



Mapping the Retail Payment Services Landscape Malawi, Mozambique, Zambia and Zimbabwe

Country report:

Mozambique



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Bankable Frontier Associates LLC

www.bankablefrontier.com



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This report was commissioned by FinMark Trust as part of a regional study that also assessed Malawi, Zambia and Zimbabwe against the same parameters discussed here. A separate regional report was produced to address the synergies across these three countries and also provides a brief global comparison. Therefore this report only takes a limited view of how Mozambique measures up to its regional and global peers.

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Abstract

This research looks at the issues around the state of retail payment systems development in Mozambique, a country with more than half of its population living in poverty and 78% of the adults being financially excluded. This report was based on document review, interviews with the regulator and providers, and focus groups and informal discussions in Southern Mozambique from 13-22 September, 2011.

The research points to many challenges ahead of efforts to provide and encourage use of convenient and affordable formal payment services: (i) poor infrastructure to support cash distribution networks; (ii) unreliable electricity services and wireless communications; (iii) limited interoperability amongst banks and also between mobile network operators; (iv) bank perception of underdeveloped local economies in rural areas; and (v) unfamiliarity with electronic or innovative payments among the poor. The focus by the regulator on the creation of a national switch may be shifting attention from more complex underlying problems.

The approach taken by this study divides the environment into supply and demand components to understand the current context for payment services. The demand side research looks at how the poor pay from a behavioral perspective and documents the various transaction profiles in use. The supply side research assesses the policy environment around payments, the current payment products available in the market and assesses how the current regulatory framework impacts access and usage of payment services. The report further provides a thematic view of how enabling the existing market conditions are to the development of transformative payment services.

HOW THEY PAY:
Consumer
Payment
Profile

Mozambique



Banked:



Geographic Location: Urban or semi-urban

Instrument usage: Likely to have an ATM card and to use it for withdrawals, checking balance, and less commonly for transfers. Rarely use POS for payment. Mobile and internet balance checks and airtime purchases increasingly common in high income segments.



Network Access: In provincial capitals have access to more than one branch. Outside the larger city people may travel long distances to reach branches or ATMs. ATMs and branches may have system outages and long lines, especially at the end of the month. Mobile coverage good in most parts of the country, but reliability of connection is a problem.



Counterparty Services:



P2P- Transfers within the same bank affordable and possible at ATM. May still use cash and mini bus transport to send money. Electronic interbank transfers are expensive and not commonly used.

P2B- Bill payment available at some branches and even some ATMs, energy and water paid in designated office.

G2P- Salaried civil servants receive salary via bank account (choice of at least 2).

B2P- Most large organizations pay urban based employees via nominated bank accounts.

Unbanked:



Geographic Location: Urban, semi-urban and rural

Instrument usage: Transact primarily in cash, may be able to buy goods on credit. Do not have access to bank accounts or cards, but may have cell phones. Informal savings and borrowing instruments are common.



Network Access: Semi-urban and rural may travel long distances and pay high transportation costs to reach banks and other institutions. Mobile network coverage varies, but may be poor in rural areas. Reliability of connection is a problem.



Counterparty Services:



P2P- Primarily cash, post office transfer possible, but family, friends, or mini bus transfers most common.

P2B- Bill payment in person, buying on credit may be possible, energy and water paid in designated office.

G2P- Some may receive cash based government disbursements at government offices. Military pensions through the post office.

B2P- Income earned in cash, with frequency and size varying by income source. Many people try to piece together different jobs to smooth cash inflow.

List of Acronyms

AfDB	African Development Bank
AML/CFT	Anti-money laundering and combating of financing of terrorism
ATM	Automated Teller Machine
BM	Bank of Mozambique
DFID	Department for International Development
FSAP	Financial Sector Assessment Program
FSTAP	Financial Sector Technical Assistance Programme
GSM	Global System for Mobile Communication
INCM	Instituto Nacional de Comunicações de Moçambique
KYC	Know your customer
MNO	Mobile Network Operator
POS	Point of Sale device
RTGS	Real Time Gross Settlement
SIDA	Swiss International Development Agency

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1 INTRODUCTION

This report is part of the series commissioned by FinMark Trust to examine the retail payments landscape in Malawi, Mozambique, Zambia and Zimbabwe. It distills key findings from country research conducted in Mozambique in September 2011 and provides tools for understanding the landscape for retail payments in Mozambique.

This study hypothesizes that the ability to make payments conveniently and affordably has a material impact on the financial lives of the poor. This hypothesis also assumes that (i) existing formal payment products are not designed for use by the low-income segment of the population, and (ii) existing distribution networks have a limited domestic outreach. This study therefore presents a “payment profile” depicting how Mozambicans currently use payment services as well as the conditions in which current mechanisms are used.

1.1 How to use this report

This report offers a synthesis of the findings by first providing a descriptive overview of relevant Mozambican demographics and financial service penetration in Section 2. This is followed by a supply side review of the current regulatory and market environment in Mozambique in Section 3, concluding with an analysis of the respective regulatory gaps and market barriers to payment system development. A demand side analysis (Section 4) then looks at the consumer experience with existing payment services, drawing from focus group interviews conducted in rural and urban settings in Mozambique.

This relatively descriptive preface sets the stage for an analytical framework of themes that emerge from a consideration of the underlying conditions for enabling transformational retail payment services (Section 5). The analytical framework provides a lens with which to view retail payments in Mozambique. It represents a distillation of themes that emerge from the country-specific details uncovered in the course of the research, combining supply- and demand-side factors.

The comprehensive view of the landscape for retail payment services is then brought to bear on an identification of priorities for the area in Section 6. Where the analytic and thematic discussions are generally descriptive of the state of play and options for development, the discussion of priorities is oriented around discrete actions that can be taken by policymakers and other stakeholders.

2 COUNTRY CONTEXT

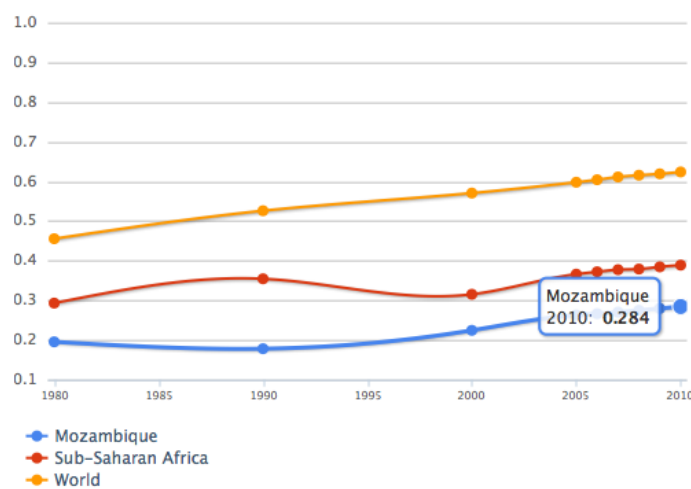
2.1 Demographics and socio-economic circumstances

After the peace treaty of 1992 and the continuous pursuit of a market-oriented economy, Mozambique has enjoyed good levels of political stability and high growth rates, making relatively good progress towards reducing poverty. Real GDP grew 6.6%% in 2010 and the Bank

of Mozambique (BM) estimates 7,2% growth for 2011¹. Inflation had been kept fairly low (below 4%) until the financial crisis, but now stays around 10-12%.

Even with recognized advances made toward reaching the Millennium Development Goals², Mozambique is still one of the poorest countries in the world, with more than half of the population of 22.9 million living in poverty³. It ranks 5th lowest in the world in terms of the UN Human Development Index and scores low in all indexes such as life expectancy, equality, health and education. The FinScope Mozambique Survey 2009 shows that 32.8% of the adults have never had any education and only 15.1% attained secondary level. Almost half of the adult population obtains water from a well, the majority (70.8%) depends on firewood for cooking and 37.5% does not have access to transportation.⁴

Figure 1: Human Development Index: Trends 1980-present⁵



66.1% of the adult population is rural. There is a significant gap between urban and rural Mozambique in many developmental aspects, from financial inclusion to access to basic services such as sanitation and education. For example, 41.5% of rural adults did not go to any school at all, while almost a third of urban adults have some form of secondary schooling or higher.

Only 8.8% of the adults are salaried workers, one third of which receives their salary through bank accounts.⁶ More than half (54.6%) of the adult population does not have an identity card and 45.5% does not have a tax number. Voter cards (which contain the ID number) are more common (74.5%), but banks usually ask for an identity card to open an account.⁷

¹ Annual Report 2010, Bank of Mozambique.

² See World Bank, 2008 *Beating the Odds: Sustaining Inclusion in Mozambique's Growing Economy Poverty, Gender and Social Assessment for Mozambique*, Washington.

³ National poverty line, as defined by the Ministry of Planning and Finance.

⁴ Finscope 2009, page 27.

⁵ United Nations 2010 Indicators. Available at <http://hdrstats.undp.org/en/countries/profiles/MOZ.html>

⁶ Finscope 2009.

⁷ Finscope 2009.

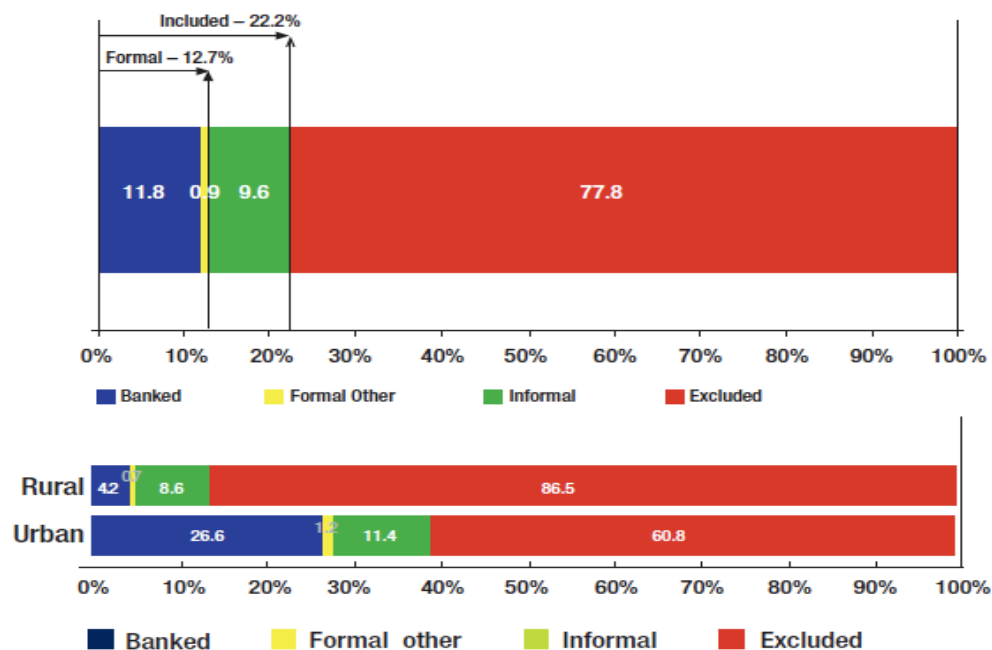
2.2 Financial services penetration

The FinScope survey carried out in 2009 notes that lack of access to appropriate financial services is generally considered to be one of the reasons for the persistency of poverty in Mozambique. Hence, financial inclusion is high on the government agenda and has been promoted through initiatives such as subsidized loans, reform of the national payment system, and multilateral effort aimed at developing the sector in the form of a Financial Sector Technical Assistance Program, or FSTAP.⁸

The FinScope Survey found that 77.8% of adults do not have access to formal or informal financial services, and 9.6% use informal services exclusively. There is an overlap of 5.1% between formal and informal services (not reflected in the graph below). 11.8% use bank products exclusively. 3.6% use bank and nonbank formal providers such as NGOs, and 0.9% use the latter only. 38.7% of formally banked adults have a current account, and another 30.2% a savings account. Salary accounts reach 20.3% of them, while 28.5% have debit cards.

The difference between rural and urban is again notable: 86.5% of the rural adults are totally excluded, while this reduces to 60.8% in urban areas.

Figure 2: FinScope 2009, Financial Service Access Strand



2.3 Telecommunication services penetration

Penetration of mobile phones (26 per 100 people⁹) is not very high yet compared to developed countries, but has been increasing fast. There are an estimated 6 million mobile phone subscriptions, although there are no government estimates of this figure.¹⁰ The FinScope Survey

⁸ The FSTAP was designed following the Mozambican Poverty Reduction Strategy and is implemented by the Bank of Mozambique, the Ministry of Finance, the Ministry of Justice and other government entities. It is supported by AfDB, DFID, the German Development Cooperation, SIDA, and the World Bank.

⁹ World Development Indicators Database, 2010.

¹⁰ CIA Factbook (2009 data).

reveals that 63.4% of adults do not use any means of telecommunication, the main reason being lack of resources to afford the services. One third has access to a cell phone, a landline or use somebody else’s device. The majority (62.7%) of those who own a cell phone do not send text messages and 26.2% send credit to other users.¹¹ Reportedly all 128 districts of the country have coverage, but connectivity remains a problem in rural areas and sometimes in larger cities. GSM (2G and early 3G) is the dominant technology. Annex 4 depicts the prices practiced by MNOs in Mozambique.

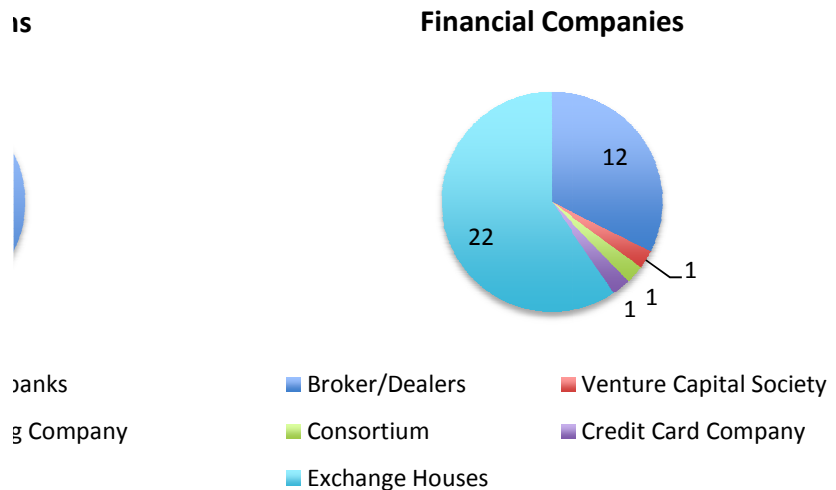
Only 2.4% of the adult population has a computer and 2% use the Internet. There were 613,600 internet users in 2009¹². Mozambique has been connected to the SEACOM fiber optic cable, which has improved the quality of Internet services considerably.

3 SUPPLY SIDE OVERVIEW

With the country context in mind, this section looks at the supply side of the payment system environment in Mozambique. It reflects on both the regulatory framework for payments and the dynamics of the financial services sector as they relate to payments. The objective of this section is to describe the current state of play in each component of the supply side of the market. It concludes with a discussion of the critical regulatory gaps and market barriers.

3.1 Market structure

The regulated financial system is comprised of credit institutions, financial companies, and microfinance operators. The breakdown of each group of institutions is outlined in the figures below:¹³

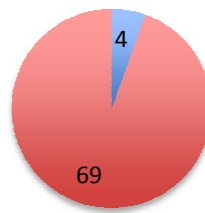


¹¹ Finscope 2009.

¹² CIA Factbook (2009 data).

¹³ Bank of Mozambique: www.bancomoc.moz

Microfinance Operators



■ Savings and Credit ■ Microcredit Providers

Commercial banks. Commercial banks – which are all majority foreign-owned with no significant state ownership – dominate the financial sector in the array of services provided, number of clients and assets. They account for more than 90% of the total assets¹⁴. There are 1,984,201 deposit accounts,¹⁵ 83% of which are held by individuals and the remaining by companies. The bank sector is very concentrated and competition is limited. The two largest banks (Millennium and BCI) hold 70% of the assets.¹⁶ Operational efficiency is lower than international standards according to FinScope 2009. Annex 3 gives a glimpse of bank fees practiced in Mozambique, by listing the charges for basic services in the largest commercial banks.

Microfinance sector. The microfinance sector has grown considerably but it is also concentrated and remains largely an urban phenomenon. There are 5 main players who detain more than 2/3 of the loan portfolio and are all commercial banks: (Banco Socrema, Banco Tchuma, Banco Oportunidade and Banco Procredit).

Payment providers. Banks are the main payment service providers. The bank switch, Interbancos, is the only nonbank player in this market. It provides ATM and POS switching services for its 9 member banks: BCI, FNB, Socrema, Banco Terra, Tchuma, Moza Banco, CPC¹⁷, ICB and Banco único. Interbancos is licensed as a credit card company. The network operated by Interbancos is called Rede Ponto 24¹⁸. Nowadays, BCI accounts for over 90% of Interbancos transactions.

Money transferors such as MoneyGram and Western Union are not allowed by regulation to operate independently in Mozambique, so they provide services through banks and their network is therefore limited to bank branches.

E-money issuer. The most recent news in the regulated financial sector is the approval, in 2010, of the first e-money issuer in Mozambique. Carteira Móvel is a subsidiary of mCel, the largest mobile network operator. It was created specifically to offer mKesh, a mobile wallet product. See more about mKesh below.

3.2 Distribution network

47% of the bank branches in the country are concentrated in Maputo, as are 62.7% of POS and 35.7% of ATMs. By June 2011 there were 4,690 POS and 642 ATMs in the country. These

¹⁴ Finscope 2009.

¹⁵ Boletim do Sistema Nacional de Pagamentos, I Semestre, 2011.

¹⁶ Finscope 2009.

¹⁷ This is the credit cooperative of the employees of the Bank of Mozambique.

¹⁸ Interbancos provides only software, while the hardware is owned by the user banks.

numbers actually represent a reduction of the networks compared to June 2010, but the number of ATMs almost doubled from 2006. Likewise, the number of POS increased more than 50% since 2006.¹⁹ There were 417 branches in June 2011, in 58 out of 128 districts. Each branch covers, on average, 1,922 km² and 54,000 people.²⁰ The available data shows the disparity between rural and urban: one third of banked rural adults live at least 3 hours away from their financial institution, while 40% of urban adults take 10 minutes or less. 49% of the banked adults walk to their institution, while 28.6% use public transportation.²¹

Figure 3: Touchpoints per 100k people

Total touch points per 100,000 people			
1 . 9	2 . 9	21 . 3	9
BANK BRANCHES (417)	ATM'S (642)	POS (4690)	MCEL²² (~2000)

Banks are not using retail agents in Mozambique. It seems that BCI has experimented with this channel by using merchants of Rede 24 (Interbancos) as agents to conduct banking transactions (mostly withdrawals). There is little information available on this channel.

Millennium Bim, the largest bank, also has the largest distribution network, with 130 branches, 326 ATMs and 2,800 POS.²³ BCI, the second largest bank, has 88 branches and uses Rede Ponto 24 to offer services outside its branches. Besides Ponto 24 and Millenium Bim ATM and POS networks, Standard and Barclays also have their own proprietary ATM and POS networks. There is no information available about the number of points of these networks.

3.3 Payments infrastructure

The payment infrastructure in Mozambique is underdeveloped, with low levels of interconnection and electronic services. There is no national bank switch/clearinghouse. The only multibank switch is Interbancos. The central bank, Bank of Mozambique (BM) is clearing some transactions such as VISA cards and clear checks. American Express and Mastercard card transactions are cleared abroad. Interbank transactions that do not use Interbancos are cleared bilaterally, which usually means high cost for the client. All transactions from the different payment sub-systems are ultimately impact the banks' reserve accounts at BM, using Meticalnet (an integrated platform to settle obligations without the need to pass through RTGS system).

The payment systems operated (all in local currency) by BM are:²⁴

- a) **Electronic Settlement (CEL)²⁵**: a systemically important system²⁶ that settles cheques of all values, as well as transactions captured by POS and ATMs.

¹⁹ Boletim do Sistema Nacional de Pagamentos I Semestre 2011.

²⁰ Annual Report 2010, Bank of Mozambique.

²¹ Finscope 2009.

²² Based on approximate number sales outlets used by mCel for mKesh mobile money product

²³ Interview with Millennium Bim.

²⁴ All systems run SAP.

²⁵ Regulated by Aviso 09/2005.

²⁶ Systemically important systems are those which, due to the volume or the nature of their businesses, can create risk to the solidity and normal functioning of the financial system.

- b) **Money and foreign exchange Interbank system**
- c) **Government's electronic fund transfers system (STF)**
- d) **RTGS (called MTR):** a pilot was completed with two banks²⁷ now having operated on a permanent RTGS platform for over six months. Two other banks are about to join.²⁸ Once all banks adhere, BM will formalize and apply the rules established in the pilot. The BM is already offering intraday liquidity facilities at no cost.

SIMO, the future national switch. The BM revived an old project of the bank sector and, based on a consultant's recommendation, created a new entity called Sociedade Interbancária de Serviços de Moçambique (SIMO) to become the future national switch. BM is the majority shareholder of SIMO, whose Chairman is a BM's senior staff. BM has successfully gathered commitment from banks (through Memorandums of Understanding) to invest and participate in the switch. The project is expected to cost \$ 17 million. BM intends to provide free interbank transactions.

Regional payments clearing. The BM, in coordination with the Reserve Bank of South Africa, is trying to reach agreements with private sector companies operating in both countries to offer nationals of either country a common fee for credit card and ATM transactions. This requires building a common platform instead of letting VISA process the transactions via SWIFT. However, there is no estimated timeframe for the signing of the agreements, and negotiations with the private sector seem to be only in the initial stage, which is related to the nascent level of cross-border transactions and clearing systems. Also, a strategy has been drafted among the 5 countries of the East Africa Community to integrate national RTGS systems to allow cross border payments using domestic currencies (thus eliminating the foreign exchange risk for companies doing cross-border payments). However, its implementation depends on simulations carried out at the regional level and agreements on collateral mechanisms. Given the different levels of development of each country's RTGS, it can take at least 5 years for their integration.

3.4 Payment products

Overwhelmingly, Mozambicans use cash to make payments, as is explored further in the demand-side section of this report. This is linked to preferences but also to the limited number of people who have a bank account. FinScope 2009 shows that bank products are mostly used by bank clients, and few adults who use bank products are not bank clients. According to BM²⁹, the preference for cash and checks is explained by a) the lack of public confidence in noncash instruments; b) the implicit credit in cheque transactions; c) the low cost of cheque comparatively to the cost of electronic instruments. Noncash payments happen through different instruments:

- a) electronic settlement of checks;
- b) electronic settlement of interbank transfers (payment orders³⁰, transfer orders³¹, electronic interbank transfers, conciliation requests);
- c) intrabank electronic transactions and direct debt;
- d) government's electronic transfers;
- e) POS and ATM transactions (defined by BM as "e-banking")

²⁷ Standard Bank and Millennium BIM.

²⁸ Mauritius Commercial Bank and First National Bank.

²⁹ Boletim Sistema Nacional de Pagamentos, Semestre II, 2010.

³⁰ This is when the client orders its bank to pay a third person using an intermediary bank.

³¹ This is when the client orders a transfer from its account to the account of the beneficiary in the same bank.

(a) and (b) are settled in CEL, one of the systems managed by BM. Besides cash, checks have the preference of the majority, followed by debit and credit cards. Although losing importance (17% reduction in 2011)³² checks still answer for around 94% of the total number of CEL transactions.

Cards. In June 2011 there were 2,394,597 cards in the country, 95% of which were debit cards, 4.1% credit cards and 0.9% prepaid cards. There was an increase of 17% in debit cards and 19% in credit cards. There is an ongoing process of substituting cards that only work domestically, by international VISA cards.

Use of POS and ATMS. Transactions through these channels grew 50.8% from 2009 to 2010, reaching 1.5 million transactions, and 44% from 2010 to 2011, reaching 2 million transactions (compared to 941 thousand checks). POS are not widely used, though. Instead, people withdraw at ATMs to make their transaction in cash. ATM transactions represented 92% of the number of e-banking transactions in the first half of 2011, and 86.3% of the value. Debit cards are used in 96.6% of ATM transactions and 77% of the POS transactions.

Use of internet and mobile banking. Internet, phone and mobile phone banking are offered by several banks, and reach mostly the better-off clients in urban areas. According to FinScope 2009, 2.7% of the adults who own cellphones use them to send money or make payments. 30.3% of adults stated that they would use their mobiles to send money if they could. 0.7% use their mobiles to check their bank balances. Both Vodacom and mCel have been establishing bilateral partnerships with banks for the provision of mobile banking services.

mKesh. This is the most recent novelty in retail payments in the country although it has been in the making and seeking BM's authorization for at least 2 years. It is a mobile wallet offered by Carteira Móvel (a licensed e-money issuer, subsidiary of mCel). Annex 5 depicts the current fees charged by mKesh, which can be compared to some bank fees listed Annex 3. For instance, mKesh transfers are generally more economic than transferring at bank branches. However, where ATM transfers (to the same bank) are available, these are cheaper than mKesh. Withdrawals are also generally more expensive than ATM withdrawals.

There is no partnership with banks as to date, whose sole role is holding the float of the e-money issued. According to BM, Carteira Móvel – as well as other retail payment service providers operating in Mozambique and interested in joining the system – would have access to the RTGS and other payments infrastructure, for being a regulated credit institution. That way, it is expected to join the discussions about SIMO. Although mKesh is the only nonbank-based e-money product in the market, the second largest mobile network operator (Vodacom) is planning to launch the M-Pesa model in the country. As mentioned below, it is pending authorization from BM.

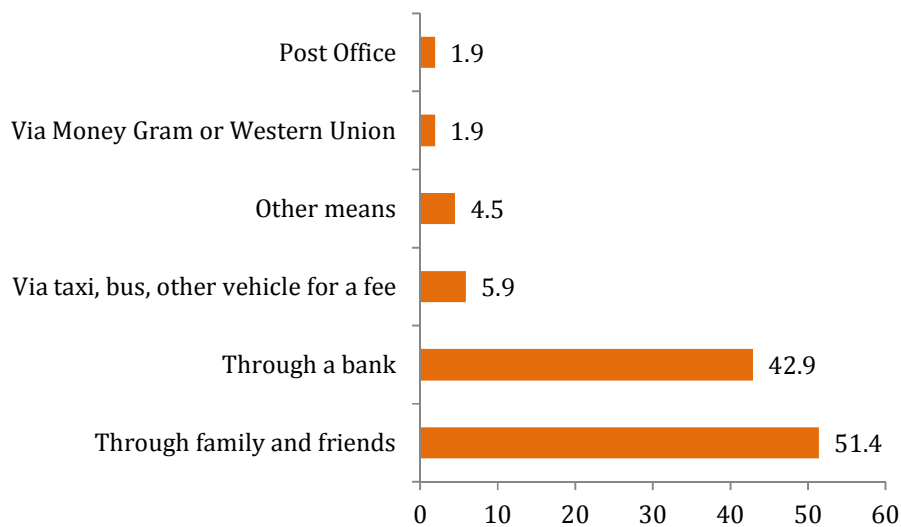
Interbancos' products. In addition to its switching and network services, Interbancos has developed two products targeted at lower (but not very low) income segments: the first is a card linked to salary accounts "offered" by the social security service (SSS). In reality, the SSS has a pooled bank account³³ and sends payment orders to Interbancos, who then make the funds available in individual virtual accounts, which are accessed by the beneficiaries, using a magnetic stripe card ATMs or POS of Rede 24. The other product is currently in pilot. It allows bank account holders to transfer to people without accounts. The receiver receives a SMS with a PIN number to be used in an ATM for withdrawal at any time in any amount.

³² Boletim Sistema Nacional de Pagamentos, Semestre I, 2011.

³³ There is no information available with regard to the operation and legal set up of this account.

Remittances. As noted, remittances services are offered at bank branches, although bearing the brand of international money transfer operators. Not surprisingly, FinScope found that 42.9% of those transferring money do so through banks. This service seems to be growing in importance as the economy develops and migration increases.³⁴

Figure 4: Percentage of remitting adults using various channels (domestic and international person-to-person transfers)



Source: FinScope 2009

The available research shows that 2.9% of adults (mostly urban) receive remittances from someone outside the country (foreign remittance), but only 0.5% of households send money abroad. A significant 8.4% of adults receive money from someone in the country (domestic remittances). Less than a fifth of the rural recipients obtain their domestic remittances through a bank while almost half (46.5%) of the urban recipients do.

3.5 The communications sector

There are 2 active mobile network operators (MNO): Vodacom and mCel. There is one provider of fixed lines (TDM, a government company), two pay-TV providers (TV Cabo and Global TV), and the government's postal service.³⁵ A third MNO has been licensed in 2011: Movitel is an alliance of SPI³⁶ and Viettel³⁷ and should be starting operations soon. The telco regulator, Instituto Nacional de Comunicações de Moçambique (INCM), does not publish statistics or other basic information about its regulated sector.

³⁴ According to FinScope, Mozambique has been a source of migrant labor to neighboring countries, especially South Africa, for more than a century. Urban-centered economic growth has also led to significant rural-urban migration.

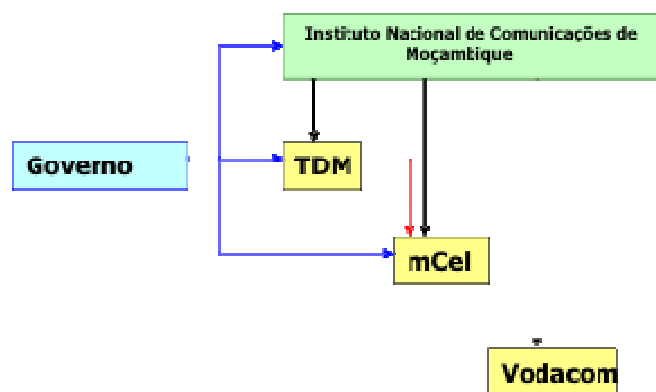
³⁵ Instituto Nacional das Comunicações de Moçambique (INCM): <http://www.incm.gov.mz/sectorT.html>

³⁶ SPI is a holding company of Frelimo, the President's party.

³⁷ Viettel Group is the 4th largest Vietnamese mobile network operator, fully owned by the Vietnamese government and operated by the Vietnamese Ministry of Defense.

mCel, a fully government-owned company³⁸, is the largest MNO, with 4 million clients, or over 50% of the market.³⁹ It reportedly covers 60% of the territory and over 75% of the population, with 25 own stores in addition to its airtime agents. 2,000 points between airtime sellers and mCel stores are being used as mKesh agents. Since TDM is mCel's majority shareholder, there is vertical integration of fixed and mobile phone services.

Figure 5: Competitive environment in telecommunications



Vodacom (part of the British group Vodafone) started operations in 2003 and has a smaller market share than mCel (2.5 million clients) and less geographic coverage. However, it is known to be investing heavily in marketing, service quality, new towers and its distribution network, to the point that it is threatening mCel's leadership. As mentioned earlier, Vodacom plans to introduce an e-money product based on M-Pesa, but is awaiting authorization from the BM.

In addition to postal services, the Correios de Moçambique also provides domestic remittances, known as "Vale Postal". We could not gather relevant additional information about the reach and characteristics of these services, or the size and penetration of the existing network of postal offices. It is said that the reach and the postal network is not extensive, although according to Figure 4, the same proportion of adults use postal offices to send or receive their remittances as the proportion who use money transfer operators.

3.6 Regulation and policy

The section below discusses the current regulatory environment in Mozambique for retail payment services. The discussion highlights the key regulatory institutions and nature of existing laws and regulations that provide oversight powers to the government and guidance to the market.

Overarching laws

Bank of Mozambique (BM) has broad powers conferred to it by two overarching laws, namely Law 15/99 (Financial Institutions Law) and Law 02/2008 (National Payment System Law). Under

³⁸ TDM is the majority shareholder. The other shareholder is IGEPE, the government holding company. It seems that the government plans to sell part of its participation in the future, within the plans of privatizing TDM. See <http://www.oje.pt/noticias/africa/mocambique-deve-vender-parte-da-mCel>

³⁹ Meeting with mKesh, August 2011.

this framework, BM is the regulator and supervisor of the financial and payments systems⁴⁰ and providers, licensing and overseeing:

- a) Credit institutions⁴¹ (banks, microbanks, credit cooperatives, leasing companies, investment companies, and electronic money institutions)
- b) Financial companies (brokers, venture capital companies, consortiums, credit card companies, exchange houses)
- c) Microfinance operators (savings and loan organizations and microcredit operators)
- d) Payment systems and participants.

The National Payment Systems Law creates the National Payment System (NPS) and the NPS Committee⁴². It also defines the NPS participants as those entities intervening in the NPS: banks and bank groups; payment systems operators; payment services providers; stock exchange; and other entities BM may determine. Today, the only entities falling under the BM's remit as supervisor of the NPS are banks, Carteira Móvel and Interbancos.

The telecommunication services are governed by Law 08/2004 and the regulations issued by the National Institute of Communications of Mozambique (INCM) under the Ministry of Transportation and Communications. The INCM covers MNOs, the fixed telephony provider (TDM), postal services, pay-TV, Internet, and other providers.

Policy strategy of Bank of Mozambique

According to its Annual Report 2010, expanding geographic reach of the regulated financial sector is a strategic objective of the Bank of Mozambique. It has issued regulations with the specific purpose of encouraging expansion of services. It is also concerned with the level of bank fees and charges and has regulated the topic through Aviso 05/09⁴³. It has emphasized its hope in microfinance by licensing 5 microfinance banks and 69 microcredit providers in the last years. With regard to payments, BM's strategy around the NPS includes:⁴⁴

- 1) align the payments subsystems with international standards for similar transactions, operate such systems with capable staff and adequate and transparent rules;
- 2) create regulations for each subsystem that permit the final users to be informed about prices and processing times, as well as interruptions in any service; and
- 3) guarantee price competition and fairness.

With the RTGS in full operation in the next year or so, the attention of the BM has turned lately to the implementation of a national common switch to address interconnection problems in retail payments. Today payment service providers are subject to offsite and some onsite supervision, but not to a comprehensive surveillance framework. The BM, which is drafting several regulations for large value and retail payments, intends to complete its oversight

⁴⁰ The insurance sector is not included in the BM's remit. It is also a nascent, shallow market. A new insurance supervisor (the Mozambican Institute of Insurance Supervision) was created by law in December 2010 (Law-Decree 01/2010), substituting the extinct Insurance General Inspector.

⁴¹ The concept of credit institution in the Mozambican context is related to intermediaries of public deposits. Hence, credit-only institutions such as credit card companies operating with their own funds are not considered "credit institutions".

⁴² The NPS Committee is an industry forum for discussions around NPS development and is comprised of BM, Ministry of Finance, INCM, the Mozambican Stock Exchange, the Mozambican Bank Association, commercial banks and payment services providers.

⁴³ Aviso, like Circulars and Directives, is a type of regulatory instrument issued by the Bank of Mozambique. Each type of regulation has a different approval process within the Bank of Mozambique.

⁴⁴ National Payment System Bulletin, Semester I 2010.

framework covering supervising retail payment services providers, which will require coordination between the payments and the bank supervision departments.

Relevant regulations

E-money issuing. The 2004 amendment to the Financial Institutions Law introduced the concept of an electronic money institution, a type of credit institution, like banks. The definition is “*credit institutions whose main objective is issuing electronic means of payment in the form of electronic money, according to the applicable legislation*”. Electronic money is “*monetary value represented by a claim on the issuer and which is stored in an electronic media and is accepted as a means of payment by others than the issuer*”. The minimum capital for e-money institutions is established in Aviso 04/2005: 25 million Meticaís, or approximately \$950,000. As a comparison, the minimum capital for commercial banks is 70 million Meticaís. Although permitted activities of e-money issuers would be defined in specific legislation, no such legislation has been issued.

Use of agents. Provision of use of agents by a regulated credit institution is permitted by regulation and Carteira Móvel is already using mCel stores and agents as its client interface channel. Regulated credit institutions can use agents based on the microfinance regulation⁴⁵ which defines “deposit-taking intermediaries” as any type of legal entity acting as intermediaries of deposit accounts on behalf of a credit institution authorized to take deposits from the public in exchange of electronic value in the corresponding account held at the credit institution. Agents are subject to monitoring (not supervision) and it is not necessary to seek prior BM authorization. The contracting institution only needs to “register” the agent, providing basic identification information to BM. There are no detailed requirements for the use of agents as there is specific regulation.

Price regulation. Aviso 05/2009 sets minimum disclosure and transparency requirements applicable to entities subject to the Financial Institutions Law (does not include those exclusively under the Payment System Law). It establishes some deposit account related services that must be provided free of charge, such as the first bounced check; one monthly statement; withdrawals at branches; daily account balances at branches, ATMs and other electronic devices; daily account statements using electronic devices; account opening; deposits in cash and checks. In addition, the institutions are not allowed to charge for inactive accounts with balance equal or superior to 100 Meticaís, or below that for 6 months; cancellation of checks; account maintenance. With regard to the NPS, there is no price regulation. The BM only sets the prices of the services it provides to the financial institutions using BM’s systems⁴⁶.

Electronic banking. There are no specific regulations regarding electronic transactions from the perspective of the prudential supervisor (e.g. security, data privacy requirements). There are no rules on prepaid cards. There are many rules with respect to clearing and settlement and security of transactions from the perspective of the payment system regulator. For instance, Europay, Mastercard and Visa standards were introduced in 2009 to increase security of related transactions.⁴⁷

Money transfers and foreign exchange regulations. There are no regulations for money transfers or remittances, as these are not considered different from bank transfers (for domestic transfers) or foreign exchange transactions (for international transfers). The services can only be

⁴⁵ Decree 57/2004.

⁴⁶ See Service Order 14/2009.

⁴⁷ Circular 001/EPI/2009.

provided by banks (the post office also provides domestic money transfers – Vale Postal – based on specific law governing postal services⁴⁸) through agency agreements with money transferors such as Western Union and MoneyGram. The main rules for cross-border transactions are set in the foreign exchange regulations issued by the BM. Prior approval by the BM is required for transactions over \$5,000. According to our interviews, this approval can sometimes take a long time (up to 2 weeks or even months in some cases) and requires gathering extensive documentation, including commercial invoices and shipping/customs documentation proving shipment or arrival of goods in the case of payment for imports⁴⁹.

No approval is required for transactions below \$5,000 and the client identification requirement is met by fulfilling the know-your-customer (KYC) provisions of the AML/CFT regulation described below. However, for all foreign exchange transactions the sender needs to fill out a form stating the reasons for sending the funds, the relationship between the parties, source of income and evidence of tax paid by the sender, and other evidence to justify the transaction. There are no identification requirements for the receiver.⁵⁰ This information can be processed either electronically or manually, and a Forex Registration Bulletin must be issued by the bank in electronic or paper form.

Anti-money laundering and counter terrorist financing – AML/CFT. The Money Laundering Law⁵¹ requires financial entities to check the identity and address of a client (and verify) for transactions above 441 minimum wages. The Decree 01/2006 makes this provision less restrictive by widening the range of documents and other sources that can be used for customer identification (see box below). The FSAP 2009⁵² concluded that although the regulations establish minimum know-your-customer and reporting requirements, the BM does not conduct onsite inspections and offsite monitoring on this topic. MNOs are not covered by the AML/CFT law, but e-money issuers are, for being regulated credit institutions.

AML regulations were not indicated in the consultations to form a barrier for development of payment services or account opening. However, the foreign exchange regulation imposes documentation requirements that introduce clear obstacles for cross-border transactions over \$5,000 and may be barriers for small transactions as well (although this was not suggested by our interviewees).

Box 1: Documents accepted for complying with the customer identification requirement⁵³

- Official identity card, or in the absence thereof, a receipt of request for one (from the issuing authority). In the latter case, the person needs to present his/her birth certificate.
- Other documents that are acceptable when ID is not provided: passport, driver's license, military ID card, election registration card, refugee ID card, social security ID card, DIRE (Foreign Resident Identification Document).

⁴⁸ Likewise, the remittance services provided by the postal service are not regulated by BM.

⁴⁹ Foreign Exchange Regulations, Art. 20-30.

⁵⁰ Foreign Exchange Regulations, Art. 6, 9 and 60-61. Trade Finance Diagnostic

⁵¹ Law 07/2002 complemented by Decree 37/2004.

⁵² FSAP is the Financial Sector Assessment Program conducted by the International Monetary Fund (IMF) and the World Bank to assess the compliance of the financial sector with several international codes and standards, for instance, the Basel Core Principles for Effective Banking Supervision.

⁵³ Decree 1/06.

3.7 Regulatory gaps and market barriers to payment system development

This section looks at the current gaps in the existing regulatory environment and market context that inhibit further development of the payment system ecosystem in Mozambique. These gaps form the foundation of the issues that impact Mozambique's development of an effective and efficient NPS that is sufficiently open to innovation and provides the necessary certainty to the market to encourage investment.

Market barriers

The reach of the payments infrastructure is very limited. The concentration of the already small payment infrastructure in Maputo and a few other cities is the most relevant barrier for access to formal payment services. 41.4% of the adult population has either never heard of a bank (22.5%) or does not know what it is (18.9%).⁵⁴ This unfamiliarity is very likely to be related to the limited presence of banks and other formal payment providers outside the larger cities. The BM recognizes the problem, affirming that the limited use of POS is due to (a) lack of awareness of the benefits of card transactions; (b) small network of merchants equipped with POS; (c) high costs per transaction; and (d) congestion of the network resulting in transaction delay or rejection.⁵⁵ From the merchant's side, some of our interviews suggest that the fees charged by banks for card transactions are too high and do not encourage merchants to adhere to the payments network.⁵⁶

Dominant players have not shown interest. There is not a strong effort by banks to cover people and areas destitute of bank services, although there is active investment in improving convenience for current medium- and high-income bank clients. This is mainly done with services such as Internet and mobile banking and the expansion of the branch and ATM network in the capital cities. There is a clear overlap of payments networks, particularly ATM networks.

There are missed opportunities to use the installed capacity of banks to offer more services for those who do not have a bank account. These could be, for example, remittances and bill payments. Millions of adult Mozambicans still do not use the formal sector for any type of financial service, representing a huge opportunity, particularly considering there is a good level of information about the unbanked with the FinScope survey. There is room still to explore further the card and phone based services being piloted by Interbancos and others, which could facilitate remittances, salary payments, G2P payments, and help overcome some cultural biases against electronic transactions.

Payments are linked to bank accounts. From the client's perspective, one of the possible obstacles for using formal payment services might be related to the fact that banks dominate the supply and many services require the client to have an account. Focusing on account-based services and not on standalone payment services is result of a market decision, rather than a regulatory imposition. However, despite the existence of no-frills accounts, account-opening is still a relatively difficult process and many Mozambicans do not have the documentation

⁵⁴ Finscope 2009.

⁵⁵ Boletim Sistema Nacional de Pagamentos, Semestre II. 2010.

⁵⁶ According to Interbancos, the fee is 1%-1.5% within Interbancos network, and 2.5%-5% for transactions going outside Interbancos (Visa transactions).

required by banks, which is more strict than the existing AML/CFT regulatory requirements. Only a small percentage of adults use banks for transactions without being an account holder.⁵⁷ The FinScope survey also shows that 78.7% of the adults pointed to not being able to afford a bank account as a reason for not having one, while 15.2% said it was because the bank was too far away, which was confirmed by our demand side research.

Limited interoperability of retail payments. In the absence of a central switch and clearing facility, interoperability in retail payments is limited. Interbank transfers are possible but usually expensive for the final customer, according to our interviews. VISA card transactions (withdrawals, balance checks) can be done in any network, though, and since 2009 these transactions have been cleared by BM. For all other transactions such as bill payments and deposits, clients need to use the network of their own bank. Interconnectedness and product range are naturally higher for the banks linked to Rede Ponto 24 (Interbancos), which offers additional services at ATMs and POS, such as bill payments and interbank transfers.

Lack of motivation for interoperability among large players. Reportedly, the original objective of Interbancos' founders (Standard, BCI, Banco de Fomento, FNB) was to turn Interbancos into a common bank switch. However, the decision of Standard to leave the switch some years ago and build its own network has severely impacted the project. It seems that the reluctance of large banks to build a clearinghouse are strategic, as payment infrastructure has become a competitive differential. The large banks simply lack the incentives to spend time and money in a common switch after having invested in their own networks, that serve well their small but profitable clients from large cities. For these reasons, the BM decided to push for the creation of SIMO.

Counterfeited bank notes. Two banks cited the poor quality of bank notes as an obstacle for the expansion of services such as deposits through ATMs and POS. According to these interviews bank notes are easy to counterfeit and this has driven banks to invest heavily in back office structure and checking procedures. The use of agents and ill-trained employees is not attractive in this context. However, the BM reports that it has been effectively addressing this problem with the gradual substitution of old notes by the new Metical issued in 2011, with enhanced security features. Also, BM highlights that counterfeiting levels are lower than the ones observed in Europe.

Poor mobile phone services. Although the two MNOs are interconnected and there seems to be no pricing issue with inter-MNO calls, it seems that in practice the inter-MNO services do not work well and are not reliable, particularly in high traffic hours. This leads people in the larger cities to subscribe to both MNOs and carry two handsets to be able to make calls using both networks and decreases reliability and hence confidence in mobile-based payment services. It is also interesting to note that during anti-government protests in 2010, the SMS services of both MNOs were interrupted, allegedly by order of INTM. Right after the events, the Ministry of Transportation and Communications gave the MNOs 2 months to register all SIM cards in a database managed by the government. Some interviewees suggest that there is some level of distrust in text messages today due to this episode. Also, there are still problems with reliability and unavailability of wireless connection in some parts of the country to where electronic payments could be extended. Wireless networks can be unreliable even in urban areas, justifying in part the common use of two SIM cards by mobile phone subscribers, one for each operator.

⁵⁷ FinScope 2009.

Poor basic infrastructure. In addition to weaknesses in the mobile phone services, lack or underdevelopment of basic public services such as power and sanitation, as well as poor quality roads are among the main obstacles for investment in payments infrastructure and affect the affordability and availability of cash distribution services outside the provincial capitals.

Regulatory barriers

Lack of regulatory certainty. Although regulation is not the primary barrier for access to retail payment services, some issues could be addressed to provide more clarity and legal certainty for market participants and also for BM itself. These issues are mostly related to lack of second-level rules or clarity of the regulator’s positioning with regard to some innovative payment services. For instance, although the regulation allows the use “deposit taking intermediaries”, which could be considered agents for regulated institutions, the BM may be passing conflicting messages to the market as to whether agents are allowed or not for all types of entities (not only microfinance institutions and Carteira Móvel). Some of those consulted think agents are allowed; others do not. We have also heard conflicting opinions in this regard inside the BM. In addition, there are no regulatory minimum standards for using agents – such as the permitted and prohibited activities, and technical requirements for agent transactions. BM has been imposing certain minimum standards for the agents used by Carteira Móvel (which fully rely on agents to distribute mKesh), but the lack of a specific regulation introduces uncertainty and confusion in the market.

No dedicated prudential and reporting standards for e-money issuers. Although e-money issuing by nonbanks is allowed by law, BM applies the same reporting and prudential requirements applicable to banks to Carteira Móvel, including a minimum capital ratio of 8%. These requirements are not compatible with the e-money issuing business, given the difference in the risk profile between this type of activity and the banking business, which entails intermediation of public deposits. The situation imposes unnecessary burden on Carteira Móvel, which needs to comply with reporting standards designed for banks, causes confusion in the market as to whether Carteira Móvel is a bank⁵⁸ and whether it can lend the funds deposited by mKesh clients, and also creates confusion within different areas of the BM (more specifically Bank Supervision and Payments Departments). This internal confusion is aggravated by the limited information sharing between the two areas on this specific topic (although the Payments Department was consulted during the licensing of Carteira Móvel). Moreover, it is not clear whether customers are covered by deposit insurance.

The lack of specific regulation also creates uncertainty and lack of transparency for potential entrants as they do not know what will be required to be approved as a nonbank e-money issuer. As mentioned earlier, Vodacom has requested BM authorization for an e-money product similar to M-Pesa through a subsidiary company, but has – reportedly – encountered resistance by BM because its data server is housed outside Mozambique. Vodacom has voiced its frustration for not getting the authorization while mKesh is already in the market, even without a specialized e-money regulatory framework. Some interviews indicate that the BM had e-money regulations drafted by a consultant once, but these were not implemented.

Limited options for remittances in general and excessive documentation for international remittances. Since there is no regulatory treatment of money transfers (as opposed to foreign exchange transactions and domestic bank transfers) money transfer operators can only offer domestic and international remittances inside bank branches, which severely limits options for

⁵⁸ In fact, the adverts of mKesh say “the bank in your hands”, despite the fact that Carteira Móvel is not legally a bank. Carteira Móvel is described in the adverts as a “financial institution” which established an alliance with mCel.

clients. Addressing this exclusivity of banks over transfer services would require the recognition, in the regulation, of money transfer services as a different type of transaction, as opposed to bank transfers and foreign exchange transactions⁵⁹. BM emphasizes that the current approach is due to anti-money laundering concerns. However, experience in other countries (e.g. Philippines, Malaysia, Zambia) shows that allowing nonbanks to enter the remittance market as regulated entities subject to the anti-money laundering legislation increases the options for clients while contributing to crime prevention goals, as a greater volume of remittances shift away unregulated, untraceable, informal channels.⁶⁰

The foreign exchange regulation introduces obstacles for cross-border transactions over \$5,000 in terms of documentation, while being more flexible for small transactions. However, the documentation for small transactions can be simplified further, proportionally to their value, as allowed by the Foreign Exchange Law, which permits special treatment for exchange of funds at borders and inward remittances from Mozambican migrants, for example⁶¹.

With regard to the telecommunications regulations, there seems to be no obstacles for MNOs to offer services that could be considered value added services.

We now turn to the customer perspective on retail payment systems.

4 CONSUMER PERSPECTIVES

4.1 Overview of research

In addition to interviews of market participants and regulators, we conducted 12 focus group discussions and four informal group interviews in Southern Mozambique from 13-22 September 2011 to better understand the consumer perspective on payments. This study took place concurrently with a research commissioned by DfID Mozambique to better understand the financial lives of poor Mozambicans who would be targeted for a government transfer program. This section therefore also draws on 11 individual interviews conducted primarily for the DfID research, but that yielded relevant results about payment. The research instrument used to guide the focus group discussions is available in Annex 7.

In addition to samples chosen for the focus groups, we also conducted a series of informal interviews with other populations of interest: a remote, but uncharacteristically prosperous agricultural village in southern Inhambane, a group of adolescents who beg and sell small goods on the streets of Maputo, and a group of *chapeiros* (drivers) carrying passengers along with money and goods sent as remittances from Mozambican workers in South Africa (primarily to understand this informal remittance channel).

The focus group discussions included questions about how people bring money into the household and make payments, whether they receive funds or goods from individuals outside the home, their main expenses and spending patterns and modes of payment, as well as use of and experience with financial instruments. In the individual interviews, we asked quantitative details about income levels, assets, liabilities and balances in various instruments.

⁵⁹ This limitation is also observed in many other developing or emerging countries with strict foreign exchange regulations, such as Brazil.

⁶⁰ The Financial Action Task Force (FATF) has also emphasized the complementarities between financial inclusion and financial crime prevention, as financial inclusion may reduce the amount of cash transactions. See www.fatf-gafi.org.

⁶¹ Foreign Exchange Law, Art. 28; Foreign Exchange Regulations, Art. 129.

Our research reflects the views and experiences certain types of people in Gaza and Maputo only and does not purport to be representative of the whole adult population. See Annex 6 for more information about the location and target populations of the interviews.

4.2 Getting money into the house: How are people paid?

Cash is the main payment mechanism used by the majority of focus group respondents. Although the preference for cash is shaped by its convenience and immediate availability, people also do not have many other options. Consistent with the FinScope results, few of the low- to middle- income Mozambicans we spoke with have accounts with check, debit or credit card services. For small businesses and informal work, payments are almost always made in cash, usually in full at the time of the transaction. Vendors in markets also accept goods on credit from trusted customers. But nearly every merchant offering goods on credit mentioned problems with people owing them money, as we heard in Mercado Estrela market in Maputo:

Respondent: *“There are many clients in the market who take a product and promise to pay the following day or on Friday, but they make up stories and never pay.”*

Respondent: *“It is better to take one-half or one-third of the payment in advance.”*

For Mozambicans running small businesses, cash is the most convenient payment method. Checks are reportedly expensive in Mozambique, and require one to make a special trip to the bank, as women in Chokwe explained:

Moderator: *“How do you prefer to be paid, by check or cash?”*

Respondent: *“We prefer cash because the customer service at the bank is poor; we have to wait a long time in the queue, sometimes they say that the check signature doesn’t match the signature they have on file. It’s a headache.”*

Clients recognize that making transfers through the bank and the ATM is useful, but there is an impression that the system is not secure for payments offered in an informal setting. Men in Mercado Estrela, Maputo told us:

Respondent: *“If someone I know wants to pay with a credit card or bank transfer, I accept it. But if the person comes for the first time, I am not sure if I can trust him or her, and I refuse payment by bank transfer. I have seen people get arrested because of card fraud or because they accepted payments with stolen cards.”*

For those with formal jobs in Maputo and the provincial capitals, the government and large corporations often pay salaries with direct deposit. Respondents who had bank accounts to receive their salary were given a choice between two or three banks when deciding where to receive their payments. These salary payments seem to all be deposited at the end of the month, a time that is busy with activity at the banks and ATMs, but also in markets and shops, resulting in long lines.

Very few direct deposit recipients we spoke with are saving money in the bank. However, a more common practice was withdrawing all of one’s salary at once. For example, among the group of women working as cleaners in government buildings, all nine preferred to withdraw all their money the day they are paid in order to avoid further bank charges. These women also complained about bank fees, which they do not understand well, and perceive as the bank stealing.

Respondent: *“Last month the bank discounted 300 MZN (US \$11.09) from my salary.”*

Respondent: *“When small amounts like 100, 200, or 300 MZN (US\$ 3.70, 7.40, or 11.09) are missing from one of our salaries and we don’t go to complain at the bank, the bank*

just steals the money. Most of us would rather stop using this bank... But it is the only way to be paid."

In the largely cash economy, some focus group participants mentioned feeling insecure carrying money with them, or having other people in their social networks know when they have cash from business activity, banks are out of reach for many, especially the rural poor. The urban poor prefer cash due to the high cost of banking compared to their salaries, and overcrowding at bank branches and ATMs when accessibility of funds is a priority.

4.3 Transaction patterns: How do people pay?

While there are benefits to this liquid economy where transactions take place almost exclusively in cash, some people complained about the risk of false notes, and the difficulty of paying for large purchases in cash. Checks weren't mentioned often, except to say that they are expensive.

Although many banked clients have ATM cards and some use the cards for cash withdrawal, there is still lack of understanding and confidence in the system when it comes to cards, especially POS payments. In Siaia, older women described their limited interaction with ATM cards:

Moderator: *"How many of you have ever used an ATM?"*

Respondent: *"I have never used one."*

Respondent: *"I have a card and if I need some money I ask my nephew to go and withdraw at the bank because I can't see properly."*

Respondent: *"I don't even know what an ATM is."*

ATMs that are often offline, run out of money at the end of the month, and are characterized with long wait times cause problems for Mozambicans who have bank accounts. Respondents indicated that the frequent ATM network outages must be overcome in order for people to feel comfortable carrying a card instead of cash. Some people feel that you must withdraw all your money as soon as possible when the system is working so as not to be stuck without money when it goes offline again.

Moderator: *"Have you ever had problems with ATMs, for example with the system being down?"*

Respondent: *"Almost all the time."*

Respondent: *"Out of ten times I go to the ATM, it is not working three of those times."*

Those who have paid at a POS reported different reasons for doing so. Whereas a few people mentioned using the card to make expensive purchases and to avoid carrying cash, others said the card was useful because, when their balance is low they can make payments of a lower amount than the ATM permits them to withdraw. For example, one cleaning woman in Maputo explained that when only 200 MZN (US\$ 7.40) is left in her account, it is not possible to withdraw this value at the ATM machine. But she could still buy something in a store for 180 MZN (US\$ 6.65) using her debit card.

There is also a perception, which may be correct, that the stores that are equipped with POS are more expensive. Interestingly, people did not mention worries about high charges as a reason for not using cards to pay at POS, something people mentioned in other countries in this study.

In summary, similar to receiving payments, focus group respondents primarily make payments in cash. However, people did say they are interested in learning more about electronic payment tools, such as POS payments.

4.4 Person-to-person: Remittance payment systems

International remittance payments

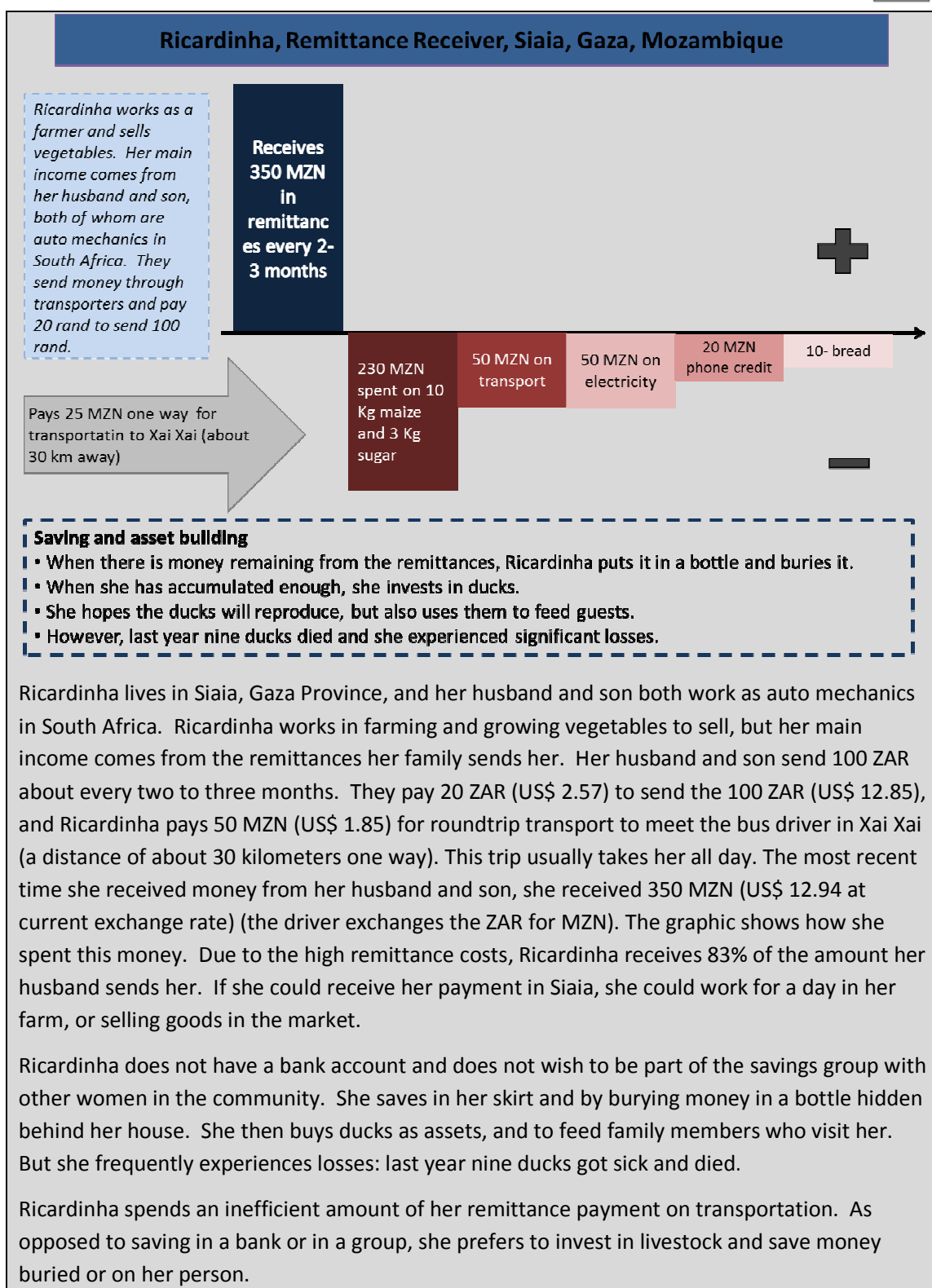
As mentioned, both domestic and international remittance transfers are an important source of income for many poorer Mozambicans. In our sample, many respondents had relatives working in South Africa. Mining companies actively recruit in Mozambique, but people also work as mechanics, traders, cleaners, and a variety of other low-wage positions. Many people we met in Maputo and especially in Gaza province had family members working in South Africa.

Among focus group participants, it is most common for men working in South Africa to send money to their wives. A man in Siaia explained that use of formal financial services for remittances is complicated by the fact that many Mozambicans are not working legally in South Africa.

Respondent: *“I used to live in South Africa, and dealing with money there is too complicated. I was paid ZAR 185 (US\$ 23.77) per day when working there. But I used to spend much of that money paying the police trying not to be arrested for lack of documents! Some employers also use blackmail. Once I worked for a man all the week, and by Thursday, because my employer knows that I had no identification documents, he called the police to arrest me, in order to avoid paying me on Friday.”*

To get information about the costs of informal international remittances, we spoke with a group of *transportadores* (minibus drivers) in Maputo *terminal central* who drive the South Africa-Mozambique corridor. The drivers said that they charge 20 ZAR (US\$ 2.57) for each 100 ZAR sent (US\$ 12.85), regardless of the amount. This 20% fee seems to be standard among all drivers and customers we met. These men reported that they might carry money for four or five people on a profitable trip. The drivers say that they do not exchange currency, always delivering ZAR for the recipients to exchange themselves. People from Maputo also reported paying a flat fee of 150 MZN (US\$ 5.50) to send 500 (US\$ 18.48) or 700 MZN (US\$ 25.87) to cities in the center or north of the country. Box 2 describes how “Ricardinha” in Siaia, Gaza receives her remittance payment and the implicit costs.

Box 2: Case study of Ricardinha, a remittance recipient



Because of the high charges to send money, such as those incurred by Ricardinha’s family, people use innovative methods to avoid the high costs of sending money. One woman in Siaia

spoke about her neighbors receiving cakes with money baked inside, or other food items concealing Rand. Participants in Chokwe also reported knowing people who used this method. The minibus drivers reported that people who try to send money with other passengers, or hidden in luggage are more likely to lose it to pickpockets in the crowded customs line, or occasionally theft when searching suitcases at the border.

While informal remittance transfer systems are expensive and unreliable, they remain the dominant means of sending money reported by focus group participants, both within the country and regionally.

Domestic remittance payments

Although some respondents make transfers through bank transfers, sending money with family or friends or through the minibus system was much more common. As expected, bank transfers are more common for domestic P2P transfers; transfers can be done at the ATM and cost about 5-7 MZN (US\$ 0.18-0.24) for a transfer within the same bank.

Some people reported that they would like to send money through the bank, but there are no branches in the areas they send to. In Chamanculo, Maputo, men liked the services offered by banks.

Moderator: *“What is the best way for sending money?”*

Respondent: *“The best way is the bank of course, but if the person you are sending to doesn’t have a bank account, then what can you do? In this case we prefer to send through reliable individuals or the transporters.”*

Men in Mercado Estrela, Maputo, who often send remittances, added that they do not like carrying cash when they travel. But respondents in Maputo also said they find using the bank’s services expensive and time consuming, or there are no branches in the rural area they send money to.

Moderator: *“If you are afraid to move around carrying cash, why don’t you deposit the money at the bank?”*

Respondent: *“The problem is not that we dislike the bank. We like it, but it is expensive, and takes time. It is always complicated.”*

Moderator: *“Is it safe to send in cash through buses?”*

Respondent: *“Not always, but the places we send money to are places with no banks, so as much as we would like to use the bank, there is no other alternative.”*

4.5 Government-to-Person: Social assistance and pensions

In some countries, especially in Latin America, government to person (G2P) payments have been an important gateway to bank accounts and electronic payments for the poor. In Mozambique, the *Instituto Nacional de Assistencia Social* (INAS), part of the Ministry of Women and Social Affairs (MMAS), distributes a small old age pension and food aid. Although these assistance programs are national in name, more individuals are likely need the assistance than are currently receiving it. The pension of 100 MZN (US\$ 3.69) per month is distributed in cash to certain needy elderly individuals, who must travel to a government office in order to receive this payment. One assistance recipient who we interviewed in Chamanculo told us that, although she is meant to receive the payment monthly, in September she had not received the 100 MZN since June.

INAS also operates a food assistance program, *Programa Subsidio de Alimentos (PSA)*. Through this program, maize or maize flour is distributed to families burdened by HIV/ AIDS or needy in other ways throughout the year. Donors and NGOs have also implemented or are planning cash transfer programs, with distribution to date or current plans for future distribution largely in cash.

Military and civil service pension recipients receive a monthly cash allowance distributed through the post office network. Box 3 gives case study of “Arão” in Loane village highlights the high costs of such a system. Although the number of beneficiaries may be small, there is room for efficiency gains and reducing the high transaction costs of G2P payments in Mozambique.

Box 3: Case study: A military pension recipient

Arão, a retired military officer from Loane, Maluana spends 80 MZM (US\$ 2.95 or 8% of his pension) to travel to Xai Xai to collect his benefit of 1000 MZM (US\$ 36.97) once a month. When he goes to Xai Xai for this purpose at the end of every month, he leaves at 5:00 in the morning and returns at 17:00 in the evening. By the time his payment arrives, he’s usually out of money and borrows 100 MZM (US\$ 3.69) from a friend to pay for the transport, and pays it back when he collects his pension in cash.

For the time being, government-to-person transfers in Mozambique are unlikely to be a gateway for financial inclusion on a large scale due to the limited coverage of such programs and the less than fully developed payment systems.

4.6 Attitudes about electronic and innovative payments

The people we met were generally curious and interested in electronic payments and cards. Although people are not always familiar with mobile banking or electronic payments, people did not express distrust, fear, or powerlessness when speaking about these products. This finding runs contrary to the impression of some interviewed on the supply side who said that lack of interest and capability among clients is a main barrier to expanding payment options.

The majority of Mozambicans do not have cell phones, and network coverage may be a limit in remote parts of the country.

As mentioned mCel has rolled out a large publicity campaign around its mobile money product, mKesh, but it appears to have been ineffective in conveying to people exactly what the service is. Many respondents had heard of mKesh, but did not know what the product was. Young urban users are however transferring airtime to one another and seemed interested in the service, such as these young women in Chamanculo:

Moderator: “Have you ever heard about mKesh?”

Respondent: “Yes”

Moderator: “Are you interested in using the service?”

Respondent: “I need to first understand what it is about.”

Respondent: “Yes, I want to know what the advantages and disadvantages are.”

Respondent: “The information we have on it is not clear.”

Respondent: “I only understood that you can buy credit from home but since I don’t have money I don’t even care.”

Respondent: *"I was already using the service to buy credit, to but when I changed my SIM Card it got deactivated. Now I have to go to the bank. But I liked it."*

A few people mentioned the service of buying airtime remotely, but did not know about sending money to others through mKesh.

The agents and potential agents for mKesh may also be unsure about their role. We spoke to one shop owner who had an mKesh agent sign on his shop. But he said mCel had visited him and asked him to be an agent, leaving the sign there, but have not yet come back to explain how the service will work.

Another advantage of increasing mobile phone penetration will be access to more financial information through text messages. One electrician we met in Maputo was accessing a variety of services through his phone:

Respondent: *"Until July last year I used to check my balance in the bank counter. But now it's not necessary. I use my telephone either to check the balance by SMS or to make transfers. I only go to the bank to withdraw money"*

Men in Maputo had also made transfers through the ATM. But their comments suggest that if prices are not transparent in such services, the clients are unlikely to keep using the product.

Moderator: *"Have you made bank transfers through ATM?"*

Moderator: *"Yes, it works well. For example: if you are in a place far from an ATM and have an emergency, you can even do the bank transfer through the mCel network and sort out the problem."*

Respondent: *"I tried that once, but I didn't like because I transferred 1000 MZN (US\$ 36.97) for my sister in Pemba and my sister only got 900 MZN (US\$ 33.27)."*

More sophisticated segments of the customer base seem eager to try electronic payments once the service is operational and provided the networks are reliable. As M-Pesa did, targeting young Mozambicans who work in Maputo or other Mozambican cities and send money home frequently seems to be a good strategy for Mozambique.

4.7 Consumer priorities for payment system usage

Having explored the most common financial behaviors among select low-income individuals in Mozambique, we now turn to what attributes of payment systems are most important to people in selecting financial services. Focus group discussions revealed that many Mozambicans have favorable views about the reliability of banks. Although the few people we spoke with who had bank accounts felt that the bank charges were unfair, those who do not have access did not mention high costs of banks and other institutions as being the biggest barrier. The high transport costs and time spent accessing formal financial products is a main constraint.

Security and trust. Among those familiar with bank services, the majority of respondents recognize that the bank has value as a safe place to save for those who have enough money. We heard again and again that lack of trust is not a barrier to banking.

Moderator: *"Have you ever feared that the bank may steal or lose your money?"*

Respondent: *"No, we never worried about that, although sometimes you think that you have x amount and when you go to check the balance you find a different amount."*

For transfers, some respondents, such as these women in Chokwe, prioritized the reliability of payment systems over cost. People are willing to pay for peace of mind and security:

Respondent: “[Sending money through] the bus is not safe while the bank is”.

Respondent: “We choose the bank for safety reasons.”

Moderator: “Is it only about safety or has to do with the price you would pay to use each service?”

Respondent: “For me it is for safety reasons.”

Respondents also mentioned the advantage of keeping money matters in the formal realm. Women in Chamanculo explained:

Moderator: “Have you ever given money to someone to save?”

Respondent: “No, we don’t trust others to keep our money.”

Respondent: “Money should be saved at the bank; and not giving to people to save. This is because I prefer to quarrel with the bank staff rather than with people I know.”

Affordability. Other banked customers are starting to use services based on relative affordability, such as this man in Jardim Tunduro, Maputo:

Respondent: “Also the ATM is cheaper [than transfers inside the bank]. If you cash the money at the bank directly, they charge a high amount. Once I was in Xai-Xai and I had forgotten my card in Maputo, I went to transfer some money from my account to my friend’s account to be able to withdraw it and they charged 50 MZN (US\$ 1.85) for that operation.”

Box 4 Case Study: Costs of getting to the bank

“Maria Isabel” lives in Loane village in Gaza province. She saves money in the bank because she is committed to saving and sees the bank as a safe place compared with her house, which could catch fire. Maria Isabel goes to the bank in Macia (the nearest town). The cost of **transport in the minibus is 100 MZN (US\$ 3.70), round trip**. It can take **two hours to make a deposit**. Maria Isabel saves in her *capulana*, or skirt-like garment, until she has 1,000 MZN (US\$ 36.97), the amount that makes it worth it to her to go to the bank. Sometimes she asks her brother or a friend to go and deposit money for her. Given that her monthly average income from farming and selling snacks outside the school works out to be 1533 MZN (US\$ 56.67), she currently **spends 6.5% of her monthly income on getting to the bank alone**.

In our sample, the main reason given for not having a bank account is not having enough money. As we heard in Loane:

Respondent: “I am not afraid of the bank, but I have never been a bank because I have no money.”

Respondent: “If me and my family can’t eat properly how can I get money to save in the bank?”

Respondent: “Those who save money at the bank are rich and have a reasonable life. I only get 250 MZN (US\$ 9.24) from selling my crops. I need to buy food, pay school fees, transport, and buy petrol using that little amount. What remains to be saved at the bank?”

Physical accessibility. Among the rural and peri-urban, the simple distance to a bank branch is also a significant constraint. The majority of Mozambicans face high transportation costs and would have to spend hours to get to a bank branch. In Loane village, where it costs 50 MZN (US\$ 1.85) to get to a bank in Xai Xai, banking does not make much sense.

Moderator: “You said that you have a bank account; why is it hard to deposit the money at the bank?”

Respondent: “It’s hard because of transport costs. When I have 200 MZN (US\$ 7.39) to deposit, I would need to pay for transport and end up depositing less than 170.”

This infrastructure challenge, more so than trust and perhaps even cost, is a limit to expanding access to formal payment systems in the country. In contrast, this also implies that there are large opportunities for services such as mobile and agent banking, provided infrastructure challenges can be overcome.

4.8 Summary of demand side findings

Electronic payments are far from being available and accessible to the vast majority of Mozambicans. Therefore most respondents had heard of, but had no personal experience with electronic or mobile payment tools. Respondents reported that electronic and network systems that do exist are frequently offline.

The payment channels currently in use, mostly cash, are available and accessible, but remittance payments, for example, are very expensive, with 20% of the money sent charged for transport. Respondents report that these systems are also unreliable. Similarly, informal financial instruments are available and accessible to most people, except the very poor. But they are often also expensive and result in delays and losses. In sum, it seems from our focus group discussions that there would be efficiency gains for people if they converted to electronic payments and they would not be averse to it – so it seems to be a supply-side and infrastructure barrier rather than a demand-side barrier.

As will be discussed in more detail in the next section, our research found that lack of availability and access are the biggest barriers prohibiting customers from using financial and payment services. Although developing familiarity with new products will take time, many of the challenges to electronic payments are currently on the supply side. There are still important limitations in the areas of affordability and reliability of these systems, but until customers can more easily access basic services, these considerations are of second order importance. Respondents reported that they trust the main banks and telecom providers, but there are limitations related to the cost and unreliability of products like ATM cards.

5 THEMATIC ANALYSIS OF NPS DEVELOPMENT

This section of the study takes the context of the current environment in Mozambique and applies a thematic lens to the issues that enable the development of transformative payment services. The specific categories were chosen because of their respective role in facilitating the development of transformative services, based on evidence highlighted in this report and external research⁶² regarding the use of new technologies to extend financial services. The thematic approach allows policymakers to determine a holistic course of action, avoiding the risk of a lopsided approach to enabling payment system development. From this perspective three main themes emerge to frame the context in Mozambique, each comprising a number of framing categories:

Table 1: Thematic Categories

Theme	Framing Category
Government Policy Measures	1. Holistic NPS strategy
	2. Coordination strategy with regulatory bodies
	3. Position on the use of stored value and e-money
	4. Participation in the NPS
	5. Exchange control rules
	6. Competition
	7. Level playing fields for MNOs and banks
	8. Promotion of interconnection
Access Barriers	9. Business rules and incentives for interconnection
	10. Flexible account opening
	11. Agent network development
	12. Market for third-party providers
	13. Cost of expanding distribution network
Consumer Perspectives	14. Perceptions of formal financial institutions
	15. Attitudes toward electronic payments
	16. Importance of payment channels
	17. Use and nature of informal tools

1) Government Policy. The first of these thematic clusters relates to the development of retail payment systems by the public sector. This includes the issuance and development of

⁶² "The Enabling Environment for Mobile Banking in Africa" (Porteous 2006)

"Use of Agents in Branchless Banking for the Poor: Rewards, Risks, and Regulation" (Lyman, Ivatury, and Staschen 2006)

"Transformational Potential of Mobile Transactions" (Vodafone Group Plc. 2007)

policy and regulations as well as the role governmental authorities play in encouraging the market to develop affordable and accessible products and services.

2) Market Barriers. The second cluster treats the main barriers to access. This theme pays particular attention to the conditions necessary to extend distribution networks beyond urban centers as well as the state of the payment infrastructure to support a broad range of products across multiple distribution channels.

3) Consumer Perspectives. Our third thematic cluster examines the behavioral aspects of payment services usage and addresses how consumers prioritize the services available to them. Generally, focus group discussions revolved around the availability, ease of access, affordability, and reliability of payment services.

A note on format: Tables 3 and 4 have been formatted to explain at a glance how the existing conditions in Malawi compare against these enabling criteria. Table 3 contains the first two categories, namely government policy and market barriers, whereas Table 4 considers the consumer perspectives. Each issue is coded with a symbol indicating whether each issue is characterized in terms of *barriers to development, some limitations, or a favorable environment* (defined in Table 2).

Table 2: Explanation of symbols









	BARRIERS TO DEVELOPMENT	There are significant blockages that limit the development of retail payment services. From the consumer perspective, respondents report that barriers make it impossible to use a service, or the tool is not working for them.
	SOME LIMITATIONS	Although some progress has been made and favorable conditions may be developing, key limiting factors may be hindering progress. From the consumer perspective, payment systems are working reasonably well in this area, but full potential is not met.
	FAVORABLE ENVIRONMENT	Although further improvements might be possible, generally positive conditions for improved retail payment systems and access are in place. For clients, products are meeting needs.

Table 3: Key framing questions: government policy and market barriers

1. Government Policy	
What measures is the government taking to develop retail payment services?	
1. Holistic NPS Strategy- Is there a strategy that identifies regulatory priorities?	
<p>Within a broader policy for developing the NPS, BM has taken important steps to modernize large value and retail systems and services. The implementation of the RTGS is a major development that has potential to support a healthy and sustainable growth of retail payment services. BM has also modernized clearing of checks and is working on regional-level projects within the SADC, including taking steps towards integration of its RTGS to other countries. With the advancements in the large value systems, BM has turned its attention to the creation of the national switch (SIMO), with potential significant impact in the efficiency, affordability and reliability of retail electronic payments. The issues around basic infrastructure have not been clearly incorporated into the NPS development strategy yet and, related to that, there is still some level of uncertainty in the market with regard to BM's approach to the national switch and the consequent impact on each stakeholder.</p>	
2. Coordination strategy with other regulatory bodies- Does the NPS development impact other areas of regulation (e.g. banking supervision, telecoms)	
<p>The BM has been leading the modernization of the NPS in coordination and cooperation with the private sector – mainly through the bank association – and other regulatory bodies such as the INCM, even though sometimes it is said to impose its own view that might conflict with the priorities of banks. There has not been participation of authorities in charge of basic public services in infrastructure that impact substantially the development of the NPS, such as the telecommunications regulator. BM has also not engaged the authorities in charge of G2P programs to explore the potential of using these programs as platforms for electronic payments. Government and donors distribute cash to Mozambicans throughout the country in various cash transfer and pension schemes. The donor community is interested in developing improved payment systems for nation-wide distribution, and these organizations have the funding and incentive to invest in improved systems.</p>	

<p>3. Position on use of Stored Value and E-Money- Is there “space” for institutions to develop stored value instruments as a solution to low threshold accounts?</p>	
<p>The BM has clarified a definition of e-money, which would underpin the use of stored value instruments by any sponsoring institution. This has de facto created the space for innovations such as mKesh. However, the establishment of e-money definition alone is not sufficient to create certainty and transparency for current and potential players. Its necessary to create a specialized prudential framework for this business, with requirements and standards different from the framework applicable to banking business. The BM is aware of this issue but it has not yet addressed it.</p> <p>Respondents to the demand side survey are unfamiliar with, but interested in electronic payments and stored value. When people prefer cash, they say it is because it is more quickly available, and because the ATM and POS networks are frequently down. Customers we spoke with are interested in learning more about e-money.</p>	
<p>4. Participation in the NPS- Who can play in the NPS? 3rd party providers? Settlement? Clearing? Networks?</p>	
<p>In the absence of an explicit regulatory framework for non-bank payment service providers and e-money issuers, BM’s approval of Carteira Móvel’s mKesh product has created some confusion in the market, particularly with regard to its regulatory status (is this a bank or not?).</p> <p>This reflects BM’s relatively ad hoc approach to participation in the NPS in the lack of a clear and complete regulatory framework. Although the Payments Law covers a variety of payment institution (banks, payment system operators, payment service providers and stock exchange) to date only banks, Interbancos and Carteira Móvel are participating the payment system. It is uncertain whether this is due to regulatory uncertainty or pure lack of interest in the market. It is likely that the latter overcomes the urgency to address the former.</p>	
<p>5. Exchange Control Rules- Under what conditions do FX enter/exit the market? How does this impact the availability and accessibility of services?</p>	

The foreign exchange controls do not impose significant requirements for small cross-border transactions, but the requirements can be revisited to simplify procedures for low value transactions. Such step is allowed by the Foreign Exchange Law, but BM is not yet addressing this issue.

Furthermore, the lack of a framework for domestic and international remittances – different from the rules applicable to foreign exchange and bank transfers – limits the ability of money transfer operators to expand their network outside of large cities where bank branches are located. BM is not yet dealing with this issue.

Remittance channels and some G2P programs present opportunity for improving efficiency and reducing transaction costs through innovative payment systems. People are amenable to the idea of using mobile products to send and receive money domestically. As the current payment services are high-cost and high-failure rate, there is need for better remittance products. Young, urban Mozambicans will likely be early adopters of mKesh or other products, and can then galvanize use in more rural Mozambique, provided an agent network is in place.

6. Competition- What role does competition play in driving innovations, product design and pricing?

In terms of competition, BM has not yet conducted any studies to identify anti-competitive behavior or pricing, or issued any rules on the matter. Therefore, there is no framework in place to ensure that the market develops in a manner that ensures a level playing field between banks, MNOs and third party providers to develop products and services.





7. Promotion of Interconnection- How involved is the regulator in promoting interconnection amongst financial institutions?

According to banks and the BM, the main deficiency of the retail payments infrastructure is the absence of centralized switching and clearing services, which increases costs and duplicates investment by individual players, delaying expansion of the services in terms of touch points and geographic dispersion.

Despite this congruence of opinions, the creation of SIMO is cited by a few banks as an obstacle for innovation in payments, because of the uncertainty it introduces (for instance, will BM regulate prices to the final customer and interchange fees?). Arguably, the project has not taken into consideration the ongoing investment plans of the banks, and the investments required by SIMO would shift resources previously allocated to product innovations. A few banks argue that the lack of interconnection in the system helps competition and product innovation, as payment infrastructure becomes a competitive advantage. Others say that BM has not taken into



<p>consideration the existing installed infrastructure (e.g. Interbancos) and the costs it will create for banks to create a new switch.</p>	
<p>8. Level Playing field for MNO's and Banks- Is the market environment open to all players regardless of nature, size, scale and complexity?</p>	
<p>There is an unlevel playing field between banks and MNOs with respect to the use of nonbank agents, as noted above. Although the regulation allows banks to use agents, the lack of specific regulation setting standards for this business creates confusion and uncertainty inside and outside the Bank of Mozambique with respect to whether banks can use agents and related minimum requirements. BM is aware of this issue and willing to address it. Also, the lack of an e-money regulation setting the standards for such business also introduces uncertainties and lack of transparency in the market, particularly to new entrants. The e-money services are potential gateways to other financial services offered by traditional financial institutions, particularly because the nonbank providers would be connected to the upcoming national switch and because there is already evidence that people use their phones to transfer funds and would do so even if they do not do it today. These services could also have a positive impact in increasing formality of cross-border and domestic remittances, if the regulations on remittances and foreign exchange rules are simplified accordingly.</p>	
<p>2. Market Barriers</p> <p>What are the main Access Barriers to payment services?</p>	
<p>9. Business rules/incentives for interconnection: How prepared is the market to organize and agree on an interconnected retail payment system across all e-channels?</p>	
<p>The fragmentation of the retail payment system and its limited interoperability, as well as the lack of clear business incentives for the large banks to interconnect, have led BM to push for the creation of SIMO, the national switch. Even considering the controversies and uncertainties around it, SIMO presents a great opportunity for increasing interoperability, greater expansion of the distribution network by potentially diluting costs of investments across market participants. This could ultimately encourage higher levels of usage through greater confidence in the system, and foster more meaningful inclusion in the long term. With the plan to</p>	

connect nonbank payment service providers such as Carteira Móvel (and perhaps even a future Vodacom product), thousands of new points – the MNO agents – could be plugged in to the NPS.

However, it does not seem the banking sector is fully prepared and willing the make this project come to life in the timeframe desired by BM.

10. Flexible Account Opening: Are there barriers to opening of low value accounts?

Despite the lack of regulatory obstacles for no-frills, easy-to-open accounts, banks are generally overly conservative, making account opening a relatively difficult process. Many Mozambicans do not have the required documentation for open a bank account. On the contrary, opening an mKesh is relatively easy.

The FinScope survey also shows that 78.7% of the adults pointed to not being able to afford a bank account as a reason for not having one, while 15.2% said it was because the bank was too far away, which was confirmed by our demand side research.

Transaction costs of getting to a bank and paying fees make up a large part of respondents' low and often variable incomes. Focus group participants said that access to banks, especially in rural areas, is a bigger impediment than the actual account opening process.





11. Agent Network Development- Is there a framework to support the deployment of a broad network of cash merchants and agents?

As mentioned earlier, there is not a clear regulatory framework for regulated entities to use nonbank agents, although at least one regulated entity (Carteira Móvel) already operates through agents. Also, the infra-legal framework for nonbank e-money issuers, although there is already an operative regulated provider, is unclear and causes confusion in the market. In addition, banks are still suspicious about nonbank entities with which partnerships could be forged to expand geographic reach of banking services by using pre-existing retail and agent networks.

Because respondents reported that they would like to access more financial services closer to home, there is likely to be high demand for agent services. But currently respondents were unfamiliar with or did not understand Carteira Móvel or mKesh services.











<p>Demand side researchers met one shop-owner designated as an mKesh agent with a sign in his window in Xai Xai, but he had not yet been informed about what being an agent will entail.</p>	
<p>12. Market for Third Party Providers- Are third party providers enabled to capitalize on the opportunities in the market?</p>	
<p>There are no relevant obstacles for third party providers to serve the Mozambican market, but also no great opportunities given the fragmentation and concentration of the existing infrastructure and the challenges in expanding the electronic payments network.</p> <p>Interbancos and Carteira Móvel have developed retail payment products that have the potential to address the unserved demand in the market. However there are other barriers (distribution, interconnection, etc) that have not been adequately addressed to fully take advantage of the role of third party service providers.</p>	
<p>13. Cost of expanding distribution network- Is there a perceived return on investment in expansion of distribution channels?</p>	
<p>Even if there was an effort by the market to increase the payments network, there are fundamental challenges, which make expansion of cash distribution networks an expensive endeavor. These challenges are linked to the poor basic infrastructure of the country: deficient transportation and road systems, low security levels in some areas, unavailability and low reliability of telecommunications and energy services. Some also point to the limited pool of human resources to expand financial services in Mozambique. In addition, banks are unsure about the potential return of investing in payments infrastructure, when economic activity in many areas of peri urban and rural Mozambique is still very low. Some say that it is unrealistic to expect development and adoption of electronic retail payments in the many areas lacking economic dynamism.</p> <p>Contrary to the perception of the banks, respondents did not say that they do not trust banks. Insufficient physical access and low, unreliable incomes prevent people from having bank accounts rather than lack of trust. Many of the poor would like to use formal services if they had more income or if the bank were closer. More effective and more widespread distribution could therefore solve much of the current barriers from the demand</p>	

perspective	
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Table 4 adds an additional lens to the analysis of the consumer experience of retail payment systems in Mozambique, assessing the themes across four dimensions or criteria (*Availability, Accessibility, Affordability, Reliability*) that directly influence consumer perception of the value of payment products. The result of this approach is a more complete sense of how the consumer engages with payment services and whether the current environment adequately meets the demand for services. The four dimensions are defined here:





- **Availability** – existence of payment services within a reasonable distance. This could also include the existence of agents, mobile banking products, or other services.
- **Accessibility**- extent of transaction costs, travelling and wait times, requirements for account opening, and inclusiveness of informal instruments.
- **Affordability**- in money terms, including transaction costs.
- **Reliability**- Frequency with which services fail to deliver their supposed purpose, including delays and financial losses.

Table 4: Key framing questions: consumer perspectives (evaluated according to Availability, Accessibility, Affordability, and Reliability)

3. Consumer Perspectives			
How does Consumer Behavior impact use of payment services?			
14. Perception of formal financial institutions- Do customers trust the banks and telecom providers? Are impressions generally more positive or negative?			
<p>Contrary to the perception of the banks, trust in banks was not a big problem among people we spoke with. People perceive formal financial institutions as either not physically present, or only for rich people. These availability and access barriers, as well as low, irregular incomes are bigger impediments to financial inclusion than lack of trust. This results in the coding of barriers for availability and accessibility, and yield signs for affordability and reliability. Many of the poor would like to use formal services if they had a bit more money, or if the bank were closer.</p>			
Availability	Accessibility	Affordability	Reliability
			
15. Attitude towards electronic payments- What are customer's impressions and preferences around electronic payment methods?			
<p>Mozambicans are unfamiliar with, but interested in electronic payments. When people prefer cash, they say it is because it is more quickly available, and because the ATM and POS networks are frequently down. People did not mention the high cost as a main deterrent, perhaps because they have not yet accessed such services and do not know the charges. Customers we spoke with are interested in learning more about mobile payments, and report that poor infrastructure and services are major deterrents from paying with cards.</p>			
Availability	Accessibility	Affordability	Reliability
			





16. **How are most frequently used payment systems performing?** What are current behaviors and requests from customers in remittance, G2P, and B2P payments? Are the methods currently in use available, accessible, affordable, and reliable?

Cash remains the dominant payment method for most income profiles we spoke with, even if they have a bank account or are otherwise formally served. Formal institutions are not available or accessible to many people we spoke with. Instead, informal channels, such as sending money through minibus drivers, dominate domestic and international remittance channels among respondents. The fact that focus group participants have informal tools available and accessible to them, but face limited access or availability of formal financial tools leads to the yield sign for these two categories. G2P distribution is done through cash at pay points, such as post offices. People find ways to pay and send money, but they are informal, expensive, and sometimes unreliable.

Availability	Accessibility	Affordability	Reliability
			

17. Informal tools- **Which informal payment and financial instruments are working, and which are not along key dimensions?**

Perhaps because informal instruments are created and used out of a pressing need, they are available and receive the green code for a favorable environment. Savings groups work well for those with regular incomes; informal borrowing tools are lacking. Certain respondents, especially market people and remittance receivers benefit from informal savings groups. But farmers and casual laborers do not take part in such groups, and are at a disadvantage because they cannot buy goods on credit due to their unreliable incomes. Informal remittance tools seem to be available to those focus group participants sending and receiving money. The distance and time spent with informal tools gives accessibility the yellow yield sign, for some limitations. Informal remittance and credit options are expensive and fail to perform their desired function frequently according to focus group participants. For example, moneylenders charge 25-40% in parts of Maputo.

Availability	Accessibility	Affordability	Reliability
			

Summary: Reliability and accessibility are often prioritized above cost. Customers are willing to pay for high quality, safe financial services. Low income Mozambicans mentioned feeling that they are too poor to make the bank fees and transportation cost worth it. Lack of transparency in

fees, rather than the fees themselves, is a source for complaint. But unreliable institutions, when they exist at all, and long travel and wait times are the main barrier.

As these results show, there is room for improvement in availability, access, affordability, and reliability of payment systems and financial services more generally. While many focus group participants were using informal services, respondents mentioned that some people are too poor to participate in savings groups or receive community loans. Improving availability and access through innovative means is the most important challenge for expanding use of retail payment systems in Mozambique.

6 POLICY PRIORITIES AND WAY FORWARD

There is a long way to go for electronic payments to become part in the daily life of most Mozambicans. However, they have been increasing in number of transactions and value, together with the increase of bank accounts, while the use of checks reduces slowly. In addition to many other important actions by the government, such as improving the infrastructure for basic services (water, energy, wireless communications), the development of the retail payment system will depend, in great part, on addressing the following priorities:

1. Creating rules allowing and setting minimum standards for the use of nonbank agents by all regulated institutions;
2. Creating a specialized regulatory and supervisory framework for nonbank e-money issuers, different from that applicable to banks;
3. Creating rules for international and domestic remittance services, apart from the foreign exchange rules;
4. Advancing rapidly the implementation of SIMO in close coordination with banks;
5. Engaging other government authorities in the discussions of barriers and opportunities for payment system development, such as those operating G2P programs, and those in charge of transportation, energy and communications.

From the customer perspective, there is likely to be more demand to use financial and payment products if they can be made more widely available and more accessible to the poor. This could be done through branchless banking and mobile money, the perceived lack of reliability in network availability and the perception that banks and money transfer services are only for rich people are challenges to overcome.

The large extent of financial exclusion found in the FinScope Mozambique study— 78 percent of the population is financially excluded from both formal and informal services — combined with the finding from our focus groups that people trust financial institutions and MNOs and would like to learn more about them, suggests that targeted financial capability training – not necessarily financial education involving classroom activities, but rather some targeted interventions to increase understanding of how financial products could meet their financial needs – might have a role to play in increasing access. Such an effort should focus on increasing knowledge of and comfort with payment systems, perhaps related to the roll out of new products and channels that aim to reach down market, as opposed to lectures on budgeting or record keeping. Sharing information about informal financial tools for asset building and borrowing, such as savings groups and village savings and loan associations might also have value for poor Mozambicans in the short to medium term. These initiatives also apply to new products rolled out by private sector institutions as greater understanding will likely lead to greater uptake and usage. The process of improving financial capability is one that needs to be shared among all relevant stakeholders to maximize the opportunity for customers to use new products that can improve their financial lives deepen access to services.

Annex 1: People Met or Consulted

Institution	Position	Name
Banco de Moçambique	Deputy Director Payments Systems	Mrs Aurora Bila (and several staff members)
Carteira Móvel	Product Manager	Mr Aurélio Matavel
Interbancos	Director Technology	Mr Luís Carlos Martins
Socremo	Director Finance	Mr Hermenegildo Cofe
BCI	Central Director	Mr Rogerio Lam
Standard Bank	Head of International Operations and Back Office	Joachim n Uaiene
Standard Bank	Head Economist	Fausio Jaffar Mussa
Standard Bank	Head of Support Operations	Ivone Matule
Millennium Bim	Executive Board Member	Mr Paulo Tomás
Ben Potter	Independent Consultant	Mr Ben Potter
Vodacom	Commercial Manager of Products and Services	Luis Cabaco

Annex 2: List of existing regulations

Law 01/1992	Bank of Mozambique Law
Law 03/1996	Foreign Exchange Law
Law 15/1999	Financial Institutions Law
Law 07/2002	Anti Money Laundering Law
Law 08/2004	Telecommunications Law
Law 09/2004	Alters the Financial Institutions Law (creates e-money issuer)
Law 02/2008	National Payment System Law
Law 05/2008	Check Law
Decree 01/2006	Reduces KYC rules for lower risk transaction/client
Decree 04/2009	Creates the rules of the Coordinating Committee of the NPS
Decree 57/2004	Microfinance Regulations (creates “account deposits intermediaries”)
Aviso 23/1997	Creates the Register of Bounced Checks and its operating rules
Aviso 08/1999	Creates standards for checks
Aviso 06/2005	Creates the Electronic Funds Transfer System – STF
Aviso 09/2005	Creates the Interbank Clearing and Settlement System
Aviso 04/2006	Alters standards for checks
Aviso 05/2009	Creates a regime for fees and commissions
Aviso 08/2009	Creates the rules of the MTR (BM’s RTGS system)
Circular 001/EPI/2009	Establishes Visa, Europay and Mastercard standards

Annex 3: Key bank prices

Mozambique as of 23 September 2011

Exchange rate: 1 USD = 26.85 MZN

1 ZAR = 3.25 MZN

	Millenium Bim	BCI	Barclays	Standard Bank
Documents required to open an account	ID Card, NUIT, proof of address	ID card, NUIT number, proof of address	ID card, NUIT number, 2 photos, application form	ID card, NUIT number, proof of address if not the same as ID card
Minimum balance to open an account	300	100	1500	1618
ATM withdrawal	5	5	7	5
ATM withdrawal in another bank	13	12	35	13
Transfer at the counter	102	50	73	55.5
Transfer at the ATM	7	5	Service not available	Service not available
Transfer to another bank	260 (counter only)	250 (counter only)	145 (counter only)	225-250 (counter only)
Annual fee	250	120 first year, then 240	420	500
Cost for lost card	400	400	0	500

Source: websites of financial institutions

Annex 4: MNO prices

	Price per minute (Meticais)		Price per second (Meticais)	
	High traffic hours	Other hours	High traffic hours	Other hours
Vodacom-Vodacom	5,850	4,250	118	94
Vodacom-mCel	5,850	4,250	118	94
Vodacom-TDM	8,750	5,100	177	94
mCel-mCel	5,850	4,250	118	94
mCel-Vodacom	5,850	4,250	118	94
mCel-TDM	8,750	5,100	177	94

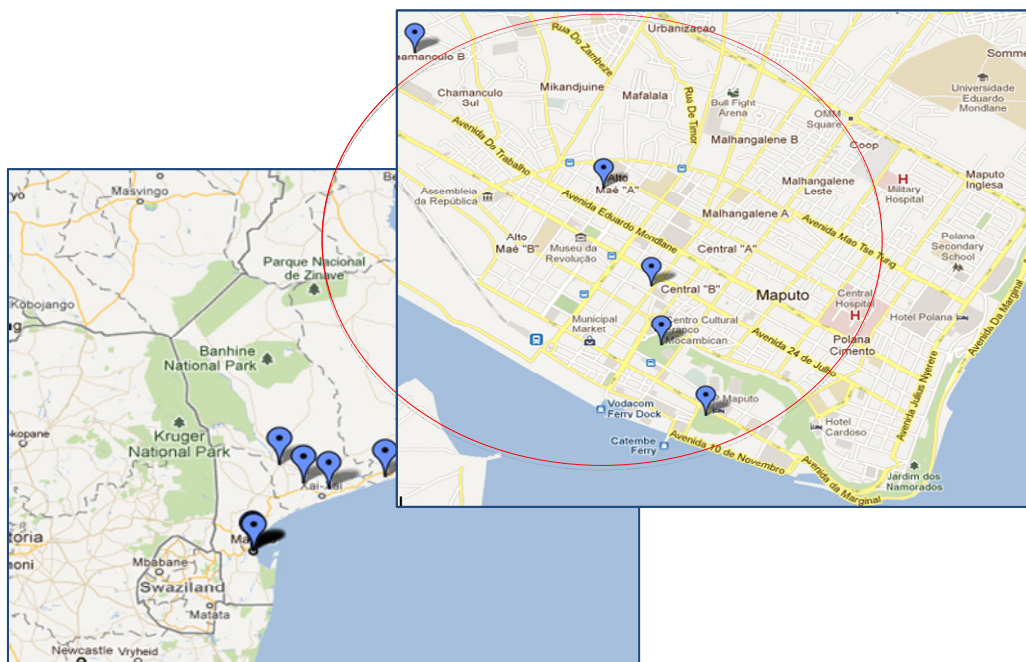
Source: INCM

Annex 5: mKesh prices

Type of transaction		Value of transaction in Meticais		
		From	To	Price
Transfers	Registered Client	50	1.500	10
		1.501	3.000	20
		3.001	6.000	30
		6.001	10.000	40
		10.001	25.000	50
	Unregistered Client	50	1.500	25
		1.501	3.000	50
		3.001	6.000	100
		6.001	10.000	150
10.001		25.000	200	
Withdrawals	Registered client	100	1.500	15
		1.502	3.000	30
		3.001	6.000	60
		6.001	10.000	90
		10.001	25.000	150
	Unregistered client	Free		
Deposit	Registered client	Free		

Annex 6: Location of focus groups and interviews

Focus groups	Target population	Number with bank account
Group 1	Male vendors and hawkers, Mercado Estrella Vermelho, Maputo	7/9
Group 2	Female market women and cooks, Mercado Estrella Vermelho, Maputo	4/7
Group 3	Market women, Chokwe, Gaza Province	4/8
Group 4	Male street vendors and vendors, Chokwe, Gaza Province	3/9
Group 5	Female farmers, Loane village, Gaza province	
Group 6	Male farmers, Loane village, Gaza province	1/10
Group 7	Female farmers and remittance receivers, Siaia village, Gaza province	0/10
Group 8	Male farmers and casual laborers, Siaia village, Gaza province	2/10
Group 9	Salaried women cleaners of government buildings, Maputo	9/9
Group 10	Female urban youth, Chamanculo, Maputo	5/9
Group 11	Male urban youth, Chamanculo, Maputo	10/10
Group 12	Salaried men, Jardim Tunduro Maputo	6/9



Annex 7: Demand-side focus group instrument

**FinMark Trust Payment Systems Landscape Study
(Mozambique, Malawi, Zambia and Zimbabwe)**

&

DfID Profiling of Financial Context for Workfare Payments (Mozambique)

Research Approach, Methods, and Instruments

Background. Bankable Frontier Associates has recently been contracted to conduct two studies in Southern Africa: One contracted by FinMark Trust aims to understand the landscape for electronic payments in the mass market in Mozambique, Zimbabwe, Zambia and Malawi. The second is focused exclusively on Mozambique where DfID would like to understand existing financial behaviors of the vulnerable poor as they consider their options for building financial inclusion into a workfare program in the early stages of the design process.

In each of the FinMark countries, we are seeking to sample the “mass market” of potential payment system users. In each country, we will distribute the sample to capture those with large, distant cash flows, like domestic and international remittances, government transfer recipients, and potentially cross-border traders. This will give us an opportunity to understand current payment options among people who may benefit most from e-payment systems.

For DfID in Mozambique, we are focused even further downmarket at potential beneficiaries of a workfare program, and we will be looking to understand their current financial management practices and preferences looking for opportunities to strengthen the portfolios of beneficiaries through the cash transfer program.

In both cases, we will try to capture cash inflow and outflow patterns looking not just at assets and credit, but also the mechanisms for how money moves and what the implications are for choosing to transmit using different payment mechanisms. As such, we will use a common focus group and interview guide in Mozambique with a limited number of highlighted sections specifically targeting cash transfer-specific issues within the focus group discussion guide. This focus group discussion guide will be piloted and refined in Mozambique and then used to guide comparable discussions in Malawi, Zambia and Zimbabwe.

Demand Side Research Objectives.

FinMark	DfID
How do people pay and transact? Are there choices?	What financial management strategies are potential workfare beneficiaries already employing?
What features of the payment options shape	

<p>peoples' preferences? Where are there problems and pain points? What habits, attitudes, fears, etc. may need to be overcome to introduce innovative payment mechanisms?</p>	<p>What are potential beneficiaries' income and expenditure patterns? What levels of understanding do potential beneficiaries express about different financial tools?</p>
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Sampling. In each country, we will distribute the sample to capture the general population of people who are engaged in relatively large movements of cash over distances who may be using formal or informal mechanisms to make those transactions right now. This will help us capture people who may benefit from e-payment mechanisms.

Country	Sample Size and Distribution	Explanation
Mozambique	<p>12 Focus Groups of 8 people:</p> <p>Site 1: 6 Maputo 2 groups of market traders (including remittance senders) 2 poor, urban youth 2 groups of workers with regular jobs (including remittance senders)</p> <p>Site 2: 2 Chokwe (town in Gaza) 1 traders/market women 1 general population (hopefully with some remittance recipients)</p> <p>Site 3: 4 Rural Gaza 2 (1 male; 1 female) in low income community A (no one w/regular job) 2 (1 male; 1 female) in low income community B (no one w/regular job)</p> <p>10 individual interviews prioritizing DfID sample (very poor)</p>	<p>We have tried to distribute the sample to cover populations relevant to FinMark (traders and remitters) and DfID (very low income likely beneficiaries of the cash transfer/workfare program). As more information becomes available about the DfID targeting, we may need to adjust the sample.</p>
Malawi	<p>Six Focus Groups of 8 people</p> <p>Site 1: 3 Lilongwe 2 Government or aid transfer recipients 1 domestic remittance senders</p> <p>Site 2: 3 Mangochi 1 Government or aid transfer recipients 2 remittance receivers (1 international if possible)</p>	<p>With only six focus groups we thought it best to concentrate discussions in Lilongwe and one rural area. In order to understand how people receive transfers, the sample is split between recipients of government or aid transfer</p>
Zimbabwe	Six Focus Groups of 8- 10 people	With an estimated one million

	<p>Site 1: Harare: 2 respondents sending and receiving money 1 respondents operating bank accounts targeted at the low end of the market</p> <p>Site 2: Seke 1 respondents sending and receiving money 1 respondents receiving financial or other assistance</p> <p>Site 3: Chiweshe Respondents receiving money Respondents receiving assistance from the government/ NGOs</p>	<p>Zimbabweans living in South Africa, the South Africa- Zimbabwe remittance corridor represents an important market for payment systems. Therefore we will focus our research on urban and rural remittance recipients, as well as exploring the domestic remittance channels in Zimbabwe.</p>
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Focus Group Discussion Guide

Introductions and Warming Up	
Topics	Probes and specific questions
Introduce the objectives of the focus group	Study commissioned by FinMark and DfID, because they want to help improve financial services in Mozambique; Best to start by understanding how people like you manage their money, where and why you save and borrow, how you earn, how you spend, how you send money when needed.
Initiate some discussion to help respondents feel comfortable	Can you tell us a little bit about your community? How do people here earn money? What is your community known for/famous for?

Earning money	
Topics	Probes and specific questions
Sources of income	Can we go around the room and each person tell me how your family earns a living? Who in the family earns money? How do they earn money? About how often do they get paid for each activity?
How income is paid	When you earn money [in each way], how do you actually get paid? Does your employer [your spouse's employer]/client/etc. give you cash in person? Do you have to make a special trip? Has anyone ever been paid in another way? [bank account, voucher, check, in kind etc.] Which ways are most common? What are the advantages and disadvantages of being paid in these different ways? How far do you have to go to collect your payments? Has anyone ever experienced a problem getting paid with one of these methods? (What happened? Did you have to go back again? How long did it take to resolve the problem?) Are the ways people are paid these days any different than they were maybe 10 years ago? What is the best way to be paid? Why?
Extent of remittances	Does anyone send money to family and friends to help out, maybe they are working or living in Maputo, Jo'burg,

	<p>South Africa, or elsewhere?</p> <p>Who sends money?</p> <p>Is this common in this community?</p> <p>How often do you send and about how much each time?</p> <p>How do people send money? [probe for many ways]</p> <p>How do these systems work?</p> <p>How much do they cost?</p> <p>Are they reliable? Has anyone ever lost money using this?</p> <p>Has anyone experienced any other problems, like a delay or other problem? What happened? How was the problem resolved?</p> <p>What types of problems are associated with these systems?</p> <p>Are they convenient? How far do you have to go to get the money? How long does it take to get it? How much time do you spend waiting in line?</p> <p>Are these ways of sending money any different than maybe 10 years ago?</p> <p>What is the best way to send/receive money? Why?</p>
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Uses of Money	
Topics	Probes and specific questions
Expenditure frequency	<p>How often do you buy your big groceries? (Maize meal, cassava, oil, etc?)</p> <p>Where do you normally do a big shop?</p> <p>How do you normally buy your main groceries (cash, etc.)?</p>
Weekly expenditures (regular, recurring expenses)	<p>Walk me through a week and what your budget is and how the money gets spent (may be a month in urban if formal jobs)</p> <p>Where do you normally spend on [each major category that arises]?</p> <p>How far away are these places? How long does it take to get there? How much do you spend on transport round trip?</p> <p>How much do you normally spend on each trip?</p> <p>How do you typically pay?</p> <p>What about last week specifically? Can a few of you walk through what you spent specifically last week?</p> <p>What was your biggest expense in the last month? How did you pay for it?</p>
Infrequent/occasional	What was your biggest expense in the last year? How did

	<p>you pay for it?</p> <p>How often do you spend money on... School, planting, weddings, funerals, other major expenses, when, where, how managed?</p> <p>What are the advantages or disadvantages of each payment mechanism used? [probe convenience, cost, reliability, etc.]</p> <p>Have you ever had any problems making these payments or you try to make the payment and run into a problem completing the transaction or being charged too much? What happened? Is this common? How was it resolved?</p>
Savings and credit	<p>Do you separate your money for business from your money used to take care of yourself and your family?</p> <p>How many of you have bank accounts? Where? How far away? How do you normally take money out? How long does it take to transact? Do you ever use a debit function? What do you mainly use the accounts for? Why did you open them?</p> <p>What do you like/dislike about bank accounts? Have you ever lost money using a bank account? [if yes, probe for story]</p> <p>What types of people use bank accounts?</p> <p>How many of you have ever used a savings group? What type of person uses a savings group? For what purpose? Why do you use them? How often do you contribute? How often do you get a payout? How far do you travel to contribute or withdraw? How long does it take to transact? What do you like or dislike? Have you ever lost money or heard of someone who lost money in a group? What happened? Is this common?</p> <p>How many of you had to pay school fees? How much? How did you get the money together to pay for them? (what instruments?)</p> <p>How many of you have had to pay for big medical expenses? How much? How did you get the money</p>

	<p>together?</p> <p>How many of you had to pay for planting/ funerals/ weddings/celebrations? How did you get the money together to pay for them? (what instruments?)</p> <p>If you had an emergency and needed to come up with twice your monthly income, where would you get the money? (what instruments?)</p> <p>What other financial instruments are people using?</p> <p>Saving in the house</p> <p>Saving with another person (money guard)</p> <p>Saving with a deposit collector (they pay someone to collect and hold their money)</p> <p>Borrowing from friends and family</p> <p>Borrowing from a moneylender</p> <p>Credit at local shops or from suppliers</p> <p>Loans from banks, MFIs, other institutions</p> <p>Buying things on installments</p> <p>Any type of insurance</p> <p>Any type of long term investment</p>
<p>Mobile banking, electronic payments</p>	<p>How many of you have cell phones?</p> <p>Have you ever sent airtime (credit) to someone else, or paid for a good in airtime?</p> <p>Have you heard about mKesh?</p> <p>Would you like to use a service that allowed you to transfer money through your phone? What do you think of such a service</p>