion and obstructed the uptake of mobile money services in rural areas.

5.5 Marketing campaigns

It appears that communities are not in touch with the reality of financial inclusion. Companies should conduct awareness campaigns in rural and resettlement areas to educate people about the benefits of using mobile money, especially in rural areas. There seems to be a knowledge gap regarding the use of cell phones, applications, and networks in accessing mobile money, which must be demystified by strong marketing campaigns and marketing strategies. This has the potential to upscale the uptake of mobile money in rural areas.

5.6 To the government

The researcher wishes to recommend the creation of a level-playing field for all urban and rural populations so that the pricing system is uniform across all players in the market. This will help to

eliminate the three-tier pricing system, which is also believed to be a factor that militates mobile money uptake in remote areas. The researcher also noted that other additional costs, such as end-to-end transaction costs and transactional taxes, are fighting against the adoption of mobile money in rural areas.

5.7 To mobile money users

Mobile money is believed to be efficient in the transaction process. The researcher believes that if the obstacles hindering the use of mobile money are eliminated, the rural and business players stand to gain as there will be no need to travel with loads of cash, which increases the risk of robberies and other related crimes. People in rural areas should be encouraged to embrace the use of mobile money to simplify their lives as the platform brings with it a lot of benefits to the users (Tamaruddin, Firdaus, & Endri, 2020).

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