A Work Project, presented as part of the requirements for the Award of a Master's degree in Management from the Nova School of Business and Economics.

FINANCIAL INCLUSION: TRANSFORMING MOZAMBIQUE INTO A MOBILE MONEY SUCCESS-CASE

INÊS COELHO ALVAREZ Y PIÑERA

Work project carried out under the supervision of:

Luís Rodrigues

04-01-2021

Financial Inclusion: Transforming Mozambique into a Mobile Money Success-Case

This work project aims to provide the Mozambican government with a strategic model to improve the country's financial inclusion, and more specifically, its mobile money sector.

The inability faced by banks to serve rural and impoverished populations enabled for the creation of mobile money, which is taking a rapid uptake in several Sub-Saharan African countries, providing a variety of services that significantly improve individual's well-being.

Nonetheless, Mozambique has not yet perceived the full development of this sector when compared to its neighboring countries. Hence, the country's mobile money sector is analyzed to understand the challenges currently faced, so that a structured approach can be introduced to transform Mozambique into a mobile money success-case.

Table of Contents

List of Abbreviations

SSA – Sub-Saharan Africa

MSMEs – Micro, Small and Medium-sized Enterprises

MNO – Mobile Network Operator

CGAP – Consultative Group to Assist the Poor

SDGs – Sustainable Development Goals

NFIS – National Financial Inclusion Strategy

DFS – Digital Financial Services

GDP – Gross Domestic Product

P2P – Person-to-person

RSPs – Remittance Service Providers

PAYG – Pay-As-You-Go

TSPs – Technical Service Providers

GW – Gigawatts

KYC – Know Your Customer

KPIs – Key Performance Indicators

Introduction

Since 2011, 1.2 billion adults gained access to a transaction account, amounting to a total of 69% of account ownership by adults. Nonetheless, globally, nearly one-third of adults remain unbanked, corresponding to 1.7 billion individuals (*Appendix 1*). While account ownership is almost universal in developed economies (*Appendix 2*), where 94% of adults benefit from an account, developing economies only count with a share of 63%[1].

When it comes to Sub-Saharan Africa (SSA), very few adults have access to an account through a formal institution, hence why cash is king in the region. In turn, this limits individuals from the benefits of owning a formal account – having a secure place to deposit savings, implementing a credit rating, and accessing money in cases of emergencies. A World Bank Group study concluded that MSMEs in Africa received approximately $913 billion in 2015 from customers, of which 84% was made in cash. Also, these same businesses paid $610 billion to their suppliers, of which 69% were cash-based[2].

The high costs of brick-and-mortar banks in rural areas poses an obstacle to serving its communities (Costa & Ehbreck, 2015)[3]. Mobile money was introduced to reduce extreme poverty and include the unbanked in the financial system, using an agent network, reaching communities through branchless banking (Mas & Siedek, 2008)[4]. Agents are usually respected individuals from the community, thus instilling trust in the service (Baptiste et al., 2010)[5].

The lack of suitable infrastructure in SSA has led to a rapid acceptance of mobile phones, and mobile money. Mobile Network Operators (MNOs) leapfrogged telecommunications development, benefitting from the convenience and speed of these solutions to transfer monetary amounts (Rea & Nelms, 2017)[6]. This can be evidenced by the fact that there is greater access to mobile phones than to potable water (Naghavi, 2020)[7] – 75% of the population have a phone while only 56% have access to piped water (Eberhard, 2019)[8].

Financial Inclusion

According to the World Bank, financial inclusion can be defined as access by businesses and individuals to affordable and useful financial products and services, such as transactions, payments, credit, savings, and insurance, which in turn are delivered in a sustainable and responsible manner, meeting the beneficiaries' needs. Having access to a transaction account, which enables the storage of money, as well as receiving and sending payments, can be a gateway to broader financial services, thus improving individuals' well-being[9].

The universal access of transaction accounts is the main focus of the World Bank Group's Universal Financial Access 2020 Initiative (UFA2020). This initiative aims to influence 1 billion individuals through a set of targeted interventions, having reached a total of 738 million new account holders in 2017 and is targeted to 25 countries where 73% of the financially excluded live, including Kenya, Mozambique, Nigeria, and Tanzania[10]. The World Bank Group's strategy lies in expanding access points, improving financial capability, creating a regulatory environment to enable access to such accounts, government programs, reaching disadvantaged populations (namely women and rural populations), promoting the usage of financial services, and working through value chains to digitize payments[11].

Furthermore, CGAP, a global partnership of over 30 development organizations which aim for improving the lives of the poor, emphasizes the importance of financial inclusion towards achieving several of the Sustainable Development Goals (SDGs), a set of 17 goals which address the major obstacles currently faced in the world, namely poverty, inequality, climate change, peace, and justice. The first SDG, ending extreme poverty, shows an important linkage with financial inclusion, as having access to financial services enables people to overcome poverty by investing in education or in business. For instance, families that opened a free bank account in Nepal, increased school-related expenses by 20%. Financial inclusion

can also prevent individuals from falling into poverty, as savings accounts enable them to manage for situations of emergency and unexpected expenses, and digital payment services allow for the transfer of remittances to friends or family who may live in great distances[12].

Given that the majority of the unbanked are women, according to Klapper et al. (2016), financial inclusion promotes the fifth SDG, gender equality[12]. A study in Kenya found that women who had access to savings accounts invested 45% more in their businesses and as such, were less likely to sell their assets in the case of an emergency. Financial inclusion is also important in increasing health spending, promoting the third SDG, good health and well-being. In Kenya, health spending improved by 66% when individuals were given a safe place to store money (Dupas, 2013)[13]. When it comes to the second SDG, zero hunger, financial inclusion can promote farmers' investments in their crops, consequently improving food security. For instance, in Malawi, farmers who deposited their earnings into a bank account spent 13% more on farming equipment, improving the value of their crops by 21% (Brune et al., 2015)[14]. Also, rainfall insurance provides less risky investments when a drought or a flood takes place[7].

According to the World Bank, more than 55 countries since 2010 committed towards financial inclusion, and above 60 developed a National Financial Inclusion Strategy (NFIS), comprising financial regulators, telecommunication companies, competition and education ministries. Research shows that the economies who achieved the greatest progress towards financial inclusion implemented leveraged government payments (35% of adults in low-income economies opened their first bank account to receive social transfers), policies delivered at scale (there are currently 1.2 billion individuals covered by universal digital ID), enabled the success of mobile money platforms, embraced new business models such as e-commerce and tackled consumer protection and financial capability, promoting sustainable and responsible financial services[9].

Financial Inclusion in Sub-Saharan Africa

The 2017 Global Findex survey questioned the unbanked in SSA why they do not have an account, predominating the reason for having too little money to use. Cost and distance, as well as another household member already having an account, were also common responses. Around a fifth of unbanked adults cited a lack of documentation and distrust in the financial system as a reason for not having an account (*Appendix 3*). This shows the importance of tailoring financial services to the needs of disadvantaged groups, who have low literacy skills[1].

Mobile phones can improve access to financial services, as they remove the need to travel long distances to the nearest bank, and digital technology improves the affordability of the service. According to the 2017 Gallup World Poll data, 93% of adults in developed economies have a mobile phone, contrasting to 79% in developing economies (*Appendix 4*). However, mobile phones together with the internet can only improve financial inclusion if relying on the necessary infrastructure, like electricity and mobile networks, as well as a proper system of payments and a material network to bring payments to all geographic locations in the country[7].

According to Koblanck (2018), the widespread use of Digital Financial Services (DFS) has the potential to enhance developing economies' GDP by $3.7 trillion by the year 2025, with two-thirds coming from enhanced productivity of large businesses and governments, and one-third from investments in Micro, Small and Medium-sized Enterprises (MSMEs)[2].

The Role of Mobile Money

Mobile money is a technology that enables individuals to store, receive, and spend money through a mobile phone, by linking such transactions to a specific phone number. The service is usually provided by telecommunication companies, enabling customers to transform their phones from a communication tool to a financial one. It counts with numerous benefits for

its users, such as **convenience**, given that customers do not have to travel to a bank agent to perform a transaction, they simply need a mobile phone signal; **security**, the money held in the mobile wallet is protected by local financial regulations; **diversity**, as increasing services are becoming available that promote financial inclusion; and the ability to make **direct**, **fast** and **easy** transactions without having to go through a middleman[15].

Mobile money originated in Kenya, with the introduction of M-PESA by Safaricom in 2007. At first, the service simply provided Person-to-Person (P2P) transfers, cash-in cash-out services, and airtime top-up. M-PESA is based on transaction fees to support the MNO business model, despite its very low cost per user. Its success can be evidenced by the great adoption rate in the country, as in 2017, ten years after the initial launch, the Kenyan mobile money market evidenced 37 million registered accounts, amounting to $36 billion in transactions[7].

Since its introduction, mobile money services have been widely adopted through several markets in SSA, the leading region in its utilization, where mobile money accounts exceed the number of bank accounts. Also, mobile money enabled women-headed households to improve their savings by more than a fifth, permitting 185,000 women to exit farming activities and developing their own business. In turn, this allowed for a reduction of extreme poverty among women-headed households by 22%[7].

Moreover, in Kenya, Suri et al. (2016) have discovered that when people were faced with an unexpected reduction in income, mobile money clients did not decrease household spending, while non-clients reduced their expenditures by 7-10%. Besides, financial services allow individuals to accumulate savings and enhance necessities expenditures. In Kenya, after market vendors being provided with savings accounts, they saved at a greater rate and invested an extra 60% in their businesses. Similarly, M-PESA customers spend more on medical expenses in the case of a health shock, while also enhancing food expenses and maintaining

education payments. In contrast, non-users are unable to enhance expenditure on food and might even retrieve children from school to finance such costs[16]. Riley (2018) evidenced that in a Tanzanian village, only mobile money users are able to prevent a reduction in their consumption after a rainfall shock[17].

Mobile money services are currently present in 96% of nations where less than a third of the population has a formal account at a financial institution. Moreover, the number of registered mobile money accounts totaled 1.04 billion in 2019 (*Appendix 5*), with SSA dominating its usage, having added over 50 million registered accounts in the same year[7]. In 2014, 12% of adults had a mobile money account in the region, while worldwide only 2% did. Currently, this rate increased to 21% in SSA, of which nearly half reported only having such an account, and the other half stated also having an account at a financial institution[1]. In Kenya, mobile money accounts are very widespread, as 73% of adults own one, while Uganda and Zimbabwe also count with great use, having 50% of adults with an account (*Appendix 6*). Also, all 10 global economies in which more adults have a mobile money account than one at a financial institution are located in SSA (*Appendix 7*).

Agent Distribution Networks

Agent networks are a distributional channel of mobile money services represented by individual entrepreneurs under a franchise-like model. These networks serve as a tipping point for mobile money users to deposit and withdraw their physical money, known as cash-in/cash-out services, while the agent processes the physical cash through the M-PESA mobile payments account on his/her mobile phone. If an agent is accepting a deposit, cash is taken from the customer and some float is transferred to the depositor's account. On the other hand, if a withdrawal is being performed, the customer receives cash and the float is transferred from the customer's account to the agent's. Additionally, the mobile money provider generates revenues through customer fees in each transaction made, of which a commission is paid to the agent[18].

Moreover, agent distribution networks are responsible for the on-boarding of users, as well as supporting and educating them with regards to the service. In 2019, a value of $176 billion of cash-in transactions was digitized by mobile money agents worldwide. Mobile money providers are becoming increasingly committed to investing in their agent network, by expanding it, and providing the necessary training so that a high-quality service is ensured to the consumer. In 2019, the number of agent outlets reached 7.7 million, having almost tripled since 2014. The presence of such agents in rural areas has become the main stepping point for millions of rural populations to obtain access to a financial account. In 2019, agent network density was approximately 228 active mobile money agents per 100,000 adults, having tripled since 2014. In contrast, commercial bank branches average a density of 11 per 100,000 adults, having remained nearly unchanged in the period in question[7]. Currently, in over 80% of markets in which mobile money is available, there are more agent outlets than bank branches[19].

When it comes to agent networks, its cost is relatively low, and one agent can serve up to 600 people per km2. This model eliminates long travel distances, long queues, delays, language barriers, and financial illiteracy[18]. Also, evidence shows that a great proportion of bank-to-mobile account transfers are being cashed out, mainly in rural areas. Thus, mobile money agents serve as a connection point between banks and mobile money services, consequently improving financial inclusion to people who had always been underserved[19].

Mobile Money Solutions

According to Naghavi (2020), in 2019, digital transactions corresponded to the majority of mobile money flows for the first time, and more money is circulating inside the system than exiting it, thus reverting consumer behavior into digital payments, including school fees, savings, credit, international remittances, e-commerce and Pay-As-You-Go (PAYG) utilities. For the success of mobile money to persist, its services must be user-centric, focusing on the consumer's needs[7].

- **P2P Transfers**

Being the first solution offered by mobile money providers, P2P transfers are the most used mobile money applications worldwide. Mobile money-enabled international remittances are on the rise, amounting to $7.3 billion in 2019, contrasting to $5.5 billion in 2018. This figure is mainly due to the greater cross-border interoperability and integrations with traditional Remittance Services Providers (RSPs), such as money transfer operators MoneyGram and Western Union, as well as FinTechs and digital RSPs, such as WorldRemit and Azimo. Orange, a French telecommunications firm has enabled its customers in France to send remittances to Orange Money users in Guinea, Madagascar, Côte d'Ivoire, and Mali. Also, MTN (from South Africa) introduced a remittance service facilitating transfers between Europe and Africa through the MTN Homeland app, to Cameroon, Congo, Ghana, Rwanda, Guinea, and Uganda[7].

- **Bill Payments**

Around the world, nearly 1.1 billion people do not have access to electricity, and 2.2 billion lack access to clean drinking water, thus hindering economic growth and promoting greater inequality and poverty levels. Hence, several SSA countries, such as Uganda and Kenya, have been implementing mobile money solutions to perform utility payments. The PAYG system is enabling customers to acquire assets through small and frequent installments via mobile phones, allowing access to a broad range of services. Evidence suggests that 44% of all bill payments processes through mobile money services account for the payments of utilities[7].

- **Credit**

While approximately 44% of adults in developing economies borrow money, according to the 2017 Global Findex, only 9% do so from a financial institution (*Appendix 8*). In this sense, more and more mobile money providers are creating partnerships with financial institutions in order to offer credit solutions. Through the 2019 Global Adoption Survey, GSMA

found that 70% of respondents who offer credit are in fact in partnership with a regulated financial institution, and the number of deployments offering credit increased by 25%. Also, in June 2019, the value of digital loans of these providers reached a total of at least $390 million, which is equal to the average annual income of 336,490 Malawians. In Kenya, the volume of digital loans surpassed traditional loans in 2015[7].

- **Savings**

Savings solutions provide individuals with a secure and efficient way to store money, preventing people to accumulate debt in times of emergencies. In fact, in June 2019, more than $241 million was transferred to mobile money savings accounts, which is sufficient credit for 600,000 women in developing economies to start their own business. During the same month, nearly 26 million customers saved through mobile money services, 39% more than the previous year. In turn, data on saving behavior can be used to analyze a client's financial profile, thus supporting insurance and loan applications[7].

Additionally, saving groups are a very common practice in SSA, these being more common than saving at a financial institution. Digitizing these groups can improve the security of the money, as well as improve the efficiency of the process, as the managers of the group can record transactions and manage payments accurately. Some mobile money providers have launched such services, such as M-PESA Chama in Kenya, EcoCash Savings Club in Zimbabwe, and M-Koba in Tanzania[7].

- **Insurance**

In emerging markets, there are 3.8 billion individuals who are underinsured and susceptible to emergencies and financial shocks. While traditional insurance providers have been unsuccessful in targeting these individuals, mobile money has been adopting microinsurance solutions to its users, leveraging mobile technology to leapfrog traditional

insurance models. Mobile-enabled microinsurance value chains comprise insurers, Technical Service Providers (TSPs), and MNOs. TSPs are becoming the commercial model of choice, having attracted significant investments from capital and private equity funds. While business models change, underwriting is always the insurer's remit, and the premiums are collected by MNOs. TSPs process claims while MNOs offer a physical mechanism to pay such claims. Currently, there are 102 mobile-enabled insurance services in 27 countries, and in 2019, the greatest product offerings included life, health, and accidents, although children's education, bike damage and theft, housing, and mobile phone products are on the rise (*Appendix 9*)[7].

Success Cases in Sub-Saharan Africa

- **Kenya**

Kenya is the biggest example of a successful case in financial inclusion, as mobile money has shown to have a synergistic effect – the number of bank accounts has been increasing since the introduction of M-PESA. Currently, several banks are offering mobile banking services, such as M-Coop-Cash and Equitel, which competes directly with M-PESA. Additionally, the country counts with six mobile money services, with a wide range of solutions available. In 2012, M-Shwari was introduced as a form of micro-savings and loan platforms, where customer reliability is assessed based on the usage of the individual's mobile money wallet and the mobile network. Moreover, M-Akiba was introduced in 2017, the first mobile-only retail bond, which enables micro-investments in government securities[1].

- **Uganda**

While nearly one-third of Ugandans live below the poverty line, Uganda has been making tremendous improvement in financial inclusion through mobile money solutions. There are 7.6 million users and seven non-bank DFS providers, and in 2016, the country saw an expansion of 34% in mobile money transactions compared to the previous year, amounting to

a total of $9 billion. In the same year, the Commercial Bank of Africa and MTN partnered to introduce MoKash, a savings and loan mobile service, having reached 1.2 million customers in the first year of its launch, which borrowed a total of $8 million. Moreover, not only are MNOs adopting mobile money services but so are banks, which currently enable transactions between mobile wallets and bank accounts and are investing in their own agent networks[1].

Nonetheless, fraud poses a great obstacle to the Ugandan DFS industry, as in 2015 a mobile money fraud led to the loss of $3.4 million, consequently deteriorating consumer confidence and stagnating market developments[1]. Blockchain technology has the potential to avoid cyberattacks, which according to FinTech News (2019), will allow for a total savings of $20 billion in the global banking industry by 2022[20].

- **Ghana**

Having 24 million mobile money accounts as of December 2017, Ghana has been boosting its financial inclusion rate – 58% of adults have an account of some kind. Moreover, throughout 2016, the amount of money stored in mobile money accounts increased by 85%, and active users by 71%, corresponding to 8.3 million individuals. MTN is the mobile wallet market leader, with over 90% of market share. In 2016, TBILL4ALL (Treasury Bill for All), was launched, enabling the purchase of treasury bills using mobile money. Furthermore, the availability of interest-bearing savings is increasing, such as the MTN Y'ello Save. In 2016, the Central Bank of Ghana approved the payments of interest on funds held in mobile wallets, which led to the payment of $16 million in interest to MNOs customers in 2017[1].

Mozambique – An Overview

Mozambique is located in southeastern Africa, having a total population of 29.5 million and an area of approximately 802 km2[21]. Despite being rich in natural resources, it is considered one of the poorest countries in the world, with a low Human Development Index of 0.446 as of

2018 (*Appendix 10*). In 1975, the country gained its independence from Portugal, and years later, a civil war erupted between two political parties – Frelimo and Renamo. In 1992, a peace treaty was signed between the parties, which helped improve economic development for the forwarding years[22].

Nonetheless, corruption plays a great obstacle in further economic growth, and the current terrorism insurgence and natural disasters have been affecting development (*Appendix 11*). Since 2017, Islamic extremists have killed hundreds of civilians in Cabo Delgado. In 2020, violent incidents have increased in the region, forcing locals to refugee to other provinces in the midst of the coronavirus pandemic[23].

The Mobile Money Industry in Mozambique

In 2016, only 36% of the Mozambican population had access to a bank account, and 44% to mobile money wallets. Additionally, in the same year, only 58% of districts had a bank branch (*Appendix 12*). These factors led to government intervention by the launch of an NFIS based on improving access and usage of financial services, strengthening the financial infrastructure, and enhancing financial literacy and consumer protection. In 2018, two years after its implementation, the percentage of the population with a bank account had fallen to 33%, while mobile money accounts increased to 51%. During this period, more than 4 million mobile money accounts were opened, boosting mobile-money transactions in the country. Also, in 2016, the number of registered mobile-money accounts surpassed the number of bank accounts in the country (*Appendix 13*)[24].

According to KPMG, nearly 3.1 million individuals use M-PESA services in Mozambique as of 2018, corresponding to approximately 11% of the population[25]. Nonetheless, the first mobile money service was mKesh by mCel, the largest telecommunication company in the country, and it is regulated and licensed by the Bank of Mozambique[26]. Moreover, in

2017, mobile banking services expanded across the country, with the introduction of e-Mola, a mobile money service provided by a new player in the telecommunication industry – Movitel[27]. According to the Bank of Mozambique (2017), the south counts with the greatest share of agents (63.4%), followed by the center (23%) and north (13.7%). Transactions have also grown 49% in just one year, predominating transfers of money (32.8%), the purchase of electronic currency (28.9%), and cash withdrawals (25.5%)[28].

A study by Batista and Vicente (2017) aimed to assess the impact of mobile money in rural Mozambique, used a control group after the recent introduction of mKesh in the country. They recruited and trained mobile money agents, as well as individuals to improve their financial literacy, and promoted a rural campaign for the service. In the treatment group, 64% of individuals conducted at least one transaction within two months after the end of the fieldwork, and 81% did not wish to withdraw their initial cash balance. This shows increasing trust in mKesh and mCel, as well as improvements in financial literacy and knowledge about the service. The study also concluded that the introduction of mobile money in rural Mozambique helped to close the gender gap in financial inclusion[29].

Mozambique Mobile Money Challenges

Etim (2014) describes mobile banking services as additional models of mobile money, of which the mobile service is an addition to the traditional banking service[30]. Therefore, the main obstacle to mobile banking is the fact that individuals need to have a bank account in order to benefit from the service. Despite the increased offering of mobile banking solutions in Mozambique, millions of Mozambicans live in rural areas, where there is a lack of bank branches and agents, as well as few basic infrastructures, low customer awareness, and limited acceptance of digital payments by retailers and merchants. Also, an important obstacle is the **lack of documentation** by the majority of the population, as only 58% of Mozambicans have a national ID, and even fewer have the national tax ID, both necessary to open bank accounts[29].

Verwey (2018) concluded in a survey conducted in Manica to smallholder farmers, that the majority of the respondents knew about the existence of mobile money services but **lacked sufficient knowledge** about them, thus impeding the adoption of such services. Despite Mozambique being highly dependent on the agricultural sector and relying heavily on smallholder farmers, with 3.4 million smallholder farmers that contribute to 97% of Mozambique's agricultural production, the productivity of their land is extremely limited, a consequence of the financial exclusion faced by farmers[31]. This can be explained by the "Vicious Cycle of Poverty" (*Appendix 14*). Vincent (2004), refers to this cycle as a scenario where poor individuals aren't able to invest in capital, restricting productivity increases, leading to low-income levels and ultimately, low savings. The cycle repeats itself once individuals with low savings are unable to accumulate capital, hence limiting economic growth[32].

Furthermore, despite mKesh having recruited nearly 1,000 agents, the majority were **located in the country's capital**, Maputo. The same trend occurs with other mobile money solutions (*Appendix 15*). This poses a challenge for the financial inclusion of the rural population, who have to rely on informal saving methods, such as hiding money under the mattress or burying cans underground[29]. Also, there is still a wide range of individuals who **lack access to mobile devices**, mainly because of the absence of electricity at home. According to Gillwald et al. (2019), mobile penetration in Mozambique is below the African average[33].

OGSM Model

To critically progress Mozambique's mobile money sector, the OGSM model framework will be used, clearly dividing the main **objective** to be attained, into measurable **goals**, using relevant **strategies** to lead necessary actions and **measures** to monitor development. By using this framework, a more structured and defined action plan can be recommended to the country, so that its NFIS can be enriched.

- **Objective**

The objective of the current study is to transform Mozambique's mobile money industry into a mature market, similar to that of Kenya's, so that Mozambique can be considered a success-case in the sector and follow the developing path of its neighboring countries, improving its population financial inclusion, and reducing extreme poverty in the region.

- **Goals**

For this objective to be achieved, several specific goals must be defined throughout a certain period of time. For the purpose of this study, a timeline of 5 years will be used. As previously mentioned, Mozambique still lags behind in **access to financial services**, hence why improving this factor by 30% will be the first goal of the model. Given that many Mozambicans still lack knowledge about the existence of mobile money services and their benefits, the second goal will be centered around **improving customer awareness** by 70% during the period in question. In this sense, **improving financial literacy** is crucial, so that individuals can make the best financial decisions for themselves and their households. Hence, the third goal will be centered around improving this initiative by 40%. Furthermore, **increasing geographical presence** by 50% and **enhancing product offering** by 3 additional services will be the last goals for the attainment of a mature mobile money market.

- **Strategies**

Improving Access to Financial Services

To tackle the first goal, Mozambique should focus on **enhancing mobile penetration**, which is relatively low due to an absence of access to electricity. According to Fumo (2020), Mozambique has an extremely high potential for solar power – from the total renewable potential of 23,026 GW (gigawatts), the country has a solar potential of 23,000 GW[34]. Hence, the government should focus on introducing solar power solutions, which will enable rural

populations to charge their mobile devices and be introduced to mobile money solutions. Also, the payments of electricity should follow a PAYG model, to incentivize mobile money usage and provide easier payment solutions to customers.

Additionally, since lack of documentation poses a great obstacle in accessing financial services, **Digital IDs** should be considered. Aadhaar, a biometric digital ID system (using fingerprints), was developed in India to enable a wide range of applications, such as accessing government services, social benefits, as well as insurance and banking services. It currently counts with 1.2 billion users, covering around 95% of the population, and consists of issuing a 12-digit random number to each individual. Operated by the Unique Identification Authority of India, this technology enabled an increase in financial inclusion in the country – in 2017, 82% of the adult population had a bank account, contrasting to 56% when the program started[35].

Digital IDs enable electronic Know Your Customer (e-KYC) requirements, which are mandatory to open a bank account, thus providing financial inclusion to individuals who had been underserved ever since[36]. However, Aadhaar has been perceiving some challenges regarding data security, given that some entities are using e-KYC information to open accounts without customer consent. Consequently, the Reserve Bank of India issued a directive on KYC requirements, requiring verification of KYC information by third parties[37].Thus, the Mozambican government should consider implementing a digital ID system, establishing a well-structured system, followed by the necessary regulations, cybersecurity, and consumer protection laws.

Enhancing Customer Awareness

For the population to trust mobile money services, they need to understand the range of services available, including their benefits and functionalities. Hence, **marketing initiatives** could be crucial to familiarize rural populations with the service, with an additional structural

introductory process about the services. According to Dermish et al. (2011), the retention of 50% of the Kenyan population when mobile money was first introduced was mainly due to great investments by Safaricom in marketing services[38].

Improve Financial Literacy

Individuals must improve their financial literacy, so that they can make the right decisions concerning their financial positions. Verwey (2018) suggests the introduction of a **training manual** that describes what mobile money services are, alongside their functionalities and which MNOs are providing them[31]. Additionally, basic financial concepts should be introduced in the manual. Furthermore, once agents prove to be an important linkage between the MNO and the final customer, these individuals should be highly trained so that they are able to provide guidance to less knowledgeable customers, **introducing a program** with several classes targeted to these customers. Eventually, these customers could train other individuals without financial knowledge, improving the country's literacy levels exponentially.

Increasing Geographical Presence

Mozambican MNOs must **expand their agent networks**, investing greatly in rural areas. Not only will this increase awareness about the services in the area, but trust can also be built by using reliable members of the communities, similarly to other SSA countries' models. These important members of the communities would be given important roles to serve as MNO agents, such as spreading awareness of the service, emphasizing their benefits to the community, and, as previously noted, teaching customers basic financial concepts for a greater utilization of the service. The high market competition in the telecommunication sector will benefit consumers, as it simply takes one MNO to start its expansion strategy, for its competitors to follow in order to obtain market share.

Enhancing Product Offering

Lastly, MNOs should consider offering a more extensive line of products, such as **digitizing savings groups** and providing **micro-insurance** and **micro-lending solutions**. The mobile money industry should adapt to each country and embed cultural traditions in its offerings, hence why the digitization of savings groups could prove to be a success in the country. Moreover, micro-insurance can offer greater security for individuals, by protecting their most valuable assets. This is especially relevant when considering crop insurance for farmers, as it reduces their risk of poverty as a consequence of natural disasters. When it comes to micro-lending, MNOs can use client data from similar product offerings as a "proxy" to assess the individual's willingness to repay. Given that the product consists of small and short-term credit solutions, there is fast feedback on the target's population repayment performance, thus minimizing risk[2]. These services not only benefit consumers, but also the mobile money provider, as they reduce their dependence on revenues from customer fees, enabling their reduction and the offer of lower-cost service.

- **Measures**

To monitor the impact of these strategies on Mozambique's mobile money industry, it is important to establish relevant Key Performance Indicators (KPIs). These will work as essential indicators to assess the development of the country into the main objective – becoming a mobile money success-case. To measure the first goal, improving access to financial services, the most relevant KPIs would be the percentage increase of mobile money wallets in Mozambique after the introduction of Digital ID's and the relative number of individuals who entered mobile money services to pay for energy solutions. Moreover, the level of extreme poverty should be measured to understand what underlying impacts the mobile money sector may be bringing to the population. This indicator should be measured by the percentage of people living under 1.90$ per day[39].

When it comes to enhancing customer awareness and improving financial literacy, it is important to assess the variation in the number of transactions inside the mobile money sector in Mozambique. This will consequently prove that individuals not only are aware of the existence of the services but know how to use them. Moreover, a relevant KPI to measure the expansion in geographical presence is the ratio between urban and rural agents, as well as the percentage of agent networks present in rural areas. Lastly, to track the increase in product offerings one should analyze the number of open and active wallets in each new product introduced. Additionally, the percentage of population with active wallets in these products should be compared to those of developed mobile money markets', such as Kenya's.

Recommendations on Further Initiatives

Interoperability

Interoperability enables the transaction of payments between different mobile money providers and between mobile money accounts and bank accounts[40]. The first interoperability agreement was introduced in Indonesia in 2013 and helped to lower the barriers to entry in the sector, as well as improved cost-efficiency of the services, given that interconnected networks allow for a reduction in fees, as customers only need to visit one agent. In Tanzania, GSMA (2016) concluded that interoperability enhanced significantly the sending and receiving of mobile money payments[41]. The Bank of Tanzania evidenced the growth of interoperable transfers, from 174,000 in October 2014 to over 6.9 million transactions in September 2017, having reached over $90 million per month[1].

Additionally, interoperability with banks enhances the liquidity of the system, as high-value customers from the formal payment sector are introduced. Furthermore, according to Hoernig et al. (2016), agent interoperability, which enables mobile money agents to manage the transactions of different mobile money providers, can help mitigate the liquidity risk faced

by agents by using one float account[40]. Thus, the Bank of Mozambique should introduce new policies that promote interoperability between the mobile money services available, as well as allowing international mobile money transfers to boost liquidity even further.

Government and Business Transfers Via Mobile Wallets

To incentive the use of mobile money accounts, the Mozambican government should consider transferring benefits to individuals via mobile wallets and motivate businesses to pay salaries through this method. Interoperability would enable the government to pay these benefits through a single payment scheme as well as to keep a balance in the market between the different operators – if it used only one MNO, the majority of the population would simply use this provider's service. In Uganda, the Social Assistance Grants for Empowerment (SAGE) partnered with MTN to provide bi-monthly payments to over 560,000 individuals. Nonetheless, evidence suggests that financial inclusion only improved after the beneficiaries understood how to use the financial services and the agent network was expanded, as long lines were becoming increasingly frequent[40]. Thus, Mozambique should leverage its Ponto24 ATM network, where M-Pesa, mKesh and e-Mola are linked to, to cash out the money whenever necessary.

Incentive e-Wallets and Merchant Payments

In order for the liquidity to improve in the system, incentives should be introduced to maintain money in the mobile wallet rather than cashing-out. Hoernig et al. (2016) state that mKesh clients tend to cash out more often than M-PESA customers, once these are encouraged by the MNO to maintain their e-wallets[40]. Hence, mKesh's and e-Mola's business model should assemble this characteristic and educate its customers to circulate money electronically.

Additionally, efforts should be conducted to motivate retailers to accept mobile money payments. In Côte d'Ivoire, a contactless solution was launched, "MoMo Pay", which was first introduced to larger supermarkets and continuously expanded to other areas of business, namely

restaurants, stalls, pharmacies, and barbers. Moreover, a market research study of this platform concluded that there were opportunities to digitize payments throughout the value chain. Nonetheless, without proper training and financial education, individuals are less likely to accept these new methods of payment. For this reason, MTN recruited local promoters and trained them with regards to the service to approach new potential clients (merchants) and gain scale[9]. Furthermore, in 2017, "MoMo Pay" was introduced in Ghana, having enhanced the frequency and value of mobile money transactions by 17% and 29% respectively, improving the likelihood of remaining active users[42]. In Kenya, M-PESA payments in retail have also gained importance throughout the latest years – in 2015, nearly a million customers used the service on a day-to-day basis, and 49,000 merchants accepted this method of payment, as merchants are liable to low-cost loans based on their customers' utilization of M-PESA.

For this mobile money solution to work effectively internet access must be improved throughout the country, as well as enhancing smartphone supply. In a survey conducted by Gillwald et al. (2019), 90% of the Mozambican population is offline, predominating the reasons for lack of access to devices, and lack of knowledge on how to use the Internet (*Appendix 16*). Moreover, according to Nogueira (2019), INCM estimates that in 2028 the whole population will have access to 4G, which proves the vision of the country to tackle this issue[43].

Taxation

In 2019, Malawi, Gabon, the Republic of Congo, and Côte d'Ivoire introduced mobile money taxes to finance public spending, which consequently led to a regressive path, as it increases the cost of the service and reduces financial inclusion[7]. In Côte D'Ivoire, 15% of inactive DFS subscribers revert to cash due to the high prices charged, as VAT and a 0.5% tax on transactions were introduced[1]. In Uganda, taxation was introduced in 2018, which led to a reduction in transaction values of 24%, and a significant amount of money was cashed-out[44].

Moreover, research has found that there is a correlation between a high adoption rate of mobile money and enabling regulatory environments, once these reduce the cost of the service. Therefore, Mozambique must refrain from adopting taxation methods.

Conclusion

Mozambique has not perceived the uptake in mobile money services seen in its neighboring countries, hence lagging behind when it comes to its population financial inclusion. Despite the country being committed to improving this matter, given that it introduced an NFIS, further investments need to occur to boost the sector. The lack of understanding about the services, mainly in rural areas, proves the lack of marketing campaigns conducted. Also, poor infrastructure, financial illiteracy, and a lack of agent networks in rural areas are the main obstacles faced in the Mozambican mobile money industry.

Nonetheless, Mozambique has the potential to become a mobile money success-case if the OGSM model in this study is taken into consideration. Although success is not a "one size fits all" solution, Mozambique could learn from its neighboring countries' failures and accomplishments, adapting them to its own environment. Structural changes must occur in the nation, especially when it comes to improving infrastructure, financial education, and creating an enabling environment since all have been proven to have great importance in the uptake of these technological solutions. Mobile money has the potential to reduce extreme poverty in Mozambique, as well as include thousands of individuals in the financial system, introducing a wide range of applications to people who had been underserved so far. In several developing countries there are more people with access to mobile phones than to water, hence why the mobile revolution can derive great development opportunities (Donovan, 2012)[45].

References

[1] Demirgüç-Kunt, Asli, Leora Klapper, Dorothe Singer, Saniya Ansar and Jake Hess. 2017. "The Global Findex Database 2017". *World Bank Group*.

[2] Koblanck, Ana. 2018. "Digital Access: The Future of Financial Inclusion in Africa". *Mastercard Foundation, International Finance Corporation*.

[3] Costa, Arjuna and Tilman Ehrbeck. 2015. "A Market Building Approach to Financial Inclusion". *Innovations*. 10: 53-59.

[4] Mas, Ignacio and Hannah Siedek. 2008. "Banking Through Networks of Retail Agents". *CGAP*. https://www.cgap.org/sites/default/files/researches/documents/CGAP-Focus-Note-Banking-Through-Networks-of-Retail-Agents-May-2008.pdf

[5] Baptiste, Espelencia, Heather A. Horst and Erin B. Taylor. 2010. "Haitian Monetary Ecologies and Repertoires: A Qualitative Snapshot of Money Transfer and Savings". *Institute for Money, Technology and Financial Inclusion*. http://cast.nacs.uci.edu/socsci/imtfi/baptiste_horst_taylor_report_haitian_monetary_ecologies_and_repertoires_112310.pdf

[6] Rea, Stephen C. and Taylor C. Nelms. 2017. "Mobile Money: The First Decade". *Institute for Money, Technology & Financial Inclusion*.

[7] Naghavi, Nika. 2020. "State of the Industry Report GSMA Report on Mobile Money 2019". *GSMA*.

[8] Eberhard, Rolfe. 2019. "Access to Water and Sanitation in Sub-Saharan Africa". *Deutsche Gesellschaft fur Internationale Zusammenarbeit*.

[9] The World Bank. 2018. "Financial Inclusion Overview". Accessed July 7. https://www.worldbank.org/en/topic/financialinclusion/overview

[10] The World Bank. n.d. "Universal Financial Access 2020". Accessed July 7. https://ufa.worldbank.org/en/country-progress

[11] The World Bank. 2018. "UFA2020 Overview: Universal Financial Access by 2020". Accessed July 8. https://www.worldbank.org/en/topic/financialinclusion/brief/achieving-universal-financial-access-by-2020

[12] Klapper, Leora, Mayada El-Zoghbi and Jake Hess. 2016. "Achieving the Sustainable Development Goals: The Role of Financial Inclusion". *CGAP*.

[13] Dupas, Pascaline and Jonathan Robinson. 2013. "Savings Constraints and Microenterprise Development: Evidence from a Field Experiment in Kenya". *American Economic Journal: Applied Economics*. 5(1): 163-92

[14] Brune, Lasse, Xavier Giné, Jessica Goldberg and Dean Yang. 2015. "Facilitating Savings for Agriculture: Field Experimental Evidence from Malawi". *Economic Development and Cultural Change, University of Chicago Press*. 64(2): 187-220.

[15] World Remit. n.d. "All About Mobile Money". Accessed August 2. https://www.worldremit.com/en/mobile-money

[16] Suri, Tavneet and William Jack. 2016. "The Long-Run Poverty and Gender Impacts of Mobile Money". (2016). *Science*. 354(6317): 1288-1292.

[17] Riley, Emma. 2017. "Mobile Money and Risk Sharing Against Aggregate Shocks". *Journal of Development Economics*. 135:43-58.

[18] Unnikrishnan, Shalini, Jim Larson, Boriwat Pinpradab and Rachel Brown. 2019. "How Mobile Money Agents Can Expand Financial Inclusion". *BCG*. https://www.bcg.com/publications/2019/how-mobile-money-agents-can-expand-financial-inclusion

[19] Caputo, Sara. 2019. "The Pivotal Role of Mobile Money Agents in Driving Financial Inclusion". *GSMA*. https://www.gsma.com/mobilefordevelopment/blog/the-pivotal-role-of-mobile-money-agents-in-driving-financial-inclusion/

[20] Husain, Faisal. 2019. "Leveraging Blockchain to Boost Cybersecurity in Fintech". *Fintech News*. https://www.fintechnews.org/leveraging-blockchain-to-boost-cybersecurity-in-fintech/

[21] Encyclopedia Britannica. 2020. "Mozambique". Accessed September 27. https://www.britannica.com/place/Mozambique

[22] The Commonwealth. n.d. "Mozambique: History". Accessed September 27. https://thecommonwealth.org/our-member-countries/mozambique/history

[23] Mukeredzi, Tonderayi. 2020. "Mozambique's Insurgency Is a Regional Problem". *Foreign Policy*. https://foreignpolicy.com/2020/07/01/mozambique-islamist-insurgency-regional-problem-cabo-delgado/

[24] World Bank Alliance for Financial Inclusion. 2019. "Mozambique National Financial Inclusion Strategy (2016-2022)".

[25] KPMG. 2018. "Banking Survey – Financial Services Mozambique".

[26] Pitta, Joel. n.d. "Mobile Money in Mozambique: mKesh Implementation". Carteira Móvel.

[27] Movitel. n.d. "e-Mola". Accessed September 29. https://movitel.co.mz/digital-services/1503630144128

[28] Banco de Moçambique. 2017. "Relatório Anual".

[29] Batista, Cátia and Pedro C. Vicente. 2017. "Introducing Mobile Money in Rural Mozambique". *Growth and Labour Markets in Low Income Countries Programme*.

[30] Etim, Alice S. 2014. "Mobile Banking and Mobile Money Adoption for Financial Inclusion". *Business and Economic Journal*. 9: 1-11

[31] Verwey, Berno. 2018. "The Potential for Mobile Money Services to Promote Financial Inclusion Among Rural Farmers in Manica Province, Mozambique".

[32] Vincent, Guy. 2004. "Sustainable Microentrepreneurship: The Roles of Microfinance, Entrepreneurship and Sustainability in Reducing Poverty in Developing Countries". http://gdrc.org/icm/micro/guy_sust-micro.pdf

[33] Gillwald, Alison, Onkokame Mothobi and Broc Rademan. 2019 "The State of ICT in Mozambique 2018". *Research ICT Africa*.

[34] Fumo, Valter. 2020 "Energy Transition: Microgrids and the Impact of Self-Consumption in Mozambique". *Nova SBE*.

[35] Gelb, Alan, and Anit Mukherjee. 2019. "Building on Digital ID for Inclusive Services: Lessons from India". *Center for Global Development*. https://www.cgdev.org/publication/building-digital-id-inclusive-services-lessons-india

[36] Chaillioux, Ea. 2019. "How Digital Identity Can Foster Financial Inclusion". *IDEMIA*. https://www.idemia.com/news/how-digital-identity-can-foster-financial-inclusion-2019-10-21

[37] Alliance for Financial Inclusion. 2018. "Fintech for Financial Inclusion: A Framework for Digital Financial Transformation".

[38] Dermish, Ahmed, Christoph Kneiding, Paul Leishman and Ignacio Mas. 2011. "Branchless and Mobile Banking Solutions for the Poor: A Survey of the Literature". *Innovations: technology, Governance, Globalization*. 6(4): 81-98.

[39] The World Bank. 2020. "Poverty Overview". https://www.worldbank.org/en/topic/poverty/overview

[40] Hoernig, Steffen and Marc Bourreau. 2016. "Interoperability of Mobile Money: International Experience and Recommendations for Mozambique". *International Growth Centre*.

[41] GSMA. 2016. "The Impact of Mobile Money Interoperability in Tanzania". https://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/10/2016_GSMA_The-impact-of-mobile-money-interoperability-in-Tanzania.pdf

[42] Rowntree, Oliver. 2020. "MTN MoMo Pay Merchant Payments: Expanding Women's Mobile Money Use in Ghana". *GSMA*.

[43] Nogueira, Douglas F. 2019. "Mobile-Based Early Warning Systems in Mozambique". *Uppsala University*.

[44] Clifford, Killian. 2020. "The Causes and Consequences of Mobile Money Taxation: An Examination of Mobile Money Transaction Taxes in Sub-Saharan Africa". *GSMA*.

[45] Donovan, K. 2012. "2012 Information and Communications for Development: Maximizing Mobile". *The World Bank*.

FINANCIAL INCLUSION: TRANSFORMING MOZAMBIQUE INTO A MOBILE MONEY SUCCESS-CASE

APPENDIX

Inês Coelho Alvarez Y Piñera | 29059

A Project carried out on the Master's in Management Program, under the

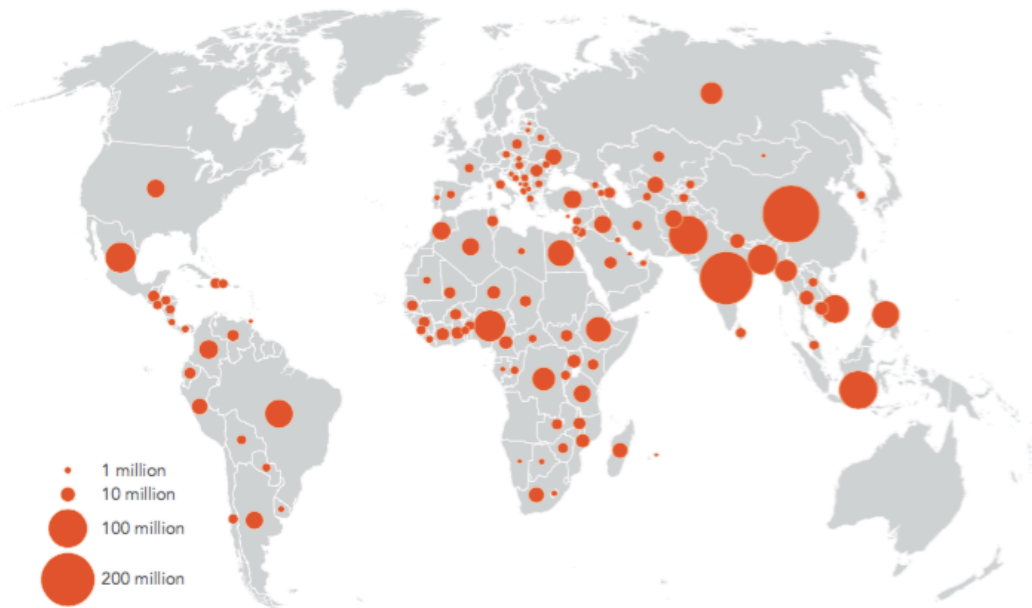supervision of Professor Luís Manuel da Silva Rodrigues

Table of Contents

Appendix 1 – *Adults Without an Account (2017)*

MAP 2.1

Globally, 1.7 billion adults lack an account
Adults without an account, 2017
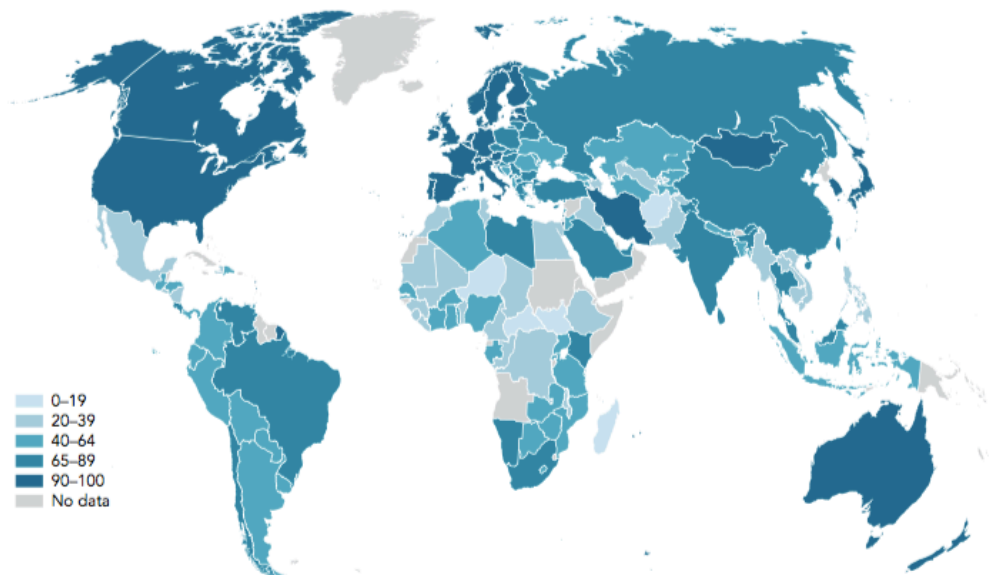

1 million
10 million
100 million
200 million

Source: Global Findex database.
Note: Data are not displayed for economies where the share of adults without an account is 5 percent or less.

Appendix 2 – *Percentage of Adults with an Account (2017)*

MAP 1.1

Account ownership varies widely around the world
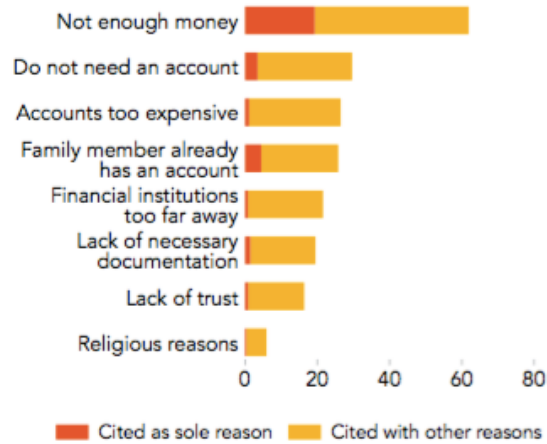Adults with an account (%), 2017

0–19
20–39
40–64
65–89
90–100
No data

Source: Global Findex database.

Appendix 3 – Barriers to Account Ownership

FIGURE 2.11

Lack of enough money is the most commonly cited barrier to account ownership

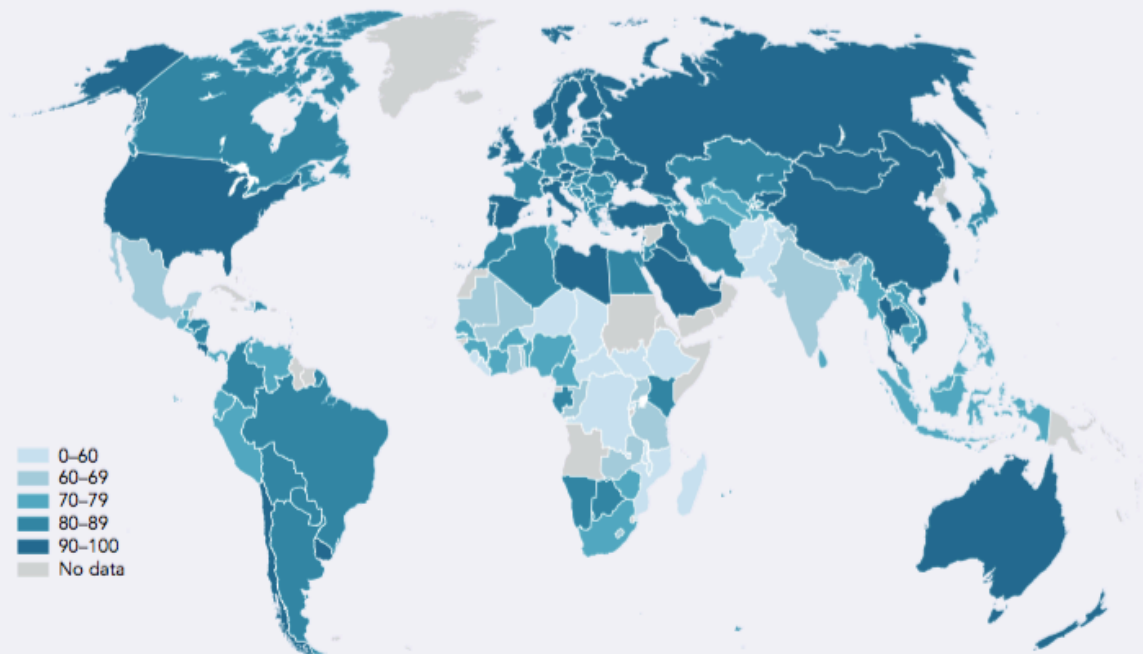Adults without a financial institution account reporting barrier as a reason for not having one (%), 2017

Source: Global Findex database.
Note: Respondents could choose more than one reason.

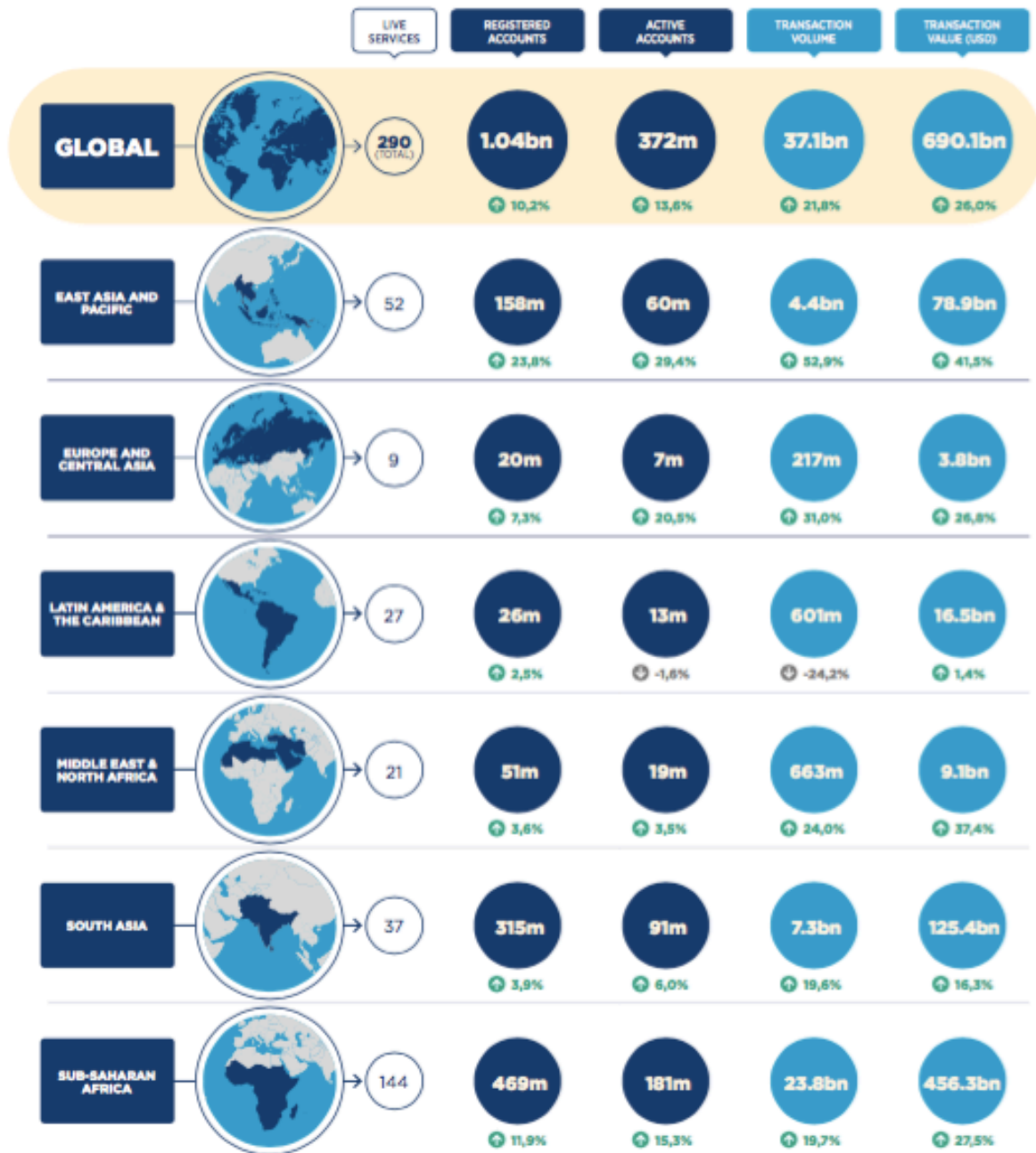*Appendix 4 – Percentage of Adults with a Mobile Phone (2017)*

MAP S.1

Mobile phone ownership around the world

Adults with a mobile phone (%), 2017

- 0–60
- 60–69
- 70–79
- 80–89
- 90–100
- No data

Source: Gallup World Poll 2017.

Appendix 5 *– Mobile Money Accounts Geographic Distribution*

|	LIVE SERVICES	REGISTERED ACCOUNTS	ACTIVE ACCOUNTS	TRANSACTION VOLUME	TRANSACTION VALUE (USD)
GLOBAL	290 (TOTAL)	1.04bn ↑ 10,2%	372m ↑ 13,6%	37.1bn ↑ 21,8%	690.1bn ↑ 26,0%
EAST ASIA AND PACIFIC	52	158m ↑ 23,8%	60m ↑ 29,4%	4.4bn ↑ 52,9%	78.9bn ↑ 41,5%
EUROPE AND CENTRAL ASIA	9	20m ↑ 7,3%	7m ↑ 20,5%	217m ↑ 31,0%	3.8bn ↑ 26,8%
LATIN AMERICA & THE CARIBBEAN	27	26m ↑ 2,5%	13m ↓ -1,6%	601m ↓ -24,2%	16.5bn ↑ 1,4%
MIDDLE EAST & NORTH AFRICA	21	51m ↑ 3,6%	19m ↑ 3,5%	663m ↑ 24,0%	9.1bn ↑ 37,4%
SOUTH ASIA	37	315m ↑ 3,9%	91m ↑ 6,0%	7.3bn ↑ 19,6%	125.4bn ↑ 16,3%
SUB-SAHARAN AFRICA	144	469m ↑ 11,9%	181m ↑ 15,3%	23.8bn ↑ 19,7%	456.3bn ↑ 27,5%

***Appendix 6** – Expansion of Mobile Money Accounts in Sub-Saharan Africa (2014-2017)*

MAP 1.2

Mobile money accounts have spread more widely in Sub-Saharan Africa since 2014
Adults with a mobile money account (%)
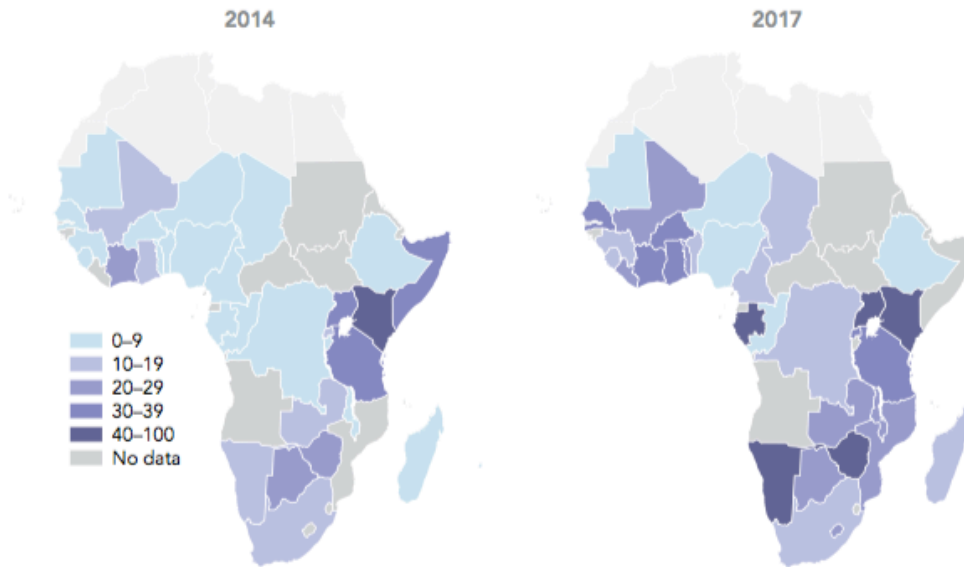
Source: Global Findex database.
Note: Data are displayed only for economies in Sub-Saharan Africa.

Appendix 7 – Percentage of Adults with an Account in Sub-Saharan Africa (2017)

FIGURE 1.4
Mobile money has boosted account ownership in parts of Sub-Saharan Africa
Adults with an account (%)

Legend:
- Financial institution account only
- Financial institution and mobile money accounts
- Mobile money account only
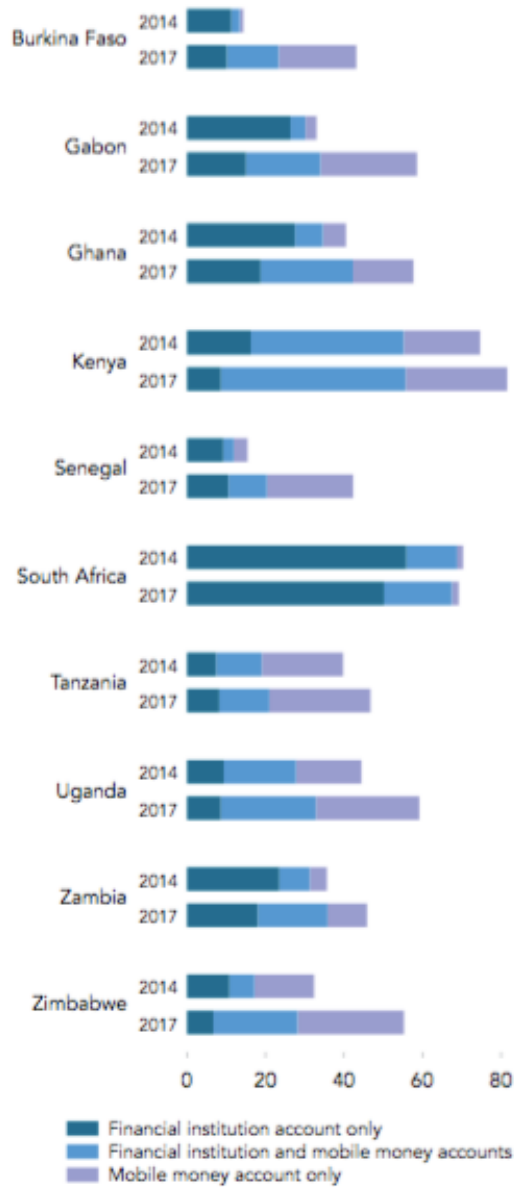
Source: Global Findex database.

Appendix 8 *– Percentage of Adults Borrowing From a Financial Institution or Through the*

Use of a Credit Card (2017)

MAP 5.3
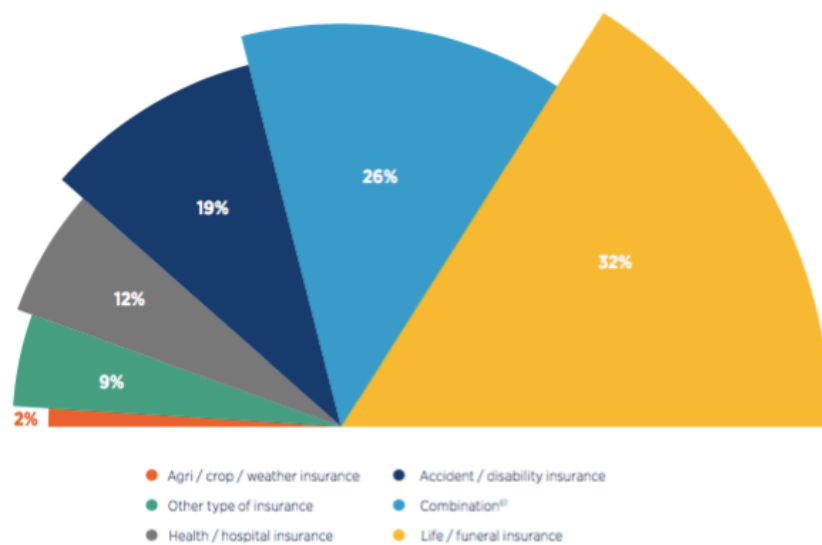**Formal borrowing around the world**
Adults borrowing from a financial institution or through the use of a credit card in the past year (%), 2017

0–9
10–19
20–29
30–49
50–100
No data
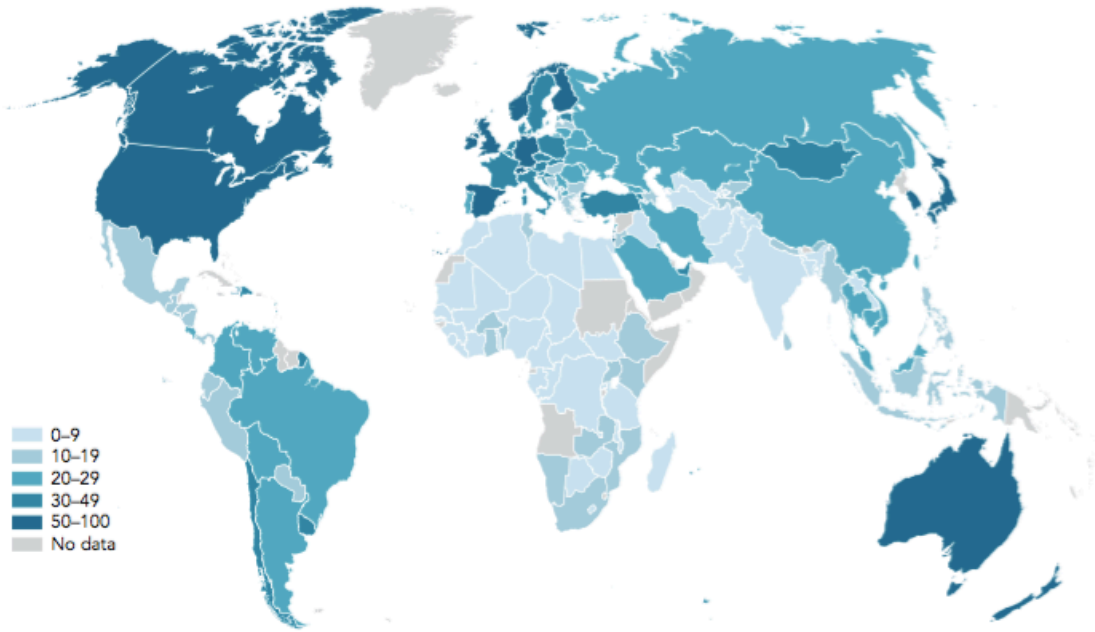
Source: Global Findex database.

Appendix 9 *– Share of Active Mobile-Enabled Insurance Products (2019)*

9 **Figure 9.**
Share of active mobile-enabled insurance products, 2019

26%
19%
12%
9%
2%
32%

● Agri / crop / weather insurance   ● Accident / disability insurance
● Other type of insurance   ● Combination
● Health / hospital insurance   ● Life / funeral insurance

Table A: Mozambique's HDI trends based on consistent time series data and new goalposts

	Life expectancy at birth	Expected years of schooling	Mean years of schooling	GNI per capita (2011 PPP$)	HDI value
1990	45.3	3.7	0.8	373	0.217
1995	47.1	3.9	1.5	365	0.235
2000	48.9	5.8	2.2	554	0.301
2005	50.4	8.0	2.9	723	0.354
2010	52.3	9.6	3.2	913	0.396
2015	57.2	9.7	3.1	1,133	0.428
2016	58.3	9.7	3.3	1,138	0.435
2017	59.3	9.7	3.5	1,139	0.442
2018	60.2	9.7	3.5	1,154	0.446

Appendix 11 – *Mozambique GDP Growth (Annual %)*

GDP growth (annual %) - Mozambique

World Bank national accounts data, and OECD National Accounts data files.

License : CC BY-4.0

Appendix 12 – Headline Indicators of National Financial Inclusion in Mozambique

**Table 1:** Headline Indicators of National Financial Inclusion in Mozambique

| INDICATOR	2016 (actual)	2017 (actual)	2018 (actual)	2018 (target)	2022 (target)
Adults who have physical or electronic access to financial services provided by a formal financial institution (percent)	36 (banks)	33 (banks)	33 (banks)	40	60
	44 (mobile)	44 (mobile)	51 (mobile)	40	60
Districts with at least one access point to formal financial services (percent)	58	60	69	75	100
Adults who have a point of access to financial services within five kilometers of their place of residence or work (percent)	NA	NA	NA	55	75

Source: Bank of Mozambique

Appendix 13 – Access to Financial Accounts by Type and Owner

Figure 1: Access to Financial Accounts by Type and Owner

Number of bank accounts and mobile wallets per 1,000 men and women
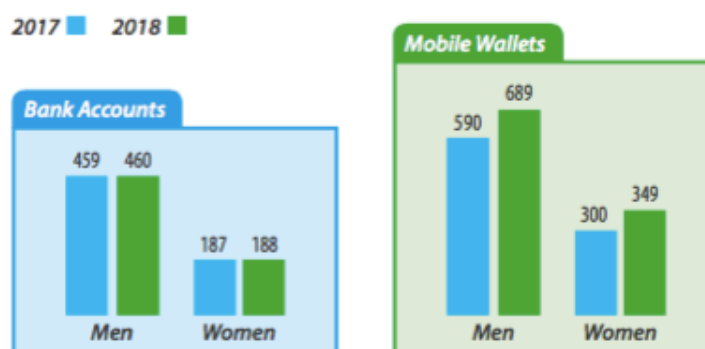
Growth in bank accounts and mobile wallets (number per 1,000 adults)
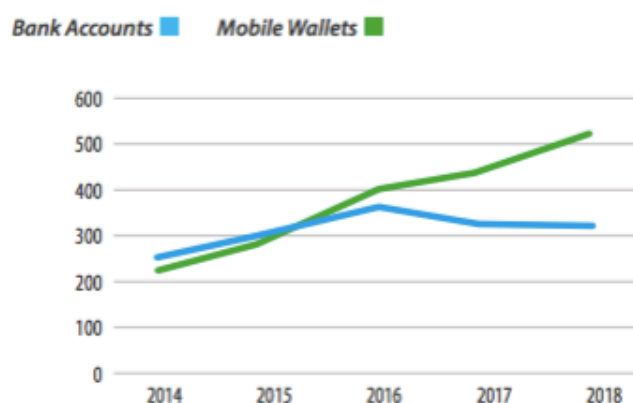
Source: Bank of Mozambique

Appendix 14 – Vicious Cycle of Poverty

Appendix 15 – Geographical Distribution of Mobile Money Agents by Regions and

Provinces in Mozambique (September 2020)

Quadro 13: Agentes das IME[5] por regiões e por províncias

Regiões	2015	2016	2017	2018	2019	2020[6]
ZONA SUL	**11.766**	**16.488**	**18.854**	**25.820**	**31.641**	**36.462**
Maputo Cidade	5.752	7.916	9.137	11.588	13.720	15.518
Maputo Província	3.922	5.585	6.229	8.919	11.294	13.458
Gaza	648	1.065	1.138	1.984	2.585	3.082
Inhambane	1.444	1.922	2.350	3.329	4.042	4.404
ZONA CENTRO	**3.797**	**5.719**	**6.797**	**10.405**	**14.862**	**17.651**
Sofala	1.547	2.138	2.340	3.463	4.555	5.073
Manica	718	958	1.099	2.005	2.572	3.490
Tete	690	1.072	1.450	2.108	3.326	4.271
Zambézia	842	1.551	1.908	2.829	4.409	4.817
ZONA NORTE	**2.292**	**3.547**	**4.051**	**6.900**	**9.643**	**11.690**
Nampula	1.771	2.801	3.116	4.533	6.370	7.646
Cabo-Delgado	310	427	562	1.282	2.073	2.520
Niassa	211	319	373	1.085	1.200	1.524
Total do País	**17.855**	**25.754**	**29.602**	**43.125**	**56.146**	**65.803**

Appendix 16 – *Main Reasons for Not Using the Internet in Mozambique (%)*
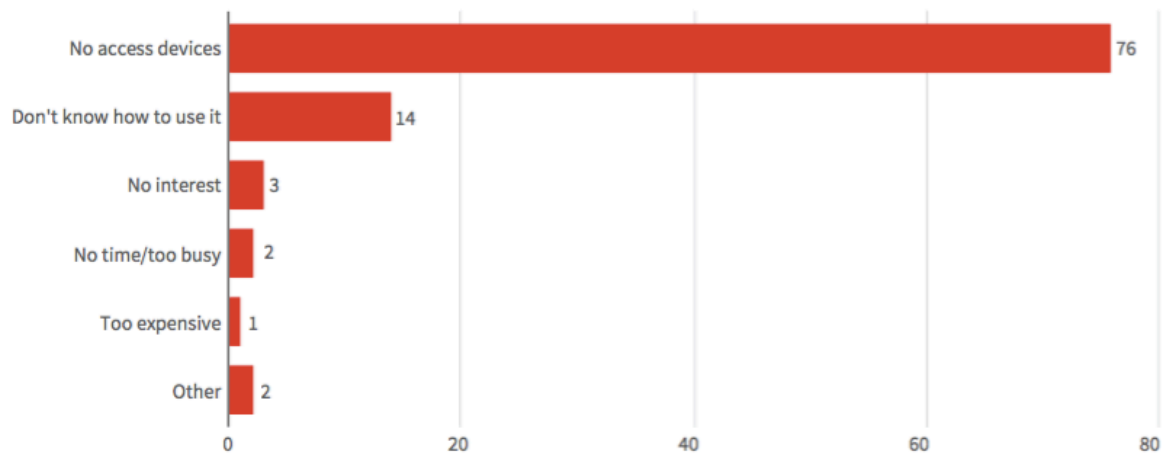

Figure 9: Main reasons for not using the Internet (in percentages)
Source: RIA After Access survey data, 2017