



THE SOUTH AFRICA-ZIMBABWE REMITTANCE CORRIDOR: AN ANALYSIS OF ITS CHARACTERISTICS AND THE COST OF REMITTANCE PAYMENTS

A thesis presented in partial fulfilment of the requirements for the degree of Master of
Commerce Specializing in Finance in the field of Investment Management

Prepared by:

Beryl Morine Achieng' Onyango (ONYBER001)

Supervisor:

A/Prof Glen Holman

February 2021

The copyright of this thesis vests in the author. No quotation from it or information derived from it is to be published without full acknowledgement of the source. The thesis is to be used for private study or non-commercial research purposes only.

Published by the University of Cape Town (UCT) in terms of the non-exclusive license granted to UCT by the author.

Plagiarism declaration

1. I know that plagiarism is wrong. Plagiarism is to use another's work and to pretend that it is one's own.
2. Each significant contribution to and quotation in this report from the work or works of other people has been attributed and has been cited and referenced.
3. This report is my own work
4. I have not allowed and will not allow anyone to copy my work with the intension of passing it as his or her own work.

Signature:

Signed by candidate

Beryl Onyango

(ONYBER001)

Abstract

Zimbabwean migrants in South Africa often send financial support to their relatives in Zimbabwe. This financial support is known as remittances and is sent as cash or in-kind. This study investigated the characteristics of the South African-Zimbabwe remittance corridor. A critical investigation of the remittance channels used, the type of remittances sent, and the remittance transaction costs involved was done. Data for use in this study was collected through interviews with remittance service providers and by actual remittance transfers to Zimbabwe. A qualitative and quantitative analysis of data using statistical analysis techniques was done. From the analyzed data, it was observed that remittance service providers fall into two channels: formal and informal. The informal remittance channels were found to be the most popular in this corridor. The popularity of informal channels can be attributed to lower transaction costs and a lack of documentation needed from the sender. Informal remittance channels do not require the remittance sender to provide any identification document, therefore, undocumented Zimbabwean migrants opt for them. Long-distance buses that serve the South Africa-Zimbabwe route were found to be a popular channel of sending remittances - both cash and in-kind - to Zimbabwe. In-kind remittances have gained popularity due to the perennial lack of household consumer goods in Zimbabwe. Due to the national lockdown imposed in South Africa as a response to the Covid19 global pandemic, the study was unable to find the volume of remittances that is sent through the informal long-distance buses and trucks. The lockdown resulted in the closure of borders and non-essential travel was not permitted. The study found that the remittance transaction cost in the South Africa-Zimbabwe corridor was higher than the global average cost of 6.84% (for formal channels) and the United Nations Sustainable Development Goal of 3% by the year 2030.

Keywords:

Remittances, money transfer operators, informal remittance channels, migrants, long-distance buses, foreign exchange, currency, remittance service providers, transaction cost

Acknowledgement

I thank the Almighty God for His guidance, goodness, providence and overflowing mercies over the period of this research.

I would like to thank my supervisor, A/Prof. Glen Holman for his invaluable guidance, time and input. His support and encouragement throughout the course of this research is indispensable.

I would also like to acknowledge with gratitude the immeasurable support that I received from Percy throughout the period of this research and especially during the data collection.

I would also like to express my appreciation to my family members, especially my parents - Mr. Sylvester Onyango and Mrs. Nereah Onyango - for their prayers and all the support they gave me throughout the period of this study. My sincere thanks to all the friends who encouraged me along the way.

A very special thanks to my husband - Dr. Philemon Arito - for not only believing that I could do this, but also encouraging me through and through, running this race with me up to its finish line.

CONTENTS

Plagiarism declaration.....	i
Abstract.....	ii
Acknowledgement	iii
List of Figures.....	vii
List of Tables	viii
CHAPTER 1: INTRODUCTION.....	1
1.1 Background of Study	4
1.2 Problem Statement.....	5
1.3 Research Aims and Objectives	5
1.4 Organization of the study.....	6
CHAPTER 2: LITERATURE REVIEW	7
2.1 Introduction.....	7
2.2 Remittance Trends	8
2.3 Importance of Remittances	8
2.3.1 African Institute of Remittances (AIR).....	9
2.4 Remittance Channels	10
2.4.1 Type of channels	10
2.4.2 Factors Influencing the Choice of Channel	11
2.4.2.1 Cost of Transaction.....	11
2.4.2.2 Speed of Transaction.....	12
2.4.2.3 Convenience.....	12
2.4.2.4 Accessibility.....	12
2.4.2.5 Familiarity.....	13
2.4.2.6 Regulation.....	13
2.4.3 Informal Remittance Channels	13
2.4.4 Types of Informal Remittance Channels	15
2.4.4.1 Hand Carrying.....	15
2.4.4.2 Long-Distance Taxis and Buses.....	16
2.4.4.3 Dedicated Money Remitters	16
2.4.4.4 Other Businesses.....	16
2.4.4.5 Hawala	16

2.4.5 Blockchain and Cryptocurrencies	17
2.5 Transaction Costs.....	19
2.6 Remittance Market in South Africa	21
2.6.1 Regulatory Environment in South Africa	21
2.6.1.1 Foreign Exchange controls	22
2.6.1.2 FICA	22
2.6.1.3 Immigration Law	23
2.6.2 Cost of Remittances from South Africa.....	23
2.7 Remittances to Zimbabwe	25
2.7.1 Zimbabwe Economy	26
2.7.1.1 Currency and Cashlessness.....	27
2.7.2 Zimbabwean Migrants	28
CHAPTER 3: RESEARCH METHODOLOGY	30
3.1 Data.....	30
3.1.1 Data Limitations.....	32
3.2 Methodology.....	32
CHAPTER 4: DATA ANALYSIS	35
4.1 Characteristics of the Remittance Corridor	36
4.1.1 Remittance Channels	36
4.1.1.1 Formal Channels in South Africa	36
4.1.1.2 Informal Channels.....	42
4.1.2 Nature of Remittances.....	47
4.1.2.1 Cash Remittances.....	47
4.1.2.2 In-Kind Remittances	49
4.1.3 Nature of Service Providers	51
4.1.3.1 Traditional.....	52
4.1.3.2 Fintech-Based Remittance Service Providers.....	53
4.2 Remittance Cost.....	55
CHAPTER 5: CONCLUSION AND RECOMMENDATIONS.....	59
5.1 Conclusion	59
5.2 Recommendations for further study	61

REFERENCES..... 62

List of Figures

Figure 1: Remittance trends (Source: World Bank, 2019:15) 1

Figure 2: G20 countries remittance sending cost (Source: The World Bank, Remittance Prices Worldwide available at <http://remittanceprices.worldbank.org>) 3

Figure 3: Top 10 most expensive remittance corridors in Africa (Source: Send Money Africa, 2018) 24

Figure 4: Cost per remittance service provider (Source: Remittance Prices Worldwide, World Bank, 2019)..... 25

Figure 5: Summary of research findings..... 35

Figure 6: ADLA categories (Source: South Africa Reserve Bank, 2019)..... 40

Figure 7: Traditional remittance process (Source: Blockdata, Remittance Report, 2019)..... 53

Figure 8: Blockchain remittance process (Source: Blockdata, Remittance Report, 2019)..... 54

Figure 9: Remittance cost breakdown (Source: Remittance Prices Worldwide, World Bank, 2019) 56

Figure 10: Global Cost of sending remittances using various instruments (Source: Source: Remittance Prices Worldwide, World Bank, 2019)..... 57

Figure 11: Cost of sending USD 200 via various channels (Source: Remittance Prices Worldwide, World Bank, 2019)..... 58

List of Tables

Table 1: Differences between Traditional remittance service and Blockchain-based remittance services. (Source; Blockdata, 2019).....	18
Table 2: Information on the data available in the Remittance Prices Worldwide website (Source: Remittance Prices Worldwide, World Bank, 2019).....	31
Table 3: Remittance services offered by ABSA, FNB, Standard Bank and Nedbank	37
Table 4: ADLA categorization by the South African Reserve Bank (Source; SARB, 2019)	39
Table 5: Documents and information required from the sender by different service providers...	43
Table 6: Service providers in the South Africa-Zimbabwe Corridor (Source; Remittance Prices Worldwide, 2019)	48
Table 7: Price comparison of household goods. (Source: Price Quotation from Spar (Zimbabwe) and from individual websites of the service providers i.e., Malaicha.com, Nyasha.co.za and okonline.co.zw).....	50
Table 8: Differences between Traditional-based and Fintech-based remittance service providers	51
Table 9: Explanation of the Bitkesh service (Source: Bitkesh.com)	54

CHAPTER 1: INTRODUCTION

Remittances are the funds sent by people living and working abroad to their families in their home countries. Remittances have been increasing in volume over the years, exceeding the Official Developmental Assistance and Foreign Direct Investment thus becoming the largest source of external finance for many developing countries (Ambrosius and Cuecucha, 2016 and OECD, 2019). Figure 1 illustrates the trends in the aforementioned sources of external finance from the year 1990 to the predicted volumes for 2019. Although there has been an increase in the volume of all the above sources of finance, remittances are receiving increasing attention as a potential tool for development (Freund and Spatafora, 2005).

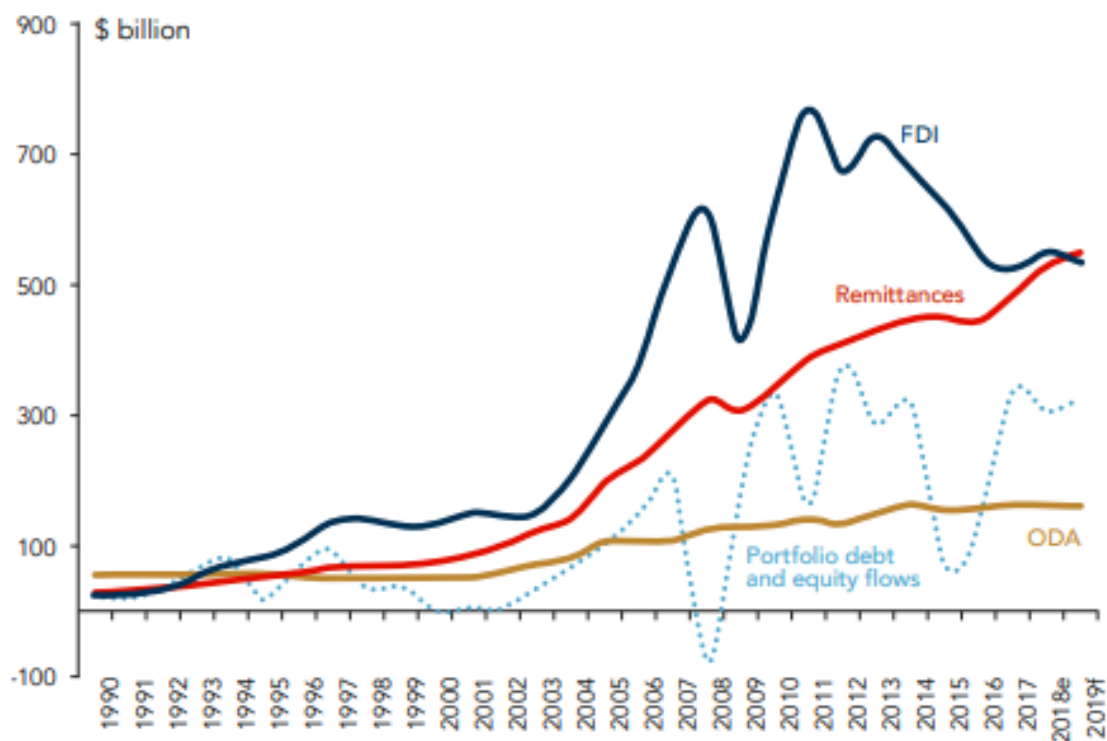


Figure 1: Remittance trends (Source: World Bank, 2019:15)

The increase in the volume of remittances has been attributed to the increase in the number of migrants (Freund and Spatafora, 2005). Freund and Spatafora (2005) found that the primary determinant of the volume of remittances is the number of migrants; therefore, the higher the number of migrants, the higher the volume of remittances. Migrants have been found to move from their home countries in search of better economic conditions in other countries in addition to moving away from political instability in their own countries (Orozco, 2009 and Nicoli, Kachingwe and Kaput, 2018). For example, the economic and political instabilities in Zimbabwe have led to the increase in the number of Zimbabwean migrants in South Africa (Makina, 2012

and Mugumisi and Ndlovu, 2015).

South Africa's comparative wealth and political stability has made it an attractive destination for both economic migrants and refugees from the rest of Africa (Truen et. al., 2005). The country has been listed by the World Bank (2019) among the top host countries for migrants. Many of these migrants are from the SADC (Southern African Development Community) region and have migrated in search of employment opportunities, business opportunities or academic pursuits (Nicoli, Kachingwe and Kaput, 2018). These migrants often send financial support to their families domiciled in their home countries. Remittances are today an important source of foreign finance for developing countries (Ambrosius and Cuecucha, 2016).

Remittances are sent to its recipients through various channels which are broadly classified as formal or informal channels. The IMF (2005) defines formal remittance service providers as those that are regulated and overseen by appropriate government agencies. These include money transfer services offered by banks, post office banks, non-bank financial institutions, foreign exchange bureaus, and money transfer operators (MTOs) like Western Union and MoneyGram (Freund and Spatafora, 2008). Informal remittance service providers are those that operate without regulation or the oversight of financial supervisors. In South Africa, the formal remittance service providers are regulated by the South African Reserve Bank (SARB) which issues them with licenses to operate as such. These service providers fall into three primary groups namely: Authorized Dealers (which comprises retail banks), Money Transfer Operators (MTOs) and Authorized Dealers with Limited Authority (ADLAs) (Mela, Hajat and Mogadime, 2017 and SARB, 2019).

Vasconcelos et al. (2017) have described informal remittance service providers as commercially oriented businesses operating retail cross-border transfers without either a remittance license or any legally accepted form of partnership. In South Africa, the informal remittance channels include long-distance bus or taxi drivers, family and friends. The long-distance bus companies are, for example, licensed to only offer transportation services yet most of them offer cross-border remittance services, a service for which they are not licensed. Studies, (Adams, 2003; Freund and Spatafora, 2005; Chami et. al., 2008 and Nicoli, Kachingwe and Kaput, 2018), acknowledge that the true estimate of remittances is higher than is currently being reported due to a large volume of remittances sent through informal channels that are often unreported.

Informal remittance channels are said to be more affordable and convenient because they are not constrained by banking and foreign exchange regulations (Freund and Spatafora, 2005). Although South Africa has a strong and well-developed financial sector, regulatory controls hamper migrants from using formal remittance channels making them opt for informal channels (Orozco, 2007 and Akinboade et al., 2017). A study by Genesis (2004) found that migrants in South Africa favor informal remittance channels due to factors such as financial illiteracy, distrust of formal institutions and privacy concerns - particularly among undocumented migrants.

Migrants incur costs while sending remittances. These costs are the charges levied by the remittance service providers to the migrants who use their services. According to the World Bank, South Africa is among the most expensive countries to send remittances from through formal

channels. In the countries that make up the Group of Twenty (G20), South Africa was found to be the most expensive countries to send remittances from, as illustrated in Figure 2. The average cost of using formal remittance channels to send USD 200 from the G20 countries was 7.08% of the amount, in the third quarter of 2019 while the cost of sending the same amount from South Africa was 15.96% during the same period (World Bank, 2019). The United Nations Sustainable Development Goal number 10 that aims for a reduction in inequalities seeks to lower the global cost of remittance transaction fee to 3% of the amount sent (Vasconcelos et al., 2017). This cost reduction will help remittance families save an additional USD 20 billion annually (Vasconcelos et. al., (2017).

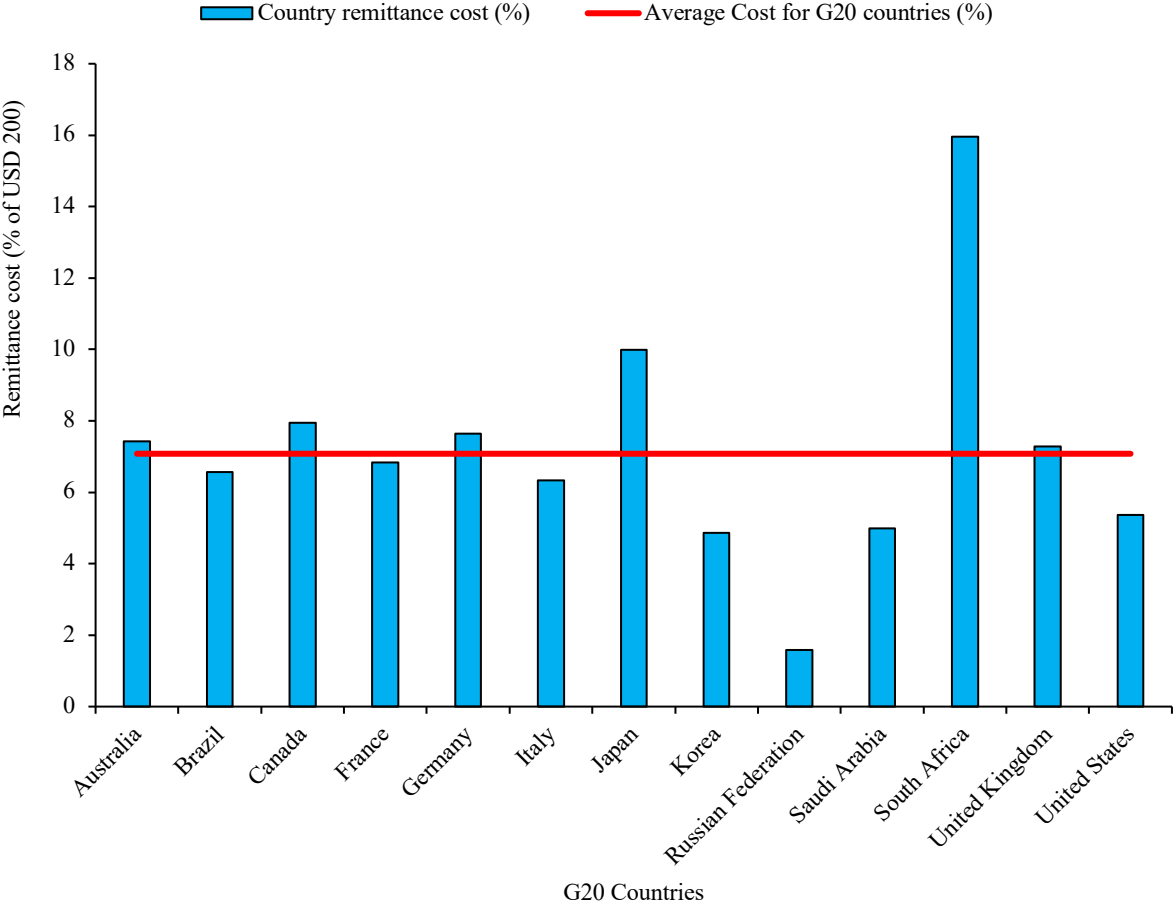


Figure 2: G20 countries remittance sending cost (Source: The World Bank, Remittance Prices Worldwide available at <http://remittanceprices.worldbank.org>)

Globally, the remittance industry is influenced by government regulations and the adoption of technology in the financial sector. Government regulations, for example, determine the processes used by remittance service providers and the documentation required by the migrants for them to access the formal remittance services (Eighty20, 2016). The adoption of technology has seen many remittance service providers introduce the use of mobile applications and internet-based platforms

to send and receive remittances. The adoption of technology such as blockchain has simultaneously reduced the cost and increased the speed of sending remittances (Schweiger and Hangan, 2019).

The state of the economy in Zimbabwe, the financial regulations in South Africa and the adoption of technology in the remittance industry have impacted the South Africa-Zimbabwe remittance corridor. These factors have also resulted in changes in the characteristics of this corridor and influenced the cost of sending remittances. The impact of the aforementioned factors on this remittance corridor ought to be assessed critically. This study investigates the characteristics of the South Africa-Zimbabwe remittance corridor, the types of remittances and the characteristics of remittance channels available in this corridor with a particular focus on the informal channels available. The study also looks at the adoption of technology, including blockchain technology, and the cost of remittances within this corridor.

1.1 Background of Study

A report by Technoserve (2016) estimates that nearly USD 2 Billion is sent out annually as remittances from South Africa to the other countries in the SADC region. This large volume of remittances is driven by the large number of migrants in South Africa, majority being migrants from the neighboring Zimbabwe (Statistics South Africa, 2015; Nicoli, Kachingwe and Kaput, 2018). A recent study by Truen, Kgaphola and Mokoena (2016) found that remittances sent to Zimbabwe make up more than half of the total market value of annual remittances sent by SADC migrants in South Africa.

Among the countries in the SADC region, Lesotho, Zimbabwe and Madagascar were found to have the highest dependence on remittances (Nicoli, Kachingwe and Kaput, 2018). Zimbabwe is heavily reliant on remittance flows from South Africa and as a result, money flowing into Zimbabwe forms one of the largest remittance corridors out of South Africa (Kerzner, 2009 and Donnelly, 2015). In-kind remittances have also gained popularity in the South Africa-Zimbabwe corridor (Truen et. al., 2016). This is majorly as a result of the state of the Zimbabwean economy that has led to the absence of physical cash and consumer goods in the country (Crush, Chikanda and Tawodzera, 2012).

Informal remittance channels are the preferred option in Southern Africa (Melde and Anich, 2013). In the South Africa-Zimbabwe remittance corridor, most remittance flows have been found to flow through informal channels (Makina, 2007 and Mugumisi and Ndlovu, 2013). This is as a result of the high remittance cost charged in the formal channels and the high number of undocumented Zimbabwean migrants. The strict financial regulations in South Africa prevent undocumented migrants from using formal remittance channels. As a result, many undocumented Zimbabwean migrants opt for informal channels. The undocumented migrants are as such either because they entered the country illegally or came into the country illegally but have extended the time that they were legally allowed to be in the country. Zimbabwe's geographical proximity to South Africa has also contributed to the increase in the use of informal remittance channels in this corridor through

the use of cross-border buses and trucks (Genesis, 2003).

The SARB regulates the remittance market in South Africa. It provides regulations, which include foreign exchange controls, that impact both the remittance service providers and the senders of the remittances. The regulations require financial institutions to limit their services to properly documented migrants; leaving undocumented migrants to only access financial services through informal channels. The SARB also determines the players in the remittance market by regulating and issuing operating licenses to remittance service providers. Changes in regulations by the SARB in 2014 led to the introduction of ADLAs resulting in an increase in the number of remittance service providers and a reduction in the average cost of remittances from South Africa.

Previous studies on remittances within the South Africa- Zimbabwe corridor (Genesis, 2003; Truen et. al., 2005; Bracking and Sachinkonye, 2009; Kerzner, 2009; Eighty20, 2016; Truen et. al., 2016 and Mela, Hajat and Mogadime, 2017) have looked at the volume of remittances, the impact of remittances on households, the channels used and the cost of sending remittances from South Africa. This study adds to the findings of these studies by looking at the characteristics of this remittance corridor as influenced by the regulations in South Africa, the state of the economy in Zimbabwe and the adoption of technology into the remittance industry. The South African government-imposed nationwide lockdown as a response to the global Covid-19 pandemic hindered our attempt to find data on the number of buses that ply the South Africa-Zimbabwe route weekly and annually.

1.2 Problem Statement

Past studies (Genesis, 2003; Truen et. al., 2005; Kerzner, 2009 and Mela, Hajat and Mogadime, 2017), for example, have assessed the impact of remittances in the South Africa-Zimbabwe corridor on: recipient households, the cost of sending remittances and the channels through which remittances are sent. Limited studies, however, have been conducted on the various informal channels that exist in this corridor, the types of remittances sent, the volume of remittances sent through informal channels and the adoption of financial technology by remittance service providers. This study, therefore, is aimed at investigating the informal channels, the types of remittances sent, the volume of remittances sent through informal channels and the adoption of technology by remittance service providers in the South Africa-Zimbabwe corridor. The findings from this study will assist in the formulation of policies that will increase the economic and social benefits of remittances in both countries.

1.3 Research Aims and Objectives

The overarching objective of this study is to investigate the current state of the remittance industry in South Africa, specifically looking at the characteristics and cost of the South Africa-Zimbabwe remittance corridor. This objective will be realized through the following sub-objectives:

- i. To identify the formal and informal channels used in South Africa to send remittances to

- Zimbabwe and their methods of operation.
- ii. To estimate the cost of sending remittances through the various channels in the corridor.
 - iii. To identify the risks involved in using informal remittance channels.
 - iv. To investigate the adoption of financial technology by remittance service providers in this corridor.
 - v. To identify the types of remittances sent through this corridor.

1.4 Organization of the study

This study is organized as follows. The first chapter covers the introduction to remittances, giving a background to this study and the problem statement. Chapter Two contains a critical review of literature on remittances. It discusses the importance of remittances and the various channels that are used to send and receive remittances. Chapter Three describes the research methodology that has been used, including the verbal questions that were asked while conducting remittance transactions. The data used in this study has been presented and analyzed in Chapter Four. The conclusion and recommendations for further research are presented in Chapter Five.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

The United Nations (1998:9) defines an international migrant as any person who changes their country of usual residence. The World Bank (2019) estimated that in 2018 the number of international migrants and refugees was 266 million people of whom 240 million were those who migrated for economic reasons. These statistics, however, did not account for undocumented migrants (World Bank, 2019). The International Labor Organization (ILO, 2018) reported that people migrate for reasons such as study, family reunification and humanitarian relief, adding that international migrants seek economic opportunity and decent work. Other drivers of migration as identified by the World Bank (2019) include income and employment gaps between origin and destination countries, economic and social inequality, demographic imbalance and climate change. Interregional migration was found to be more important in Sub-Saharan Africa than in any other developing region (Mohapatra and Ratha, 2011). Migrants are motivated by pure altruism, pure self-interest and tempered altruism or enlightened self-interest to send remittances to their family and friends in their home countries (Lucas and Stark, 1985). Some migrants send remittances out of social pressure from their families in their countries of origin (De Bruyn and Wets, 2006).

Remittances have been cited by Adams (2003) as the visible product of international migration. Defined as the personal flows of money sent by migrants to their friends and families in their home countries; remittances are the most tangible and perhaps the least controversial link between migration and development playing a role in poverty reduction (Ratha, 2007). A more holistic definition of remittances describes it as that portion of migrant workers' earnings that is sent back home to their families (Orozco, 2007). Studies by Adams Jr (1991), IMF (2009) and Yang (2011) corroborate this definition by stating that remittances include both cash and non-cash items sent by migrants to their home countries. The non-cash items include consumer goods such as foodstuff and furniture. This definition is more appropriate for this study as it better represents the nature of remittance flows in the South Africa-Zimbabwe corridor.

In Africa, remittances play a vital role of providing a financial lifeline in periods of crisis (Watkins and Quattri, 2014). They have been recognized as an important source of private capital that cannot be equated with any international financial aid (Flore, 2018). Unlike foreign aid, remittances put money directly into the people's pockets, providing a source of investment and support for household consumption (Watkins and Quattri, 2014). However, remittances are generally not intended to serve as investments but rather as a social insurance to help finance the purchase of life's necessities (Chami and Fullenkamp, 2013). The highest dependence on remittances was found among populations with large seasonal labor migration and the lowest among those populations having other sources of income (Orozco, 2013). The remittance market in Africa is characterized by a high degree of informality, lack of effective competition, regulations that control outward money transfers and often exclusive partnerships of international money transfer companies with local banks (Mohapatra and Ratha, 2011).

2.2 Remittance Trends

The volume of remittances has been steadily rising (Lim and Morshed, 2015) with the World Bank recording that in 2018, remittances increased by 9.6 percent having increased by 8.8% in 2017 (Ratha et. al., 2019). In a study conducted by the International Fund for Agricultural Development (IFAD), Vasconcelos et al. (2017) acknowledge that between the years 2007 and 2016 the remittance flows grew at an average annual rate of 4.2 percent annually, further estimating that between 2015 and 2030 an estimated USD 6.5 trillion will be sent to low- and middle-income countries. In 2009, remittances to Africa accounted for 2.9% of the gross domestic product while the average for all developing countries during the same period was 1.9% (Mohapatra and Ratha, 2011).

These reported remittance volumes although high; do not reflect the true volume of remittances sent because remittances sent through informal channels are not recorded and reported. Studies, (Adams, 2003; Freund and Spatafora, 2005; Chami et. al., 2008 and Nicoli, Kachingwe and Kaput, 2018), have found that the true value of remittances is higher than is currently reported due to a large volume of remittances sent through informal channels. In Nigeria, for example, underreporting of remittances attributed to data collection deficiencies and the prevalence of informal remittance transfer mechanisms (Hernandez-Coss and Bun, 2007). According to Mohapatra and Ratha (2011), Africa has arguably the largest share of cross-border remittances flowing through informal channels. For example, fifty percent of the total remittance flows to Nigeria were found to be from informal channels (Hernandez-Coss and Bun, 2007). Although remittances are sent as a few hundred dollars at a time, they add up to millions of dollars (Chami et. al., 2008). The upward trend in remittances can be attributed to the increase in migration and a decline in transaction costs brought about by technological improvements (Meyer and Shera, 2017). According to Gupta, Pattillo and Wagh (2007), this trend is increasingly attracting the attention of policy makers to remittances.

2.3 Importance of Remittances

Remittances are an important source of foreign income for developing countries and studies show that they have exceeded the official development assistance and in low and middle-income countries, they have even exceeded the foreign direct investments (Ratha, 2003; Orozco, 2009; Frankel, 2011; Ambrosius and Cuecuecha 2016; Ratha, Plaza and Dervisevic, 2016; Vasconcelos et al., 2017 and Ratha et al., 2019). A report by the World Bank (Ratha et al., 2019) states that remittances are a major source of foreign exchange earnings for low- and middle-income countries. The report continues to state that, with the exclusion of China, remittances are larger than foreign direct investments. According to Nyamongo et al (2012), remittances may lead to exchange rate appreciation and lower export competitiveness by enhancing foreign exchange inflows especially in small open economies.

The World Bank includes remittances in its analysis of how much debt a country can carry (Ratha,

2013). They are included in the exports of goods and services thus improving a country's debt to exports ratio for countries receiving higher remittances (Nyamongo et. al., 2012). Therefore, remittances increase a country's credit worthiness. Countries with higher remittances can borrow more than countries with lower remittances (Ratha, 2013). Remittances have been found to be more stable than private capital flows (Ratha, 2007). They are countercyclical, tending to rise when the recipient economy suffers a downturn, natural disaster or political conflict (Ratha, 2007 and World Bank, 2016). This is because migrants are reported to send more funds during hard times in their home countries (Ratha, 2007 and World Bank, 2016). A study by Ratha (2003) gives an example that in 1998–2001 when private capital flows declined in the wake of the Asian financial crisis, remittances to developing countries continued to rise steadily. This can be attributed to the fact that remittances are based on recipients needs and dependency levels rather than on the sender's income (Ratha, 2003 and Technoserve, 2016).

On a microeconomic level, remittances have been “a critical means of financial support for generations” (Orozco, 2007). A study by Vasconcelos et. al. (2017) observed that remittances constituted about sixty percent of household incomes in developing countries. Remittances are therefore important in poverty alleviation and influencing economic growth and investment, contributing to the achievement of the United Nations Sustainable Development Goals (Orozco, 2007; Ratha 2007 and Vasconcelos et al 2017). Studies by Adams Jr, (1991) and Gupta, Pattillo and Wagh (2007) have observed that remittance receiving households have higher income and levels of consumption than non-remittance receiving households. Such households are also reported to have lower incidences of extreme poverty (Ratha, 2013).

Remittances contribute to the economic development of households by enabling low-income households to meet their daily needs, invest in better healthcare, better education and to grow their businesses (Nicoli, Kachingwe and Kaput, 2018). Studies (Hilderbrandt and McKenzie 2005; UNDP, 2009 and De and Ratha, 2012) found that the infant mortality rate in remittance-receiving households in Mexico and Sri Lanka were lower than in non-remittance receiving households. The same studies showed that infants in remittance-receiving households had higher birth weights than those from non-remittance receiving households. In El Salvador, remittances were seen to improve education as remittance receiving households had lower cases of children dropping out of school (Edwards and Ureta, 2003). Although the studies quoted above show that remittances are important to both the remittance receiving nations and households, a study by Chami, Fullenkamp and Jahjah (2003) argue that remittances may create permanent financial dependency and slow down economic growth by reducing the recipient's motivation to work.

2.3.1 African Institute of Remittances (AIR)

As an acknowledgement of the importance of remittances in Africa, the African Union Heads of State and Government, through a Specialized Technical Office, established the African Institute of Remittances (AIR) which became operational in 2015 (African Union, 2018).

According to the African Union (2018), the objectives of the institute are to:

- i. Improve the statistical measurement, compilation and reporting capabilities of the African Union member states on remittances data.
- ii. Promote the appropriate changes to the legal and regulatory frameworks on remittances aimed at reducing the cost of sending remittances to and within Africa.
- iii. Leverage the impact of remittances on social and economic development of the African Union member states.

The institute strives to achieve these objectives by focusing on four main areas, namely: leveraging remittances, remittance data and statistics, research on remittances and reduction of the cost of sending remittances to and within Africa (AIR, 2018). The Institute is mandated to enhance market competition to make remittance transfers to and within Africa cheaper, safer, faster and legally compliant to maximize their impact on the economic and social development of African Countries (African Union, 2018). The institute organizes diaspora engagement forums in collaboration with African diaspora groups in various parts of the world. These consultative forums are arranged to discuss various issues that affect the remittance market in Africa. The Institute, through support of the European Union and the government of Kenya, operates a remittance data website - Send Money Africa - on which data on remittances in Africa especially sending costs can be accessed. Although there are no similar institutions specifically set up for remittances, there are global institutions working on the area of remittances (World Bank, 2013). Examples of such institutions include the Pakistani Remittances Initiative (PRI), Centre for Latin American Monetary Studies (CEMLA) and Financing Facility for Remittances (FFR) (World Bank, 2013).

2.4 Remittance Channels

2.4.1 Type of channels

Remittances are sent through remittance service providers who are broadly classified into two categories: formal and informal remittance service providers. The IMF (2005) defines the formal remittance service providers as those that are regulated and overseen by relevant government agencies. Remittances are more likely to be leveraged for development if they are transferred through formal channels rather than through informal channels (Mashayekhi, 2013). Formal channels have the potential of promoting economic development by improving earnings of the domestic financial sector and by increasing resources available to finance economic activities (Kosse and Vermeulen, 2014).

Informal remittance service providers operate without regulation or oversight of financial supervisors for their remittance services (IMF, 2005). Many migrants send remittances almost exclusively through informal channels or through specialized money transfer agencies operating outside the traditional banking system (Flore, 2018). Informal remittance transfer systems have provided valuable efficient services at a low cost (Hernandez-Coss, 2006). Despite the potential advantages of informal channels, they have increasingly been debated due to concerns about

potential misuse for criminal activities such as money laundering, smuggling and the financing of terrorism (Kosse and Vermeulen, 2014). Orozco (2013) found that the interregional remittance flows in Africa were predominantly, if not exclusively, informal. Sub-Saharan Africa region is believed to have the highest share of remittances flowing through unregulated modes of transfer (Watkins and Quattri, 2014).

In the formal and informal channels, remittances can be transferred through cash-to-cash transfers, transfer between accounts, use of debit and credit cards and the use of internet-based virtual accounts (Ratha and Riedberg, 2005). Across the channels, remittance service providers differ in their network coverage, the technology used, their pricing and their marketing strategies (Ratha and Riedberg, 2005). As a result, the remittance service providers differ significantly in terms of accessibility both to the remitter and the recipient and the speed with which the transaction is executed (Kosse and Vermeulen, 2014). The choice of the remittance provider, therefore, depends on the benefits it offers to the remitter and on the preferences of and possibilities for the recipient (Kosse and Vermeulen, 2014). Hernandez-Coss (2006) found that the remittance channel to be used can be heavily influenced by the circumstances of the recipient such as where they are located and what the available mechanisms to reach them are. Other factors that inform the choice of a remittance service provider include the cost of transaction, speed of transaction, geographical proximity and accessibility, reliability, security of funds and convenience in terms of familiarity and language (Maimbo, 2004, Freund and Spatafora 2005, Truen et al. 2005 and Kosse and Vermeulen, 2014). Kosse and Vermeulen (2014) found that the length and nature of a migrant's stay influenced the choice of remittance channel. The results of their study showed that legal and permanent stay migrants preferred formal channels over informal channels as compared to undocumented and temporary stay migrants.

2.4.2 Factors Influencing the Choice of Channel

The subsequent sub-sections will provide more information regarding the factors that inform the choice of a remittance channel to use.

2.4.2.1 Cost of Transaction

The choice of which remittance channel to use is strongly driven by cost considerations (Maimbo, Saranga and Strychacz, 2010 and Kosse and Vermeulen, 2014). The ease and cost of sending remittances have a critical impact on the welfare of the individuals and households reliant on them as well as the economy (Eighty20, 2016). The cost of transaction affects how the remittances are sent and not the amount that is sent (Freund and Spatafora, 2008). Costs tend to be highest for small transactions as most transfer services charge a minimum transaction fee (Sander, 2003, Freund and Spatafora, 2008). Whereas cost differs across countries and remittance corridors, informal channels have been found to be cheaper than formal channels especially banks and Money Transfer Operators like Western Union and MoneyGram (Freund and Spatafora, 2008; Maimbo, Saranga and Strychacz, 2010 and Kosse and Vermeulen, 2014). The high costs in the formal channels drive migrants to use informal channels (Maimbo, Saranga and Strychacz, 2010 and

Kosse and Vermeulen, 2014). In the Germany-Serbia remittance corridor, formal remittance channels were avoided by migrants due to their high fees, low competition in the remittance market space and limited trust in the financial institutions in Serbia (Martinez, Endo and Barberis, 2006). Formal remittance service providers charge a minimum transaction cost making the transaction cost high for smaller transactions (Sander, 2003 and Freund and Spatafora, 2008). Cost reduction may encourage the use of formal channels especially for smaller transactions (Kosse and Vermeulen, 2014). Although remitters have little knowledge of the remittance cost structures, their perception of which methods were cheapest tended to be accurate (Truen et. al., 2005).

2.4.2.2 Speed of Transaction

The speed of the transaction is the time between payment by the sender and the funds being available to the receiver (BIS and World Bank, 2007). Some remittance services are instantaneous while others may take several days (Sander and Maimbo, 2003). Pieke, Van Hear, and Lindley (2007) posit that depending on the reason for remitting, cost and speed may be an important factor in the remitter's decision about how to send the remittance. The speed of the transaction is given important consideration when the remittance is intended to meet an urgent need (Truen et al, 2005).

2.4.2.3 Convenience

Migrants prefer remittance channels with less documentation requirements, paperwork and those that are easily accessible to the recipient (Truen et al., 2005 and Maimbo, Saranga and Strychacz, 2010). Money transmitters tend to locate more points of sale in areas where migrants live and work while offering more convenient opening hours than banks (Pieke, Van Hear, and Lindley, 2007). Hernandez-Coss et. al., (2008) found that from the migrants' perspective, informal transfers may be more convenient and more accessible or cheaper.

2.4.2.4 Accessibility

Accessibility to a remittance service provider is determined by the availability of and distance from the service provider, language and cultural barriers, financial literacy, familiarity and trust (Kosse and Vermeulen, 2014). In a study of the Malaysia-Indonesia remittance corridor, Hernandez-Coss et. at., (2008) described accessibility as physical access, institutional access and regulatory access. Physical access is defined as the ease with which the migrant can physically access the remittance service provider, and this could be restricted by distance and the ability of the migrant worker to leave the workplace during opening hours (Hernandez-Coss et. al., 2008). Institutional access was defined as the ease with which a migrant can deal with the administrative requirements and the user friendliness of the remittance service provider (Hernandez-Coss et. al., 2008). Regulatory access is defined as the degree to which regulations might restrict access to the remittance service (Hernandez-Coss et. al., 2008). According to Sander and Maimbo (2003), the access to the transfer service, is both on the sending and the receiving end of the remittance. They argue that many remitters need to send money to locations with poor financial infrastructure in which banks in their host country have little or no contact resulting in the use of informal channels. Factors such as trust, familiarity and having the service within easy reach can often be as important as the cost

consideration (Sanders, 2003).

2.4.2.5 Familiarity

Based on their communal networks, people often use a product for reasons other than its price or quality (Genesis, 2003). Remitters often use channels that have been used by their family and friends (Maimbo, Saranga and Strychacz, 2010). A study by Truen et al. (2005) highlighted that the remittance method chosen, was the method that had been used by the remitters' parents or grandparents or one recommended by family and friends. Many remitters chose informal channels as they are unfamiliar with banks and fear, often rightly, that they will not be welcomed as clients (Sander and Maimbo, 2003).

2.4.2.6 Regulation

Regulatory and policy factors exert important influence on the availability and accessibility of formal money transfer services and thus the range of remittance-sending channels available to migrants (Akinboade et. al., 2017). Regulation shapes the costs, the documentation required to access formal services and the processes used by remittance service providers (Eighty20, 2016). As a result, undocumented migrants are often excluded, by regulatory provisions, from the formal remittance market (Truen et. al., 2005). A study of the United Kingdom-Nigeria remittance corridor found that the undocumented Nigerians in the United Kingdom preferred to send money through informal channels to avoid interaction with formal institutions that required them to produce some form of identification (Hernandez-Coss and Bun, 2007). In the Malaysia-Indonesia remittance corridor, undocumented migrants and female migrants were found to prefer informal channels (Hernandez-Coss et. al., 2008). Regulatory restrictions in some countries have been found to limit the availability of remittance service providers as such restrictions can prevent the entry of financial institutions into the remittance market (Maimbo, Saranga and Strychacz, 2010).

2.4.3 Informal Remittance Channels

Informal remittance channels were developed centuries ago to facilitate the movement of money over long distances (Buencamino and Gorbunov, 2002). Pieke, Van Hear, and Lindley (2007), identified inadequate regulation, breach of law, the absence of mechanisms to report transactions to the state and regulatory changes that render some channels informal, as the main attributes of informality. Their study found that certain remittance systems may be illegal in some jurisdictions while in other states the same transfer system might be legal giving an example of the hawala system that is illegal in India while in Afghanistan it is legal and used even by the government. Informal remittance channels often exist when formal options for remittances are absent or prohibitively expensive (Hernandez-Coss, 2006).

Informal remittance channels do not involve formal contracts and are thus not recorded in the national accounts by central banks (Freund and Spatafora, 2008 and Truen, Kgaphola and Mokoena, 2016). As a result, the true volume of remittances is substantially understated due to the general use of informal channels of remittances (Sander and Maimbo, 2003; Adams and Page,

2005; Gupta, Pattillo and Wagh, 2007; Irving, Mohapatra and Ratha, 2010; World Bank, 2016 and the African Institute of Remittances, 2018).

The macroeconomic climate in a country and the innovativeness of its financial sector influences the flow of formal and informal remittances (Buencamino and Gorbunov, 2002). Informal remittance channels were found to be important in places where conflict, poverty or remote geography have incapacitated the formal financial infrastructure (Hernandez-Coss, 2006). Informal remittance channels tend to be more significant in countries with relatively undeveloped banking sectors and where trade and exchange rate restrictions encourage parallel markets and foreign exchange (Buencamino and Gorbunov, 2002 and Higazi, 2005). They are preferred when making payments to countries characterized by low levels of financial development or when the recipient does not have a bank account (Kosse and Vermeulen, 2014). Their growth has been found to be negatively correlated to the level of development and liberalization of the formal financial sector (El Qorchi, Maimbo and Wilson, 2003). The extensive use of informal remittance channels in Serbia was found to reduce the developmental impact of the remittances (Martinez, Endo and Barberis, 2006).

In Africa, informal remittance channels are important due to the informality caused by poor local infrastructure, limited availability of remittance services and restrictions on foreign exchange (Vasconcelos et al., 2017). The use of informal remittance channels in Africa is high due to the high prevalence of interregional migration and weak or nonexistent formal financial systems (Sander and Maimbo, 2003). This is because informal channels tend to be more attractive when remitting to neighboring countries but less so as the physical distance increases (Genesis, 2003). Informal channels dominate several African countries because they offer client-friendly features such as minimal paperwork, speed, convenience and are said to be more affordable than formal channels (Gupta, Pattillo and Wagh, 2007 and Nicoli, Kachingwe and Kaput, 2018). Many migrants feel obligated to use informal channels as a consequence of being undocumented (Mashayekhi, 2013). The absence of government structures in countries like Somalia, for example, have contributed to the use of informal remittance channels (Maimbo, 2004).

Although informal remittance channels are believed to be cheaper and more convenient, using these channels presents risks both to the remitter and to the financial system (Gupta, Pattillo and Wagh, 2007 and Nicoli, Kachingwe and Kaput, 2018). These risks are mostly due to the lack of supervision in the informal channels and lack of official documentation because these channels are based on trust (De Bruyn and Wet, 2006 and Gupta, Pattillo and Wagh, 2007). Although they are based on trust, incidences of fraud are common in informal remittance channels (Hernandez-Coss, 2006). Reliance on the informal contracts makes informal channels very risky as they are exposed to a higher risk of theft or loss when compared to formal channels (Kosse and Vermeulen, 2014). The use of formal channels of transfer reduces the risk that migrants and recipients will be exploited by money laundering networks (Mashayekhi, 2013).

Informal remittance service providers have been found to be quick, discreet and reasonably priced. This makes them attractive for both legal and illegal transfers and have thus come under scrutiny

for their alleged role in financing illegal activities (El Qorchi, Maimbo and Wilson, 2003 and Flore, 2018). The widespread use of cash may contribute to the use of informal channels as it maintains anonymity of the people sending and receiving the money (Martinez, Endo and Barberis, 2006). The lack of documentation and anonymity in the informal remittance channels has made it difficult to track the money sent through these channels (Hernandez-Coss, 2006).

2.4.4 Types of Informal Remittance Channels

Informal remittance channels include hand carriage by family and friends, cash transfers based on personal relationships with businesspeople, transfers through unregulated money transfer operators and transport companies (Van Doorn, 2002; Sander and Maimbo, 2003; Freund and Spatafora, 2008 and Nicoli, Kachingwe and Kaput, 2018). Some informal remittance service providers operate as a side business to an import-export operation, retail shop or currency dealership (Sander and Maimbo, 2003). They include commercially oriented businesses operating retail cross-border transfers without either a remittance license or any legally accepted form of partnership with a Money Transfer Operator (Vasconcelos et al., 2017). These channels are based on low-cost technologies like phone calls and the services are offered in mobile phone shops, travel agencies and grocery stores (Kosse and Vermeulen, 2014). In a study of the United Kingdom-Nigeria remittance corridor, the types of informal channels found comprised people carrying cash, community and trade networks, value transfers and bus couriers (Hernandez-Coss and Bun, 2007).

2.4.4.1 Hand Carrying

This is the oldest and most traditional method of sending remittances (Orozco, 2003). It involves the carrying of the remittance to the recipient. This may be done by the migrant himself, through friends or relatives and in some instances, strangers at airports and bus stops (Pieke, Van Hear, and Lindley, 2007). De Bruyn and Wets (2006) found that strangers at airports were used more often while sending goods and not while sending cash. Sending money through hand carrying is reliable when both the senders and the recipients know and trust the migrant carrying the cash (Hernandez-Coss and Bun, 2007). Hand carrying persists in Africa and among the poorest nations of the developing world (Orozco, 2003). Asking family and friends to hand deliver cash is usually free of charge, however, in some instances some form of gift is offered as an appreciation for the favor offered (Pieke, Van Hear, and Lindley, 2007 and Truen and Chisadza, 2012). Although it is usually free, hand carrying depends on the trustworthiness, integrity and reputation of the carrier (Hernandez-Coss and Bun, 2007). The amount of cash being carried can be limited by custom restrictions, crime and customs corruption presenting a limitation in the use of this method to transfer funds (Pieke, Van Hear, and Lindley, 2007). In the United Kingdom-Nigeria remittance corridor, compliance to the law requiring one to declare money at the port of entry was found to be low or non-existent (Hernandez-Coss and Bun, 2007). This channel is slow, unreliable and the money was likely to be lost or stolen (Crush, Chikanda and Tawodzera, 2012). Although the person carrying the cash is typically known and trusted, this method is subject to fraud and theft, particularly if the amount of money or the value of goods involved is high (Truen and Chisadza, 2012).

2.4.4.2 Long-Distance Taxis and Buses

Remittances can be sent through transport companies that operate across borders (Pieke, Van Hear, and Lindley, 2007 and Truen and Chisadza, 2012). This channel is popular in remittance corridors in which there is a close geographical proximity between the countries. For example, due to its proximity, Serbs in Germany send money home through bus drivers or relatives and friends travelling to Serbia (Martinez, Endo and Barberis, 2006). International migrants from Zimbabwe were found to rely on bus and truck drivers or a trust-based network of brokers to send cash remittances to Zimbabwe (Guterres, 2018). Truen et al. 2005 observe that the use of a taxi driver is dependent on trust in the taxi driver, the amount of money to be sent and the urgency of the remittance. Although there is a greater risk that the money will be lost or stolen, sending remittances via a taxi driver has the advantages of being cheap, no forms to fill in and the unbanked can access it easily (Truen et al., 2005). Taxi drivers may be reluctant to drive on dirt roads to deliver money to rural areas but the use of a friend or relative can result in the money being delivered door-to-door (Truen et al., 2005). In cases where the geographical proximity between the sender and the recipients does not allow for bus travel, the international remittance is first sent to an initial recipient who then sends it to the final recipients through long-distances buses as was the case in the United Kingdom-Nigeria remittance corridor (Hernandez-Coss and Bun, 2007).

2.4.4.3 Dedicated Money Remitters

These are businesses that have been set up to remit money but are not regulated by relevant authorities for example Dahabshiil in Somalia (Pieke, Van Hear, and Lindley, 2007). Many of these businesses arise from a specific group of migrants' remittance needs and thus advertise in the ethnic and local press or radio (Pieke, Van Hear, and Lindley, 2007). Some remittance agents operating within migrant communities' bundle remittance payments and send them to their corresponding agents in the recipients' country to distribute them to the relevant beneficiaries (Hernandez-Coss and Bun, 2007).

2.4.4.4 Other Businesses

Cash-intensive businesses with good international communications facilities often offer remittance transfer services as a sideline (Pieke, Van Hear, and Lindley, 2007). These businesses include retail shops, currency dealerships and businesses that have import- export operations (Crush, Chikanda and Tawodzera, 2012). De Bruyn and Wets (2006) found that phone shops, groceries and other shops take up money transfer as a side business. In the United Kingdom-Nigeria remittance corridor some of the remittance inflows occurred through trader networks such as second-hand car traders (Hernandez-Coss and Bun, 2007). When involved in the remittance business, these businesses make money from exchange rate spreads and the fees charged to customers (Pieke, Van Hear, and Lindley, 2007).

2.4.4.5 Hawala

Hawala, a system which according to Truen et al (2005) originated in India and Pakistan, is deemed to be the largest and best-known informal remittance system. It is a value transfer system. Thus,

the money is not physically or electronically transferred (Orozco, 2003). A value transfer system is a system of setting accounts without the physical transfer of cash (Hernandez-Coss and Bun, 2007). Hawala-type systems may not have developed in Southern Africa because of the lack of commodity trading networks (Genesis, 2003). The remitter sends money by giving it to an agent in the host country, the agent then communicates to a corresponding agent in the recipient's country; the instruction to pay out the equivalent sum to an identified recipient (El Qorchi, Maimbo and Wilson, 2003; Truen et al, 2005 and Akinboade, 2017). Although the remittance is immediately transferred, the intermediaries settle their debt through various mechanisms of compensation that occur at different moments and do not necessarily involve direct payment between the two agents (Orozco, 2003).

Hawala transactions are typically not receipted since they are based on trust (Truen et. al, 2005). Trust and self-regulation have proven to protect the hawala customers against losses (Flore, 2018). This is because the force of reputation dynamics quickly moves to exclude operators who do not deliver (Genesis, 2003). Hawalas operate outside the formal financial system, regardless of the purpose of the transaction and the country of remittance or destination (El Qorchi, Maimbo and Wilson, 2003). In the joint study by the World Bank and the IMF, El Qorchi, Maimbo and Wilson (2003) found that hawala systems typically thrived in places where the formal banking sector was either absent or weak or where significant distortions existed in payment systems, foreign exchange and other financial markets.

2.4.5 Blockchain and Cryptocurrencies

The remittance industry has continued to evolve as new systems are introduced to improve the convenience of money transfer regarding cost, speed and security (Iyke, 2017). The new trend in the remittance industry is the use of cryptocurrencies - a type of digital currency that is the creation of blockchain technology (Flore, 2018 and Hasheni Joo, Nishikawa and Dandapani, 2019). Cryptocurrencies are a worldwide digital payment system that performs its functions online, taking advantage of the internet to enable a quick, secure and relatively cheap transfer of money across the globe (Iyke, 2017; Flore, 2018 and Hasheni Joo, Nishikawa and Dandapani, 2019). The global remittance market is where blockchain technology sees its highest potential because it presents a more secure way of saving and securing data, cutting down transaction times and lowering processing fees (Rands, 2017 and Hasheni Joo, Nishikawa and Dandapani, 2019). The differences between traditional remittance services and the blockchain-based remittance services are shown in Table 1.

Blockchain is defined as a ledger or database that is distributed to all users in a network, utilizing cryptography to protect the ledger from being tampered (Hasheni Joo, Nishikawa and Dandapani 2019). The communication between devices using the blockchain technology is made cryptographically allowing users to complete peer-to-peer transactions without financial intermediaries (Hasheni Joo, Nishikawa and Dandapani, 2019). The lack of financial intermediaries in remittance transactions results in less time between sending and receiving the remittance and a reduction in transaction costs; making it preferable to migrants (Flore, 2018). The

cost reduction brought about by distributed ledger technologies such as blockchain could become a real breakthrough in achieving the United Nations Sustainable Development Goal (UNSDG 10.c) target of reducing remittance transaction costs to 3% (Flore, 2018).

Money transfer and payment services that use cryptocurrencies are optimal in countries where most of the population does not have easy access to financial institutions because such services are not required to go through financial intermediaries or Money Transfer Operators (Hasheni Joo, Nishikawa and Dandapani, 2019). Another advantage of blockchain-based remittance service is that transactions done through them are fully traceable giving the remitter the possibility of knowing where the money is and if it has been received successfully (Flore, 2018).

Characteristic	Traditional Remittance service	Blockchain-based remittance service
Transaction time	Up to 1 hour to multiple days	Near instant, up to 1 hour
Cost	High Commission charges	Low commission charges
Accessibility	Majority are unavailable round the clock	Majority are available all the time
Security	Central data storage Lost transaction	Timestamped Traceable transactions Encrypted
Transfer	Multiple channels Central Banking System Agents/ tellers	Instant Settlement Agents/ tellers
Medium of exchange	Fiat currency	Multiple currencies (Crypto and fiat)
Technology	Legacy banking (central Infrastructure and manual involvement) SWIFT- International payment system	Distributed ledger technology (permissioned and permission less) Open source Payment protocols and international payment network
Product and services	Money transfer services Foreign currency exchange Credit, bank, cash Billing Automated teller machines Mobile money transfer applications	Money transfer services Foreign currency exchange Cryptocurrency wallets and storage services Lending, micro-financing and billing integration Payment Protocols Crypto to foreign currency exchange tellers Mobile money transfer applications

Table 1: Differences between Traditional remittance service and Blockchain-based remittance services.
(Source; Blockdata, 2019)

Blockchain-based companies offer faster and cheaper services. Companies engaged in blockchain technology can outdo the traditional remittance transfer companies (Rands, 2017). A study on blockchain and remittances conducted by Blockdata (2019) revealed that blockchain transactions average three hundred and eighty-eight times faster and a hundred and twenty-seven times cheaper than traditional remittance companies. The study states that blockchain remittances solve the

following problems in the remittance industry: high fees, long transaction times and the abundance of intermediaries. Currently, most blockchain remittance companies are based in South East Asia. These companies comprise: Bitspark, Ripple, Stellar, Abra and Rebit among others (Flore, 2018). Bitpesa is the first African digital money transfer company that was established in Nairobi, Kenya (Flore, 2018). The lack of regulations for blockchain and cryptocurrencies may cause investors and users to be concerned about the security and privacy that this technology offers; thus preventing people from enjoying this advantageous system (Hasheni Joo, Nishikawa and Dandapani, 2019).

2.5 Transaction Costs

The total cost incurred while sending remittances includes the fee charged by the remittance service provider, the foreign exchange cost and in some cases the cost incurred by the recipient as they receive the remittance. The cost of a remittance transaction varies by the amount remitted, the service used, its origin and destination (Sander, 2003). This cost also varies across the globe, greatly depending on the region to which they are sent (Orozco, 2007). The cost of sending remittances especially within Africa was found to be among the highest in the developing countries (Mohapatra and Ratha, 2011). Most remittance service providers charge a minimum fee which makes the cost of sending small amounts prohibitively high and this fee is reflected in the sharp decline in the average cost as the amount remitted increases (Freund and Spatafora, 2008).

The price a consumer pays is dependent on market factors such as the number of competitors in the market and the cost to the service providers (Ratha and Riedberg, 2005). The transaction costs levied by the different service providers is influenced by factors such as informality, monopolies, regulations and transaction volumes among others (Orozco, 2007). Watkins and Quattri (2014) posit that limited competition, exclusivity agreements between Money Transfer Operator agents and banks, financial exclusion and poor regulation drive up the remittance transaction costs. Regulation can have an impact on the cost of sending by limiting the competition in the remittance market resulting in the high cost of sending remittances (Orozco, 2013). Regulations such as those on anti-money laundering and counter-terrorism financing were found to also contribute to high transaction costs (Guterres, 2008).

According to the World Bank (2019), the global average cost of sending remittances in the third quarter of 2019 was 6.84%. This cost is higher than the United Nations Sustainable Development Goals target of 3% by the year 2030 (Vasconcelos et. al., 2017). The high fees charged by remittance service providers is a major challenge for policy makers interested in facilitating remittance flows to developing countries (Ratha and Riedberg, 2005). In a report prepared for IFAD, Vasconcelos et. al. (2017) suggests that the reduction in transaction cost to 3% will save an additional 20 billion US dollars in remittances annually. Adams and Page (2005) posit that reducing the transaction costs of remittances will help to increase the poverty-reducing impact of remittances.

Migrants refrain from sending remittances when the transaction costs are high; consequently,

making the high costs a constraint to development (Freund and Spatafora, 2008 and Watkins and Quattri, 2014). Mohapatra and Ratha (2011) found high remittance costs an unnecessary burden. They argued that the reduction of these costs can lead to an increase in the remittances sent by migrants which in turn increases the resources available to recipient households. Lowering the transaction cost is crucial to both the maximization of the impact of remittances for recipient families and the competitiveness of formal channels (Orozco, 2007). This is due to the fact that a reduction in transaction cost would lead to an increase in remittance flows and encourage a larger share of remittances to flow through the formal sector (Adams and Page, 2005 and Freund and Spatafora, 2008). Mashayekhi (2013) found that the lower the transaction cost, the greater the benefits and opportunities are for the receiving families and countries to capture development gains and reduce poverty.

Mashayekhi (2013) observed a negative correlation between the average cost and the volume of remittances from destination countries. In South Asia, low remittance costs were recorded as a result of high transfer volumes and high competition levels among service providers in both the host and the home countries while in Africa, the remittance costs were high due to lower transaction volume and lack of competition (Mashayekhi, 2013). This finding corroborates Orozco (2007) who found that high volume corridors like Latin America had reported a drastic reduction in sending costs.

The use of new technologies such as prepaid cards and the use of mobile phones provide cheaper alternatives for transferring money (Orozco, 2007). Smartphone-based products and services can help increase both the affordability and accessibility of remittances (Mashayekhi, 2013). A study by Financial Sector Deepening (FSD, 2017) suggests that if remittance service providers move from cash-based transactions to electronic-based transactions, there would be a potential to reduce the pricing. According to the study, moving from cash-based transactions will enable remittance service providers to eliminate costs such as commissions to agents, finance crime risk, location-related costs, settlement charges and call centers among others. Watkins and Quattri (2014) argue that although technological innovation is yet to drive down costs in remittance markets, mobile banking, internet transfers and rapid technological innovations should lower the costs.

Remitters have little knowledge of the remittance cost structures, as there is a lack of transparency in cost; especially the foreign exchange margin (Truen et al., 2005 and Watkins and Quattri, 2014). The opaque nature of the remittance markets and the complex range of products available in them makes it difficult to tell why the remittance charges are high (Watkins and Quattri, 2014). Improving transparency in the remittance market and information flows could help in addressing information asymmetries and make senders aware of the best transfer options (Mashayekhi, 2013). For example, the publication of information about the cost of remittances may contradict the perception that informal channels are cheaper than formal channels (Isaacs, 2013). The Global Migration Group (GMG, 2017) posit that transparency and data are essential to lowering the cost of remittances. Transparency can help in price reductions as publishing directly comparable pricing data can lead to some remittance service providers cutting down their prices to appear

competitive (Isaacs, 2013). This pricing data, when published on internet-based price comparison websites, can also assist in encouraging more remitters to use formal remittance channels (Isaacs, 2013).

The Global Migration Group (GMG, 2017) suggests two ways in which transaction costs can be reduced. The first is by promoting competition and supporting the entrance of new players into the market. This can be attributed to the fact that limited competition, a result of market concentration in the global money transfer industry, has led to high transaction costs (Watkins and Quattri, 2014). Competition aids in reducing the cost of sending remittances because it encourages innovation in the types of products offered to the remittance recipients and it expands the geographical reach of the remittances (Vasconcelos and Meins, 2013). Ratha and Riedberg (2005) posit that competition is the most efficient way of reducing prices as observed in Mexico where remittance prices dropped due to increased competition and customer awareness regarding remittance services and prices. The second way of reducing costs, as suggested by the GMG (2017), is by developing regulatory frameworks that remove obstacles to non-bank remittance service providers accessing payment system infrastructures and facilitating the interoperability of mobile remittance systems. Orozco (2009) observes that greater competition and the adoption of new technology have contributed to sharply lowering the cost of sending money.

2.6 Remittance Market in South Africa

The remittance market in South Africa has experienced growth and changes facilitated by partnerships between banks and retail chain stores (Eighty20, 2016). Retailers such as Shoprite and PEP Stores have partnered with other financial institutions to provide cross-border remittances (Truen, Kgaphola and Mokoena, 2016). Significant innovation in the remittance market has been centered on mobile money services, which has enabled instantaneous transactions as remittance agents are can communicate between the parties to the transaction (Eighty20, 2016 and Truen, Kgaphola and Mokoena, 2016).

Although formal channels have expanded through market entry of retail stores and product innovation, the South African remittance market is well serviced by informal channels (Eighty20, 2016 and Truen, Kgaphola and Mokoena, 2016). A study by Mohapatra and Ratha (2011) found that close to eighty percent of migrants in South Africa sent money home, largely to other African countries through informal channels. The volume of remittances sent out of South Africa in 2009 exceeded the country's remittance inflows (Melde and Anich, 2013). The main factors that affect the choice of the remittance channel in South Africa are the cost incurred in sending the remittance and the regulatory environment in the country.

2.6.1 Regulatory Environment in South Africa

The rules that pertain to cross-border payments and the access to foreign currency are covered in the following regulatory issues: authorized paying institutions, the role of non-bank financial institutions, limits on and the requirements for money transfers, ownership of foreign currency

accounts and anti-money laundering (Orozco, 2009). The limits on and the requirements for money transfer are meant to protect against fraud and capital flight and may hinder the amount of money a person can bring into or take out of the country (Orozco, 2009). The legal and regulatory framework has considerable influence on the cost, availability and accessibility of remittance services and on the structure of the remittances market (Nicoli, Kachingwe and Kaput, 2018). Migrants in South Africa rely on informal networks due to significant regulatory restrictions on sending money (Orozco, 2007). These regulatory restrictions include documentation requirements which makes undocumented migrants ineligible for the formal channels (Akinboade et al., 2017). The three main areas in the South African regulatory environment that are important for this study are foreign exchange controls, FICA (Financial Intelligence Centre Act) regulations and the immigration law (Eighty20, 2016).

2.6.1.1 Foreign Exchange controls

In South Africa, the South African Reserve Bank issues licenses to remittance service providers allowing them to deal in foreign currency exchange and cross-border remittances (SARB, 2019). The SARB issues two types of licenses: Authorized Dealer License and Authorized Dealer with Limited Authority (ADLA). The Authorized Dealers are banks authorized to deal in foreign exchange and cross-border remittances while the ADLAs are non-bank operators allowed to deal in foreign exchange but are limited to travel-related transactions and remittances (Eighty20, 2016).

Regardless of their size, each Authorized Dealer and ADLA is mandated to report every foreign exchange transaction daily (Eighty20, 2016). This reporting is done to the Financial Surveillance Department through the SARB's cross-border Foreign Exchange Transaction Reporting System (SARB, 2019). A study by Truen et al. (2005) found that the use of ADLAs only due to foreign exchange controls reduces the level of competition thus increasing the remittance transaction costs.

2.6.1.2 FICA

This refers to the regulations under the Financial Intelligence Centre Act (FICA) of 2002. This act stipulates stringent requirements with respect to Know Your Customer (KYC) and Customer Due Diligence (CDD) (Eighty20,2016 and National Treasury, 2017). Regulations such as the Anti Money Laundering (AML) and Countering the Financing of Terrorism (CFT) requirements, particularly Know Your Customer documentation requirements, have been a significant barrier to accessing remittance services (Nicoli, Kachingwe and Kaput (2018). FICA requires a prospective customer seeking to open an account or to transact with a financial institution to provide an officially acceptable form of identification which must be verified and supported by an acceptable proof of residential address (Eighty20, 2016).

In 2015, FICA introduced an exemption affecting cross-border remittances. The exemption removed the requirement that customers must provide proof of address for certain cross-border transactions. The exception applied only to single transactions or multiple transfers for which the total amount transferred does not exceed R 3 000 per day and R 10 000 per month. To use the exemption, providers must apply measures for monitoring the transactions. (Eighty20, 2016).

2.6.1.3 Immigration Law

Financial institutions in South Africa are barred from aiding consumers who are not legally permitted to be in the country. Therefore, the financial institutions are required to scrutinize the passport of the sender to verify residency status and ensure that the individual is in South Africa legally (Immigration Act, Section 45 and Eighty20, 2016). There exists a conflict between the FICA exemptions and the immigration regulations. Whereas the immigration regulations still prohibit a financial institution from dealing with any migrant who cannot be verified as being legally in South Africa, the FICA cross-border exemption permits migrants with acceptable forms of identification to transact up to the stated thresholds (Eighty20, 2016). The progress in formalizing the South African remittance market is likely to be hampered if the immigration controls are not regularized (Truen, Kgaphola and Mokoena, 2016).

2.6.2 Cost of Remittances from South Africa

Africa is said to be failing to secure the full potential from remittances due to the high costs of sending them (Watkins and Quattri, 2014). Although relevant to Africa's underserved rural areas, remittances are particularly expensive to send to these areas (Orozco, 2009). Remittance costs across many African corridors are high due to low volumes of formal flows, inadequate penetration of innovative technologies, limited payout presence in rural areas and lack of a competitive market environment (Ratha et al 2018).

Globally, South Africa is one of the most expensive countries to send money from (World Bank, 2019). The global average cost of sending USD 200 in the third quarter of 2019 was 6.84% while the average cost of sending the same amount from South Africa during the same period was 15.96% of the amount (World Bank, 2019). In Africa, the Send Money Africa (2018) remittance prices database ranks South Africa as the most expensive send market. As illustrated in Figure 3, eight of the ten most expensive remittance corridors in the second quarter of 2018 originate from the country (Sending Money Africa, 2018).

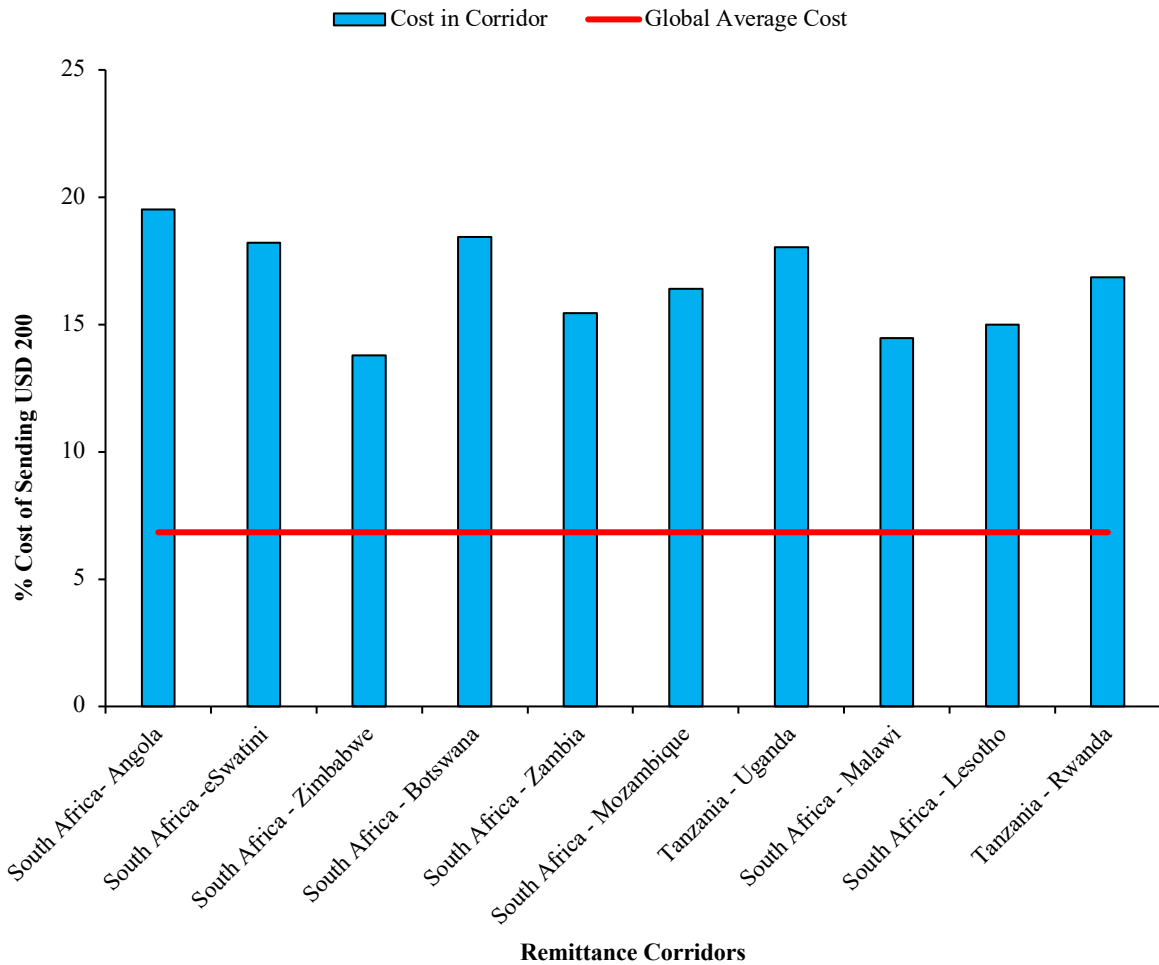


Figure 3: Top 10 most expensive remittance corridors in Africa (Source: Send Money Africa, 2018)

The fees charged by the remittance service providers depend on factors such as operating expenses, commission fees, exchange rate spreads and other market features (Vasconcelos et al, 2017). These operating expenses include the cost of labor to submit the required paperwork, office rent and other overheads like salaries (Mela, Hajat and Mogadime 2017). Studies (Mela, Hajat and Mogadime, 2017; Vasconcelos et al 2017 and Nicoli, Kachingwe and Kaput, 2018) have shown that banks are the costliest remittances service providers followed by Money Transfer Operators. Data from the Remittances Prices Worldwide (2019) corroborates these studies as illustrated in Figure 4.

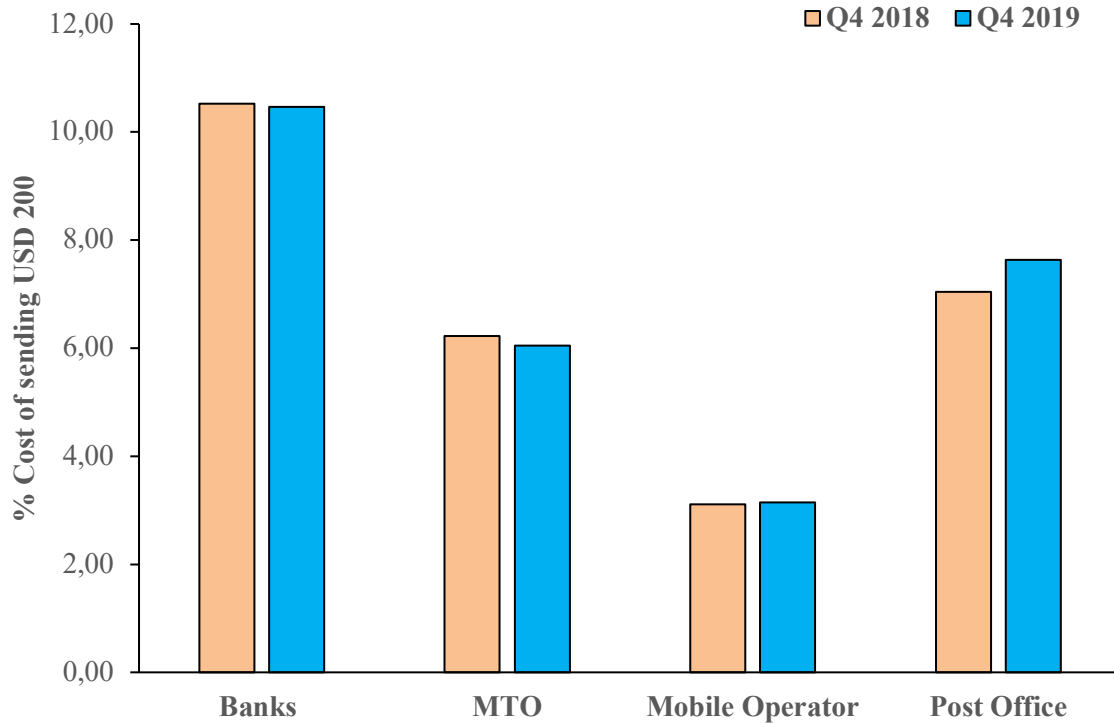


Figure 4: Cost per remittance service provider (Source: Remittance Prices Worldwide, World Bank, 2019)

2.7 Remittances to Zimbabwe

Zimbabwean migrant workers - both documented and undocumented - send a significant value of remittances to their communities back home (Maphosa, 2007). These remittance inflows contribute to an estimated 9% of the country's GDP (World Bank, 2018; Ratha et al 2018). However, accurate data on remittance inflows into Zimbabwe is either unavailable or is inaccessible because massive flows through informal channels go unrecorded (Tevera and Chikanda, 2009).

Remittance inflows into Zimbabwe generally involve cash transfers but the endemic shortage of basic commodities in the country encourages the sending of remittances in kind (Kerzner, 2009 and Crush, Chikanda and Tawodzera, 2012). Sending remittances in the form of household and consumer goods is very popular because of the price and quality differential of the goods between South Africa and Zimbabwe (Truen et. al., 2016). Most of the remittances that are sent in kind are based on the specific and immediate needs of the recipients and the goods sent included foodstuff and consumer goods like furniture (Tevera and Chikanda, 2009).

Although there has been a substantial growth and innovation in the formal remittance market in

Zimbabwe, informal channels are preferred due to the country's geographical proximity resulting in the high frequency of friends and taxi drivers travelling from South Africa (Genesis, 2003 and Truen et. al, 2016). Financial innovation by new market entrants into the Zimbabwean remittance market has increased the ease and affordability of remitting (Truen, Kgaphola and Mokoena, 2016). The new entrants include new money transfer agents such as Mukuru, Hello Paisa and Mama Money and mobile operators (Truen et. al.,2016). Mukuru was found to be the most used remittance service provider followed by long-distance taxis and buses (Truen et. al., 2016).

Informal channels are dominated by cross-border transport operators known as Omalayisha (Thebe, 2011 and Crush, Chikanda and Tawodzera, 2012). These are unlicensed individuals who use pick-ups (which are locally referred to as bakkies) and trailers to transport money and goods to Zimbabwe; sometimes even transporting people in and out of the country (Kerzner, 2009). The Omalayisha operate on an informal personal basis and has drawn its popularity from its speed of delivery, the convenience it offers and its ability to transport almost anything across the border (Thebe, 2011). The Omalayisha operates entirely on trust which is earned through reliability (Thebe, 2011).

Remittances into Zimbabwe have positive micro economic and social impact on households and the community at large (Makina, 2012 and Mugumisi and Ndlovu, 2013). A 2009 study by Bracking and Sachinkonye found that remittances were critical in alleviating household poverty and that a substantial majority of households were dependent on them for essential household goods like food. As a major source of household income, remittances have reduced vulnerability to hunger, ill-health and poverty (Tevera and Chikanda, 2009). This is because the bulk of the money sent is used to finance everyday household survival like school fees, groceries and utilities (Truen et. al., 2016).

Remittance inflows to Zimbabwe are yet to reach their full potential at a macroeconomic level because most remittances flow through informal channels (Makina, 2007 and Mugumisi and Ndlovu, 2013). Zimbabwe needs development funds to drive its economic growth but is unable to access such funds due to the country's high sovereign risk and a lack of credit rating (Mugumisi and Ndlovu, 2013). This makes the country dependent on remittances. Remittances can improve a country's credit worthiness if the remittances are measurable, substantial and are predictable over time (Ratha, 2007). Informal remittances are not officially recorded making it difficult to ascertain their volume. Therefore, the country cannot use remittances to improve its credit worthiness.

2.7.1 Zimbabwe Economy

The political and economic meltdown in Zimbabwe accelerated in the year 2000 during the state sponsored farm invasions and continued even after the 2008 national elections (Makina, 2012). In August 2019, the IMF reported that the inflation in Zimbabwe was at 300%. The country continues to experience economic difficulties which have seen social conditions deteriorate sharply resulting in food insecurity (IMF, 2019b). Food has remained extremely expensive in comparison to local incomes and in comparison, to their prices in South Africa. Migrants have been reported to send

food to Zimbabwe (Crush, Chikanda and Tawodzera, 2012). Almost everything in Zimbabwe is imported. Also, the country experiences a shortage of physical cash, a high cost of living and widespread unemployment (BBC, 2019b).

Although a recent report by the African Development Bank (2019) declared that the Zimbabwe economy is performing better than previous years, the country relies heavily on remittances since it cannot get foreign aid from the International Monetary Fund (IMF) due to pending debts that the country owes to other international financial institutions (IMF, 2019a). The IMF (2019a) asserts that until Zimbabwe meets the conditions it has set for it, it will not lend them money. These conditions include clearing existing arrears with other international financial institutions, obtaining official bilateral creditors and reaching an agreement on a coherent set of macroeconomic policies that can restore economic growth and lay the foundation for job creation (IMF, 2019a). Whereas the economic and political instability in Zimbabwe increases both the proportion of remitters and the value of remittances sent, the policy uncertainty in financial markets affects the way money is remitted (Truen, Kgaphola and Mokoena, 2016).

2.7.1.1 Currency and Cashlessness

Zimbabwe has experienced an economic meltdown from the year 1999 which was marked by hyperinflation, ushering in a multicurrency regime in 2009 (Mugumisi and Ndlovu, 2013). The multicurrency regime was introduced to tame the effects of hyperinflation that the country was experiencing initially adopting the US dollar, Euro, UK Sterling Pound, South African Rand and Botswana Pula (Beigut, 2015). The introduction of these currencies resulted in the demonetization of the Zimbabwean dollar in 2015 (RBZ, 2015). During the multicurrency regime, Zimbabweans would pay for a product or service in one currency and receive change in another currency (BBC, 2019b).

The Reserve Bank of Zimbabwe (RBZ) introduced Bond Notes and coins as currency, in a bid to end the shortage of US dollars when the dollars began to disappear from the formal banking system (RBZ, 2016 and Muronzi, 2019). Although the RBZ had intended the value of the Bond Notes to be 1:1 to the US dollar, the black-market speculation quickly eroded the value of the Bond Notes triggering a shortage that the reserve bank tried to set off by creating electronic notes (RBZ, 2016 and Muronzi, 2019).

In February 2019, the RBZ Governor introduced the Real Time Gross Settlement (RTGS) dollar into the multicurrency system in the country (RBZ, 2019a). The existing electronic balances, Bond Notes and coins in circulation were denominated in RTGS dollar, which according to the RBZ was to establish an exchange rate between the current monetary balances and foreign currency (RBZ, 2019a). According to the IMF (2020), this newly introduced currency has lost most of its value, yet the inflation rate is still high and the country's international reserves are very low.

Zimbabweans have long avoided holding currency issued by their own government due to low confidence in it caused by the government's long history of poor fiscal management (Lwanda, 2019). During the multicurrency regime, the US Dollar and the South African Rand were the most

common and used currencies (BBC, 2019a). In June 2019, the RBZ abolished the multicurrency system replacing it with the local unit of account- the RTGS Dollar (RBZ, 2019b). However, most citizens still quote the prices in US Dollars (Chingono, 2019).

Zimbabwe has been facing cash shortages which has resulted in many Zimbabweans using their mobile phones to execute financial transactions (Muronzi, 2019). In a bid to promote the use of plastic money, withdrawal limits of Bond Notes were set by the RBZ (2016) at 50 Zimbabwean Dollars per day and a maximum of 150 Zimbabwean Dollars per week. According to the BBC (2019b), Zimbabwe has become a cashless society as it run out of all currencies because it was importing far more than it was exporting. In its Monetary Policy Committee (MPC) meeting in October 2019, the RBZ acknowledged that the level of physical cash in the economy was inadequate to meet the transactions demand. The meeting concluded that as a result of this, many citizens were struggling to afford basic commodities and commercial banks were also constrained by their liquidity levels (RBZ, 2019). The RBZ (2019) thus appreciated the need to review upwards cash withdrawal limits and boost the availability of cash for transactional purposes through the gradual increase of cash supply.

In an unprecedented move in September 2019, the RBZ banned the use of mobile money transfers (RBZ, 2019). Although it later lifted the ban, the RBZ has now put a restriction capping the mobile money cash withdrawals to 100 Zimbabwean Dollars per transaction (RBZ, 2019). In an article written for the World Economic Forum, Lwanda (2019), suggests that a blockchain-based currency would be a solution to circumvent the lack of confidence in the government's monetary system. Lwanda (2009) further argues that a cryptocurrency would solve the two most fundamental problems with the state-run monetary system in Zimbabwe because the transactions would be stored on a distributed, decentralized public ledger and discretionary printing of money would be prevented by capping the supply of the cryptocurrency. Blockchain technology, according to Lwanda (2019), will lower transaction costs - a move that could save the Zimbabwean diaspora up to 90 million US Dollars in remittance-related fees.

2.7.2 Zimbabwean Migrants

Since the year 2000, South Africa has experienced an increase of migrants from Zimbabwe as a result of the political and economic crisis in their country (Makina, 2012 and Mugumisi and Ndlovu, 2015). These crises are of such magnitude that a study by Tevera and Chikanda (2009), found that household heads and their spouses were migrating from the country in significant numbers. Zimbabweans have been found to migrate to South Africa to look for work, to study and to escape from the harsh living conditions in their country (Kerzner, 2009 and Crush, Chikanda and Tawodzera, 2012).

Zimbabwe is the country with the highest number of migrants in South Africa (Akinboade et al., 2017 and Nicoli, Kachingwe and Kaput, 2018). In the 2011 South African census, the total number of migrants who took part in the census was slightly above 2.1 million migrants, 68% being migrants from the SADC region (Statistics South Africa, 2015). The census report stated that of

the migrants from the SADC region, 46% were from Zimbabwe. Makina (2012) acknowledges that there are no reliable statistics on the number of Zimbabwean migrants in South Africa since majority enter through informal border crossings and remain undocumented throughout their stay.

The large Zimbabwean diaspora creates a substantial demand for remittance services because most migrants send back remittances in cash and/or kind due to their need to maintain close connections with their families in Zimbabwe (Tevera and Chikanda, 2009 and Truen et. al., 2016). Studies (Tevera and Chikanda, 2009 and Crush, Chikanda and Tawodzera, 2012) have found that there exists a positive correlation between the amount remitted and the frequency of remitting. The frequency of remitting is however influenced by the needs of the recipient (Kerzner, 2009). Zimbabwean migrants remit more than half of the total value in the South African formal remittance market (Truen, Kgaphola and Mokoena, 2016).

Most Zimbabwean migrants are undocumented and therefore they cannot access formal remittance channels (Kerzner, 2009). This has resulted in the remittances in this corridor being sent through informal channels (Kerzner, 2009 and Crush, Chikanda and Tawodzera, 2012). Social networks have been found to influence the informal channel through which the remittance is sent (Tevera and Chikanda, 2009). Since a vast majority of the remittances are sent either in cash or in kind, the preference is largely determined by the circumstances of the recipient (Kerzner, 2009 and Crush, Chikanda and Tawodzera, 2012).

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Data

Remittance data comprises aspects such as remittances and migration, remittance volume and remittance transaction cost. The volume of remittances is the total amount of remittances sent and is mostly measured in US dollars. The remittance transaction cost is the cost incurred by the migrant while sending the remittance. This is usually given as a percentage of the amount that is sent. Most data on remittances are provided by development agencies mainly the World Bank and the IMF. The remittance data provided by these agencies is, however, not the actual volume but rather estimates as they only capture data from formal channels.

The IMF is the primary source of data on the volume of remittances as it combines the estimates of the balance of payments, recorded at the national level, and reported by Central banks around the world (Ratha et. al., 2017). The data is collected using guidelines stipulated in the IMF Balance of Payments and International Investments Position Manual (BPM6). This data is, however, not accurate because it only captures remittances sent through formal channels. Some countries like Zimbabwe and Cuba do not report data on remittances on the IMF balance of payment statistics and even those countries that report leave out remittance flows from some formal channels resulting in the undercounting of remittances reported (Ratha et. al., 2017).

Other developmental agencies that issue data on remittances are the International Fund for Agricultural Development (IFAD) and the Global Knowledge Partnership on Migration and Development (KNOMAD). Through its Financing Facility for Remittances, IFAD runs Remitscope. Remitscope (www.remitscope.org) is an online tool that provides regional, sub-regional and country level data and market analysis through key figures in population, remittances and migration and the regulatory environment. The website, at the time of this study (as accessed on February 18, 2020), only provided data on fifty countries in the Asia- Pacific region stating that other regions would be added at a later date.

Remittance Prices Worldwide (www.remittanceprices.worldbank.org) is a database established by the World Bank in 2008 to monitor, on a quarterly basis, the remittance prices across all geographic regions of the world covering 367 country corridors (World Bank, 2019). Although several countries and regions have since introduced their databases, the Remittance Prices Worldwide remains the primary source of data for the cost of sending and receiving small amounts of remittances (Ratha et. al., 2017). The database which gives estimates from formal remittance channels only, is used as a reference for measuring progress towards global cost reduction (World Bank, 2019). Table 2 breaks down the details of the data available on the website and the parameters that used to obtain this data. According to Alvarez et. al. (2015), this is the most complete data set.

Data	Details	Parameter used
Firms Data	Major service providers in each corridor including primary MTOs and Banks active in the market, Post office- when available.	Companies that cover maximum remittance market share possible.
Amounts	Two amounts surveyed for each region	Local currency equivalent of both USD 200 and USD 500
Transfer fee	Charge the sender pays at the initiation point, varies with amount sent	
Exchange rate Margin	Part of cost not quoted in the transfer fee. Majority of transactions paid in local currencies thus the need for the exchange	
Product	Different forms of transaction covered by the database	Door-to-Door, Cash-to-Cash, account-to-account (same bank), account-to-account (different Bank), account-to-cash, cash-to-account, cash-to-account (different Bank), credit/debit card service, online service, mobile service. Since Q2 2016 Payment Instrument (Cash, bank account transfer, debit/ credit card or mobile money). Receiving Method (Cash, Bank account (same bank or partner bank), mobile wallet. Location of collection of cash
Access Point	Type of access point for the sender	Agent, Bank branch, Post office, Internet, Mobile phone, Call center
Speed of transfer	Time needed for the remittance to be available to the receiver	Less than an hour, Same day, Next day, 2 days, 3-5 days, 6 days or more
Network Coverage	Network coverage in the sending and receiving country	Nationwide, Urban only, Rural only, Main city, Major cities. Since Q2 2016 - both of sending and receiving network ranked as high medium, low

Table 2: Information on the data available in the Remittance Prices Worldwide website (Source: Remittance Prices Worldwide, World Bank, 2019)

The World Bank provides remittance transaction costs for sending USD 200 and USD 500 and their local currency equivalent. However, in this study, the amount used to determine the remittance cost was R 1000. In a 2016 study by Eighty20, it was found that according to the remittance service providers in South Africa, the median value for cross-border remittances was

closer to R 850 which at the time was about USD 55. The data collected from the informal channels was compared to remittance data from the World Bank remittances data and the African Institute of Remittances. These institutions provide up-to-date comparative prices of sending remittances through various formal remittance channels. The data from the formal and informal channels was collected between January 2020 and Mid-February 2021. The study identified five informal remittance channels used to send remittances from South Africa to Zimbabwe. These are the long-distance buses and taxi companies, long-distance vehicle drivers, hand carrying by people travelling to Zimbabwe, unregistered remittance service providers and unconventional means of sending remittances. Data was collected from each of these identified informal channels.

3.1.1 Data Limitations

The currently available data on remittance costs is not accurate or complete enough to either assess the true cost of remittances or to understand what drives cost fluctuations or monitor this rapidly evolving market (Alvarez et. al., 2015). This, according to Alvarez et. al. (2015), is due to the following limitations:

- i. Mystery shopping is resource intensive thus limiting the scope of the data set available.
- ii. Remittance costs fluctuate significantly over time and vary substantially depending on amount.
- iii. The average cost, which is used as the main indicator, is not weighed by the number of migrants using each money transfer service provider for which data was collected.

Data on the informal remittance service providers is not easily available. This is because most of these service providers do not advertise their services to the public and mostly rely on referrals by their existing customers. Apart from referrals, they only advertise through community platforms - mainly WhatsApp and Facebook groups. An attempt to find data on the number of buses that ply the South Africa-Zimbabwe route on a weekly and annual basis was hindered by the South Africa government-imposed lockdown as a response to the global Covid-19 pandemic. The lockdown resulted in the closure of international borders and restriction on non-essential travel.

3.2 Methodology

This study used data from formal and the informal remittance channels operating within the South Africa-Zimbabwe remittance corridor. The data collected comprised: cost of transaction, remittance system used (for example cash-to-cash or bank transfers) and the general operations of the remittance channel. The study also observed the trends in the remittance industry in South Africa, particularly the South Africa-Zimbabwe remittance corridor.

The informal remittance service providers were identified through: searching and canvassing among the Zimbabwean community in Cape Town, South Africa; resources and institutions ranging from Newsletters, word-of-mouth, church groups, entertainment spots, friends, colleagues and relatives in Zimbabwe and in South Africa. Identifying informal remittance service providers was challenging because they do not advertise their services on mainstream media. The formal

service providers were identified through the SARB website as these providers require a license from the regulator to operate as such. Other remittance providers were identified through various remittance comparison websites and advertisements.

Transaction costs charged by the informal service providers was collected through conducting cross-border transfers through the identified channels. In 2016, Eighty20 conducted a study on the cross-border remittance market in South Africa using the following methods: actual branch visits, telephone communication and using live chat function on remittance service provider websites (Eighty20, 2016). These methods were also employed in this study.

Informal remittances can be estimated using either the direct approach or the shadow economies and model-based approach (Freund and Spatafora, 2005). The direct approach uses household surveys in which respondents are asked how much they receive and by what means they receive it. The other approach develops, using insights from literature, a structural model of remittance that can be estimated (Freund and Spatafora, 2005). Although residents tend to under report income (Ravillion, 2003), the direct approach is preferred because it is considered accurate for remittances than for other types of informal income (Freund and Spatafora, 2005).

Data on the various aspects of remittances was collected from primary and secondary sources. The primary sources of data in this study comprised remittance data websites and mystery shopping. Mystery shopping is the method commonly used, especially by the World Bank, to collect data on remittance costs. For this study, the mystery shopping was done on various dates between January and March 2020 and from September 2020 to January 2021. While presenting themselves as customers, researchers perform actual remittance transactions, make phone calls to various service providers and chat with the service providers on the web chat facilities on the websites of the service provider. Eight long-distance bus companies, fifteen individuals who use various informal remittance channels to send remittances to Zimbabwe, one unregistered remittance service providers and four registered remittance service providers were surveyed using the mystery shopping and direct approach of data collection. The data on the long-distance bus and taxi as informal remittance service providers was collected by visiting the Cape Town long-distance bus terminal to find out which of the buses offered remittance service to Zimbabwe, the speed of transaction and the associated costs.

Secondary data was obtained from reviewing existing research and studies on remittances. Development agencies and consulting firms conduct studies and research on remittances; thus providing data on the same. In South Africa, FinMark Trust, DNA Economics and Genesis Analytics are among the consulting firms that have researched extensively on the remittance market in South Africa. In addition to mystery shopping, these firms carry out surveys where they engage the senders and the households that receive remittances. Various studies conducted by these firms were done through household surveys and the use of focus groups in their data collection.

The author contacted one of the researchers from DNA economics who has conducted many research projects on the remittance market in South Africa for close to ten years; with the objective

of getting more insight into the South Africa-Zimbabwe remittance corridor. Additional insights on this remittance corridor were gained by having a conversation with and listening to a podcast interview done by the founder of BitKesh (Tsvetu, 2020), a blockchain-based remittance company that serves this corridor. Blockchain technology and cryptocurrencies are relatively new in the remittance industry. Limited academic research has been done on this technology. However, articles from the World Economic Forum, the British Broadcasting Corporation (BBC) and Cable News Network (CNN) were used to get information on the use of cryptocurrencies in the remittance industry. These news outlets were also used to get information on the state of the Zimbabwean economy.

While conducting the cross-border money transfer, the verbal questions listed below were posed to the service providers with the sole aim of collecting data. These questions received clearance from the UCT Ethics Board. The questions that were asked during the interviews were:

1. I want to send USD 100 today. What is the exchange rate and what are the sending fees?
2. I might be coming to send more money. If I were to send USD 5 000 would the fees and exchange rate stay the same?
3. How do you know my USD 5 000 is safe?
4. I do not want my friends to pay tax. Is the transaction discreet or do I need to worry?

The first two questions sought to find out the cost of sending money and whether the cost varied depending on the amount sent. The purpose of the third question was to find out the average monthly volume traded by the remittance service provider (RSP). This was a leading question that was meant to allow the provider to indicate their average remittance volume per transaction, that is, if sending USD 5,000 was safe, then it would provide an estimate of the amount per transaction that the remittance service provider traded in. The objective of the fourth question was to find out whether the remittance service provider (RSP) reports to the reserve banks.

CHAPTER 4: DATA ANALYSIS

This research findings include the characteristics of the South Africa Zimbabwe remittance corridor and the remittance transaction costs in this corridor. A summary of the findings is shown in Figure 5.

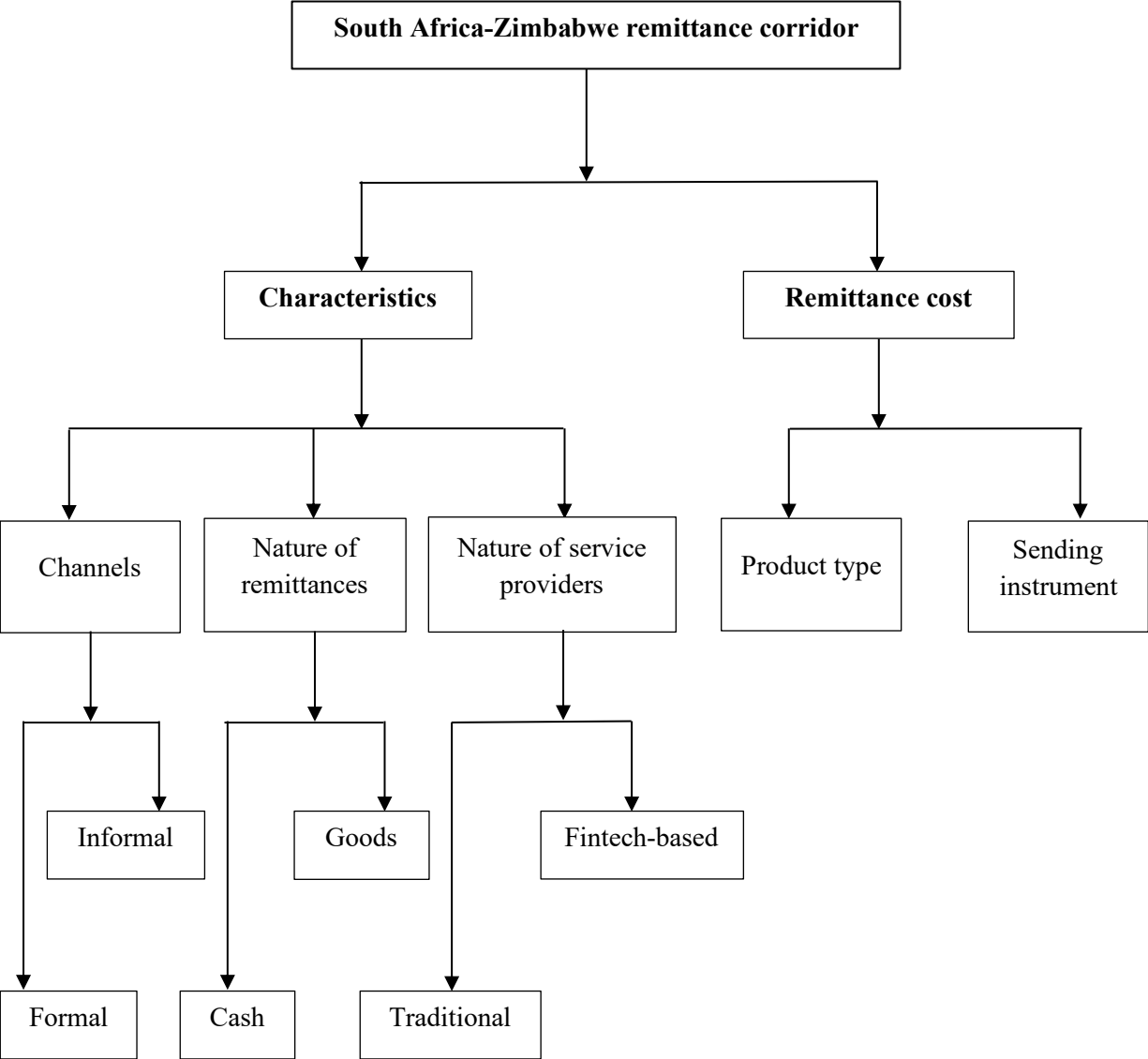


Figure 5: Summary of research findings

4.1 Characteristics of the Remittance Corridor

The study focused on three main characteristics of this remittance corridor: remittance channel, remittance product and the nature of the remittance service providers available in the corridor. The remittance channel includes the broad classification of the remittance service providers in this corridor as either formal or informal channels. The second characteristic is the remittance product in the corridor. This study found that remittances sent to Zimbabwe from South Africa are either sent as cash or as goods, mostly household goods. Finally, the remittance service providers in this remittance corridor are of two different natures: traditional and financial technology (Fintech)-based business structures. The remittance service providers that are based on the traditional business structure mostly operate from a physical location and the remittance senders must either visit their offices or the offices of their agents in person in order to send or receive remittances. The Fintech-based remittance service providers mostly offer their services online from their websites and through mobile phone applications.

4.1.1 Remittance Channels

The remittance service providers serving the South Africa-Zimbabwe remittance corridor fall into one of the two remittance channels in this corridor: formal or informal channels. As mentioned in Section 2.4, formal channels are those that are regulated by and have been issued with operating licenses by the South African Reserve Bank (SARB) while the informal channels are those that are not. Whereas formal remittance service providers are required by the government to submit a daily report of all the foreign currency exchange transactions that they conduct; informal remittance service providers do not report their transactions to any regulator. The migrants using the informal channels are mostly not given receipts which they can use to trace or keep a record of their transactions. In the study, we found that the amount of the remittance that can be sent in the informal channels was only limited by the discretion of the service provider unlike in the formal channels where the limit is guided by the regulations set forth by the SARB.

4.1.1.1 Formal Channels in South Africa

Formal channels in South Africa are divided into three groups: Retail Banks, Money Transfer Operators and Authorized Dealers with Limited Authority (ADLAs).

Banks

In South Africa, Banks are licensed by the SARB as Authorized Dealers in foreign exchange allowing them to buy and sell foreign currency and to perform cross-border remittances. They are, however, subject to conditions and limits prescribed by the Financial Surveillance Department of the SARB. There were twenty-five banks in South Africa, licensed under the Authorized Dealers in foreign exchange at the time of this study. The four largest banks by assets (SARB, 2018) offer remittance services in this corridor. These banks are: Standard Bank, First National Bank of South Africa (FNB), ABSA and Nedbank. The banks offer remittance services independently through account-to-account transfers or in partnership with established money transfer operators such as

Western Union or MoneyGram. In the case of account-to-account transfers, both the remitter and the recipient are required to have bank accounts. These banks offer remittance services through the following platforms:

- i. As agents of well-established Money Transfer Operators; Western Union and MoneyGram.
- ii. Online/ Internet banking platform.
- iii. Mobile Applications.
- iv. Branch walk-ins.

Table 3 shows the remittance service options provided by ABSA, FNB, Standard Bank and Nedbank. Western Union and MoneyGram are required by law to operate in partnership with either Authorized Dealers in foreign exchange (banks) or with Authorized Dealers with Limited Authority (ADLA). The adoption of technology has enabled banks to introduce online platforms and mobile phone applications in their product offering to their clients. These platforms allow the bank clients who have signed up for them to perform bank transactions including cross-border remittances without having to visit the physical location of the bank branches. The last platform through which banks offer remittance services is allowing their customers to walk into the bank branches and send remittance either through account-to-account transfer or through Western Union and MoneyGram.

Internet / Online Banking	MTO Agents	Banking App	Branch Walk-ins
- FNB. - Absa. - Nedbank - Standard Bank	- Absa (Western Union) - FNB (MoneyGram) - Standard Bank (MoneyGram)	- FNB - Absa - Nedbank	- FNB - Absa - Standard Bank - Nedbank

Table 3: Remittance services offered by ABSA, FNB, Standard Bank and Nedbank

Nedbank has partnered with Ecobank to offer bank transfers to the African countries in which Ecobank has operations. Zimbabwe is among the thirty-three countries with an Ecobank presence. Such transfers can be done only via Nedbank’s online banking platform and its Nedbank Money application. The cost of the transfer at the time of this study was 4.5% of the amount sent. However, to access this service, one ought to have a transactional account with Nedbank and then proceed to download it’s Money app or register for Nedbank’s online banking.

Banks are the least common method of sending remittances in the South Africa-Zimbabwe corridor. The reasons for this are the high remittance costs levied, regulatory restrictions in place and the speed of the transfer. International bank transfers take at least two days before the recipient can receive the money. This makes them unfavorable when one wants to send money that is intended to cater for emergency needs. As indicated in Section 2.5, banks have been found to be the costliest of the formal channels used in sending remittances. Figure 11 - in Section 4.2 -

corroborates these findings as it shows that for the South Africa-Zimbabwe corridor, banks are the most expensive remittance service providers. Banks were found to be expensive as a result of exclusivity agreements with Money Transfer Operators and operating costs such as office rent (Orozco, 2009 and Mela, Hajat and Mogadime, 2017). The exclusivity agreements with Western Union or with MoneyGram offers the banks guaranteed trade volumes but makes them less competitive when more money transfer companies enter the market (Orozco, 2009).

The only cross-border money transfer services offered by banks to non-customers are the Western Union and MoneyGram transfer services. The remaining remittance services require the clients to have an account with the respective bank. A valid visa and a verifiable physical address are some of the documentation required to open and operate a bank account in South Africa. As indicated earlier in this study (Section 2.7.2) a majority of the Zimbabwean migrants are undocumented and are thus unable to use banking services; consequently, lowering the popularity of banks as a channel for sending remittances. However, undocumented migrants or those without proper documentation may want to have those with the right documentation to access the formal remittance channels on their behalf.

Money Transfer Operators

The Money Transfer Operators that serve the South Africa-Zimbabwe remittance corridor are Western Union, MoneyGram and Ria. The licensing issued to the money transfer operators by the SARB, permits them to only trade if in partnership with either banks or with Authorized Dealers with Limited Authority (ADLA). These partnerships allow the banks or ADLAs to become agents of the Money Transfer Operators. Western Union and MoneyGram require that their agents sign exclusivity agreements which prevent the agents from offering the same service on behalf of another Money Transfer Operator (Orozco, 2009). Regulatory changes in South Africa have allowed for the introduction of independent Money Transfer Operators; thus lowering the domination of Western Union and MoneyGram in the South Africa remittance market (Nicoli, Kachingwe and Kaput, 2018).

MoneyGram has been operating in South Africa since the year 1998 and currently has over 5 000 locations from where remitters can send and receive money to various countries. MoneyGram serves the South Africa-Zimbabwe corridor, allowing the recipients to receive the money as cash or into a mobile wallet. The sender, however, must go to a MoneyGram agent to send the money. The migrant pays the transaction fee which is calculated based on the amount being sent. In South Africa, MoneyGram has partnered with Bidvest Bank, First National Bank of South Africa (FNB) and Standard Bank to offer their remittance services. FNB provides more options to the sender allowing them to send the money through the Bank's ATMs, branches and cellphone banking.

Western Union, a Money Transfer Operator established in 1856, currently has over half a million agents across two hundred countries across the globe (westernunion.com). Due to this global footprint, Western Union dominates cross-border money transfers with an annual transfer volume of seventy-eight million US dollars (Schweiger and Hangan, 2019). Western Union also serves the South Africa-Zimbabwe remittance corridor. It has a high network coverage in South Africa; with

its agents being spread across the nine provinces of South Africa. Western Union has partnered with banks and companies with the Authorized Dealers with Limited Authority licensing to offer remittance services in South Africa. Western Union’s banking partner in South Africa include Absa and Bidvest banks. Absa allows its customers to send money via Western Union through visiting their bank branches and through its online and cellphone banking.

Ria is a new entrant into the South African remittance market. Ria remittance services are offered by their agent in South Africa - Sikhona Forex (Pty) Limited. In Zimbabwe, the recipients can collect the money in US Dollars from ZB Bank limited branches.

Authorized Dealers with Limited Authority (ADLA)

ADLAs are businesses that have been authorized by the Financial Surveillance department of the South African Reserve Bank to deal in foreign exchange transactions and depending on their category of appointment they are authorized to conclude travel-related transactions and certain specified transactions (SARB, 2019). This license was introduced in 2014. South Africa currently has nineteen ADLAs licensed to operate within four categories.

The categorization by the SARB allows some of the ADLAs to operate independently while others operate as agents of well-established Money Transfer Operators like Western Union, MoneyGram and Ria. Not all South African ADLAs serve the South Africa Zimbabwe remittance corridor. Imali Express Limited, for example, is licensed under Category one and thus cannot render remittance services. The Southeast Exchange company, although a Category three license holder, only offers cross-border transfers to bank accounts in Bangladesh. Table 4 shows the authorized activities for the four ADLA categories.

ADLA Categories	Authorized Activities
Category 1	Bureau de Change only
Category 2	Bureau de Change and can offer money remittance services in partnership with external Money Transfer Operators
Category 3	Independent Money Transfer Operator or Value Transfer Service Provider
Category 4	Combination of services offered by Category 2 and Category 3 ADLAs

Table 4: ADLA categorization by the South African Reserve Bank (Source; SARB, 2019)

Fifty three percent of the licensed ADLAs in South Africa operate under the Category two license as can be seen in Figure 6. The high number in this category is due to the fact that these ADLAs serve as agents of well-established Money Transfer Operators such as MoneyGram and Western Union.

■ Category One ■ Category Two ■ Category Three ■ Category Four

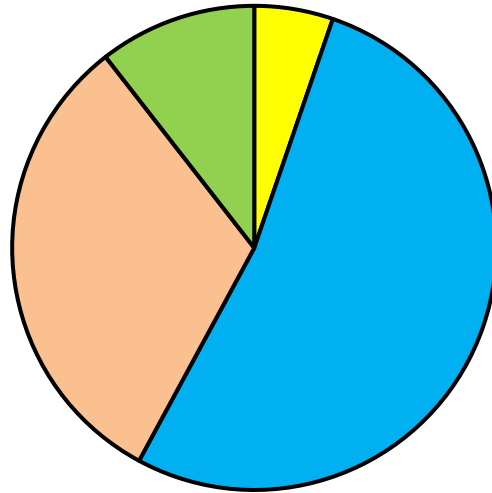


Figure 6: ADLA categories (Source: South Africa Reserve Bank, 2019)

Category three ADLAs are authorized to send cross-border remittances in kind and in cash. Currently, there is only one ADLA in this category that allows for value transfer as opposed to money transfer. Value transfer means that when the remitter sends money the recipient receives goods that are worth the value that was sent. There are limitations as to the recipient receiving the value sent as cash. The ADLA, Kawena Exchange (Pty) currently offers its remittance services from South Africa to Zimbabwe and Mozambique. The five remaining ADLAs in this category are Money Transfer Operators. Currently, there are two Category four ADLAs in South Africa-Hello Paisa and Mama Money. This categorization allows the companies to offer services offered in both Category two and Category three of licensing.

Kawena Exchange has partnered with a household goods retail chain, OK Zimbabwe limited to serve the South Africa-Zimbabwe corridor. Zimbabweans in South Africa must register with the company in order to use its services. The registered customers are then able to transfer value to recipients back in Zimbabwe through the Kawena E-wallet. The E-wallet is pegged on the recipient's cell phone number and is loaded by depositing South African Rand into Kawena's Standard Bank account, indicating the recipient's cell phone number as the reference. The value is then transferred to the recipient's cell phone number. The recipient has two options of collecting the value sent to them: they can either pick it up from any OK-Zimbabwe store as bond notes or alternatively load up their store cards (OK Shop Easy Card or Money Wave card). The cards allow the holder to redeem the value in form of household goods sold at OK stores. The advantage of this service is that it is easily available to the recipient since OK Zimbabwe has its branches spread across the country. In Zimbabwe, remittances are used to meet household needs and not for investment purposes. Therefore, this value transfer is ideal to meet this need because it allows the

recipients to redeem the remittance as household goods from the OK stores. However, a major disadvantage is the currency risk involved. The value is sent in South African Rand but received as bond notes in Zimbabwe. The, therefore, sender has no control over how much money the recipient will receive. This is because the sender has no control over what exchange rate will be used because the exchange rate used is the one prevailing on the day the recipient goes to redeem the remittance. The sender also faces the risk of losing their money if they input an incorrect beneficiary phone number as Kawena does not guarantee the recall of the funds; especially if the beneficiary has already transferred from their mobile phone to their OK card.

Mukuru is a Category two ADLA whose operations are almost similar to Category four ADLAs Mama Money and Hello Paisa. These three operators have adopted the use of technology. They have mobile phone applications which customers can download on their phones upon registration. Although these operators charge different fees for their services, they have a similar service flow, which begins with the potential customer registering for the service. The registration is done either at the operator agent offices or on the operators' mobile application platforms. The documents required for registration include valid identification documents and proof of residence. Registered customers send money to Zimbabwe by creating an order, making the payment after which the recipient receives the money. An order is created by adding beneficiary name and contact details. Additional beneficiary details such as their bank account number may be required if the beneficiary would prefer to have the money deposited into their bank account. Once an order has been created, the sender receives a reference number which they then use to make payment at either the operator's agent office or at various pay-in points within twenty-four hours of the order creation. The pay-in points in South Africa include retail stores like Pick n Pay, Checkers, Shoprite, Game, Makro, PEP stores and Ackermans among others. In addition to the cash pay in options, Mama Money and Hello Paisa give their customers the option of making payments by sending electronic funds transfers to their bank accounts. The payment is made in South African Rand although at the Mukuru stores one can send in US Dollars.

Once the payment has been made, the recipient receives a text message informing them that money has been sent to them. The money is usually available for collection within an hour of making the payment. However, if the payment was done via an electronic funds transfer, the recipient will have to wait for up to forty-eight hours to receive the payment. In Zimbabwe, the money is collected using different options provided by the operators. The collection can be done as cash, as mobile money or deposited into the beneficiary's bank account. Cash collections are done at the Money Transfer Operators' agent booths or at partner retail stores.

ADLAs are more advantageous to use in sending remittances than banks. This is because they offer cheaper and more convenient services to their customers. In the fourth quarter of 2019, banks charged customers an average of 18.18% to send USD 200 to Zimbabwe while the ADLAs charged an average of 9.42%. The convenience offered by the ADLAs is attributed to the access to the service and the speed in which the transaction is completed. While banks take an average of three to five days for the recipient to receive the money, ADLAs effect the transactions almost

immediately allowing their customers to receive money within an hour of it being sent. As mentioned earlier within this sub-section, many ADLAs have adopted the use of technology making them more friendly as customers are then able to transact using their mobile phones. However, for the transaction to be complete one must physically visit a pay-in point to make the cash payment.

4.1.1.2 Informal Channels

As previously discussed in Section 2.4.1, the informal remittance channel is the most preferred channel in the South Africa-Zimbabwe remittance corridor. These service providers are mostly businesses that are legally registered to operate other types of business and thus they do not have the necessary permits allowing them to offer cross-border remittance services. For example, the bus companies that offer remittance services informally are only licensed to offer passenger transport services but in spite of this, they offer cross-border remittance services. Other companies informally offering cross-border remittance services are registered as import and export companies while others are companies that have operations in South Africa and in Zimbabwe. Some of these companies have gone ahead and acquired the Financial Intelligence Centre Act (FICA) license, that allows them to purchase foreign currency from the reserve bank through commercial banks and other authorized FICA license holders. After purchasing the foreign currency - mainly US dollars from the South African Rand - they find informal means of remitting the money to Zimbabwe. However, the informal remittance service providers do not offer currency exchange services. The currency given by the sender is the currency given to the recipient. This is made easier by the fact that the US dollar and the South African Rand are both acceptable in Zimbabwe.

Unlike the formal remittance service providers who advertise their services on mainstream media, informal providers depend on word-of-mouth to advertise. These service providers advertise their services mainly by spreading the word in Zimbabwean community groups (for example WhatsApp and Facebook groups). The reason that prevents them from advertising their remittance services on mainstream media is the fact that although they are legally registered business entities, they lack the licensing that allows them to offer remittance services. This implies that the operators in the informal channels mostly depend on referrals to attract new clients. These referrals come from clients who have previously used their remittance services, either as senders or as recipients of the remittances. The remitters in South Africa tell their fellow Zimbabwean migrants the remittance service providers that they have used and those that they have found to be convenient. Convenience in this case is brought about by lower costs, faster speed of delivery and accessibility of the service. The recipients of the remittances advise the remitters on which service providers are easily accessible to them in Zimbabwe. The recipients also inform the remittance senders of costs, if any, levied to them while receiving the remittance.

Informal remittance service providers in South Africa do not ask for any documentation from the Zimbabwean migrants before they effect their transfers. Mostly, the only information required from the sender are the contact details of the recipient; thus making this channel more convenient especially for undocumented Zimbabwean migrants. The service providers do not require the

sender to fill any forms before the transaction is made. They also do not issue receipts for the services they offer. A comparison between the requirements for sending remittance through the formal and informal channels is given in Table 5. As mentioned in the Literature review (Section 2.4.1), informal channels are based on trust. Trust that the service provider will keep their word by ensuring that the recipient receives the exact remittance that was sent. The only way to keep track of the transaction is by contacting the recipient to find out whether they received the money or goods that were sent to them or not.

Formal Channels		Informal Channels	
MoneyGram	Bank (Standard Bank)	Long-Distance Bus Company	Informal MTO
1. South African Nationals - ID document, amount to be sent and fees. 2. Foreign Nationals: a) Valid ID document. b) Proof of residence. c) Recipient's full name matching their ID and Country. d) Amount to be sent including fees. A form provided by the agent must be filled.	1. Must be an account holder. 2. Recipient's details: a) Name and surname. b) Gender. c) Full Physical address. 3. Account number 4. Provide reason for making the payment.	1. Contact details of the recipient: a) Full Name. b) Phone Number. c) Point of collection. 2. Money to be sent (including fees).	1. Contact details of the recipient.

Table 5: Documents and information required from the sender by different service providers

As mentioned in Section 2.4, geographical proximity is one of the factors that influence the choice of a remittance channel. The closer the countries are to each other the easier it is to send remittances through informal channels. This is because the proximity allows for cheaper and frequent travel between the countries thus making it easier to carry remittances across borders. This is true in the South Africa-Zimbabwe remittance corridor. Zimbabwean migrants in South Africa often send remittances through the following channels:

- i. Long-distance buses/ taxi companies.
- ii. Long-distance vehicle drivers.
- iii. Hand carrying.
- iv. Unconventional means.

Long-Distance Buses/Taxis

Zimbabwean migrants in South Africa send their remittances through the long-distance buses and taxis that ply the South Africa-Zimbabwe route. However, not all the buses plying this route offer

remittance services. Remittances sent through this channel are sent either as goods or as cash. The migrant sending the remittance goes to the bus station with the cash or goods that they want to send to Zimbabwe. Some of the bus companies that offer these remittance services acknowledged that they make more money sending the remittances than they make transporting passengers to Zimbabwe. This is because the bus companies charge more to transport the goods than they do charge the passengers travelling. For example, in a conversation to find out how much is sent to Zimbabwe, one of the service providers interviewed mentioned that for a seventy-nine-seater bus they make R 79 000 since each passenger pays R 1 000 for a one-way trip from Cape Town to Harare. However, if the same bus gives up some of the passenger seats and carry goods and offer money transfer services instead, they make between R 100 000 and R 160 000 for the same trip. The bus companies also take advantage of the fact that although many migrants are not able to travel to Zimbabwe monthly, these migrants send some form of remittance every month to their dependents.

At the Cape Town long-distance bus terminal as an example, there are four ways of sending through the long-distance buses or taxis:

- i. Immediate transfer of cash to the recipient.
- ii. Courier service offered by the bus company.
- iii. Courier by the bus driver.
- iv. Courier by the bus conductor.

For this study, we sent money to Zimbabwe using the first option. We visited the bus company offices at the Cape Town long-distance bus terminal. The particular bus company office that we visited has an agent through whom the money transfers are conducted. The agent uses a mobile phone to communicate with their partner agents across major towns in Zimbabwe. The sender must confirm whether the bus company has an agent in the town where they want to send the remittance to. In the absence of an agent in the recipient's town, the sender either chooses a nearer town or the option to send the money as a parcel to be collected later when the bus arrives from South Africa. The agent only asks for the location and contact details of the intended recipient of the funds. The sender is not asked to submit any documents apart from the money that is to be sent including the transaction fee. The bus company charges a transaction fee of ten percent of the amount being remitted. This meant that, since we intended the recipient to receive R 1 000, we gave the agent R 1 100. It is important to note that the bus company does not offer foreign currency exchange services. Therefore, if one desires to send the money in dollars or would like the recipient to receive it in dollars, they are sent to the informal money exchangers at the Cape Town railway station or to other foreign exchange Bureau as per the client wishes. The current black-market US Dollar to South African Rand exchange rate is 1:16, that is, 1 US Dollar is equal to 16 South African Rand.

Using the second option, that is, the use of the courier service offered by the bus company; one can either send the remittance in the form of money or as goods. In this case the remittance fee is

paid upfront by the sender. If sending money, the money to be sent and the contact details of the recipient are submitted at the office of the bus company. If the remittance is in the form of goods, the charge is levied at the discretion of either the bus company or the bus driver. There are those that charge per kilogram of the parcel being sent while others look at the item being sent and give a price for it. Some of the bus drivers and bus conductors, in this study, were observed to offer remittance service in their individual capacity and not as representatives of the bus companies that they work for. The transaction cost for sending remittances to Zimbabwe through this channel is not a fixed amount. This is because the remittance cost is negotiated between the driver or conductor and the person sending the remittances. However, the study found that the average cost charged by different service providers was 10% of the remittance sent. This method of sending remittance is based on trust that the remittance will be delivered to the correct beneficiary and the sender has no means of seeking redress should the bus driver or conductor fail to deliver the remittance.

Long-Distance Vehicle Drivers

Drivers of long-distance vehicles such as buses, taxis and trucks between South Africa and Zimbabwe also offer remittance services. This they do independently from the bus or truck companies that they work for. Therefore, the remittance sender approaches the driver with their remittance- either the cash or the goods that they want sent to Zimbabwe. In this channel, there is no standard fee charged as the cost is at the discretion of the driver. However, most of them charge between ten and twenty percent of the amount being sent. The drivers do not offer any foreign currency exchange services therefore the money is delivered to the recipient in the currency given to the driver. The cost may also depend on the town to which the remittance is being sent. The driver may charge higher if the town where the recipient is, is not in a town where the bus normally makes a stop. The sender gives the driver the money being sent and the contact details of the recipient. The sender also takes the contact details and the registration number of the vehicle in order to send to the recipient. Sometimes the driver is paid extra money to deliver the remittance to the recipient's doorstep. This channel is based on the trust that the driver will deliver the goods or money.

Hand Carrying

This is the most common method of sending money to Zimbabwe. This is because Zimbabwean migrants often travel back home due to the proximity to South Africa. As they travel, they carry with them the money or goods that they wish to send back home. The migrants also send their friends, relatives or colleagues who are travelling back home. Zimbabwean migrants have been known to even send strangers with their remittances. This they do by approaching a traveler at the bus station and asking if they would be willing to take some money to a recipient in Zimbabwe. They then give the traveler the contact details of the recipient and take their contacts as well so that they may give the same to the recipient. There are normally no charges levied in this remittance method, however, the sender sometimes gives the traveler a token of appreciation.

Unconventional Means

Zimbabwean migrants in South Africa have come up with unconventional means of sending remittances back home. These unconventional means are preferred because they are seemingly cheaper and offer more convenience than the conventional remittance channels. These methods are made easier by the frequency of Zimbabweans moving to and from South Africa as a result of the country's proximity. In this study, the unconventional means that were identified included:

- i. Unconventional bank transfers: this occurs when a Zimbabwean migrant in South Africa either sends money to a South African bank account belonging to a fellow migrant or gives cash to this migrant with the expectation that the recipient will send an equivalent amount to a specified account in Zimbabwe. The recipient in such cases are migrants who have money in their South African bank accounts and would like to transfer the money to Zimbabwe at a cheaper exchange rate and without any regulatory restrictions. For example, Migrant A deposits money into Migrant B's bank account in South Africa. After receiving the money, Migrant B deposits the equivalent amount into Migrant A's local bank account in Zimbabwe. The foreign exchange rate is agreed upon by the two migrants.
- ii. Some Zimbabwean migrants travel to the border town or send money to their friends or relatives who live in these towns. They then ask their relatives in Zimbabwe to travel to these towns and meet up with them or their friends to either receive the money or goods sent to them before heading back home.
- iii. A source that wanted to remain anonymous talked of an informal courier company with an agent who leaves on a flight to Zimbabwe from the Cape Town international airport. This company's agents carry either light parcels or money to or from Zimbabwe at least thrice a day. The agent carries the money as is and does not conduct any currency exchange. In addition to cash, the courier company also sends documents to Zimbabwe.
- iv. South Africa-based companies that have branches in Zimbabwe, though formally registered to conduct other businesses, offer remittances informally. They receive the money from the remitter in South Africa and then through its branch in Zimbabwe, send a text message to the recipient asking them to visit the offices to collect their money. Such companies do not offer foreign currency exchange services thus the currency sent is the currency received.

Informal Money Transfer Operator

In this study we identified an informally operated Money Transfer Operator (MTO). The MTO has agents in various towns in Zimbabwe. This operator is based in Pretoria. However, the client who wishes to use their services does not have to visit their offices. When one desires to send money to Zimbabwe, they are required to send a message via WhatsApp or make a call to the agent. The remittance charge levied by this Money Transfer Operator is ten percent of the amount being sent. The payment is made either through a deposit of the cash equivalent into their FNB account or by taking the money to their Pretoria offices. If one opts to deposit the money though

the bank, they would be required to take a picture of the deposit slip and send it to the operator. Sending the remittance through this option incurs an extra cost of R 20 to cater for bank charges if the deposit is below R 3 000. This means that if one sends an amount that is less than R 3 000 though the bank deposit, the total remittance cost will be ten percent of the amount being sent and an additional R 20 to cater for bank charges.

4.1.2 Nature of Remittances

As mentioned in Section 2.7.2, Zimbabwean migrants send their remittances in the form of cash or as goods. Cash remittances are sent and received either in United States Dollars or South African Rand. This results from the multicurrency regime that is prevalent in Zimbabwe. The sender states the currency which they would prefer the recipient to receive in. This is informed either by the sender's preference or from the advice received from the recipient. Remittances sent in the form of goods are mostly common with the informal channels. Some formal remittance service providers, however, offer this service.

4.1.2.1 Cash Remittances

Cash remittances are sent as physical cash, from mobile wallets, bank accounts, debit or credit cards and from mobile money. The sender's choice of instrument is influenced by their preferred remittance service provider, the cost of the using the specific instrument and how soon they would like the recipient to receive the money. Choice is also determined by the instrument's accessibility to the recipient. An instrument is preferable when the recipient can easily access it. For example, bank account transfers may not be preferred in rural towns where there is no presence of a bank branch. The speed of the transaction is an important determinant because physical cash is preferred over bank account transfers when the remittance is expected to meet an urgent need. Bank transfers take between three and five days before the money is accessible to the recipient. The ADLAs in South Africa have agents in Zimbabwe where their clients can receive the cash sent to them. Others allow the transfer to be done into the recipient's mobile wallets for withdrawal at their convenience. Table 6 shows selected remittance service providers who send cash remittances to Zimbabwe and the instruments they use. The sending network coverage indicates the accessibility of the remittance service provider in South Africa while the disbursing coverage indicates that of the receiving point in Zimbabwe.

Remittance Service Provider	Payment Instrument	Access Point	Sending Network Coverage	Transfer Speed	Receiving Method	Disbursing Coverage
Ecobank Rapid Transfer	Bank account transfer, Cash	Bank branch, Internet	High	Same day	Cash	Medium
World Remit	Bank account transfer, Debit /Credit Card	Internet	High	Less than an hour	Cash	High
Mama Money	Bank account transfer, Cash, Mobile Money	Agent, Internet, Mobile Phone	High	Less than an hour	Bank account, Mobile Wallet	High
FNB	Bank account transfer	Internet	Medium	Less than an hour	Bank Account, Mobile Wallet	High
EcoCash Remit	Cash, Mobile Money	Agent, Internet, Mobile Phone	Medium	Less than an hour	Mobile Wallet	High
Hello-Paisa	Bank account transfer, Cash	Agent, Internet	High	Less than an hour	Cash	High
Mukuru	Bank account transfer, Cash	Agent, Internet	High	2 days	Cash, Bank account, Mobile wallet	High
MoneyGram	Cash	Agent	High	Less than an hour	Cash, Mobile Wallet	High
Western Union	Cash, Debit /Credit card	Agent, Call Centre	High	Less than an hour	Cash	Medium
ABSA	Bank account transfer	Internet	Medium	3-5 days	Bank Account	High
FNB	Bank account transfer	Bank Branch, Call Centre	Medium	3-5 days	Bank account	High
Nedbank	Bank account transfer	Bank branch, Call Centre	Medium	3-5 days	Bank Account	High
Standard Bank	Bank account transfer	Bank branch, Call Centre	Medium	2 days	Bank account	High
ABSA	Bank account transfer	Bank branch, Call Centre	Medium	3-5 days	Bank account	High

Table 6: Service providers in the South Africa-Zimbabwe Corridor (Source; Remittance Prices Worldwide, 2019)

4.1.2.2 In-Kind Remittances

Remittances in the South Africa-Zimbabwe corridor are sent as goods in one of two ways. The first is that goods are bought in South Africa and then transported to Zimbabwe. Alternatively, one can send money to Zimbabwe, but the money can only be redeemed in Zimbabwe in the form of goods at grocery stores. Zimbabwean migrants in South Africa often buy groceries in South Africa to carry home to Zimbabwe. The goods can also be given to friends, colleagues travelling to Zimbabwe to take to the migrant's dependents in Zimbabwe.

The economic situation in Zimbabwe discussed in Section 2.7.1 has contributed greatly to the growth of this manner of remitting since household goods are either unavailable in Zimbabwe or, when available, they tend to be very expensive. The lack of physical cash in the economy also encourages many Zimbabweans to prefer receiving remittances in the form of goods rather than in cash. As discussed in Section 4.1.1.2, there are long-distance buses, taxis and truck that offer courier services from South Africa to Zimbabwe. In this study, we found that remittances sent through informal channels - especially via the long-distance buses and taxis - are sent in the form of goods. We identified three formally registered companies that send household goods from South Africa to Zimbabwe. These are Kawena Exchange Pty, Malaicha and Nyasha Groceries.

Kawena Exchange (Pty) is a Category three ADLA (as explained in Section 4.1.1.1), licensed to trade as a value transfer service operator, unlike other ADLAs in the same category that trade only as Money Transfer Operators. They have partnered with OK Zimbabwe Limited to offer this service. The remittance sender in South Africa, registers with Kawena and is then able to send money into the recipient's OK card through their Kawena e-wallet. The recipient collects the card at any OK store in Zimbabwe activating it using their identification document and are then able to shop using it. Recipients can only redeem the money deposited into the OK card through in-store purchase of household goods at OK Zimbabwe stores.

Malaicha.com is a product of Hello Paisa, a Category four ADLA. Using their Hello Paisa registration details, the remittance sender uses the Malaicha.com mobile application to purchase household goods. Malaicha.com publishes on its website, a monthly catalogue of the goods available and their costs. The list of available goods and their cost is also given in the mobile application. The payment is made through funds transfer to the company's bank accounts in FNB, Standard Bank and Nedbank. Once the purchase has been done, delivery is made to the recipient in Zimbabwe within five working days. The delivery is free within twenty kilometers from the selected Malaicha.com store.

Nyasha Groceries is a South Africa-based company that allows remitters to send not only household goods but also make utility payments for their dependents in Zimbabwe. The utilities include airtime, electricity, gas and school fees. One orders the goods they require sent to Zimbabwe via the company's website (nyasha.co.za), their Facebook page or through the phone via WhatsApp. The payment can be made by cash at the company's offices, cash deposit at the bank, bank transfer, Western Union or by using a Visa or Mastercard debit or credit card. Since the goods are bought in South Africa and then transported to Zimbabwe, delivery takes two to

seven working days. The recipient can either pick it at the company's offices in Harare or Bulawayo or pay an extra delivery charge to have the delivery done to their homes.

A price comparison was done from a basket of goods whose price was checked across four different retailers: two in Zimbabwe and the other two from the remittance service providers mentioned in the previous paragraphs (Malaicha.com. and Nyasha Groceries). The prices were only recorded for the products that were available in all the four stores. The price charges for sending goods through the long-distance buses or trucks was not included in this comparison because the cost levied by such is determined per kilogram of the whole parcel being sent or by price agreement between the sender and the driver. This study found that Malaicha.com is cheaper than the other value remittance service providers. The study corroborates with the studies mentioned in Section 2.7 that state that the goods in South Africa are cheaper than the same items in Zimbabwe. The basket of household goods chosen, and their respective prices is shown in Table 7.

Household item	Spar (Zimbabwe)	Malaicha.com	Nyasha Groceries	OK Zimbabwe
Rice - 5 kg	R 66,66	R 58,99	R 90,00	R 74,75
Pasta - 3 kg	R 109,00	R 73,00	R 92,50	R 86,25
Wheat flour - 2.5 kg	R 52,29	R 39,99	R 75,00	R 64,49
Baked beans - 410g	R 15,77	R 14,50	R 20,00	R 22,50
Milk - 1 liter	R 27,33	R 12,99	R 28,60	R 27,74
Breakfast cereal - 500g	R 59,99	R 39,99	R 55,00	R 65,00
Sugar - 2 kg	R 47,99	R 37,99	R 50,00	R 49,75
Salt - 1 kg	R 12,66	R 4,99	R 9,00	R 13,75
Conned beef - 300 g	R 29,60	R 26,79	R 33,00	R 32,50
Juice - 2 liter	R 53,33	R 24,99	R 45,50	R 65,00
Soap	R 13,67	R 6,99	R 20,00	R 22,50
Toothpaste	R 15,00	R 13,99	R 15,00	R 12,75
Washing powder - 1 kg	R 36,67	R 41,99	R 54,00	R 72,50
Total Cost	R 539,96	R 397,19	R 612,60	R609,48

Table 7: Price comparison of household goods. (Source: Price Quotation from Spar (Zimbabwe) and from individual websites of the service providers i.e., Malaicha.com, Nyasha.co.za and okonline.co.zw)

In-kind remittances in this remittance corridor come with advantages such as they safeguard the recipients in Zimbabwe from the price fluctuations and lack of household goods in stores in Zimbabwe. However, there are unique disadvantages that come with its use. The goods can be lost

before they reach the intended recipient. The cost of transportation is high since the customs fees at the border is normally factored in the price. Finally, in-kind remittances sent to Zimbabwe from South Africa cannot be used to satisfy an emergency need for the recipients in Zimbabwe. This is because a majority of these in-kind remittances are sent to Zimbabwe via road. Road transportation may take several days; with the time taken being a factor of the distance to be covered and the customs clearance traffic at the South Africa-Zimbabwe border.

4.1.3 Nature of Service Providers

In the South Africa-Zimbabwe remittance corridor, the remittance service providers - both within the formal and informal channels - fall into two broad categories: traditional and Fintech (Financial technology)-based remittance service providers. This study has based this categorization on the operational models of the service providers. Table 8 shows the major differences between the two categories. The traditional method of sending remittances involves the remitter visiting the service providers premise with either the cash or the goods that they would like to remit. In the case of formal channels, a sender would be required to fill a form giving their own identification and contact details together with the same details of the recipient. Upon submitting the duly filled form and giving the remittance, including the transaction fee, the service provider would then initiate the transaction. This transaction goes through several intermediaries before eventually getting to the recipient. After making the transaction, the service provider issues the sender with a receipt indicating a reference number which the recipient will use to collect the remittance. As indicated in Section 2.4.1, informal channels operate without documentation. In most cases, they neither require their clients to fill a form nor issue a receipt.

Characteristic	Traditional	Fintech-based
Transaction Time	Up to 1hour to multiple days	A few minutes to 1 Hour
Service	Both Cash and Goods	Mostly Cash
Mode of operation	One must visit the remittance service provider to access service	Internet-based, can be done on phone or computer
Paperwork	In formal channels, one must fill in paperwork for the service	No need of paperwork
Cost	More expensive due to operational costs like rent	Cheaper
Intermediaries	Intermediaries are involved	No intermediaries involved

Table 8: Differences between Traditional-based and Fintech-based remittance service providers

Fintech-based service providers have adopted technology in comparison to traditional service providers. The traditional remittance service providers often require the remitter to physically visit their branch or agent office to send their remittance while the Fintech-based remittance service providers do not. This is because the latter uses technology that allows the remitter to use their mobile phones or computers to execute internet-based transactions. There are, however, some

traditional remittance service providers such as banks that are integrating technology into their product offering; thus, allowing their customers to effect cross-border transfers online. Technology-based remittance service providers are cheaper and faster than their traditional counterparts. They are cheaper because they incur less operational costs such as rent or agency fees. This cost saving is consequently passed to the customer. An example of the cost saving that comes with the use of a technology-based system would be the cost of sending money through FNB bank. It cost 6.99% of the amount in the fourth quarter of 2019 to send USD 200 to Zimbabwe via the FNB’s online banking and 22.68% when a remitter walks into the bank’s branch to send the same amount of money to Zimbabwe.

4.1.3.1 Traditional

Traditional remittance service providers are those that have not adopted the use of modern technology in their operations. The user must visit the physical premises of the service providers to execute a remittance transaction. Once there, the remitter is required to fill in some forms indicating their personal details such as their name and contact details. They are also required to give the same details about the recipient. The remitter then presents a filled-up form, their valid identification document and the money that they intend to remit. Upon receipt of these documents the remittance service provider then sends the money to the recipient. Traditional remittance service providers in this remittance corridor comprise service providers in both formal and informal channels. These include banks, long-distance bus companies, retailers of household goods and some Money Transfer Operators.

Remittances sent through traditional remittance service providers take a longer time than those sent through the Fintech-based ones for the recipient to receive the remittance. This can be attributed to the process involved in sending the remittance. Traditional telegraphic transfers sent by banks go through various intermediaries before they reach the final recipient. The intermediaries add to the cost incurred and the time it takes before the money reaches the recipient. Figure 7 shows the traditional remittance process by the bank. When the long-distance buses are used to send remittances, the remittance is not received immediately because the recipient has to wait for the bus to arrive in Zimbabwe. Longer duration may increase the likelihood of the remittance getting lost before reaching its intended recipient. Traditional remittance services providers are more expensive than the Fintech-based ones. The high cost is brought about by the high operational costs incurred by the service providers. These operational costs include rental fees, intermediary costs and custom duty charged at the border point for the long-distance buses.

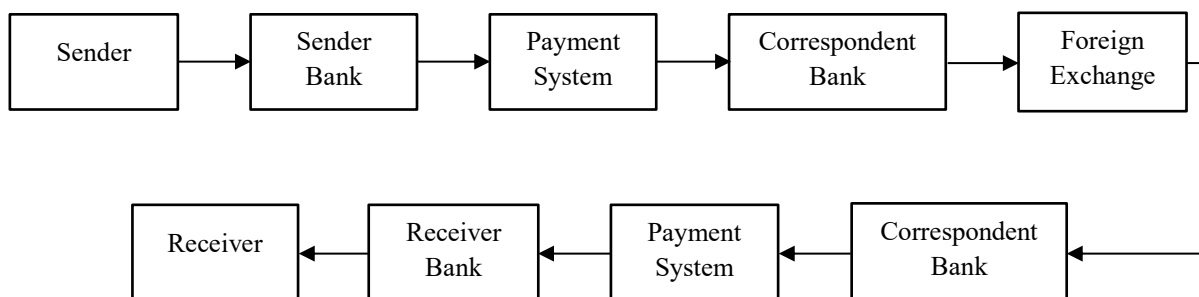


Figure 7: Traditional remittance process (Source: Blockdata, Remittance Report, 2019)

In South Africa, retailers of household products such as Shoprite, Pick n Pay, PEP Stores and Checkers have entered into the remittance industry. Such retailers fall into two main categories—those that are Money Transfer Operators and those that are agents of other Money Transfer Operators allowing their clients to either send or receive remittances in their stores. However, some retailers such as PEP Stores have remittance products for domestic remittances. Shoprite is a registered Category three ADLA and is thus authorized to offer cross-border remittances. Currently the retailer has a remittance product to Lesotho. To serve the South Africa-Zimbabwe corridor, the retailer acts as a pay-in point for Mukuru, Hello Paisa and Mama Money.

4.1.3.2 Fintech-Based Remittance Service Providers

Fintech-based remittance service providers offer their services through mobile phone applications and internet-based platforms. Therefore, a user does not have to visit the service providers' offices to execute a remittance transaction. This makes such service providers more convenient than the traditional ones. This convenience results from the remittance services being cheaper and being more accessible to users – i.e., the senders and the recipients of remittances. Fintech-based remittance service providers are cheaper than traditional ones as their use of technology reduces their operational costs. They also have fewer and sometimes no intermediaries allowing the recipients to receive their funds faster than if the funds were sent through traditional service providers. Since there is no face-to-face interaction between the service providers and the remittances senders, payment is made through electronic funds transfers, debit or credit cards or mobile money wallets. The independent money transfer operators in South Africa such as Mukuru, Mama Money and Hello Paisa have mobile applications which the customers can download on their phones and use to transact. However, the mobile applications for Mukuru, Hello Paisa and Mama Money are mostly limited to initiating the remittance transaction. For the transaction to be deemed complete, the sender is required to visit a payout point to issue the money.

As mentioned in Section 2.4.3, the new trend in the remittance industry is the use of blockchain technology and cryptocurrencies in sending cross-border remittances. Globally, thirty-nine blockchain remittance companies were established between 2011 and 2018 (Schweiger and Hangan, 2019). Figure 8 shows the remittance process followed in using the blockchain technology. From the Figure 8, it can be seen that the process takes less time and is thus more convenient to the customers - especially if the funds are being sent to meet an urgent need. In the study by Blockdata, Schweiger and Hangan (2019) observed that big corporations are looking to partner with blockchain startups to empower the evolution of remittances. The South Africa-Zimbabwe remittance corridor has not lagged in the use of blockchain technology. There are blockchain-based remittance service providers serving this corridor.

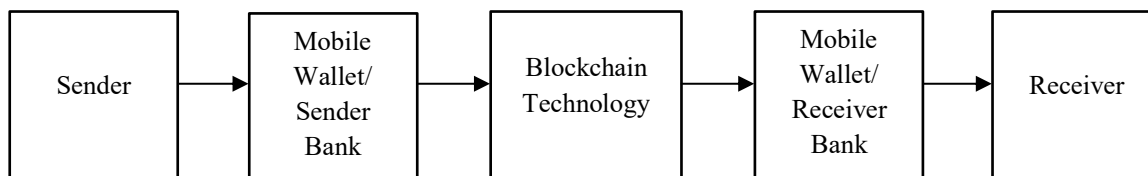


Figure 8: Blockchain remittance process (Source: Blockdata, Remittance Report, 2019)

Bitkesh is a South African-based remittance company that allows its clients to send money to Zimbabwe. The company uses blockchain technology allowing clients to send remittances in Rand to Zimbabwe. The recipient in Zimbabwe receives the money in the Zimbabwean official currency- the RTGS dollar. A remitter who wants to send money to Zimbabwe via Bitkesh must either register via the company’s online platform or download the Bitkesh’s mobile application on their phone. Since its inception in 2017, Bitkesh has had nine thousand downloads of their mobile application as at the time of this study. Most of these users only use the application once in a month while sending their remittance back to Zimbabwe. Bitkesh does not charge its clients any transaction fees. However, the company makes its money from the foreign currency exchange spread arising from the exchange of currency from the South African Rand to the Zimbabwean RTGS dollar. Table 9 gives details on how Bitkesh works.

Bitkesh Process	Procedure
Registration.	Download the mobile application and register by providing. <ol style="list-style-type: none"> i. Operational mobile number. ii. Valid email address. iii. Valid Passport. iv. Profile Picture.
Top-up Bitkesh Account.	Electronic funds transfer from Bank Accounts.
Beneficiary.	Add, Edit or Delete beneficiaries on the App. Beneficiary details needed - Name and either Ecocash details or Bank account details.
Receiving the remittance.	Received in RTGS dollar via Ecocash or as a Bank transfer.
Speed of transaction.	15- 30 minutes during working hours. Up to 1 Hour after hours.

Table 9: Explanation of the Bitkesh service (Source: Bitkesh.com)

There are other remittance service providers who, although offering their services on online platforms, do not use the blockchain technology. Whereas some of these service providers are licensed by the SARB others are not even though they serve the South Africa Zimbabwe remittance corridor. The online Money Transfer Operators serving this remittance corridor include

Worldremit, Exchange4free and Currencies Direct. Transferwise, Xoom and Skrill are international online money transfer companies that, although offering their services to other African corridors, do not serve the South Africa-Zimbabwe corridor. This may be attributed to the instability of the Zimbabwean currency and the perennial shortage of US dollars in Zimbabwe.

4.2 Remittance Cost

As discussed in Section 2.6.2, the cost of sending remittances from South Africa to Zimbabwe is, on average, higher than the global average cost of sending remittances. This study found that the cost of sending remittances through the formal remittance channels was 15.13% while the informal remittance channels identified charged an average of 10% of the amount sent. As indicated in Section 2.6.2, this figure is higher than the global average cost of sending remittances which stood at 6.84%. Previous studies, as discussed in Section 2.5, found that the remittance cost is a total of the transaction fee levied by the remittance service provider, the foreign currency exchange margin and in some instances, the cost borne by the recipient as they receive the remittance. The transaction fee was found to include the operational costs, regulatory costs and other costs incurred by the service provider that are then passed on to the remitter. The foreign currency exchange margin is the cost component that arises from the exchange of currency in circumstances where the sending and the receiving currencies are not the same.

Figure 9 shows the remittance cost of sending two hundred US dollars in the South Africa-Zimbabwe corridor through various formal channels broken into the two components - the transaction fee and the foreign exchange margin. Money Transfer Operators - Mukuru, Western Union and MoneyGram - were found to have the highest foreign exchange margins. The informal channels identified in this study did not have this cost element in their final charge to the customer. This is because, the long-distance buses and other informal service providers do not offer foreign currency exchange services. Many informal service providers send remittances in the form of goods and when they send cash, the recipient is paid in the same currency that was remitted by the sender.

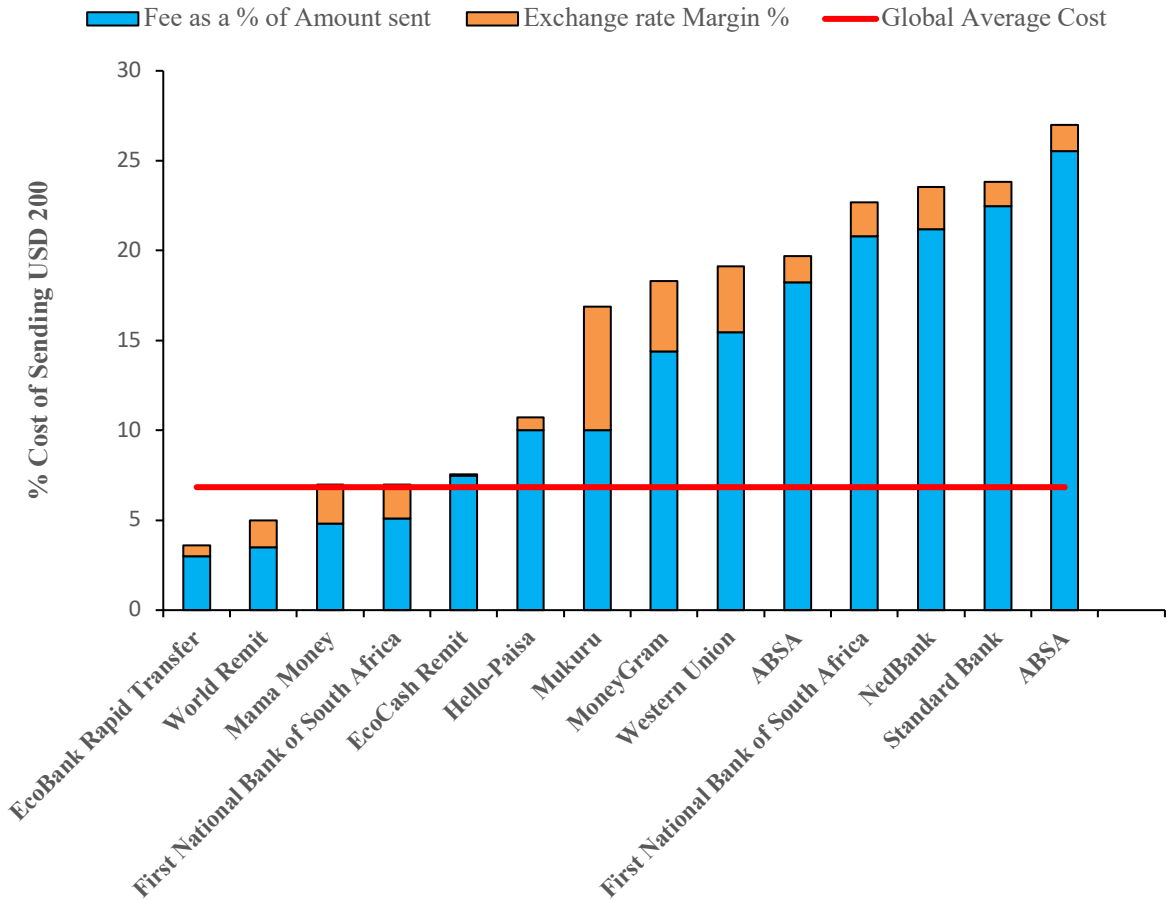


Figure 9: Remittance cost breakdown (Source: Remittance Prices Worldwide, World Bank, 2019)

The cost of sending the same amount of remittance varies depending on the sending instrument used and the type of remittance service provider. In this study, we looked at the remittance cost in these two aspects: cost of sending as per instrument type and the cost of sending by the type of remittance service provider. The former looks at the cost of sending remittances using various instruments such as prepaid cards, cash, mobile money and bank accounts. Figure 10 shows the cost of sending remittances through these instruments. The latter compares the remittance costs levied by various remittance service providers such as banks and money transfer operators.

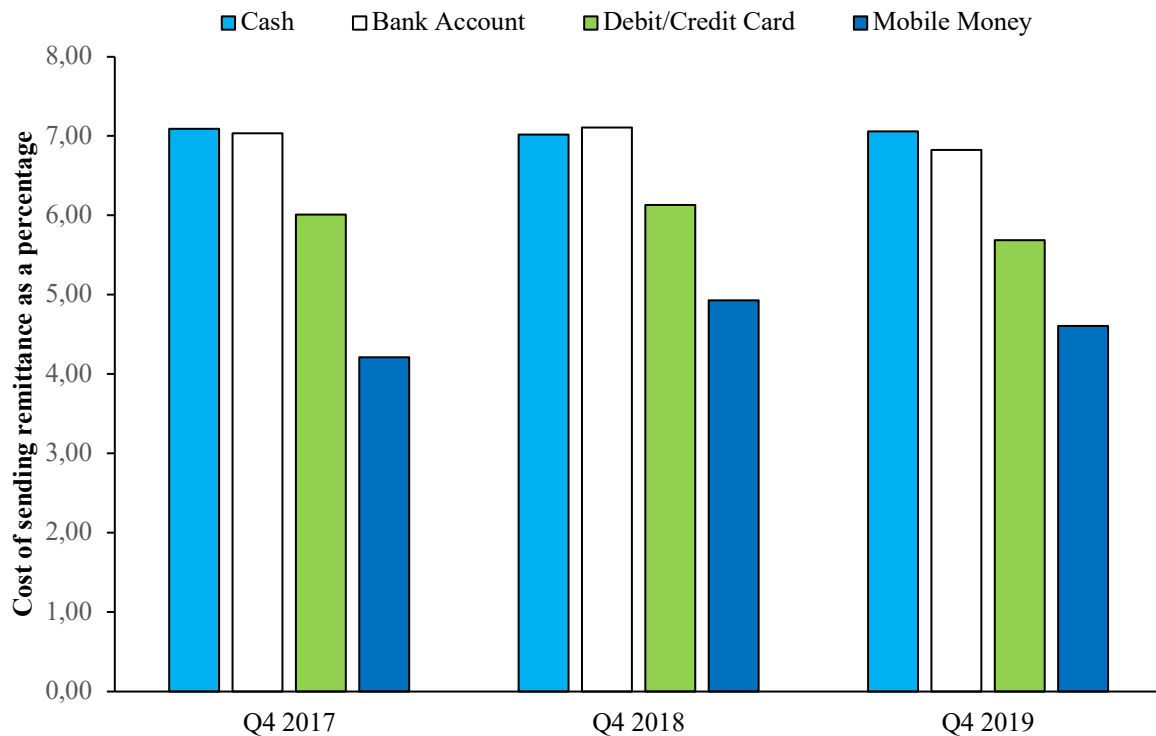


Figure 10: Global Cost of sending remittances using various instruments (Source: Source: Remittance Prices Worldwide, World Bank, 2019)

Data for the fourth quarter of 2019 collected by the World Bank, showed that cash was the most popular instrument of sending remittances. Although mobile money trailed in the number of transactions in which it was used as the sending instrument, it was found to be the cheapest instrument to use while sending remittances. Holding cash is expensive as there are cost implications to having cash on the trader’s premises. The extra costs incurred for holding cash include insurance charges and transit costs. This extra cost is then passed on to the customer making cash transactions more expensive than non-cash transactions. Cash transactions have the advantage of being faster than bank transfers and debit/credit cards to complete. This is because bank transfers sometimes experience delays and therefore do not reflect on the operator’s accounts immediately. The transaction can only be completed once the money reflects on the operator’s account. This, therefore, implies that the recipient cannot receive the money immediately it is sent. However, when money is lost, it is easier to trace it if the instrument used was non-cash. Therefore, the risk of losing money is higher when cash is used than when using the non-cash instruments. In the South-Africa-Zimbabwe corridor, the service providers that allow their customers to use non-cash instruments have been found to be cheaper than those that use cash as the payment instrument. It is cheaper to send money via World Remit - an independent Money Transfer Operator which only accepts the use of either bank account transfers or debit/ credit - than it is to send remittance via MoneyGram - a cash-based Money Transfer Operator.

The results in this study, as shown in Figure 11, corroborate the findings from the previous studies that have been highlighted in Section 2.6.2. Specifically, that the cost of sending money through banks is higher than when sending the same amount using other channels. In the case of the South Africa-Zimbabwe remittance corridor, the average cost of sending USD 200 using banks in the fourth quarter of 2019 was 18.18% of the amount sent as compared to 9.42% while using ADLAs. Money transfer operators such as Western Union and MoneyGram were found to be the second most expensive channels to use in sending remittances while ADLAs were found to be the cheapest channels. The informal channels identified were found to charge an average of 10% of the value sent. Although this is the average cost per the identified channels, within the channels the costs differ depending on the platform or instrument used by the remitter.

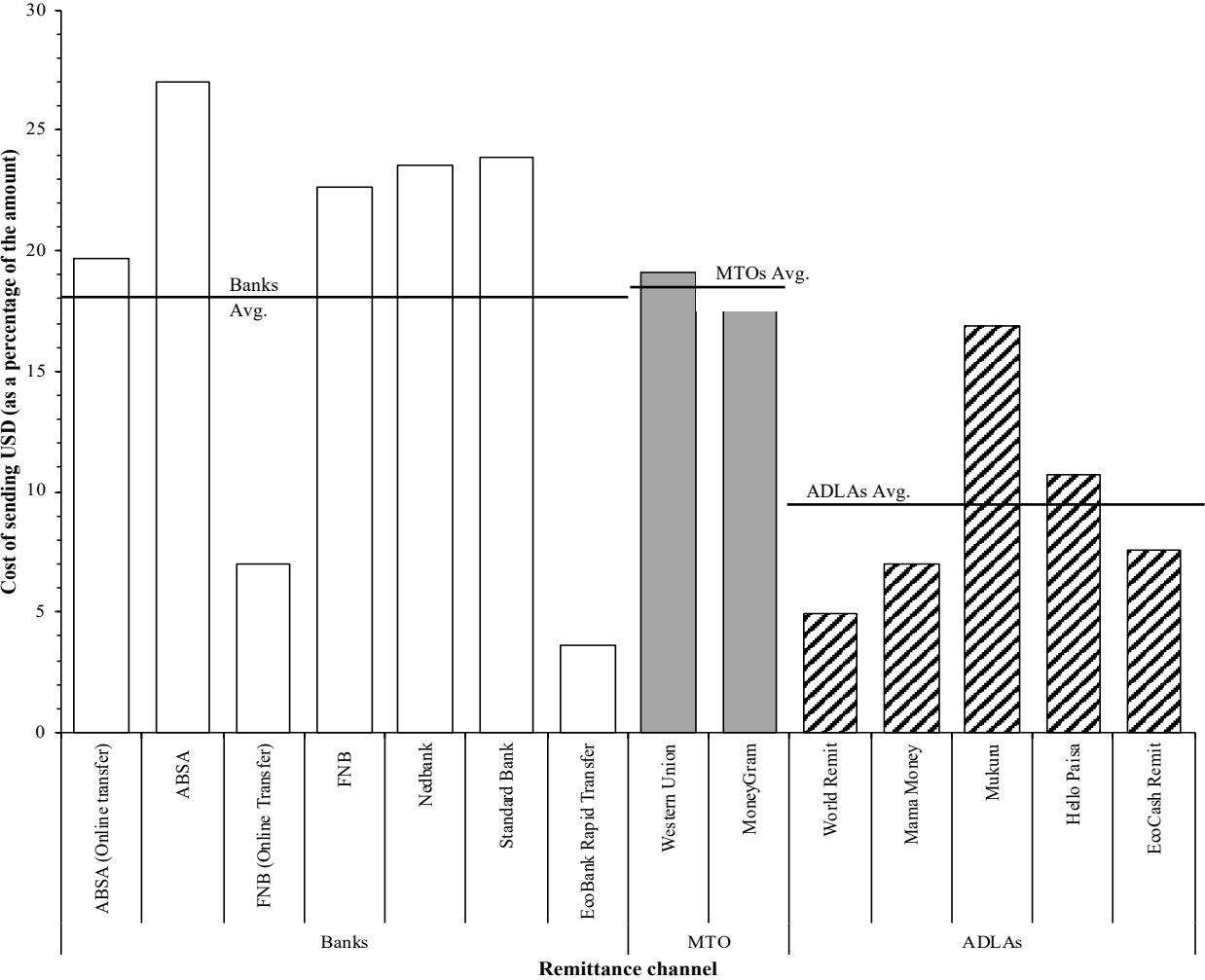


Figure 11: Cost of sending USD 200 via various channels (Source: Remittance Prices Worldwide, World Bank, 2019)

CHAPTER 5: CONCLUSION AND RECOMMENDATIONS

5.1 Conclusion

There have been notable changes in various aspects of the South Africa-Zimbabwe remittance corridor. These changes have been on the type of remittance service providers available in the market, the remittance instruments used and the remittance product offering. These changes have been informed by the state of the economy - especially the Zimbabwean economy - the financial regulations in South Africa and the adoption of technology globally especially in the field of finance. The remittance market was affected by the global Covid-19 pandemic that led to the government to respond by imposing a nationwide lockdown. The lockdown hindered our attempts to find out the number of buses that ply the South Africa-Zimbabwe route weekly and annually. This data would have contributed to estimating the volume of remittances that are sent using the informal method of long-distances buses.

Remittance service providers in the South Africa-Zimbabwe corridor have grown from initially only banks and traditional Money Transfer Operators (Western Union and MoneyGram) to include independent Money Transfer Operators. This has been brought about by changes in regulation by the SARB in 2014 that saw the introduction of Authorized Dealers with Limited Authority (ADLAs) under which the independent Money Transfer Operators fall. This new licensing categories allows the registered entities to offer remittance services independent of banks or the well-established Money Transfer Operators – e.g., Western Union and MoneyGram. The increase in the number of remittance service providers has increased competition in the remittance industry. This has consequently led to a decrease in remittance transaction costs.

The remittance costs in the South Africa-Zimbabwe corridor are higher than the global average remittance costs. The costs in the formal channels were found to be higher than in informal channels. The high costs could be attributed to the higher operational costs and the foreign currency exchange component of the transaction cost. Informal channels do not perform any foreign currency exchange; therefore, the beneficiary receives the remittance in the currency in which it was sent. The lack of the foreign exchange margin results in a cheaper remittance cost. Remittance service providers in the informal channels have lower operational costs than their counterparts in the formal channels. This is due to the fact that the businesses informally offering remittance services are formally registered to offer other business services therefore the operating costs are not entirely borne by the remitter but shared amongst other business entities. Adoption of the use of technology in both channels has contributed to a reduction in the cost of remittances.

Although the cost of sending remittances through the informal remittance channel was found to be cheaper than sending through the formal channel, the channel was found to be prone to more risks when compared to the formal channel. The remitter faced the challenge of losing the remittance either as a whole or in part. The risk is increased by the fact that there is no documentation involved. The remittance service in the informal channel is based on trust. Therefore, should the

remittance get lost there is no system in place to track where it got lost at or how to get a refund. The issue is further complicated by the fact the remittance service providers in the informal channel are not formally registered. This makes it impossible for the sender to seek legal redress against the company. The users of the informal remittance channels do not face foreign currency exchange risk as the money is delivered in the currency in which it was sent, that is, if the remitter sends the money in South African Rand, the recipient will receive it in South African Rand. However, in the formal remittance channels, the remittance senders are exposed to the foreign currency risk when there is a difference between the currency sent and the currency received by the recipient.

This remittance corridor has seen the adoption of technology by the remittance service providers. As a result, there has been an increase in money transfer operators' mobile applications and online platforms. Mama Money and Hello Paisa allow their customers to trade on their mobile phone applications which can be downloaded from Google Play store and Apple's App Store. The remittance corridor has also seen the entrance of Money Transfer Operators such as Worldremit that are online-based and thus only provide their services through their mobile phone applications and on their website. Traditional remittance providers such as banks have also not lagged in the adoption of technology in their remittance services. Banks have embraced online banking platforms and mobile phone applications for their customers. This has enabling their customers to send and receive remittances without having to go to their branches physically.

The economic and political environment in Zimbabwe has affected this remittance corridor in various ways. The high unemployment level in Zimbabwe has led to an increase in Zimbabwean migrants into South Africa in search of jobs. This has led to an increase in the volume of remittances sent via this corridor. The economic instability in Zimbabwe has seen the country adopt a multicurrency regime, which has resulted in remittances in this corridor being sent and received in either US dollars or South African Rand. The two currencies are acceptable in Zimbabwe. This corridor has also experienced an increase in remittances sent in kind. Zimbabwean migrants prefer sending household goods over sending cash to their families in Zimbabwe. Currency fluctuation, limited cash withdrawal limits in Zimbabwe, absence of money at ATMs, a lack of physical cash in the economy and the shortage of household goods in stores has necessitated remittances to be sent in the form of goods.

Finally, this remittance corridor has seen many partnerships emerge amongst Money Transfer Operators and between Money Transfer Operators and household retail stores. Household retail stores - such a Pick n Pay, PEP Stores, Shoprite and Checkers just to name but a few - have partnered with independent Money Transfer Operators such as Mama Money and Hello Paisa to act as the operators' pay-in and pay-out points. However, retailers are now getting into the remittance market space offering the remittance service independently. PEP Stores are independently involved in sending money within South Africa while Shoprite has acquired the ADLA license enabling the retail chain to offer cross-border remittance services. Presently, the retailer only serves the South Africa-Lesotho remittance corridor.

5.2 Recommendations for further study

Based on the results of this study, the following recommendations are made for further study.

1. A model of estimating the volume remittances in the South Africa-Zimbabwe corridor. This model should factor in remittances sent through informal channels and in-kind remittances.
2. Studies to evaluate the uptake and impact of Fintech-based remittance services in this corridor. The study could also look at the adoption of blockchain technology and its impact on remittance pricing.
3. A remittance price comparison platform that specifically covers the South Africa-Zimbabwe corridor. The comparison platform should cover the unique aspects of this corridor such as comparing prices in formal and informal channels and cash and in-kind remittances.

REFERENCES

- Adams Jr. R. 1991. The effects of international remittances on poverty, inequality and development in rural Egypt. Research Report no. 86. Washington, DC: International Food Policy Research Institute.
- Adams, R. H. 2003. *International Migration, Remittances, and the Brain Drain: A Study of 24 Labor-Exporting Countries*. Policy Research Working Paper; No 3069. World Bank, Washington, DC.
- Adams, R. H. and Page J. 2005. ‘Do international migration and remittances reduce poverty in developing countries?’, *World Development*, Vol. 33, No. 10, 1645–69.
- Africa Institute of Remittances (AIR), 2018. <http://www.au-air.org/>. Accessed on 08 February 2021.
- African Union, 2018. *Progress Report on The African Institute for Remittances* The 2nd Specialized Technical Committee (STC) On Finance, Monetary Affairs, Economic Planning and Integration 16-17 April 2018 Addis Ababa, Ethiopia.
- Akinboade, A. O., Daseman, A., Taft, T. and Molobi, V.M.S. 2017. “*Regulation, Cross Border Migrants and the Choice of Remittance Channels in South Africa*” *Journal of Economics and Behavioral Studies* (ISSN: 2220-6140) Vol. 9, No. 2, pp. 201-214, April 2017.
- Alvarez, S., Briod, P., Ferrari, O., and Rieder, U. 2015. *Remittances; How Reliable are the data?* *Migration Policy Practice*, Vol V, Number 2, April 2015- June 2015 pp42-46.
- Ambrosius, C and Cuenca, A. 2016. *Remittances and the Use of Formal and Informal Financial Services* *World Development* Vol. 77, pp. 80–98. <http://dx.doi.org/10.1016/j.worlddev.2015.08.010>.
- Bank for International Settlements (BIS) and World Bank, 2007. *General Principles for International Remittance Services*. Bank for International Settlements Press & Communications CH-4002 Basel, Switzerland. ISBN 92-9131-732-2.
- Bracking, S. and Sachinkonye, L. 2009. “*Migrant Remittances and Household Wellbeing in Urban Zimbabwe*”. *International Migration* Vol. 48 (5) 2010 ISSN 0020-7985. *International Migration* _ 2009 IOM. doi:10.1111/j.1468-2435.2008.00503.x
- BBC News, 2019a. “*Why Zimbabwe has banned foreign currencies*” Published on 26 June 2019. Available at: <https://www.bbc.com/news/world-africa-48757080>. (Accessed on 19 November 2019).
- BBC News, 2019b. “*Zimbabwe introduces RTGS dollar to solve currency problem*”. Published on 26 February 2019. Available at: <https://www.bbc.com/news/world-africa-47361572> (Accessed on 19 November 2019).
- Buigut, S. 2015. “*The Effect of Zimbabwe’s Multi-Currency Arrangement on Bilateral Trade:*

Myth Versus Reality". International Journal of Economics and Financial Issues | Vol 5 • Issue 3 • 2015.

- Buencamino, L. and Gorbunov, S. 2002. Informal Money Transfer Systems; Opportunities and challenges for Development Finance. Discussion paper of the United Nations Department of Economic and Social Affairs. ST/ESA/2002/DP/26. United Nations, New York.
- Chami, R., Fullenkamp, C., & Jahjah, S. 2003. Are immigrant remittance flows a source of capital for development? IMF working paper WP/03/189, International Monetary Fund, Washington, DC.
- Chami, R., Barajas, A., Cosimano, T., Fullenkamp, C., Gapen, M. and Montiel, P. 2008. "Macroeconomic Consequences of Remittances." IMF Occasional paper 259. International Monetary Fund, Washington, DC.
- Chami, R. and Fullenkamp, C. 2013. *Workers' Remittances and Economic Development: Realities and Possibilities*. In *Maximizing the Developmental Impact of Remittances* (pp 30-39). United Nations Conference on Trade and Development (UNCTAD). United Nations, New York and Geneva.
- Chingono, N. 2019. *Empty Stomachs and Unpaid Salaries, Zimbabweans face a bleak 2020 as economic crisis deepens*. CNN. December 31, 2019. Available: <https://edition.cnn.com/2019/12/31/africa/zimbabwe-economic-crisis-intl/index.html>. (Accessed on 20 January 2020).
- Crush, J., Chikanda, A. and Tawodzera, G., 2012. *The Third Wave: Mixed Migration from Zimbabwe To South Africa* (rep., pp. i-47). Waterloo, ON: Southern African Migration Programme. SAMP Migration Policy Series No. 59.
- De, P. K. and Ratha, D. 2012. "Impact of Remittances on Household Income, Asset and Human Capital: Evidence from Sri Lanka", *Migration and Development* 1:1(2012)163-79. DOI: 10.1080/21632324.2012.719348
- De Bruyn, T. and Wets, J. 2006. *Remittances in the Great Lakes Region* prepared for the International Organization for Migration (IOM). IOM Research No. 25
- Donnelly, L. 2015. *Sending money out of SA set to become easier and cheaper*, *Mail and Guardian*, 9 June, available at <http://mg.co.za/article/2015-06-09-sending-money-out-of-sa-set-to-become-easier-and-cheaper>, accessed 06-09-2019.
- Edwards, A. C. and Ureta, M. 2003. "International Migration, Remittances, And Schooling: Evidence From El Salvador," *Journal of Development Economics*, 2003, v72(2, Dec), 429-461. Available at the National Bureau of Economic Research, www.nber.org/papers/w9766
- Eighty20, 2016. *Cross Border Remittances* FinMark Trust Retrieved from; <http://www.finmark.org.za/wp-content/uploads/2016/11/cross-border-remittances-2016.pdf>. (Accessed on 14 May 2019).

- El Qorchi, M., Wilson, J. F. and Maimbo, S. M. 2003. *Informal funds transfer systems: an analysis of the Hawala system*. International Monetary Fund and World Bank, Washington, DC:
- Financial Sector Deepening (FSD) Africa, 2017. *Reducing costs and scaling up service provision for remittance flows from the UK to Africa* retrieved from: <http://s3-eu-central-1.amazonaws.com/fsd-circle/wp-content/uploads/2017/06/12085339/17-06-12-Scaling-up-Remittances.pdf>. (accessed on 14 May 2019).
- Flore, M. 2018. *How Blockchain-Based Technology Is Disrupting Migrants' Remittances: A Preliminary Assessment*, EUR 29492 EN, Publications Office of the European Union, Luxembourg, 2018, ISBN 978-92-79-98177-7, doi:10.2760/23991, JRC113484
- Frankel, J. 2011. "Are Bilateral economies Countercyclical?" Open Economies review February 2011, Vol 22 Issue 1 pp1-16
- Freund, C. and Spatafora, N. 2005. "Remittances: Transaction Costs, Determinants and Informal Flows," World Bank Policy Research Working Paper 3704, 2005. World Bank, Washington D. C
- Freund, C. and Spatafora N. 2008. "Remittances, Transaction Costs, and Informality." Journal of Development Economics 86 (2): 356–66. <https://doi.org/10.1016/j.jdeveco.2007.09.002>
- Genesis. 2003. African Families, African Money; *Bridging the Money Transfer Divide*. A study on the South African money transfer environment for FinMark trust. April 2003. Retrieved from <http://www.gdrc.org/icm/remittance/FinMarkRemit.pdf>. (Accessed on 14 May 2019).
- Genesis. 2004. *Access to financial services in South Africa: a brief case study of the effect of the implementation of the Financial Action Task Force recommendations*, Johannesburg: Dfid.
- Global Migration Group. 2017. "Handbook for Improving the Production and Use of Migration Data for Development", Global Knowledge Partnership for Migration and Development (KNOMAD), World Bank, Washington, DC.
- Guterres, MA., 2018. *Economic Development in Africa; Migration for Structural Transformation*. United Nations Conference on Trade and Development (UNCTAD). UNCTAD/ADLC/AFRICA/2018. 2018, United Nations.
- Gupta, S., Pattillo, C. and Wagh, S. 2007. *Impact of Remittances on Poverty and Financial Development in Sub-Saharan Africa* International Monetary Fund, Working Paper WP/07/38
- Hernandez-Coss, R., 2006. *The Impact of Remittance; Observations in Remitting and Receiving Countries*. Discussion Paper Prepared for the G24 XXIII Technical Group Meeting. Singapore, Sept 13-14, 2006.
- Hernandez-Coss, R. and Bun, C. E., 2007. *The UK-Nigeria Remittance Corridor; Challenges of Embracing Formal Transfer Systems in a Dual Financial Environment*. The World Bank Working Paper No. 92. The International Bank for Reconstruction and Development/ The World Bank. Washington, D.C.: World Bank.

- Hernandez-Coss, R; Brown, G.; Buchori, C.; Endo, I.; Todoroki, E.; Naovalitha, T.; Noor, W.; Mar, C., 2008. *The Malaysia-Indonesia Remittance Corridor : Making Formal Transfers the Best Option for Women and Undocumented Migrants*. World Bank, Working Paper No, 149. Washington, DC. <https://openknowledge.worldbank.org/handle/10986/6515> License: CC BY 3.0 IGO.
- Higazi, A. 2005. *Ghana Country Study: A part of the report on Informal Remittance Systems in Africa, Caribbean and Pacific (ACP) countries (Ref: RO2CS008)*. ESRC Centre on Migration, Policy and Society (COMPAS) University of Oxford, 58 Banbury Road, Oxford OX2 6QS, UK
- Hildebrandt, N. and McKenzie, D. 2005. “The effects of Migration on Child Health in Mexico” Working paper no 3573, The World Bank, Washington DC.
- International Labour Organization (ILO). 2018. *Global Estimates on International Migrant Workers – Results and Methodology*. 2nd ed. International Labour Office - Geneva: ILO, 2018
- International Monetary Fund (IMF). 2005. *Approaches to a regulatory framework for formal and informal remittance systems: Experiences and lessons*. February 17, 2005. IMF, Washington D.C.
- International Monetary Fund (IMF). 2009. *Balance of Payments and International Investment Manual Sixth Edition (BPM6)*. IMF, Washington D.C
- International Monetary Fund (IMF). 2019a. Transcript of IMF Press briefing by Camilla Andersen, Assistant Director, Communications Department, June 27, 2019. Available: <https://www.imf.org/en/News/Articles/2019/06/27/tr0627-transcript-of-imf-press-briefing> (Accessed on 3 March 2010).
- International Monetary Fund (IMF). 2019b. IMF Staff Concludes Visit for the Article IV Consultation and Discussions on the First Review of the Staff-Monitored Program to Zimbabwe. Press Release No. 19/355. September 26, 2019. Available: <https://www.imf.org/en/News/Articles/2019/09/26/pr19355-zimbabwe-imf-staff-concludes-visit-art-consult-discuss-1st-rev-staff-mon-program> (Accessed 3 March 2020).
- International Monetary Fund (IMF). 2020. IMF Executive Board Concludes 2020 Article IV Consultation with Zimbabwe. Press release No 20/72. February 26, 2020. Available: <https://www.imf.org/en/News/Articles/2020/02/26/pr2072-zimbabwe-imf-executive-board-concludes-2020-article-iv-consultation> (Accessed 5 March 2020).
- Irving, J., Mohapatra, S., and Ratha, D. 2010. “*Migrant Remittance Flows: Findings from a Global Survey of Central Banks*.” Working Paper 194, World Bank, Washington, DC
- Isaacs, L. 2013. *The Vital Role of Information in Enhancing Transparency and Efficiency in Remittances*. In *Maximizing the Developmental Impact of Remittances* (pp 50-60). United Nations Conference on Trade and Development (UNCTAD). United Nations, New York and Geneva.

- Kerzner, S. 2009. "Cash and Carry": understanding the Johannesburg-Zimbabwe remittance corridor. Discussion document prepared for FinMark Trust. Retrieved from http://www.finmark.org.za/wp-content/uploads/2016/01/ZimRemittances_Report1-1.pdf. (Accessed on 14 May 2019).
- Kosse, A. and Vermeulen, R. 2014. *Migrants' Choice of Remittance Channel: Do General Payment Habits Play a Role?* European Central Bank Working Paper series No1683/ June 2014.
- Lim, S. and Morshed, A.K.M.M. 2015. *International migration, migrant stock, and remittances: Reexamining the motivations to remit*. The Quarterly Review of Economics and Finance. Volume 57, Page 101-115. <https://doi.org/10.1016/j.qref.2014.10.001>
- Lucas, R. E. B. and Stark, O. 1985. "Motivations to Remit: Evidence from Botswana," Journal of Political Economy 93, no. 5 (Oct. 1985): 901-918. <https://doi.org/10.1086/261341>
- Lwanda, G. 2019. "Cryptocurrency could help Zimbabwe overcome its economic crisis". World Economic Forum, 24 June 2019. Available: <https://www.weforum.org/agenda/2019/06/zimbabwe-needs-its-own-cryptocurrency/>. (Accessed on 16 January 2020).
- Maimbo, S. M. 2003. 'The money exchange dealers of Kabul: a study of the Hawala system in Afghanistan', World Bank Working Paper No. 13, Washington, DC: The World Bank.
- Maimbo, S., Saranga, T. and Strychacz, N. 2010. *Facilitating Cross-Border Mobile Banking in Southern Africa*. Poverty Reduction and Economic Management Network, Economic Premise, August 2010, Number 26: The World Bank
- Makina, D. 2007. Survey of Profile of Migrant Zimbabweans in South Africa: A Pilot Study. University of South Africa.
- Makina, D. 2012. Migration and Characteristics of Remittance Senders in South Africa. International Migration Vol. 51 (S1) doi:10.1111/j.1468-2435.2012.00746.x International Organization for Migration.
- Maphosa, F. 2007. Remittances and development: the impact of migration to South Africa on rural livelihoods in southern Zimbabwe, Development Southern Africa, 24:1, 123-136, DOI: 10.1080/03768350601165942
- Martinez, J., Endo, I. and Barberis, C. 2006. "The Germany-Serbia Remittance Corridor: Challenges of Establishing a Formal Money Transfer System," World Bank Publications, The World Bank, number 7033.
- Mashayekhi, M. 2013. *Maximizing the Developmental impact of Remittances*. In *Maximizing the Developmental Impact of Remittances* (pp 2-24). United Nations Conference on Trade and Development (UNCTAD). United Nations, New York and Geneva.
- Melde, S. and Anich, R., 2013. *Remittances in the African, Caribbean and Pacific Countries*. In

- Maximizing the Developmental Impact of Remittances* (pp 86-93). United Nations Conference on Trade and Development (UNCTAD). United Nations, New York and Geneva.
- Mela, M., Hajat, M. and Mogadime, K. 2017. *Cross border remittance pricing: Does Market structure drive the prices for cross border remittances in South Africa* Genesis Analytics for FinMark Trust. Retrieved from: <http://www.finmark.org.za/wp-content/uploads/2017/06/cross-border-remittance-pricing.pdf>. (Accessed on 5 March 2019).
- Meyer, D. and Shera, A. 2017. *The impact of remittances on economic growth: An econometric model* *Economia* volume 18, issue 2 May-August 2017, Pages 147-155 <https://doi.org/10.1016/j.econ.2016.06.001>
- Mohapatra, S. and Ratha, D. 2011. *Remittance markets in Africa (English)*. Directions in development ; finance. Washington, DC: World Bank. <http://documents.worldbank.org/curated/en/248331468193493657/Remittance-markets-in-Africa>
- Mugumisi, N. and Ndhlovu, N. 2015. *In Search of Remittance Mobilization Strategies through Formal Channels in Zimbabwe: A Survey of Zimbabweans Living in South Africa and Botswana* (October 9, 2015). *International Journal of Management and Humanity Sciences*. Vol., 2 (7), 605-618, 2013.
- Muronzi, C. 2019. *Can the new Zimbabwean dollar relieve a chronic cash crunch?*. Aljazeera. 12 Nov 2019. Available at: <https://www.aljazeera.com/ajimpact/zimbabwean-dollar-relieve-chronic-cash-crunch-19111193740517.html>. (Accessed on 20 January 2020).
- Nicoli, M., Kachingwe, N. L., Kaput, Nicole, E., 2018. *The Market for Remittance Services in Southern Africa (English)*. FCI Insight. Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/986021536640899843/The-Market-for-Remittance-Services-in-Southern-Africa> (Accessed on 14 June 2019)
- Nyamongo M. E., Misati R., Kipyegon L. and Ndirangu L. 2012. *Remittances, financial development and economic growth in Africa*, *Journal of Economics and Business* 64 (2012) 240– 260. doi:10.1016/j.jeconbus.2012.01.001
- Organization for Economic Cooperation and Development (OECD), 2008. *Main Concepts and Definitions of Foreign Direct Investment* ISBN 978-92-64-04573-6 OECD Benchmark Definition of Foreign Direct Investment Fourth Edition © OECD 2008
- Organization for Economic Cooperation and Development (OECD), 2019. Net ODA (indicator). doi: 10.1787/33346549-en (Accessed on 20 August 2019)
- Orozco, M. 2003. *Workers Remittances in an International scope*; Working paper Commissioned by the Multilateral Investment Fund of the Inter-American Development Bank
- Orozco, M. 2007. *Sending Money Home- Worldwide remittance flows to developing and transition countries*. International Fund for Agricultural Development (IFAD). Rome, Italy.

- Orozco, M. 2009. *Sending Money Home to Africa, Remittance markets, enabling environment and prospects*. International Fund for Agricultural Development (IFAD). Rome, Italy.
- Orozco, M. 2013. *Remittances and Assets: Conceptual, Empirical and Policy Considerations and Tools*. In *Maximizing the Developmental Impact of Remittances* (pp 40-49). United Nations Conference on Trade and Development (UNCTAD). United Nations, New York and Geneva.
- Pieke, F. N., Van Hear, N. and Lindley, A. 2007. *Beyond Control? The mechanics and dynamics of 'informal' remittances between Europe and Africa*. *Global Networks: A Journal of Transnational Affairs*, 7(3), 348-366
- Ratha, D. and Riedberg, J. 2005. *On reducing remittance costs*, The World Bank, Washington D.C.
- Ratha, D. 2007. *Leveraging Remittances for Development*. Washington DC: Migration Policy Institute.
- Ratha, D. 2013. *The impact of remittances on economic growth and poverty reduction*. Washington DC: Migration Policy Institute.
- Ratha, D., Plaza, S., Eigen-Zucchi, C., Corazza, C. and Nicoli, M. 2017. Global Migration Group. *“Handbook for Improving the Production and Use of Migration Data for Development”*, Global Knowledge Partnership for Migration and Development (KNOMAD), World Bank, Washington, DC.
- Ratha, D., De, S., Seshan., Yameogo, N. D., Plaza, S. and Kim, E. J. 2019. *Migration and Remittances: Recent Developments and Outlook*. Migration and Development Brief, No. 31, April 2019. World Bank, Washington, DC
- Ravallion, M. 2003. *“Measuring Aggregate Welfare in Developing Countries: How Well Do National Accounts and Surveys Agree?”* *The Review of Economics and Statistics* 85(3): 645-652.
- Reserve Bank of Zimbabwe (RBZ), 2015. Press Statement on the Demonetization of the Zimbabwean Dollar. Available at <https://www.rbz.co.zw/documents/publications/press/demonetisation-press-statement-9-june-2015.pdf> (Accessed 14 May 2020).
- Reserve Bank of Zimbabwe (RBZ). 2016. Press Statement on the Introduction of Bond Notes. Available at : <https://www.rbz.co.zw/documents/publications/press/press-statement-on-the-introduction-of-bond-notes.pdf>
- Reserve Bank Zimbabwe (RBZ). 2019a. Monetary Policy Statement. “Establishment of an Inter-Bank Foreign Exchange Market to Restore Competitiveness.” Reserve Bank of Zimbabwe. 20th February 2019. Available at: <https://www.rbz.co.zw/documents/mps/mpsfeb2019.pdf>

- Reserve Bank of Zimbabwe (RBZ). 2019b. Press Statement on Strengthening Interbank Foreign Exchange Market. Available at: <https://www.rbz.co.zw/documents/press/Press-Statement-on-Strengthening-the-Interbank-Foreign-Exchange-Market-.pdf>
- Sander, C. and Maimbo M. S. 2003. Migrant Labor remittances in Africa; *Reducing obstacles to Developmental Contributions*. Africa Region Working Paper Series No 64, World Bank, Washington, DC.
- Sander, C. 2003. Capturing a Market Share? Migrant Remittance Transfers & Commercialisation of Microfinance in Africa. Paper prepared for the Conference on Current Issues in Microfinance Johannesburg, 12-14 August 2003.
- Schweiger, L. and Hangan, D. 2019. *Remittance Market and Blockchain Technology; Blockchain's emerging role in a booming industry. Blockdata, Remittance Report, Insights into the remittance and cross border payments industry*. Published March 7, 2019. Available; <https://download.blockdata.tech/blockdata-remittance-market-blockchain-technology.pdf> (Accessed on 15 January 2020)
- Sending Money Africa, 2018. Quarterly Report- June 2018. <http://www.sendmoneyafrica-auair.org/sites/default/files/SMA-report-Q2-2018.pdf> (Accessed 15 January 2020)
- Statistics South Africa, 2015. Census 2011: Migration Dynamics in South Africa Retrieved from <http://www.statssa.gov.za/publications/Report-03-01-79/Report-03-01-792011.pdf> (Accessed on 14 May 2019).
- South African Reserve Bank (SARB), 2018. Banking Supervision Department Annual Report 2017. Available at; <https://www.resbank.co.za/Lists/News%20and%20Publications/Attachments/8507/01%20BankSupAR2017.pdf> (Accessed 14 May 2019).
- South African Reserve Bank (SARB), 2019. Currency and Exchanges Guidelines for Individuals, 2019-04-18. Financial Surveillance Department, South African Reserve Bank.
- TechnoServe, 2016. *Digital Remittance Revolution in South Africa; Challenges and next steps for Africa's largest cross-border payments market*. Retrieved from <https://www.technoserve.org/files/downloads/South-Africa-international-remittances-report.pdf>. (Accessed on 10 June 2019).
- Tevera, D. and Chikanda, A. 2009. *Migrant Remittances and Household Survival in Zimbabwe* (rep., pp. i-37). Waterloo, ON: Southern African Migration Programme. SAMP Migration Policy Series No. 51.
- The Financial Intelligence Centre Amendment Act, National Treasury, Republic of South Africa. http://www.treasury.gov.za/comm_media/press/2017/20170508%20-%202017%20FICA%20Act%20pamphlet.pdf. (Accessed 20 December 2020).
- Thebe, V. 2011. *From South Africa with love: the malayisha system and Ndebele households'*

- quest for livelihood reconstruction in South-Western Zimbabwe*. The Journal of Modern African Studies, 49, 4 (2011), pp. 647- 670. Cambridge University Press 2011. DOI: 10.1017/S0022278X11000516
- Truen, S., Kentley, R., Bester, H., Davis, B., Hutcheson, H., Kwakwa, K. and Mogapi, S. 2005. *Supporting Remittances in Southern Africa: Estimating market potential and assessing regulatory obstacles*. Prepared for FinMark Trust and The Consultative Group to Assist the Poor (CGAP). Retrieved from: http://www.finmark.org.za/wp-content/uploads/2016/01/Rep_supportingRemittances_SouthernAfrica_2005.pdf (Accessed on 19 May 2019).
- Truen, S., Kgaphola, K. and Mokoena, M. 2016. *Updating the South Africa -SADC remittance channel estimates* Prepared for FinMark Trust. Retrieved from: <http://www.finmark.org.za/wp-content/uploads/2017/06/Updating-the-south-africa-sadc-remittance-channel-estimates.pdf> (Accessed on 1 May 2019).
- Truen, S., Jitsing, W., Kgaphola, K., Chisadza, S., Majoro, M., Foshizi, Jimson, L., Imani Consulting and African Corporate Advisors. 2016. *The impact of remittances in Lesotho, Malawi and Zimbabwe*. Prepared for FinMark Trust, December 2016.
- Tsvetu, Reginald, 2020. *Bitkesh and Uhuru wallet and how they are solving the remittance problem in Southern Africa with Reginald Tsvetu*. A podcast interview posted on May 13, 2020, by BitcoinKE. Available at <https://bitcoinke.io/2020/05/podcast-bitkesh-uhuru-wallet-with-reginald/> (Accessed on 19 May 2020).
- United Nations Department of Economic and Social Affairs (UNDESA). 1998. *Recommendations on Statistics of International Migration Revision 1*. Statistical Papers Series M, No. 58, Rev.1. ST/ESA/STAT/SER.M/58/Rev.1. New York, USA.
- United Nations Development Program (UNDP). 2009., *Human Development Report 2009-Overcoming Barriers: Human Mobility and Development* (New York: UNDP,2009), Available at: http://hdr.undp.org/sites/default/files/reports/269/hdr_2009_en_complete.pdf (Accessed on 14 May 2019).
- Vasconcelos, P and Meins, R. 2013. *Empowering the Rural Poor through Remittances*. In *Maximizing the Developmental Impact of Remittances* (pp 69-74). United Nations Conference on Trade and Development (UNCTAD). United Nations, New York and Geneva
- Vasconcelos, P., Ponsot, F., Terry, D., and Vásquez, B. 2017. *Sending Money Home: Contributing to the SDGs, one family at a time*. International Fund for Agricultural Development (IFAD). Rome, Italy:
- VAN DOORN, J. 2002. *Migration, remittances and development*. Labour Education, 4(129): 48–53
- Watkins, K. and Quattri, M. 2014. *Lost in intermediation; How excessive charges undermine the benefit of remittances for Africa*. Overseas Development Institute, London. The United

Kingdom.

World Bank. 2013. *African Institute of Remittances (AIR) Project. Frequency Asked Questions (Revised Version)*. Compiled, reviewed and updated by Hailu Kinfu Bune, Consultant to the AIR Project. September 2013. Addis Ababa, Ethiopia.

World Bank. 2016. *Migration and Remittances Factbook 2016*, 3rd edition. Washington, DC: World Bank. doi:10.1596/978-1-4648-0319-2.

World Bank. 2019. *Leveraging Economic Migration for Development: A Briefing for the World Bank Board*. Washington, DC: World Bank.

World Bank, Remittance Prices Worldwide, <https://remittanceprices.worldbank.org/en/corridor/South-Africa/Zimbabwe> (Accessed 20 August 2020).

Yang, D. 2011. *Migration Remittances* Journal of Economic Perspectives—Volume 25, Number 3—Summer 2011—Pages 129–152.