Factors affecting adoption and usage of mobile money services by artisan gold miners: Case of Umzingwane District in Zimbabwe

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Abstract

The aim of the study was to evaluate the factors which affect adoption and usage of mobile money services by artisan gold miners in Zimbabwe with reference to Umzingwane district. The study adopted a sequential explanatory research design with an objective of using a mixed research approach. Data was gathered using questionnaires from two hundred and seventy (270) artisan gold miners. The questionnaires consisted of both open ended and closed ended questions. The study revealed that artisan gold miners in Umzingwane district are literate. The study also found that artisan gold miners use and prefer cash to mobile money services. The study highlighted that the main challenge faced by artisan gold miners is that most shops in rural areas are not willing to accept mobile money payments and those which accept mobile money payments charge premium on top of the prices of goods. The study revealed that at 5% significance level, factors such as ease of use and perceived trust of mobile money services, unavailability of cash and handset costs were not statistically significant. Perceived cost of transacting, poor network, registration costs and social influence negatively affected adoption and usage of mobile money services by artisan gold miners. Security and education level of artisan gold miners positively affected adoption and usage of mobile money services. The study recommends that the government should reduce tax on mobile money payments and punish the businesses that are charging premiums on mobile money payments. Mobile money service providers should form partnership with rural shops so as to bring personal mobile money services close to the rural communities.

Keywords:Mobile Money Services; Mobile Money Payments; Mobile Phone; Subscribers, Artisan Gold Miners; Social Networks; Security.

1. Introduction

Makina (2019), Wale and Makina (2017), Burlaando, Goldberg and Etcheverg (2020) are of the view that the poor in developing countries have limited access to formal financial services. Makina (2019) stated that 34% of the adult population in low income countries in Africa own a bank account. Global Findex (2021) states that in Ethiopia, only 35% of the adult population have a formal bank account. This implies that people lack access to formal banking. GSMA (2015) and Makina (2017) viewed mobile money services as a solution to financial exclusion in low income countries. The authors states that mobile money services have helped to connect people to formal banking as they provide branchless platforms. This implies that mobile money services have changed the shape of the financial industry around the world. Mobile money is very instrumental in promoting financial inclusion.

Mobile money services enable the users to use handsets to have access to financial services (Hughes and Lonie, 2007). This has enabled people who were financial excluded to have access to financial services (Hudges and Lonie, 2007). This is because mobile money services allow people who have network connectivity to transact anywhere and anytime. Therefore, this makes it possible for the previously excluded people to have access to financial services such as remittance, payments, microloans and savings.

Laurn and Lin (2015) are of the view that mobile money devices such as handsets are the starting points in the effective use of mobile money services. Through mobile money services, rural folks are now financially excluded (World Bank, 2013). Mobile money services have assisted people to make remittances. There has been an increase in the uptake and utilisation of mobile money services in Sub Saharan Africa as reflected by an increase in mobile money value by 17.9% and increase in total number of mobile money transactions by 14.4% in 2017 (Kirui, Onono and Muniu,2020). This implied that the number of mobile money transactions and volumes increased in 2017 (Kirui, Onono and Muniu, 2020). This reflects the increased usage of mobile money services in the financial sectors of Sub Saharan Africa.

According to Upadhyay and Jahanya (2016), mobile money services are used to make payments. The authors state that people are making and receiving payments using mobile money services. IFC (2011) states that mobile money services help in executing transactions such as airtime purchase, school fees, utility bill, savings, payment of school fees, remittances and mobile banking. Morawczynski (2009) notes that mobile money services enable unbanked rural subscribers to access financial services. This implies that mobile money services are crucial in enhancing financial inclusion. On the other hand, Trendov, Varas and Zheng (2019) argue that mobile money services have enabled the subscribers who are farmers to have access to weather data, prices and

markets. This implies that mobile money services have a role in improving agricultural productivity and agricultural value chain since farmers can have access to crucial information such as markets, prices and weather data. Mobile money services enable the subscribers who are farmers to plan basing on the information which they provide to farmers. This also indicates that mobile money services goes beyond providing financial services, but provides crucial non-financial services such as the information.

World Bank (2020) states that Sub Saharan Africa about 400 million people who have registered mobile money accounts. World Bank (2020) further states SSA has the highest number of registered mobile money. Mobile phone ownership has enabled people to adopt and use mobile money services in SSA (World Bank, 2020). This implies that mobile money operators ride on the mobile money subscribers so as to provide mobile money services. According to Gentilini et al (2020) and World Bank (2020), in countries such as Ghana and Kenya, the mobile money charges have been made low and waived respectively. In countries such as Guinea Bissau, Niger, Mali, Togo, Benin and Burkina Faso mobile money operators provide flexible measures for people to open mobile money account and to transact. This implies that the mobile money operators have gone a further step to make usage of mobile money services flexible and affordable (World Bank, 2020). This might explain the more number of registered mobile money accounts in SSA.

According to Zimbabwe National Statistics Agency (2013), Umzingwane district is located in northern part of Matabeleland Province in Zimbabwe. The district has a population of 62 990 based on the Zimbabwe census of 2012 (ZIMSTAT, 2013). The district is blessed with vast gold deposits and most of the economic activity in the district centres on gold mining (Moyo, Ndlovu, Francis and Ncube, 2018)**.** Gold mining activities provides means to the people in the district to earn a living (Moyo, Ndlovu, Francis and Ncube, 2018). The district is associated with unreliable rainfall and persistent drought and this has forced people to artisan gold mining activities (Mabhena, 2010). This indicates that people in Umzingwane district earn income and might be using mobile money services to transact. Many studies have been done on the factors affecting adopting and usage of mobile money services. However, to the best knowledge of the researcher, there is little evidence on the factors that influence artisan gold miners to adopt and use mobile money services. This study seeks to exploit the knowledge gap by looking at the factors affecting adoption and usage of mobile money services by artisan gold miners using Umzingwane district in Zimbabwe as a case study. This will be done by focusing on the challenges faced by artisan gold miners in adopting and using mobile money services and the factors which affect adoption and usage of mobile money services by artisan gold miners in Umzingwane district.

2. Literature Review

There is contradictory and inconclusive evidence on the factors affecting adoption and usage of mobile money services among the scholars across the world. The following discussion is literature review on the factors that affect adoption and usage of mobile money services.

A study which was conducted in Iran by Mohammandi (2015), which administered questionnaires to 410 students revealed that youth easily adopt mobile money services because it is easy to them. According to Butt, Tabassau, Chaudhry and Nusair (2016), there is a positive relationship between perceived ease of use of mobile money services and the behavioural intention to use mobile money services. On the other hand, Juniwati (2014) is of the view that behaviour intention to use online platforms is not explained by perceived ease of use of online platforms. Wamuyu (2014) is of the view that an application that is less complicated in using requires less training and is easy to use. Wamuyu (2014) note that people will use mobile money services if they perceive that it is easy to use mobile money services.

Chauhan, Choudhary and Mathur (2016) and Wamuyu (2014) argue that the technology (mobile money service) should be understood by the users and also use the language that the users are comfortable with. They noted that there should be simplified and easy steps to use mobile money services so that people can adopt mobile money services. Lubua (2014), Buabeng-Andoh (2012) and Chauhan et al (2016) are in agreement that ease of use is about simplicity in using the technology (mobile money services). They contend that simplicity in the use of mobile money services make people to be willing to adopt and use mobile money services.

Diniz, Albuquerque and Cernev (2011), Wamuyu (2014) and Chauhan et al (2016) were language used by mobile money services platform defines ease of the usage and explains the extent to which the technology can be adopted. This implies that mobile money services should use language which is easily understood by the people so that people can find it easy to use mobile money services. David, Poissant and Rochette (2012) express the importance of user support in making it easy to use mobile money services.

According to Laurn and Lin (2015) perceived cost, is the magnitude to which someone believes that usage of mobile money services will cost money. This implies that a person's view on what he or she will incur in the usage of mobile money services is perceived cost. This indicates that the money which is going to incurred affect the extent to which people use mobile money services. Laurn and Lin (2015) contend that perceived cost consist of cost of mobile devices such as handsets and mobile money charges. Mbogo (2010) argues that if the cost of using mobile money services is less than the cost incurred in the banking system, people tend to use

mobile money services. Nyaga (2014) is of the view that before people invest in mobile money services, they factor in cost to be incurred in using mobile money services. This indicates that people do cost benefit analysis before they adopt mobile money services. Opesade (2016) concur with Nyaga (2014) by stating that people do situation analysis so that they determine whether it is worth to adopt mobile money services.

Gichuki and Mulu-Mutuku (2018) argue that adoption of mobile money serves is explained by information access. This implies that people should have information about mobile money services and they should know how to operate mobile money services. This supports the view of Zhou et al (2010) who argue that people require full knowledge of the technology first before deciding whether to accept or reject it. This concurs with the views of Davis (1989) on the information systems theory which starts that the process of adoption begins when one has knowledge of the technology. The knowledge of technology is the bases to which a decision on the acceptance or rejection of technology starts. Chauhan (2015) states that knowledge is not the starting point in the acceptance of mobile money services but the starting point is of having a mobile phone. The author contends that the flow of the information is facilitated by the mobile phone. This implies that the process of adoption of mobile money starts from having a mobile phone and information on the mobile money services will be channelled through the use of mobile phone.

Donovan (2012) is in agreement with Chauhan (2015) by stating that mobile phone creates awareness, which encourage people to use mobile money services. This implies that having mobile phones and access to information determines adoption and usage of mobile money services. Iliasov (2014) state knowledge is very crucial on the adoption of mobile money services. This implies that lack of knowledge impedes adoption of mobile money services. This was supported by FinMark Trust (2016) and Dzokoto & Appiah (2014) that lack of education in mobile money services impedes people from adopting mobile money services. Iliasov (2014) is of the view that there is a negative relationship with lack of education and knowledge on mobile money services and adoption of mobile money services. This implies that people should be educated about mobile money services so that they will have confidence in adopting mobile money services. Tobbin (2013) and Bhanot et al (2012) are of the view that awareness is important in ensuring adoption of technology such as mobile banking. This implies that the providers of mobile money services should educate people about mobile money services so as to create awareness. According to Onyebuchi et al. (2016), network failure and lack of awareness is a hindrance towards adoption and usage of mobile banking in Engu in Nigeria.

Nganga and Ochiri (2018), note that the issues of security and privacy are important in the adoption of mobile

money services. Mbele-Sibotshiwe (2014) states that the third parties do not have access to the mobile money account, this reduces security concerns on mobile money services. This implies that mobile money accounts are secured and this might encourage people to use mobile money services. According to Koloseni and Mandari (2017), security issues such as fraud results in people being unwilling to adopt mobile money services. Dzokoto and Appiah (2014) and Koloseni & Mandari (2017) state that trust was the major determinant for the adoption of mobile money services. They noted that people might prefer to transact using cash as compared to mobile money because they are afraid of fraudulent issues associated with mobile money services. Githui (2011) note that trustworthiness and security of services is a major determinant of adoption of mobile money services. The author stated that when the target customer segment does not trust the services, they will not adopt it. Davidson and Leishman (2009a) concur with Githiu (2011) by stating that people will not adopt any financial service they do not trust. This implies that in order for mobile money services to be adopted, there is need for people trust the mobile money services. According to Zhou (2011), people need protection for their personal information. The author noted that people are willing to adopt mobile money services if they perceive that their personal information will be secured.

According to Narteh, Mahmoud and Amoh (2017), there is a positive relationship mobile money services adoption and benefits which are associated with adopting mobile money services. This was supported by Lubua and Semlambo (2017) who were of the view that if people perceive financial gains on mobile money services, they adopt mobile money services. Wamuyu (2014), Narteh et al (2017) and Lubua & Semlambo (2017) are of the view that the benefits that the mobile money services provide to users define the extent to which the users adopt mobile money services. Kikulwe, Fischer and Oaim (2015) were of the view that there was a strong relationship between perceived benefits of mobile money services and adoption of mobile money services. The authors noted that reduced transaction cost and time saved when using mobile money services are the perceived benefits which encourage people to use mobile money services. This implies that when people are faced with the decision to adopt mobile money services, firstly they consider the benefits from using mobile money services.

Murendo et al (2018) and Okello Candiya Bongomin et al (2018) are in agreement that information asymmetry hinders people from adopting mobile money services in developing countries. Banerjee et al (2013), Zhang et al (2012) and Kiconco et al (2020) state that social networks are an important factor which affects adoption of mobile money services. InterMedia (2012) argues that people adopt mobile money services as a results of referrals from other people. The author expresses the importance of friends and relatives in influencing people

to adopt mobile money services. Murendo et al (2018) reveal that there is a positive relationship between the size of the social network and adoption of mobile money services. The study which was conducted in Uganda by Kiconco et al (2020) which sought to make comparison of the influence of social networks between rural areas and urban areas, revealed that social networks influences mobile money adoption in rural areas as compared to urban areas. Mukong and Nanziri (2021) state that helps in availing information on the process of application, eligibility criteria and location. They are of the view that social network creates peer pressure which has an effect on the adoption of mobile money services. Makanyeza (2017) stated that social influence and demographic factors such as income, gender, education and age affects adoption and usage of mobile banking in Zimbabwe. This was supported by Lema (2017) who argued that social influence, perceived cost and risk affect adoption and usage of mobile banking.

3. Methodology

The study adopted a pragmatism research paradigm. This was done in order to use a mixed research approach. The study adopted a sequential explanatory research design. The members of the target population were artisan gold miners with operations in Umzingwane district in Zimbabwe. Purposive sampling technique was used for this study. Data was collected using questionnaires. The questionnaires included both open ended and closed ended questions. A total of 270 questionnaires were distributed to artisan gold miners with operations in Umzingwane district. Two hundred and thirty-four out of two hundred and seventy questionnaires (87%) were returned. The following table is on the results of reliability statistics.

Table 1: Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.702	.621	29

Source: Survey Data

The Cronbach's alpha is 0.702. This implies that the items on the question have internal consistence. This is agreement with Moor (2004) who stated that in order for the items in the research instruments to be internal consistent, Cronbach's alpha should be 0.7 and above.

Regression Analysis Model

$Y=\alpha_{+}\ \beta_1 \boldsymbol{X_1}+\ \beta_2\boldsymbol{X_2}+\ \beta_3\boldsymbol{X_3}+\ \beta_4\boldsymbol{X_4}+\ \beta_5\boldsymbol{X_5}+\ \beta_6\boldsymbol{X_7}+\ \beta_8\boldsymbol{X_8}+\ \beta_9\boldsymbol{X_9}+\ \beta_{10}\boldsymbol{X_{10}}+\boldsymbol{\varepsilon}$

Y is dependent variable and it represents adoption and usage of mobile money services. X_1, X_2 …X_9 are independent variables of the regression model and β_1, $\beta 2$, β_3 … β_{10} are beta coefficients of the regression model and they indicate the extent of impact of independent variables to dependent variable (investment). X_1 indicates perceived costs of transacting, X_2 indicates perceived ease of use, X_3 indicates perceived trust, X_4 indicates security, X_5 indicates registration costs, X_6 indicates unavailability of cash, X_7 indicates mobile handset costs, X_8 indicates mobile money network, X_9 education level of artisan gold miners and X_{10} indicates social influence. The error term, which indicates the factors that affect adoption and usage of mobile money services by artisan gold miners which were not included in the regression analysis model is represented by ε. To avoid spurious results, multicollinearity test was conducted among the independent variables. All the independent variables had Variance Inflation Factors of less than 10, indicating absence of multicollinearity.

4. Results and Discussion

This section looks at the results and how they are related to the literature review.

Table 2: Level of education of artisan gold miners

		Frequency	Percent
Valid	Primary	76	32.5
	Secondary	158	67.5
	Total	234	100.0

Source: Survey Data

About 33% of the respondents who were artisan gold miners stated that they reached primary level of education whilst about 68% of the respondents stated that they reached secondary level of education. This implies that the respondents who were artisan gold miners are literate. Their literacy may have an impact on the extent of their adoption of mobile money services. This concurs with FinMark Trust (2016) and Dzokoto & Appiah (2014) who state that lack of education in mobile money services impedes people from adopting mobile money services.

Table 3: Number of years of use of mobile money services

		Frequency	Percent
Valid	less than 5 years	25	10.7
	5 to 10 years	209	89.3
	Total	234	100.0

Source: Survey Data

About 11% of the respondents who were artisan gold miners stated that they have been using mobile mine services for less than 5 years. About 89% of artisan gold miners stated that they have been using mobile money services between 5 years and 10 years. This implies that the artisan gold miners have been using mobile money services for a long period of time (dating from its inception in Zimbabwe).

Table 4: Methods used by artisan gold miners to receive money from mining activities

		Frequency	**Percent**
Valid	Cash	220	94.0
	Mobile Money	14	6.0
	Total	234	100.0

Source: Survey Data

Ninety-four percent of the respondents who were artisan gold miners stated that they received their proceeds from gold mining activities in the form of cash and 6% stated that they received their money from gold mining activities in the form of mobile money transfers. This implies that cash is the most commonly used method of receiving proceeds from mining activities.

Table 5: Method of payment preferred by mobile money services

	Frequency	Percent
Cash	206	88.0
mobile money	28	12.0
Total	**234**	**100.0**

Source: Survey Data

Eighty-eight percent of the respondents who were artisan gold miners stated that they preferred cash as means of payment whilst 12% stated that they preferred mobile money transfers as a means of payment. The artisan gold miners stated that cash is convenient, does not need education, its acceptable everywhere and does not have charges. They stated that most shops in rural areas do not accept mobile money payments and those which accept mobile money payments charge premium. Therefore, this justifies their preference for cash and cash as a means of receiving their proceeds of mining activities.

4.2 Challenges faced by artisan gold miners in using mobile money services

One hundred and eighty-seven out of two hundred and thirty-four artisan gold miners (80%) stated the problems which they experience in the use of mobile money services were that many suppliers of goods and services in rural areas do not accept mobile money transfers as a method of payment. The artisan gold miners noted that the suppliers accept cash only. One of the artisan gold miners said the following statement:

*'I cannot accept Ecocash (*Econet Wireless Zimbabwe mobile money platform*) as long as the shops are not allowing us to use it for buying '. Ecocash is used in towns and townships such as shops at Esigodini centre (Central* Business District of Umzingwane district*) or Habani Township (*a township in Umzingwane district*). The shops in the townships which accept Ecocash charge more money as compared to when buying with cash.*

Another artisan gold miner stated the following statement:

It is cheaper to buy using cash than using Ecocash. How can I sell my gold using Ecocash, when shops do not accept Ecocash or when Ecocash charges are exorbitant? I prefer to sell my gold using cash or United States Dollar.

This implies that lack of acceptability of mobile money services as a method of making payments in shops and premium charged on mobile money services has resulted in artisan gold miners with operations in Umzingwane district in Zimbabwe having challenges in using mobile money services. This also shows that it is more

expensive to transact using mobile money services as compared to using cash as users of mobile money services are charged higher prices. This is in disagreement with Gentilini et al (2020) and World Bank (2020) who argue that, in countries such as Ghana and Kenya, the mobile money charges have been made low and waived respectively. According to the study by Onyebuchi et al. (2016) in Engu in Nigeria, network failures and lack of awareness were the major factors affecting adoption and usage of mobile banking.

Table 5: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.799[a]	.639	.511	.34736

Source: Survey Data

The coefficient of determination (R Square) is 0.799. This implies that 79.9% of the adoption and usage of mobile money services by artisan gold miners is influenced by perceived cost, perceived ease of use , perceived trust , security , registration cost , unavailability of cash , handset cost , poor network , level of education and social influence .

Table 6: ANOVA

Model		Sum of Squares	Df	Mean Square	F	Sig.
	Regression	5.883	10	.588	4.876	.000[a]
	Residual	26.907	223	.121		
	Total	32.791	233			

Source: Survey Data

From the ANOVA table above, sig value is 0.00. The sig value at 5% significance level is less than 0.05. This indicates that the regression model is strong enough to justify the impact of independent variables namely perceived cost, perceived ease of use, perceived trust, security, registration cost, unavailability of cash, handset cost, poor network, level of education and social influence on adoption and usage of mobile money services by artisan gold miners in Umzingwane district in Zimbabwe.

Table 7: Regression Analysis Results for the Factors affecting adoption and usage of mobile money

services among artisan gold miners

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	2.326	.106		22.041	.000		
	Perceived costs of transacting	-.131	.038	-.331	-3.455	.001	.400	2.498
	Perceive ease of use	.070	.040	.174	1.744	.082	.368	2.715
	Perceived trust	.074	.042	.172	1.753	.081	.383	2.610
	Security	.129	.036	.318	3.590	.000	.470	2.126
	Registration costs	-.258	.063	-.457	-4.079	.000	.293	3.418
	Unavailability of cash	.063	.056	.117	1.133	.258	.347	2.880
	Handset costs	-.069	.099	-.087	-.703	.483	.243	4.121
	Poor network	-.197	.052	-.397	-3.776	.000	.332	3.008
	Education	.293	.101	.367	2.899	.004	.230	4.356
	Social Influence	-.157	.053	-.196	-2.935	.004	.822	1.216

Source: Survey Data

The Variance Inflation Factor (VIF) for all independent variables namely perceived cost, perceived ease of use , perceived trust , security , registration cost , unavailability of cash , handset cost , poor network , level of education and social influence are less than 10 meaning that there is absence of multicollinearity .

Independent variables namely perceived ease of use (sig value = 0.082), perceived trust (sig value = 0.081), unavailability of cash (sig value = 0.258) and handset cost (sig value = 0.483) are greater than 0.05. This implies that independent variables perceived ease of use, perceived trust, unavailability of cash and handset are not

statistical significant at 5% significance level to explain adoption and usage mobile money services by artisan gold miners.

Holding other explanatory variables constant a percentage increase in perceived cost when using mobile money services will result in 13.1% decrease in the adoption and usage of mobile money services by artisan gold miners. This is because cost attached to the usage of mobile money services discourages people from using mobile money services. People are more sensitive to the cost of using an innovation. This supports. Mbogo (2010) who argues that if the cost of using mobile money services is less than the cost incurred in the banking system, people tend to use mobile money services.

Holding other independent variables constant, a percentage improvement in security provided by mobile money services to artisan gold miners will results in a 12.9% increase in the adoption and usage of mobile money services by artisan gold miners. Security provided by mobile money services may give artisan gold miners confidence in using mobile money services. This concurs with Koloseni and Mandari (2017), who argue that security issues such as fraud results in people being unwilling to adopt mobile money services. Dzokoto and Appiah (2014) and Koloseni & Mandari (2017) further state that trust was the major determinant for the adoption of mobile money services. They noted that people might prefer to transact using cash as compared to mobile money because they are afraid of fraudulent issues associated with mobile money services. Githui (2011) note that trustworthiness and security of services is a major determinant of adoption of mobile money services.

A percentage increase in registration cost for mobile money services will results in 25.8% decline in the adoption and usage of mobile money services. This is because the presence of registration cost makes it hard for the artisan gold miners to adopt and usage mobile money services. World Bank (2020) notes that in countries such as Guinea Bissau, Niger, Mali, Togo, Benin and Burkina Faso mobile money operators provide flexible measures for people to open mobile money account and to transact.

Deterioration of mobile money services network by 1% will results in the decrease of adoption and usage of mobile money services by artisan gold miners by 19.7%. Poor network discourages people from using mobile money services. This is because in order for one to use mobile money services, they should be strong and stable network.

A percentage improvement in the level of education of artisan gold miners will increase adoption and usage of

mobile money services by 29.3%. Education enlightens artisan gold miners on the benefits of using mobile money services. This will improve adoption and usage of mobile money services. This is in line with. Iliasov (2014) who is of the view that there is a negative relationship with lack of education and knowledge on mobile money services and adoption of mobile money services.

A percentage increase in social influence will results in the decrease in the use and adoption of mobile money services by artisan gold miners by 15.7%. This is because social influence has power influencing people to do and not do something. With reference to the artisan gold miners, limited adoption and usage of mobile money services might stern from social influence which might be built on a rural environment that many local shops are not accepting mobile money services and whenever they accept mobile money transfers, they charge a premium. This supports Banerjee et al (2013), Zhang et al (2012) and Kiconco et al (2020) who state that social networks are an important factor which affects adoption of mobile money services.

5. Conclusion and Recommendations

The study concludes that artisan gold miners in Umzingwane district are literate. This means that if they are taught about mobile money services they can use them. Artisan gold miners prefer to use cash to mobile money services. Cash is mainly payment method which is being used by artisan gold miners in Umzingwane district. Many shops in rural Umzingwane district do not accept mobile money payments. The shops which accept mobile money payments are found in the urban areas of the district or in the growth points. The shops which accept mobile money payments add premium. This implies that it is more expensive for artisan gold miners to transact using mobile money services as compared to cash. Ease of use, perceived trust, unavailability of cash and handset cost were found to not to be statistical significant at 5% level of significance in explaining mobile money adoption and usage by artisan gold miners. The factors which negatively affect adoption of mobile money services by artisan gold miners in Umzingwane district are perceived cost of transacting, poor network, registration costs and social influence. Security and education level was found to be positively affecting adoption of mobile money services by artisan gold miners in Umzingwane district in Zimbabwe. Further studies can focus on the effects of psychological factors on adoption and usage of mobile money services by artisan gold miners in rural Zimbabwe. Based on the finding and conclusions of the study, the study recommends the following;

1. Government should punish the shops and business which charge premiums when mobile money services are used. This will reduce cost of transacting and encourage people to use mobile money services.

2. The government should lift the ban on mobile money agents. This will enable people to access assistance on mobile money platforms near their homes.
3. Mobile money operators should partner with rural shops. This will help to bring some services of mobile money which require face to face interaction close to the people.
4. There is need for people to be educated on the features and usefulness of mobile money services. This will improve the confidence of people (artisan gold miners) in mobile money services and hence increase adoption and usage of mobile money services.
5. The government should reduce tax on money transfers and mobile money operators should reduce service charges. This will result in the reduction of cost of transacting and encourage people such as artisan gold miners to use mobile money services.
6. Mobile money operators should be able to allow many currencies to be used in mobile money services. This is because Zimbabwe uses a multi-currency regime. This will help in supporting usage of mobile money services.

5.2 Areas for further study

Further studies should look at the influence of psychological factors on the adoption and usage of mobile money services by artisan gold miners in Zimbabwe.

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