

FSDT CASE STUDY

The story of digital finance in Tanzania

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Abbreviations

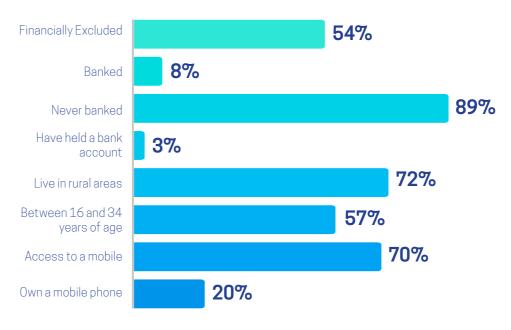
BoT	Bank of Tanzania
FSPs	Financial Service Providers
KYC	Know Your Customer
MFS	Mobile Financial Services
MN0	Mobile Network Operator
NPS	National Payment Systems
P2P	Person to person
RTGS	Real Time Gross Settlement

Financial inclusion

Financial inclusion, as defined by the World Bank, is when "individuals and businesses have access to useful and affordable financial products and services that meet their needs – transactions, payments, savings, credit and insurance – delivered in a responsible and sustainable way" (World Bank, 2017).

In 2006, the Financial Sector Deepening Trust (FSDT) published FinScope, the first survey of the financial behaviour of adults, which showed that over half of the population were without access to financial services and most had never had a bank account.

FinScope 2006:



Despite significant efforts from the government, the Bank of Tanzania, financial service providers (FSPs) and NGOs, the formal banking infrastructure remained weak. As the FinScope Tanzania 2006 study shows, millions of people in Tanzania, particularly those living in remote, rural areas or on low incomes, had limited options for transferring money and accessing financial services. The network of bank branches and ATMs was scant outside urban areas and internet penetration across the country was low. With 39.4% of the rural population living below the basic needs poverty line (HBS 2007) and low population density, access to commercial banking services was limited, not only by physical distance, but also due to thresholds in account fees, minimum required balances and strict customer identification requirements.

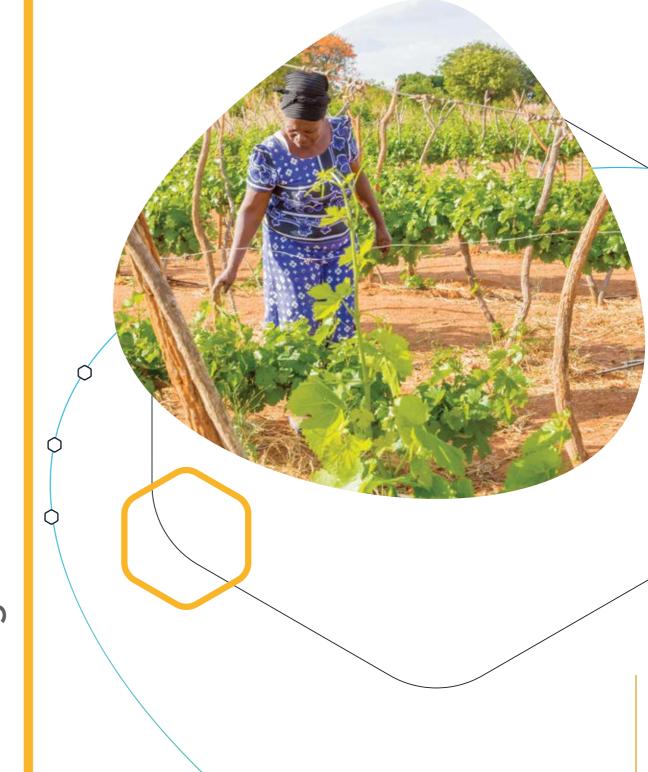
The growth of mobile phone use in developing countries has had a great impact not only on telecommunications, but also on the provision of a wide range of services. In 2017, with 60% of the adult population using mobile financial services, there are increasing opportunities to reach marginalised groups with convenient, user friendly products and services.

Although relatively new, the scale and dynamics of digital financial solutions in Tanzania have been considerable, bringing financial services to millions of people who were previously excluded. Since the inception of mobile money in 2008, digital financial service providers have developed a growing number of services including agency banking, mobile credit, mobile insurance, mobile savings and international transfers.

With over 20 million active mobile money wallets making nearly 4 million monthly person-to-person transactions by mid-2017 (TCRA Tanzania), the potential for digital financial services is significant not only for providers, but particularly for many Tanzanians who are now able to access useful and affordable financial services that meet their needs.

In a country where agriculture is the major economic driver, few urban centres and a large rural population, there are significant challenges to providing national networks of financial access points due to large geographical areas, low population density, dispersed communities and low levels of education particularly in rural areas.

To address financial exclusion in Tanzania, innovative thinking was essential to develop financial products and services that were convenient and affordable for those who were excluded.



Provision ervice S Financial JO Challenges

FSDT's Contribution to the Evolution of Digital ervice M al inanci

FSDT is committed to its goal for all Tanzanians to derive value from regular use of financial services which are delivered with dignity and fairness.

Since its launch in 2004, the purpose of FSDT has been to work towards the development of a financial sector in which stakeholders implement policies, regulations and solutions which are innovative and responsive to the needs of MSMEs, individuals and smallholder farmers.

FSDT has been a key driver in the evolution of digital financial services through its work to:

- gather & share essential market data to map demand and supply of financial services and enable product and service development
- facilitate **collaboration between principle players** in the evolution of digital financial services including government, central bank, financial service providers (FSPs), financial technology innovators and mobile network operators (MNOs)
- drive innovative policy by working with regulators to create a supportive regulatory environment for mobile financial services and agency banking
- support **new innovative solutions that drive access and usage** such as credit scoring by First Access
- support the introduction of agency banking in the market

Launch of Digital Financial Services - market-led, policy-enabled

The mobile phone market in Tanzania is highly competitive, with 4 strong providers, namely Vodacom, Tigo, Airtel and Zantel. In the early 2000s, for providers to remain competitive, they needed to expand their reach and increase usage by offering innovative value-added new services and products.

Impact Assessment Report

In 2006, the Bank of Tanzania amended the Bank of Tanzania Act to give themselves, as the Central Bank, powers to oversee and regulate non-bank entities offering payment services. The Bank of Tanzania issued Guidelines for Electronic Payment Schemes which would allow Mobile Network Operators (MNOs) to offer financial services, and which provided guidance on managing risks in the introduction and operation of electronic payment schemes.

In 2007, following the successfully launch of M-Pesa in Kenya and extensive discussion with fintech innovators and MNOs, the Bank of Tanzania adopted a "test and learn" approach to test, and monitor, the deployment of digital financial services. MNOs were required to partner with banks under a Bank of Tanzania's 'letter of no objection' to ensure the protection of consumer funds.

In early 2008, the fintech company E-Fulusi launched the first mobile wallet in Tanzania, MobiPawa, shortly followed by the launch of M-Pesa by Vodacom in April 2008. Over the next 2 years, the 3 other major MNOs launched their own mobile financial services, Z-Pesa (Zantel), Airtel Money (Airtel) and Tigo Pesa (Tigo).

Access for consumers was digitally through their handsets or physically using agents based locally.



Mobile banking was first introduced in early 2008 by fintech company E-Fulusi Africa Ltd, who saw the opportunity of converting airtime to cash and presented the market potential to TCRA and the Bank of Tanzania.

The regulators' response was bold and forward-thinking in issuing a 'letter of no objection', without which mobile money would not have been launched so rapidly.

Ø ervice S Digital Financial of Inception

Tanzania

In

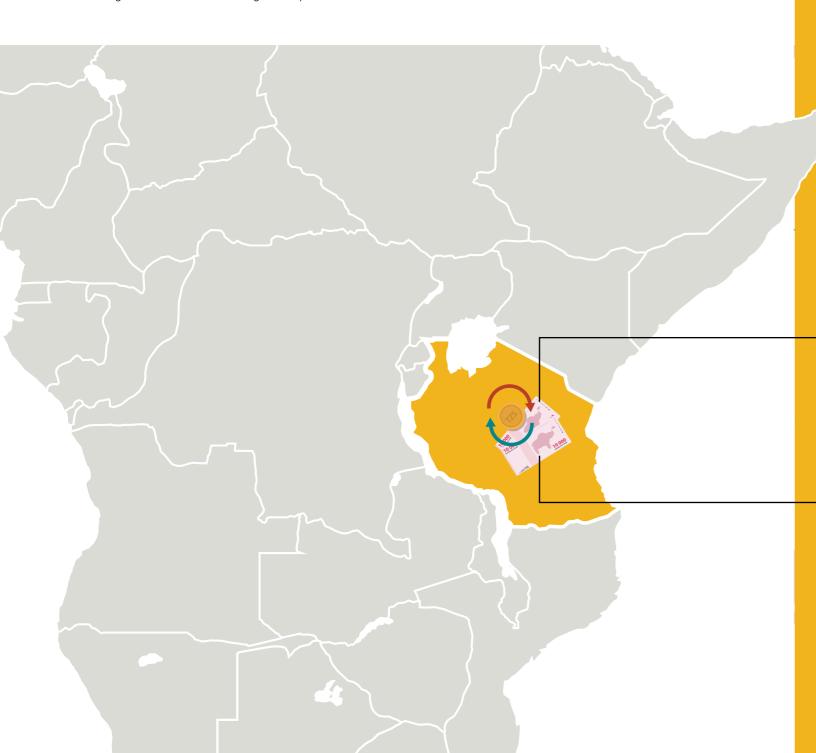
Growth of Digital Financial Service market

Tanzania was one of earliest countries to launch mobile money. Its success is largely due to collaboration between the key stakeholders in the private and public sectors, together with

- market-led innovation
- a regulatory environment that promotes financial inclusion
- robust market data
- competitive supplier markets
- service provision through agent networks
- high level of demand for branchless banking.

At launch, there were strong indicators of high potential demand: a majority of Tanzanians without access to bank services, strong mobile market penetration and a relatively young population who were more likely to be early adopters of new technology.

Take-up has grown steadily to over 40 million registered accounts and over 20 million active users by the end of 2016. In 2015, Tanzania counted a third of mobile money accounts in East Africa, with individuals and organisations transacting the equivalent of over 50% of Tanzania's GDP each month.



Take up has grown steadily to OVER

40 million registered accounts

and OVER

20 million

active users by the end of 2016



Tanzania was one of the earliest countries to launch mobile money

in 2015, TANZANIA counted for 1/3 of mobile money accounts in East Africa, with individuals and organisations transacting the equivalent of over

of Tanzania's GDP each month.

Supportive regulatory environment

The co-operative relationship between the Bank of Tanzania and private sector is one of the key factors leading to the development of a regulatory environment that enabled the launch of mobile money services in Tanzania.

The Bank of Tanzania has been committed to facilitating innovation that provides access to financial services for those who were unbanked. They have worked closely with partners in the development of digital financial services by providing legal frameworks that allowed non-banking organisations to provide financial services, defined requirements for consumer protection and took regulatory responsibility for new financial service providers.

Pioneering interoperability

From the launch of mobile money services, consumers were able to benefit from the new services to deposit and withdraw cash and send money to individuals and businesses on the same network.

The idea of interoperability for digital financial services, where consumers can transfer funds between network providers, had been widely discussed for many years.

Interoperability began in September 2014 with a bi-lateral agreement between Airtel and Tigo, joined by Zantel in 2014 and then Vodacom in 2016. With funding from the Bill and Melinda Gates Foundation and the Financial Sector Deepening Trust, the International Finance Corporation (IFC) acted as project managers to facilitate discussion and agreement and helped provide regulatory, technical and financial expertise to overcome concerns about technical possibility, competition and potential loss of their share of the voice and mobile money markets. Tanzania has received widespread recognition as being the first fully interoperable country in the world. Now, person-to-person (P2P) transactions are available between the four major mobile network operators (MNOs).

From mid-2016 to mid-2017, there was 230% growth of interoperable transactions, from 1.7m to 5.9m, and 175% growth in terms of value of interoperable transactions, from TZS95bn (\$42M) to TZS262bn (\$117.4M). To date, four major MNO's are interoperable, with further prospects under review.

Expanding the potential of digital financial services

As part of the agreement to launch mobile money services, MNOs and banks were required to partner in the provision of these services. For many banks in Tanzania, this was initially seen as an opportunity to create and grow trust accounts and build equity.

As the market quickly demonstrated its growth potential, the majority of large banks developed their own mobile services. Customers could now access their accounts using their mobile phone, use agents for cash deposits and withdrawals and connect with services offered by MNOs to send money to family, individuals or businesses.

The MNOs too, are constantly looking at the potential for digital services and have recently launched mobile credit services which are instant, automated and remote. For consumers, existing alternative microcredit sources were micro-finance institutions and banks which had complex requirements and didn't meet their needs for short-term loans. Although interest was higher and repayment periods shorter, the benefits of mobile credit have led to rapid growth in consumer take-up.

Bank of Tanzania's enabling approach

"Our philosophy is that since technology is the ultimate driver that helps us to leapfrog, our attitude towards innovation, as a regulator, is to test, learn and then regulate.

It means taking some risk by letting innovation run ahead of regulation. If you always want a perfect regulatory frame, with 100% risk management deemed a priority, you can never have the kind of progress that we have had." **Prof Benno Ndulu, Governor Bank of Tanzania**

Focus: Expansion of Digital Financial Services Market

Multi-agent model

Faced with the challenge of providing cost-effective financial access points across the country, the CRBD Microfinance Service Company Limited (MF SCL) created a network of over 100 agents, with bank branches acting as hubs for more remote mobile branches and service centres. Additional access was offered through mobile phone services. The aim was not only to develop sustainable banking, retail and wholesale microfinance services in isolated areas, but also to provide financial education for communities living there, empowering them to make informed choices to improve the management of their finances.

The impact of the project has extended beyond the CRDB bank with an increasing number of commercial banks developing new products and services piloted by the Integrated Model project. These included agency banking, serving MNO agents, extending SME loans to the microfinance clients in the informal sector, adopting simplified outlets similar to Mini Service Centres and replicating simplified Branch-on-Wheels for deepening financial services and offering insurance services, including health insurance.

We have planned to continue serving citizens with this new strategy to increase access to financial services to the underserved, so that they can continue to attend to their businesses and economic activities more efficiently. Dr Charles Kimei - Managing Director, CRDB | FinScope Tanzania 2013 video

Agency banking

Many people, particularly women, living in regions with high levels of financial exclusion are selfemployed but with low levels of financial literacy and without access to bank services. FSDT has been working with Equity Bank Tanzania to support the scaling up of agency-banking in Tanzania, offering micro-savings, credit and insurance to excluded households and MSMEs. Some of the learnings include increased operational efficiency by agents as they are already selling mobile products and services, and a reduction in the rolling-out cost of the agency model by Equity, as smartphones are cheaper (\$100 per phone) than point-of-sale machines (\$300 per machine).

"I didn't know how to save, let alone understand how to go about getting a loan. Now, all those who took part in the trainings know. In addition, before joining my group, I didn't have a set of plans for the future whatsoever. But now I have set future plans and work studiously towards achieving them." *Mwanahamis Saidi, CBSG member in Milola, Lindi*

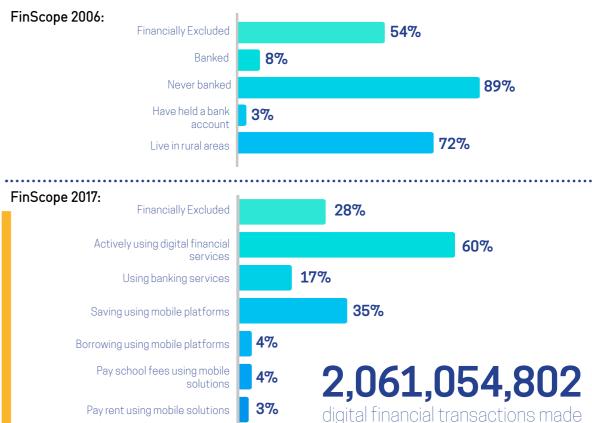
Digitisation of savings groups

FSDT has been supporting the digitisation of savings groups through the Aga Khan Foundation Boresha Maisha project, which aims to improve financial access and social inclusion. To date, over 9,200 community-based savings groups have been established, with 180,000 savers in rural areas, two-thirds of whom are women, who have saved over 120 billion TZS (\$60 million USD). This digital saving option helps channel deposits and loans, manage group decisions and transparently access group accounts, reducing the risk of theft and time required for group meetings as well as increasing transparency of group balances. A baseline quantitative survey was conducted with a planned post-project impact assessment.

7,200 community based savings groups were established 180,000 savers live in rural areas

billion shillings

ervice S financial **t** access Improved



In 2006, with limited access to financial services, before the inception of digital financial services, there were few options to carry out basic financial transactions such as transfers, or cash deposits and withdrawals. Under 10% of the population used traditional banking services due to lack of financial literacy and perceptions of high cost and excessive requirements from the bank, leaving the majority of Tanzanians in a cash-only financial environment.

Cash to mobile wallets

Before the launch of digital financial services, the only option for most Tanzanians was to receive or make payments using cash, requiring them to keep money at home or carry cash, with the disadvantage of having to walk or travel to make or receive payments and the potential security risk of theft. Although a minority of more wealthy Tanzanians were using traditional banking services, transaction or account services were unavailable out-of-business hours or in areas with no bank branches.

The emergence of digital financial services has created the concept of mobile wallets which enable millions of Tanzanians across all socio-economic groups to make transfers, deposit and withdraw funds conveniently and securely.

"Before mobile money, I used to spend up to an hour travelling by car or public transport to pay each supplier or receive payments from customers." Female small business owner - Dar es Salaam

Improved urban-rural connectivity

There is a high demand in Tanzania to make transfers from urban areas to rural areas, in the majority of cases, where an individual is working in a town or city and wants to send money home to family living in a rural area.

Without access to connected financial services, the only mechanisms to sending money across the country were to give cash to bus drivers travelling to where their family lived or using mobile airtime as currency to be redeemed elsewhere. The disadvantages of these options were cost, security and inconvenience. With mobile money and mobile banking, it is now possible to receive and send money instantly and securely across Tanzania.

"I regularly send money home to my family in Kilimanjaro which is nine hours' drive away." Charles Mallya, Hardware Salesman, Tegeta, Dar es Salaam

Ability to pay bills remotely

The emergence of digital financial services has enabled millions of individuals and businesses to pay bills remotely using digital payments. Transfers can be instantly made to businesses and it is now easy to not only buy airtime using mobile money, but also pay utility and TV subscription bills.

An innovative project is underway to manage school financial activities through an online tool for students, parents and schools to manage fee payment processes, tracking daily expenditures, revenues and students' performance and attendance. This tool has already been developed as a Minimum Viable Product (MVP) and is undergoing user testing and refinement.

Improved connectivity

With no mobile money provider claiming the majority market share, most users initially adopted mobile money services offered by the network they were already using for making and receiving calls. Since the interoperability agreement among MNOs in 2016, customers can now transfer money across networks. The advantages for users are that it is cheaper and more convenient, as they do not need to register with multiple MNOs, can make their choice of network based on their needs and transfer money to anyone.

Additional services

The take-up and adoption of basic digital financial services has demonstrated high levels of customer satisfaction and growing trust in using digital money in place of cash. In 2016, many consumers have taken up the new mobile credit services and enjoyed the ability to instantly transfer credit to mobile money accounts quickly and easily with minimum requirements. The new services compare favourably to services offered by micro-finance institutions who offer cheaper repayment terms but operate with lengthy approval processes or those from banks, which were limited to existing customers with requirements that many were not able to meet.

Since 2014, MNOs and the central bank have been working together to offer cross-border transfers to East African countries, namely Kenya, Uganda and Rwanda. As for the launch of mobile money, regulators have adopted a "test and learn" approach with letters of no objection issued to service providers to launch cross-border transfer services.

"I am now able to manage my cash flow with small mobile money loans which I can receive instantly." Fatuma Yusuf, tomato retailer, - Mbagala, Dar es Salaam

In order to bring mobile financial services to market and to ensure healthy take-up and use, service providers have many challenges to overcome.

Consumer knowledge & trust

From FSDT's FinCap 2013 study, it is clear that overall financial capacity is weak in Tanzania, with low levels of confidence and awareness of financial products and services. Most Tanzanians do not undertake long-term financial planning and over half do not seek financial advice. The majority of people rely on friends and family for financial advice with just 6% seeking advice from banks or other financial institutions.

Consumer product knowledge is low for most services and notably, nearly 75% respondents were unaware of the benefits of digital financial services in 2013.

The widespread take-up of mobile money demonstrates growing consumer trust in digital financial services, although this has been the result of considerable effort on the part of MNOs and their agents to provide face-to-face product demonstrations and SMS alerts to explain how to use services. In addition, many urban individuals have provided education to rural family members on how to use new services.

As new products and services enter the market, the need to explain and demonstrate will continue to be important in the trust and use of digital financial services.

"You need to promote before you sell but you need to do much more than just promotion. It is just as important to provide consumer education and assurance."

Dylan Lennox, M-Pesa Managing Director 2007 – 2012 The Gathering, hosted by FSDT in April 2017

providers service financial digital for Challenges

Digital Financial Services Roadmap

RTGS live FSDT activity: Launch of FSDT · Efficiency of payments & settlement

VISA domestic switch

Benefits:

· Paved way for mobile financial services

 Allowed for domestic processing of transactions

2.93m

Amendment of BoT Act

FSDT Activity:

national survey on financial behaviour

Gave NPS powers to act enabling more favourable regulatory environment

No. mobile phone subscribers (TCRA):

5.61m

140,327

2006

Innovation: **Umoja Switch**

Policy:

 NPS Legislative BoT's Guidelines for Electronic Payment Schemes

Benefits:

 Mobile money is launched with a letter of no objection from BoT · Local bank incorporated their own switch

8.32m

259,931

Airtel launches Airtel Money

TCRA passes new KYC regulation requiring registration for all new and existing SIM cards

FSDT Activity:

No. mobile phone subscribers (TCRA): **17.47m**

4.19m

No. of mobile money transactions:

3,272,422

2009

7,011,852

Allowed for efficiency at agent

Non-Exclusivity Use of MNO

Tigo launches Tigo Pesa

(TCRA): 20.98m

10.6m

Innovation:

18,430,256

20,132,285

2010

2004

• Eliminated credit risks

1.94m

2005

2007

2008

E-Fulusi launches MobiPawa

No. of mobile money transactions:

Vodacom launches M-Pesa

Zantel launches Z-Pesa

13.01m

408,216

442,954

population with access to mobile financial services (FinScope 2013)

15.5%

FSDT activity:

AgFiMs

national survey on the nature of demand for and supply of agricultural finance in Tanzania

25.67m

accounts (BoT) 21.2m

No. of mobile money transactions: 134,922,457

33,037,328

Innovation:

· Zantel relaunches mobile money platform as Ezy-Pesa

· Launch of digital saving for rural communities (CARE, Mwanga Community Bank, Vodacom)

FSDT activity:

national baseline survey report

27.45m

accounts (BoT) 26.9m

No. of mobile money transactions:

546,732,134

33,162,408

0

BoT's Guidelines on agency banking offering guidance and allowing non-exclusivity

FSDT Activity:

FinScope 2013

 Supported the development and piloting of agency banking which led to the development of Agency banking guidelines

Gave NPS powers to act enabling more favourable regulatory environment

accounts (BoT) 31.8m

(BoT)11.01m

No. of mobile money transactions:

997,772,681

38,559,425

National Financial Inclusion Framework (NFIF)

FSDT Activity:

No. mobile phone subscribers (TCRA): 34.11m

accounts (BoT) 41.38m

(BoT)13.86m

No. of mobile money transactions: 1,250,986,783

46,640,239

Innovation:

39.67m

NPS Act developed

NPS Act, E-money regulations Supported the dissemination of the

NPS Act through the NFIF activities

accounts (BoT) **53.84m**

(BoT) 19.00m

No. of mobile money transactions: 1,387,854,759

50,638,469

Interoperability

Interoperable rules developed

FSDT Activity: Key facilitator for industry discussions

(P2P) in Africa

40.174m

on interoperability

First Mobile Money Interoperability

No. mobile phone subscribers (TCRA):

accounts (BoT) 60.38m

(BoT) **20.29m**

FSDT Activity:

FinScope 2017

40.36m

2011

2012

2013

2014

2015

2016

2017

TCRA Quarterly Communications Statistics Report https://www.tcra.go.tz

Distribution

Due to the low population density and large geographical areas, FSDT's Financial Access Maps 2014 showed there are many rural areas in Tanzania where just 10% of the population live within 5km of a bank branch and 16% live within 5km of a mobile money agent.

Distribution of Commercial Bank Branches in Tanzania

[Financial Access Maps 2014]

10% of the population live

within 5km of a bank branch

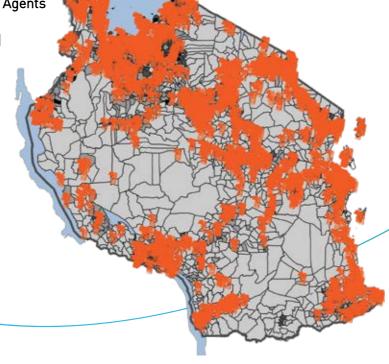
16%

live within 5km of a mobile money agent



Distribution of Mobile Money Agents in Tanzania

[Financial Access Maps 2014]



Network of agents

One of the key success factors in the rapid growth of digital financial services was the development of agent distribution networks. The MNOs initially planned to use the airtime distribution network of agents to offer digital financial services, but as most agents were based in the same locations as bank branches to ensure liquidity, this offered limited potential for extensive coverage.

To achieve sufficient market scale and national penetration to achieve profitability, there was a need for MNOs to reach this market through alternative distribution channels. Therefore, agreements were made with end retailers with substantial distribution networks to act as digital financial service agents. Indeed, to further ensure extended coverage, providers are encouraged to work with agents who have outlets in rural locations, which is a cost-effective method for providers to deliver services in remote areas.

The agent networks soon became established and were widely accepted as an effective and sustainable mechanism to offer branchless financial services. To ensure good practice, the Bank of Tanzania issued guidelines in 2013 allowing digital financial service providers to appoint retail agents as a delivery channel for their services, and so reach lower income and remote areas more cost-effectively. The quidelines also included requirements for due diligence, customer protection and non-exclusive agreements, allowing agents to act for more than one provider.

Mobile money agents are usually situated close to bank branches for access to cash for deposits and withdrawals.

in 2014

there were just





975 ATMs

across the country

In 2014, there were just 616 bank branches and 975 ATMs across the country. The importance of the agent network cannot be overstated as it provides the physical access to cash for most mobile money consumers. In fact, in 2010, Vodacom were supported by a \$4.8 million grant from the Bill & Melinda Gates Foundation to expand services into poor, rural areas.

Agents work on a commission basis from the digital service providers and offer multiple services. They sign an agreement with the digital service providers in return for training and promotional material. Deposits and withdrawals are digitally recorded and monitored and all commissions and fees are automatically calculated.

Key challenges for agents are maintaining adequate float when access to cash can be limited due to large distances; security of cash on the premises; training and training materials for new products and services and sufficient national marketing effort to drive demand and increase consumer trust.

Growth of agent network

Whilst the banking network has not shown much growth, the agent network has grown rapidly to over 100,000 agents across the country. Agents are now providing essential frontline financial services for mobile money and mobile banking products including cash deposits and withdrawals, transfers and even opening bank accounts. As new products enter the market, there are more opportunities for agents to sell a wider range of products to customers and thus increase their business.

Agents are not bound to one provider in this highly competitive emerging mobile money market as no one MNO has enough market power to force agents into exclusivity agreements.

As the networks developed, the providers sought to extend coverage further by building "super-agent" distribution channels, where agreements are signed with a "master" agent who registers and manages a number of agents who provide float, training and advice together with the MNOs'

Agent management is crucial for the operational delivery of digital financial services and MNOs have invested considerable sums in building and maintaining networks using generous commissions and their own field sales representatives who provide marketing material, training and advice.

One challenge which remains is adequate provision in remote, rural areas which is still limited. Agent infrastructure is located where there is adequate population density to deliver demand which still leaves many of the most isolated communities without access to the agent network, albeit with access to mobile services.



Regulations keeping pace with market development

The existence of a supportive regulatory environment is crucial for the evolution of digital financial services and the increase in financial inclusion.

National Financial Inclusion Framework 2013 (NFIF)

FSDT worked to support the Bank of Tanzania and the Ministry of Finance to create a broad, yet robust infrastructure to support growth of appropriate financial services and use of technologically-driven delivery channels.

The aim was to achieve 50% of adults with access to formal financial services by 2016. Through strong partnership across government, the finance sector and Mobile Network Operators (MNOs), a framework was created that facilitated above-target rates of financial inclusion by 2014. The framework strategy prioritised:

- Proximity: new access channels to bring services to marginalised communities
- Robust electronic platforms: facilitating cost effective access to financial services
- Robust information and easy client on-boarding: enabling development of credit rating and customer-focused products
- Informed customers and consumer protection: supporting consumer protection mechanisms and financial education

Bank of Tanzania

The Central Bank of Tanzania has shown far-sighted appreciation and enthusiasm of the potential for digital financial services to address financial exclusion.

In 2006, the Bank of Tanzania Act enabled the Bank of Tanzania (BoT) to oversee and regulate non-bank entities. By 2008, with commercial demand to launch mobile money services, the BoT adopted a "test and learn" approach and granted digital service providers "letters of no objection" to enable mobile money services to be launched. More recently, with the expansion of mobile services, the bank's approach is to "mandate and monitor". In 2015, the National Payment System and Electronic Payment regulations were passed to provide clear legal frameworks for non-financial institutions to provide licensed and regulated digital financial services.

The Bank of Tanzania is committed to payment systems which are stable and secure. One of the key regulatory developments that have had the most positive impact on consumer protection in Tanzania has been Know Your Customer (KYC) Act 2009. This Act required registration of all SIM cards and has set the precedent for robust electronic information infrastructures for individual and business data and checking credit and payment histories.

As the digital financial service market matures, it is inevitable that the legal and regulatory framework will shift according to government and industry needs. Indeed, in 2016, new taxes on mobile deposits and withdrawals were introduced requiring digital financial service providers to assess options to recoup losses.

Competition and co-opetition

Unlike most other countries, as competition between Tanzania's 4 major network providers is so fierce, the challenges are not to claim long-term market advantage and operate as a market leader, but to seek strategies that can bring about advantage in niche areas.

Telecommunications have become a fiercely competitive industry making limited opportunities for collaboration anywhere in the world. With healthy growth in take-up of digital financial services and a supportive regulatory environment, each MNO sought to maximise the potential of the new services, drive greater usage, expand their networks, provide greater value for money as well as increase the market as a whole.

After 18 months of discussion, with facilitation and technical support, the MNOs were able to come to agreement. Tanzania is now seen as a pioneer in innovation in the telecommunications industry for achieving interoperability in such an efficient and effective manner.

MNOs in Tanzania have also worked together with regulatory bodies to effect legal frameworks which reflect consumer need and support innovation to improve financial inclusion as well as addressing potential areas of security and fraud risk.

Although traditionally marketing is seen as a strategic tool to gain or maintain market share, the MNOs have provided mutual benefit in introducing digital financial services to Tanzanians and communicating the features and benefits of the services, for example the use of PIN numbers and how mobile money works.

We believe interoperability is crucial to the success of mobile money and the wider goal of increasing financial inclusion

Ruan Swanepoel, Head of Mobile Financial Services, Tigo Tanzania



Such innovation truly speaks to financial inclusion as it helps draw more cash into the formal financial system and helps improve our customers' lives by simplifying transactions and adding speed and convenience to their daily routine

Ian Ferrao, Managing Director, Vodacom Tanzania

The success of a long term mobile money service in the country is wholly dependent on a viable commercial model and regulatory environment that creates certainty for the participants and customers of the mobile money service. This is how the mobile money journey has played out in Tanzania, where service providers have worked with the BoT to ensure maximum benefit is delivered to the public and financial access boundaries are pushed back to allow for a more inclusive financial environment

Jacques Voogt, Chief Officer, M-Commerce, Vodacom Tanzania

Our partnership is aimed at unleashing and fostering innovation, leveraging in the evolution of technology to bring fast and convenient financial services closer to Tanzanians of all socio-economic classes.

Sunil Colaso, Managing Director, Airtel

First advanced digital financial services market in the world where providers have voluntarily agreed to interoperate, letting customers with different wallets and on different networks send money to each other

CGAP, "Tanzania: Africa's Other Mobile Money Juggernaut", 2015

FOCUS: Engagement between banks and mobile network operators

Until the Mobile Network Operators (MNOs) entered the digital financial services market in 2008, banking organisations had the market share in providing a wide range of financial services.

There has been longstanding untapped demand for financial services, particularly among marginalised groups including women, young people, farmers and those living in rural communities. The underlining reason that banks have not been successful in providing services to meet this demand is the cost-effectiveness of bank branches and ATMs to reach small, rural communities.

Competition and co-opetition between banks and mobile network operators

As shown in FinScope Tanzania 2006, 89% of the adult population in Tanzania had never had a bank account and used cash as the main method of payment, limiting transactions across the country.

Mobile money represented a significant business opportunity for both banks and mobile network operators. For the banks, it is an untapped market that is challenging to reach and for the MNOs, a way to gain competitive advantage and increase customer loyalty.

For mobile money service to be successful, banks and MNOs need to work together. The Bank of Tanzania and other regulators were clear that MNOs could not enter the digital financial services market without a banking partner. Each of the two key partners offers services in a coordinated way according to their areas of expertise.

For the banks, they were well placed to offer a broad range of financial services, were integrated into the financial system and regulations, could provide liquidity at a branch level and had a reputation for stability and security. The mobile network operators could offer the technological platform, an increasing customer base, responsive communications and marketing, relationships with telecommunication regulators, knowledge of the low-income market and a distribution network of agents.

The rapid rise in the take-up of digital financial services has been impressive. Initial payment services have now been complemented with those for credit, savings and insurance. These new markets are still in their infancy so, if the banks and MNOs can continue to find win-win relationships in providing digital financial services together, the business opportunities and the potential to contribute to Tanzania's economy, are significant.

Co-opetition

An arrangement whereby competitors agree to cooperate on certain aspects of the business but compete aggressively on others.

The card industry was successful in creating the card schemes, such as Visa and MasterCard, where banks compete on acquiring merchants and cardholders, but collaborate on other parts of the value chain such as processors and switches.

Similarly, in the mobile telephony business, examples of collaboration such as voice interconnection exist. This co-opetition is a key guiding principle of successful interoperability initiatives.

Achieving interoperability in mobile phone services: Tanzania Case Study, International Finance Corporation, World Bank, 2015

Investment

The creation and growth of digital financial services, together with support for an extensive agent network, required significant investment. In the early years, MNOs were spending in the region of \$1 million per month on marketing and agent costs despite low returns on investment.

For most MNOs, there were multiple long-term goals to entering and maintaining their place in this emerging market: to increase retention and SIM "stickiness" (ie strengthen brand loyalty among customers for both voice and mobile money services), to recruit new customers and to extend their product and service offers.

With no one provider claiming a majority share, it was almost inevitable that all of the 4 major network providers would enter the market. Such competition has led to a dynamic environment where each MNO has invested in brand differentiation programmes ranging from higher penetration in rural areas, better customer service, more attractive agent commissions, improved agent management, innovative new products and new communication channels.

Without significant developments in alternative means of access to financial services in Tanzania and the growing demand for access to a broader range of products and services, there appears to be considerable potential for MNOs in developing and expanding this market further.

Security

Know Your Customers

Digital financial services in Tanzania have a reputation for being operationally robust and secure and providing customers with a service they can trust. The Know Your Customer regulations have provided a legal framework to safeguard customers' transactions and data.

Fraud and corruption

Tanzania has a reputation for low levels of fraud and corruption and, although there is always a potential for institutional and personal fraud and theft, there have been few incidents since the launch of mobile money in 2008. The digital financial service providers have invested resources in monitoring data and establishing infrastructures that offer high levels of consumer protection.

Agents

There appears to be little evidence of significant fraud and theft aimed at agents. Customer service departments of the digital financial service providers are aware of potential scams and irregularities and are able to resolve issues quickly and calmly.

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Lessons learned

FSDT is proud to have supported the emergence of digital financial services and continues to strive to deepen and expand the opportunities they offer to improve financial inclusion across the country, particularly those who have been marginalised.

Of the many lessons learned since the inception of mobile money in 2008, key learnings are

- Working together brings benefits Interoperability in Tanzania is widely recognised as a successful collaboration between all stakeholders to deepen financial services, reach the unbanked, reduce costs for both providers and customers, increase efficiencies and drive transactions
- Success through regulatory support Without the support of the Bank of Tanzania, the TCRA and other regulators, Tanzania would not have been able to benefit from digital financial services and thus, make such impressive progress in improving financial inclusion
- Drive and motivation of people on the ground in financial service providers

 The launch of digital financial services and their ongoing development continues to challenge traditional ways of thinking. Thanks to the drive, determination and continued efforts by many people across all stakeholders, the financial landscape in Tanzania has been changed for the benefit of millions of people.
- Innovation The emergence of new technology has pushed the traditional providers of financial services to rethink service provision and customer needs and to innovate both across the market but also internally. FSDT is proud to have contributed by taking risks and test new innovations that have led to the rapid development of new digital financial services such as mobile credit, interoperability and agency banking.
- Insight driven solutions Valuable data and research, notably FSDT's FinScope studies, have provided essential market data to build cases for the launch of mobile money and to provide services to meet further untapped demand.

Digital financial services have been successful in changing the financial services landscape. Looking to the future, there are significant opportunities and challenges for all stakeholders to maximise the market potential, reach those who remain excluded, provide products and services which meet consumer need, provide adequate protection as the market evolves and make their contribution to Tanzania's economy.

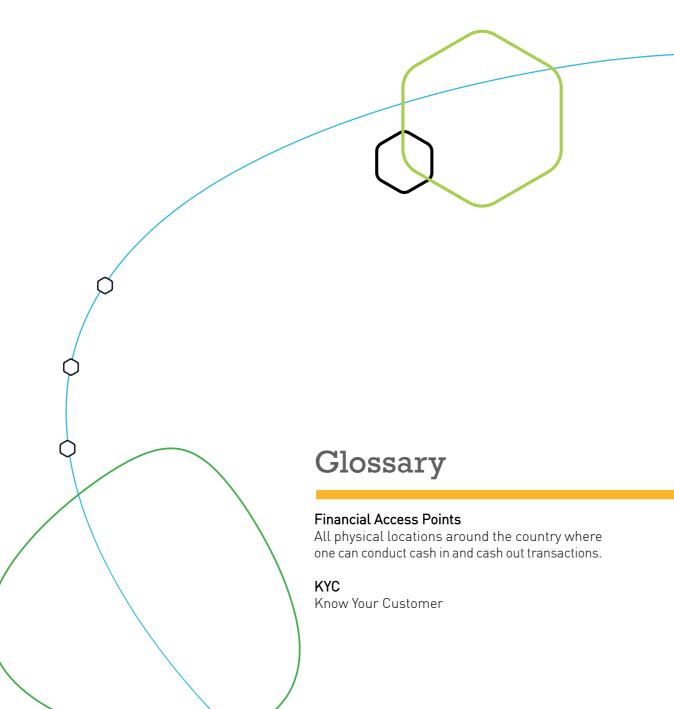
Key future challenges include:

- Consumer knowledge and levels of literacy As innovation brings new services and ways to provide those services, the challenge for consumers is keeping up-to-date with their knowledge and understanding of products and services so they can make informed decisions and hold financial service providers to account. All market stakeholders have a responsibility to enable customers to increase their knowledge and literacy.
- **Customer security** As more and more people use digital financial services, providers need to meet the changing requirements to understand risks and find ways to protect customers.
- Registration for many people, they are excluded from registering from financial services as they lack required documentation as part of the Know-Your-Customer requirements or due to the cumbersome credit-scoring procedures. FSDT is working with national policymakers to review these requirements and to find ways to provide digital proof of identity, to help deliver National Identity Numbers to the entire Tanzanian population and to pilot ways to achieve automated account opening.
- New products and services that meet consumer need across all socioeconomic groups To continue the drive to expand the market with new
 products and services which meet consumer needs, FSDT has been active
 in providing platforms, including the Gathering, Finsights Lab and the Bima
 Challenge, for a wide range of traditional and Fintech players to connect
 and foster new ideas. Since the launch of digital financial services, the rate
 of innovation is growing exponentially as new market opportunities are
 identified.
- **Distribution** Digital financial services rely on the network of agents who have face-to-face interaction with customers. It is essential that, for the time being, this network is strengthened and that agents look to provide good customer care, take responsibility for the services they offer and become part of the drive to innovate and improve. In addition, as more and more people are using smart phones and tablets, the opportunities for new ways to provide services need to be explored.
- Market expansion FSDT has been working closely with the Department of National Payment System (DNPS) at the Bank of Tanzania, to advance thinking on interoperability and interest payment research to increase transaction volume and value and, ultimately reduce the reliance on cash transactions. A strategy is under development to support strategic alliances between bans.

challenge and opportunities Future

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- Deepened financial services ecosystem There are many opportunities to addressing identified weaknesses in the ecosystem. The range of businesses who can make digital transactions is still limited due to costs and technological constraints. FSDT has been piloting an MSME solution that digitises merchants' businesses by providing a single merchant platform that is used to accept mobile money, cards and cash.
- International transactions FSDT is working with providers, regulators and policymakers to enable cross-border remittances, which will open up Tanzania to markets across the world.
- Opportunities for increased range of digital payments and disbursements The opportunity to make payments to a wide range of individuals and businesses is huge. FSDT has been working to facilitate digital tools for school payments as a use case for further development in other industries.









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