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# The Role of International Mobile Remittances in Promoting Financial Inclusion and Development

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**Abstract**
The purpose of this paper is to examine the contribution that international mobile remittances make in promoting financial inclusion and development. We use the case of the EcoCash Diaspora service that is offered by Econet Wireless Zimbabwe for the study. EcoCash Diaspora is a mobile money transfer service that enables users to send remittances directly to the EcoCash mobile phone wallet of recipients in Zimbabwe. We argue that international mobile remittances are a spectacular innovation in that they are able to reach people banking institutions had faced challenges with reaching, particularly those in rural areas. Given that there are significantly more people who own mobile phones in comparison to those who hold formal bank accounts, providing financial services through mobile networks could provide financial access to several unbanked households. In addition to this, international mobile remittances also promote human development by enhancing the financial capabilities of the recipients. Our study demonstrates the important role mobile technology is playing in improving lives of people at the bottom of the pyramid and we encourage greater use of mobile technology in delivering services to this population.

*Keywords: Remittances, Mobile Banking, Financial inclusion, Human Development.*

## 1. Introduction

According to World Bank (2016) global remittance flows – the money sent by migrants to their home countries, mostly to their remaining families - in 2015 were estimated to have exceeded US$601 billion. In addition, developing countries were estimated to have received about $441 billion of this total amount which was equivalent to almost three times the amount of official development assistance. Moreover, remittances constituted more than 10 percent of Gross Domestic Product in some 25 developing countries. Ambrosius and Cuecuecha (2016) posit that the steady growth of remittances over the years has raised interest on their impact on economic development and more recently, a lot of attention has been devoted to understanding the effects of remittances on the access to and use of financial services. This is because it is commonly argued that linking remittances to additional financial services further benefits the recipient households and allows channelling of savings from remittances towards demand for credit elsewhere in the financial system.

Existing literature shows that broader access to and participation in the financial system can reduce income inequality, boost job creation, accelerate consumption, increase investments in human capital, and directly help poor people manage risk and absorb financial shocks (Klapper and Singer, 2014; Cull et al., 2014). A study by Allen et al. (2016) reported that on average only about 45 percent of adults worldwide had a formal

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bank account. Furthermore, while approximately 91 percent of adults in high-income economies had formal accounts, only about 41 percent of adults in developing countries had accounts at formal financial institutions.

Under these circumstances, mobile money services have been very instrumental in improving access to financial services in developing countries. As posited by GSMA (2015, p.8), "Mobile money has done more to extend the reach of financial services in the last decade than traditional bricks and mortar banking has in the last century." GSMA (2015) reported that there were approximately 411 million mobile money accounts worldwide and the service was available in 85% of countries where the majority of the population had inadequate access to a formal financial services. Moreover GSMA cites that in 2015, 37 markets had ten times more registered mobile money agents than bank branches and about 19 markets had more mobile money accounts than bank accounts. This shows how much mobile money services are doing to improve financial inclusion globally. However, GSMA still assert that there is still room to reach more underserved segments of society, particularly women and rural citizens.

Why then could the innovation of sending remittances through mobile networks be important to Zimbabwe? According to the World Bank (2016), Zimbabwe is one of the countries with the highest levels of emigration in Sub-Saharan Africa. Remittances are very important to Zimbabwe and in 2015 they amounted to US$935 million which was more than what the country received through Foreign Direct Investment (FDI). FDI inflows into Zimbabwe amounted to only US$421 million as the country struggled to attract more investment due to political problems[1]. Realising the crucial role citizens in the diaspora are playing in supporting the country, in June 2016 the government approved a National Diaspora Policy. The policy is meant to set out strategies the country will follow in engaging Zimbabweans living in the diaspora to support their home country[2].

A Finscope Consumer Survey conducted in 2014 reported that about 70 percent of the Zimbabwean population lived in rural areas. Moreover, approximately 23 percent of the national population was financially excluded and did not use either formal or informal financial products (FinMark, 2015). People living in rural areas commonly have challenges accessing formal financial institutions because of limited bank presence. An investigation by Maphosa (2007) in rural areas of the southern part of Zimbabwe, found that one of the major reasons for using informal channels was the absence of banking services in the area. Residents had to travel approximately 100km to get to the nearest town where a bank could be found. This was quite costly as residents often had to pay for transport, accommodation and food.

Sending remittances through mobile networks therefore presents significant opportunities for Zimbabwe. This could encourage some of the people using informal remittance channels to adopt mobile remittances. The service is still able to reach remote parts of the country at greater speed and with reasonable costs. The adoption of mobile remittances could also improve financial inclusion in the country and bring more remittances into the formal economy.

This paper is based on data collected from journals, reports, other publicly available resources. We argue that international mobile remittances play an important role in promoting financial inclusion and development. The rest of the paper is organized as

follows: Section 2 presents a discussion on the operation of the EcoCash Diaspora service; Section 3 reviews the existing literature; Section 4 discusses the outcomes of the service; and Section 5 concludes the study.

## 2. Description of EcoCash Diaspora Service

### 2.1 Background to mobile banking

Mobile payments are financial transactions that are carried out using mobile devices. Mobile banking therefore includes mobile payments but encompasses access to other banking services, such as savings through mobile devices (Porteous, 2006). GSMA (2015) define mobile money as a service that enables people with limited access to financial services to use mobile phones to make and receive payments. GSMA stress that their definition excludes mobile banking services that are linked to existing traditional bank accounts.

Bettman and Harris (2014) discuss the complications associated with defining digital transactions; whether a transaction is only digital if both sender and receiver are digital or hybrid transactions can be included too e.g. digital in and cash out or vice versa. Our study on EcoCash Diaspora focuses on person-to-person (P2P) remittances. We are particularly concerned about transactions where the recipient in Zimbabwe is digital i.e. the money is credited to the recipient's mobile wallet. The transactions could therefore be mobile wallet-to- mobile wallet, cash-to-mobile wallet or web-to-mobile wallet.

### 2.2 The EcoCash Diaspora service

The EcoCash Diaspora service was launched by Econet Wireless Zimbabwe in 2014. The service enables Zimbabweans in the diaspora to send money that will be received on the mobile phone wallet of recipients in Zimbabwe. EcoCash Diaspora is basically an extension of Econet's core mobile money service known as EcoCash to include cross-border remittances. The EcoCash service was introduced in Zimbabwe in 2011 and has been very useful in facilitating domestic money transfers.

In countries of the North, EcoCash Diaspora involves a partnership between Econet and money transfer organisations (MTOs), which are currently Western Union, Moneygram, WorldRemit, and Cassava Remit (previously Chitoro). Senders can transfer money on the website of these MTOs or in-store and choose an option to have the money delivered to the EcoCash mobile wallet of the recipient in Zimbabwe. The money is delivered to the mobile wallet of the recipient in just a few minutes. This service is currently available in many countries worldwide because of the partnership with Western Union which already operates in several parts of the world. Some notable countries are the United Kingdom, United States and Australia which represent some of the important remittance corridors to Zimbabwe.

From 2015, Econet has also offered cross-border mobile-to-mobile transfer services from some selected countries that are closer to Zimbabwe, currently South Africa and Zambia. This means Zimbabweans in these countries are able to send money from their foreign mobile wallet directly to the EcoCash wallet of the recipient in Zimbabwe. Once recipients have received the money in their EcoCash mobile wallet they have the option to cash it out, use it for purchases or make payments for utility bills as discussed under

the features of the EcoCash service in the following section.

### 2.2.1 The EcoCash mobile wallet service

Econet Wireless Zimbabwe Limited (Econet) is a public limited company listed on the Zimbabwe Stock Exchange (ZSE) since 1998. It is one of the largest companies on the ZSE in terms of market capitalisation. Econet provides solutions in mobile and fixed wireless telephony, internet access and payment solutions.

The mobile telecommunications market in Zimbabwe is occupied by three players namely Econet, NetOne and Telecel. As of 31 December 2015, Econet held 52.5% of the market share of mobile subscribers, while NetOne and Telecel held 32.4% and 15.1% respectively. In addition, Econet had 6.7 million active subscribers, while NetOne and Telecel had 4.1 million and 1.9 million active subscribers respectively. The country had a total of 12.7 million active subscribers (POTRAZ, 2015). According to the World Bank, Zimbabwe had a total population of 15.6 million people in 2015[3].

In 2011 Econet introduced EcoCash, an innovative mobile money solution. Demand and usage of this service grew tremendously during its introduction phase. EcoCash attracted 1.7 million subscribers in the first year of its launch. The number of subscribers grew to 3 million by the end of the second year of operation. Notably, over 1 million subscribers registered during the first six months of the service (Cisco, 2014). For the financial year ended 29 February 2016, EcoCash processed transactions amounting to US$6.6 billion and recorded revenue of US$73 million. The EcoCash service had 5.8 million subscribers and worked with 26 500 agents nationwide at the end of the financial year (Econet, 2016).

EcoCash started off in 2011 as a mobile money service that enabled users to send money from one person to another and purchase prepaid airtime. The service has experienced a lot of improvements since its launch and has now developed into a comprehensive mobile banking package. Features that have since been added to the EcoCash service include a savings account, a loan service, microinsurance, a MasterCard that is linked to the EcoCash wallet, merchant payments, public transport fare payments, payroll services for salary disbursements, and cross-border remittances which are the subject of this study.

The only other cross-border mobile remittance service available in Zimbabwe is offered by Telecel through their TeleCash service. At the moment, the service can only be used to send money from South Africa to Zimbabwe. However, as aforementioned Econet a larger share of the mobile market in Zimbabwe. According to POTRAZ (2015), EcoCash was used for 96.9% of the total value of mobile money transactions in Zimbabwe during the last quarter of 2015.

## 3. Literature Review

### 3.1 Mobile money transfers and Financial inclusion

The benefits of transferring money through mobile networks are widely discussed in the literature. Munyegera and Matsumoto (2016), Siegel and Fransen (2013), David et al. (2013), Mirabaud (2009), and Porteous (2006) all posit that mobile money transfers are highly accessible throughout society and cost less than other remittance

methods. This is because mobile money uses telecommunications infrastructure which is already in place and already reaches unbanked people. Moreover, mobile money services involve new distribution channels i.e. mobile money agents who are spread over various locations including rural areas where banks may not be located in. Because mobile remittances are sent using infrastructure that has already been set up for communication purposes, service providers can afford to charge less than intermediaries that are set up solely for the purpose of providing remittance services. Moreover, mobile remittances are also convenient when sending small amounts of money. It is often more costly to do this through other formal channels because the commissions and fees charged for transactions are often fixed regardless of the amount sent. This implies that small value transactions are penalized.

Bettman and Harris (2014), Siegel and Fransen (2013) and Mirabaud (2009) assert that the speed of sending money through mobile networks is relatively faster when compared to bank transfers. This is especially true when considering recipients in remote rural areas. When money is sent to them through mobile technology it is credited directly to the mobile wallet of the recipient and thus reaches the recipient far quicker than other remittance mechanisms both formal and informal.

Munyegera and Matsumoto (2016), Jack and Suri (2014), and Morawczynski (2009) argue that mobile money services facilitate informal risk sharing amongst family members and friends. Based on findings from their study in Uganda, Munyegera and Matsumoto (2016) argued that households using mobile money had greater chances of receiving remittances, received remittances more frequently, and received more sums in value than non-user households. Similarly, supported by evidence from their investigation in Kenya, Jack and Suri (2014) also posited that mobile money services improved risk sharing amongst households when faced with shocks. In times of crisis, households using the M-PESA mobile money service were more likely to receive remittances and received more remittances in terms of volume and total values. In the same vein, Morawczynski (2009) also found that the M-PESA service in Kenya was used to cultivate livelihood strategies which helped people cope with stresses and shocks. M-PESA was used in soliciting and accumulating financial assets as well as maintaining social networks.

Because mobile money services are available in areas with limited bank presence they are instrumental in promoting financial inclusion. Godinho and Russell (2013), Ledgerwood et al., (2013), and Deb and Kubzansky (2012) all agree that financial inclusion is multi-dimensional and encompasses both access to finance and financial capability. Financial access refers to both the availability and usage of financial services while financial capability refers to one's ability to make sound decisions about the use and management of money. As aforementioned, mobile money services play an important role in improving access to financial services. However, it is also important to consider the effect of mobile money on the financial capability of users, especially those who were previously unbanked. This is because the use of mobile money services involves a learning process which enhances capabilities of users.

In addition to this, Singh (2009) argues that international mobile remittances could result in greater empowerment of women while aiding financial inclusion. In her study, Singh discusses scenarios involving transnational family members who used international mobile remittances to achieve particular outcomes in the management and control of

money in their families. She cites some ethnographic studies in India that showed how mobile remittances empowered women as they got the opportunity to receive money privately and could for the first time open bank accounts, manage the money and make financial decisions.

In this section, we have discussed how mobile money services promote financial inclusion as well as other benefits that arise from the service. However, since this study involves cross-border mobile remittances there is still need to focus on whether cross-border remittances are generally associated with financial inclusion in any way. We will discuss this in the following section.

### 3.2 Remittances and Financial Inclusion

As highlighted by Ambrosius (2015), Aggarwal et al. (2011), Demirguc-Kunt et al. (2011), Anzoategui et al. (2011) the link between remittances and access to financial services by the recipients of remittances has received limited attention in academic literature. Of the studies that have been conducted in order to investigate the association between remittances and access to financial services, the apparent majority of these studies have found evidence of a positive relationship (Ambrosius and Cuecuecha, 2016; Ambrosius, 2015; Anzoategui et al., 2011; Aggarwal et al., 2011; Demirguc-Kunt et al., 2011; Gupta et al., 2009). However, an outlying study by Brown et al. (2013) did not find any evidence to support the claims of a positive relationship between remittances and the receiving households' use of formal banking services.

Ambrosius and Cuecuecha (2016) conducted a research in Mexico in order to investigate the effect of cross-border remittances on the use of formal and informal financial services. Their study used Mexican household data and they found strong evidence of the effect of remittances on the existence of outstanding debt, recent use of credit, the existence of savings and ownership of savings accounts. However, the authors highlight that although they found a causal effect on borrowing from informal sources they did not find similar effects on borrowing from formal sources. They interpret this as suggesting that recipients of remittances did have demand for financial services but the formal sector was not meeting their needs well enough. Instead, informal sources were more willing to lend against remittances while formal institutions were apparently limiting the services they provide to savings accounts only.

Ambrosius (2015) used data from the Mexican Family Life Survey (MxFLS) in order to investigate the association between remittances and access to and usage of financial services. The MxFLS was an individual and household level panel data set that was representative of the national population. Ambrosius found evidence that remittances were strongly associated with the ownership of savings accounts and to some extent, the availability of credit options. He highlighted that the effects were more important for rural households as opposed to urban ones and for microfinance institutions, in contrast to commercial banks. Ambrosius concluded that remittances were a catalyst for poor households in rural areas to access financial services, but had less effect on wealthier households in urban areas. Further, remittances were more important to microfinance institutions rather than commercial banks.

Aggarwal et al. (2011) investigated the association between remittances and financial sector development in 109 developing countries using data for the period 1975 to 2007.

They used balance of payments data on remittances to test the link between remittances and financial sector development using measures of deposits to GDP and credit to GDP. Aggarwal et al. found evidence of a positive and significant association between remittances and financial sector development in the countries they investigated.

Demirguc-Kunt et al. (2011) investigated the impact of remittances on the breadth (outreach) and depth of the Mexican banking industry. Their study used municipal data on remittance-receiving households and regulatory information on the location of private commercial banks as well as data on the number of accounts, value of deposits and loans in each municipality. The study was limited to data from a single year, 2000. The number of branches and deposit accounts per capita represented measures of breadth or outreach while the ratio of deposits and credit to GDP were measures of depth. Demirguc-Kunt et al. found that remittances were associated with breadth and depth of banking services in Mexico. The most robust effects were on the number of branches, accounts as well as the ratio of deposits to GDP. In some cases, a positive impact was found on credit but the results were less robust.

Anzoategui et al. (2011) investigated the impact of remittances on financial inclusion in El Salvador. They used household survey data from 1995 to 2001 to assess the impact of remittances on the likelihood of the use of savings and credit from formal financial institutions by the recipient households. Anzoategui et al. found that remittances had a positive impact on the use of deposit accounts, but did not have a significant and robust impact on the demand for and use of formal credit.

Gupta et al. (2009) investigated the effect of remittances at the aggregate level on 24 Sub-Saharan Africa nations and found that remittances reduced poverty and fostered financial development. They argued that formalising remittance flows could enable unbanked individuals and households to access formal financial services and that the development potential of remittances was dependent upon how recipients used funds that remained after they had catered for their basic consumption needs.

In a study that yielded different results Brown et al. (2013) discussed what they termed the "induced financial literacy hypothesis". They described the hypothesis as the notion that receiving remittances introduced recipients to the formal financial sector and helped them understand the sector better, thus inducing them to make more use of the formal services. Brown et al. investigated the induced financial literacy hypothesis by analysing the impact of remittances on financial development at the macro and micro levels. At the macro level, they carried out the investigation using cross-country panel data. For the micro level, they used household survey data to analyse the association between remittances and the recipient household's use of formal banking services in Azerbaijan and Kyrgyzstan. The household survey data was collected by the Asian Development Bank in 2007.

At the macro level, Brown et al. (2013) found no evidence that remittances increased domestic credit to the private sector. The effect actually appeared to be negative from their results. The micro level investigation that tested the presence of a relationship between remittances and the likelihood that a household had a bank account yielded negative results for Azerbaijan. Although Brown et al. found some evidence of a positive association in Kyrgyzstan, the effects were weak. Brown et al. therefore questioned the optimism surrounding the financial inclusion agenda. They highlighted the need for

further research in order to come up with a more systematic theoretical formalisation that justifies the purported relationship between remittances and the receiving households' use of formal financial services.

Overall, the majority of the studies that have investigated the association between remittances and financial access seem to find that a positive relationship does exist between the two. In the light of this evidence, it is therefore expected that mobile remittances could make significant contributions towards promoting financial inclusion. This is because mobile remittances are more accessible than other classical remittances channels, particularly in rural areas. In the following section we will discuss benefits of international mobile remittances.

## 4. Outcomes

International mobile remittances help improve remittance processes by reducing transaction time and costs amongst other factors. The benefits of digitizing remittances are comprehensively discussed by Klapper and Singer (2014). The benefits of mobile remittances discussed in this section were identified by Klapper and Singer (2014).

First, digitization of remittances helps overcome costs and physical barriers that have hindered financial inclusion. This is because mobile remittances are cheaper than classical remittance channels and are also able to reach areas that banks may not be located in, particularly rural areas. The EcoCash Diaspora service therefore provides more convenient means of sending remittances, especially to rural areas. Although bank presence may be limited in rural areas, EcoCash agents are commonly located in such areas.

Digitization of remittances also brings with it benefits of improved speed of remittances. Mobile remittances can get to remote areas with limited bank presence more quickly than classical remittance processes. Moreover, mobile remittances are more secure than some informal remittance channels which pose risks for users. For instance money carried in physical form could get lost.

Digitization of remittances also offers an opportunity to increase financial inclusion. Mobile remittances can service as an entry point into the formal financial system for some first time users. Once recipients receive remittances in their mobile wallets they can also access other mobile banking services. For instance, the EcoCash service also includes savings, credit and insurance products.

Mobile remittances should also result in increased risk management by recipients. This is because the service connects recipients to the broader economy where they can access services like credit if they encounter shocks. Moreover, as is also argued by Jack and Suri (2014) and Morawczynski (2009) mobile remittances create networks that can help households smooth unexpected income shocks by accessing support from their social networks.

Finally, digitization of remittances could also promote the economic empowerment of women by facilitating more ownership of accounts and accumulation of assets thus increasing women's economic participation. This particular benefit which was highlighted by Klapper and Singer (2014) is also supported by Singh (2009). The benefit arises because digitization of remittances helps maintain the confidentiality and

convenience women require in financial services. Digitisation could hence lead to the first account a woman could hold in her own name and have under her control. Sociocultural issues at times prevent women from controlling their own money and assets.

## 5. Implications

In conclusion, we have argued the case for international mobile remittances and shown the benefits unbanked households stand to get from the digitization of remittances. There are however some important issues that need to be taken into consideration in order to realise the full potential of this innovation.

First, although mobile remittances could serve as the first entry point into the financial system for unbanked individuals, the challenge that still remains is to encourage recipients to use their accounts for other financial transactions (Klapper and Singer, 2014). Recipients must still be further encouraged to make use of other financial services like savings and insurance. EcoCash diaspora remittance recipients in particular need to be encouraged to make use of other useful components of the EcoCash mobile banking package such as savings, insurance, and merchant payments. This will improve both financial and digital inclusion in the country.

According to GSMA (2015), although some regulators are realising the importance of an enabling regulatory environment to both mobile money and financial inclusion, regulatory barriers remain a major obstacle to mobile money worldwide. In light of the benefits of international mobile remittances that we have discussed in this paper, we also reiterate the call by GSMA (2015) for the removal of regulatory barriers that hinder the implementation of such services in other parts of the world. This should improve remittance processes and reduce costs while at the same time promoting financial and digital inclusion.

Finally, as shown by Godinho and Russell (2013), Ledgerwood et al. (2013), and Deb and Kubzansky (2012), financial inclusion is multi-dimensional and also involves enhancing financial capability, consumer education, and consumer protection standards. It is therefore important to ensure that appropriate consumer protection frameworks are put in place in order to ensure that consumers are not in any way harmed by financial innovations especially where their financial capability is weak. This is particularly important where mobile banking packages include services like insurance and credit which could be too complex for first-time users to understand. Service providers should make efforts to ensure that clients are understand the products they use very well.

## 6. Notes

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