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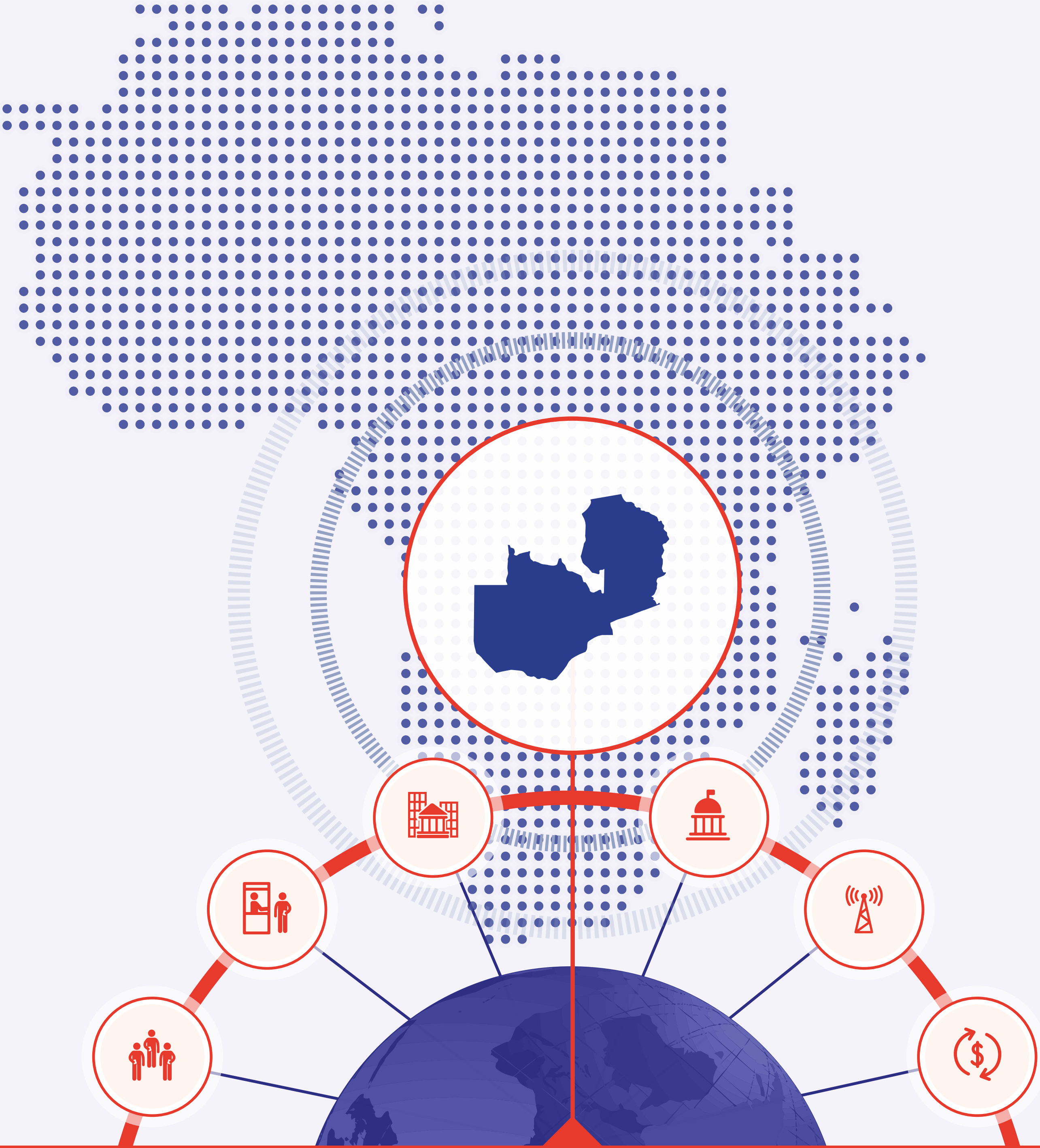

State of the Digital Financial Services Market in Zambia, 2018

Results from the UNCDF-MM4P and Bank of Zambia Digital Financial Services Annual Provider Survey, in partnership with the Mastercard Foundation, Comic Relief and Jersey Overseas Aid

UNCDF

The UN Capital Development Fund

The UN Capital Development Fund (UNCDF) makes public and private finance work for the poor in the world's 47 least developed countries. With its capital mandate and instruments, UNCDF offers 'last mile' finance models that unlock public and private resources, especially at the domestic level, to reduce poverty and support local economic development. UNCDF's finance models work through two channels: financial inclusion that expands the opportunities for individuals, households and small businesses to participate in the local economy, providing them with the tools they need to climb out of poverty and manage their financial lives; and localized investments—fiscal decentralization, innovative municipal finance and structured project finance—that drive the public and private funding that underpins local economic expansion and sustainable development.

By strengthening how finance works for poor people at the household, small enterprise and local infrastructure levels, UNCDF contributes to Sustainable Development Goal (SDG) 1 on the eradication of poverty and SDG 17 on the means of implementation. By identifying those market segments in which innovative finance models can have transformational impact in reaching the last mile while addressing exclusion and access inequalities, UNCDF contributes to a number of different SDGs.

The UNCDF programme

Since 2015, UNCDF has been a local presence in Zambia, focused on implementation of projects that address the needs of the 40% of the population that has been financially excluded. These projects are grounded in digital solutions to improve financial inclusion, address energy and resource needs at household level, and improve accessibility to goods, services and markets that help them sustain their livelihoods or improve their lives. The programme is funded by the Mastercard Foundation, Comic Relief and Jersey Overseas Aid and is aimed at increasing active usage of digital financial services within the adult population, from 2% in 2014 to 35% by 2019. Using a theory of change based on the 'Making Markets Work for the Poor' approach, the programme seeks to work with all digital finance providers, regulators and the Government to achieve this mandate.

UNCDF has provided a mix of grants and technical assistance to policymakers, financial service providers, civil society and users of digital finance in order to expand access to and usage of services that contribute to achieving the Sustainable Development Goals.

The UNCDF project team

The process to develop the Annual Provider Survey included gathering data, assessing the incentives of the providers in the Zambian digital finance context and surveying the insights of local stakeholders. The content of this report is based on information gathered during the month of April 2019 and represents data for the period of December 2017 to December 2018. The following project team members authored the report in collaboration with the Bank of Zambia:

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Acronyms	
DFS	digital financial service(s)
MFI	microfinance institution
MNO	mobile network operator
OTC	over the counter
P2P	peer to peer
UNCDF	UN Capital Development Fund
US$	United States dollar
ZMW	Zambian kwacha

Glossary[a]	
Active customer account	An active customer account is an account with which at least one transaction was conducted in the last 90 days. A transaction includes cash-in, peer-to-peer transfer, cash-out, bill payment and/or airtime purchase. Conducting a balance inquiry, resetting a personal identification number or completing another transaction that does not involve the movement of value DOES NOT qualify for a customer account to be considered active.
Agent, Agent outlet, Active agent outlet	An agent may be a proprietary agent (an agent who is managed by and operates under the exclusive branding of a particular provider) or a third-party agent, either of whom handles more than 30 transactions per month, including cash-in and cash-out. In many instances, an agent registers new customers too. The country's central bank, Bank of Zambia, defines an agent as a person or entity appointed by an e-money institution to provide certain e-money related services on its behalf. "In the case of mobile money, an agent outlet is a location where one or several provider-issued tills are used to conduct transactions for clients. … Agent tills are provider-issued 'lines,' which can be SIM cards or point-of-sale [POS] machines, authorized and used to facilitate mobile money transactions. … An agent outlet may operate tills issued by several providers; these are generally referred to as shared or non-exclusive outlets." "An active agent outlet is an agent outlet where any of the tills were used to facilitate at least one transaction within the last 30 days. … The most important of these [transactions] are cash-in and cash-out (i.e., loading value into the mobile money system and then converting it back out again)."
Airtime purchases	Airtime purchases (also known as top-ups) are airtime transactions funded from customer digital finance accounts.
Automated (or Automatic) teller machine (ATM)	An ATM is "an electronic telecommunications device that enables the clients of a financial institution to perform financial transactions without the need for a cashier, human clerk or bank teller."[b] ATMs may be operated either offline or online with real-time access to an authorization database.
Bank account to mobile money account transfers	These transactions involve "a direct transfer of funds made from a customer bank account to a mobile money account. This transaction typically requires a commercial agreement and technical integration between the bank and the mobile money provider to allow direct transfers."
Bill payments	These transactions involve the payment of bills using digital financial services, "regardless of whether they originate from an account or are made over the counter."[c]
Bulk payments	These transactions are conducted from one account to many accounts, or from many accounts into one account. The former, such as salary payments or government transfers, may terminate in an account or over the counter. They are referred to as 'one to many'. The latter, such as several customers paying for utilities, comprise collections by an organization from multiple payers. They are referred to as 'many to one'.
Cash-in transactions	These transactions include deposits of any value from a customer into a wallet through an agent. They also represent "the process by which a customer credits [his/her] mobile money with cash. This [process] is usually via an agent who takes the cash and credits the customer's mobile money account with the same amount of e-money."
Cash-out transactions	These transactions include transfers of any value from an agent to a customer. They also represent "the process by which a customer deducts cash from [his/her] mobile money account. This [process] is usually via an agent who gives the customer cash in exchange for a transfer of e-money from the customer's mobile money account."
(Agent) Commissions	Commissions are the revenues paid by the digital financial service provider to its agents. Generally, agents earn commissions by conducting transactions and onboarding new customers.

[a] As much as possible, standard industry definitions are applied. In particular, the GSM Association, a trade body representing the interests of mobile network operators globally, is the source of a number of definitions provided here. Unless otherwise noted, the source of all quoted text in the definitions is the following report from the Association: GSM Association, *2017 State of the Industry Report on Mobile Money*, Appendix 3: Glossary (London, 2018).

[b] Nair Vinu Uthaman and others, 'MAASC (Multiple Account Access using Single ATM Card),' *International Journal of Science, Engineering and Technology Research (IJSETR),* vol. 3, No. 6 (June 2014), p. 1790.

[c] Nika Naghavi and others, 'Success factors for mobile money services: A quantitative assessment of success factors' (London, GSM Association, November 2016), p. 21.

Glossary (continued)	
Customer activity rate	Customer activity rate is the share of actively used registered accounts (i.e., at least one transaction conducted in the past 90 days).
Debit card	A debit card is an electronic card issued by a bank that provides the bank client with access to his/her account to withdraw cash or pay for goods and services. It eliminates the need for the client to go to the bank to remove cash from his/her account as he/she can just go to an ATM or pay electronically at merchant locations. This type of card, as a form of payment, also eliminates the need for cheques, as the debit card immediately transfers money from the client account to the business account.
Digital financial services (DFS)	The term DFS refers to a range of formal financial services accessible via digital channels, such as mobile money, agency banking, ATMs and debit cards, as opposed to traditional financial services accessed through physical visits to a provider's outlet.
Financial inclusion	Financial inclusion is the end state of the goal of all eligible citizens having access to and using a range of affordable, convenient and appropriate financial services. These services could be formal financial products/services that are provided by formal financial institutions (banks and/or non-bank financial institutions bound by legally recognized rules) or informal financial products/services that are unregulated and operate without recognized legal governance (e.g., village banks or village development funds).
Fintech	This entity is a financial technology company.
First-generation products	These products comprise basic DFS, such as peer-to-peer transfers, airtime purchases, bill (utility) payments, and cash-in and cash-out transactions.
Float	Float is "the balance of e-money, physical cash, or money in a bank account that an agent can immediately access to meet customer demands to purchase (cash-in) or sell (cash-out) electronic money."
Informal over-the-counter (OTC) transactions	These transactions occur when a customer provides cash to an agent who performs a transaction via an agent account to send funds to the wallet of a registered customer.
International remittances	International remittances can refer to the total number of cross-border fund transfers for inbound or outbound remittances. International remittances may also refer to the "cross-border fund transfer from one person to another person. This transaction can be a direct mobile money remittance or can be completed through use of an intermediary organization such as Western Union."
Know-you-customer (KYC)	"Financial institutions and regulated financial services providers are obligated by regulation to perform due diligence to identify their customers." The KYC term refers to these requirements and/or to "the regulation which governs these activities. The FATF (Financial Action Task Force) recommends a risk-based approach to due diligence for AML/CFT (anti-money-laundering and counter-financing of terrorism) controls. Due to the lack of formal identity documents in some markets, solutions such as [establishing] tiered KYC [requirements] and adjusting acceptable KYC documentation can help mobile money providers facilitate customer adoption and increase financial inclusion, especially in rural areas."
Liquidity management	Liquidity management is "the balance of cash and e-money held by a mobile money agent to meet customers' demands to purchase (cash-in) or sell (cash-out) e-money. The key metric used to measure the liquidity of an agent is the sum of [his/her] e-money and cash balances (also known as [his/her] float balance)."
Merchant payments	These transactions are movements of value from a customer to a merchant to pay for goods or services at the point of sale.

Glossary (continued)	
Mobile microcredit (also microloans)	Mobile microcredit is a solution that enables mobile money customers to access small amounts of credit instantly via their mobile phone.
Mobile microinsurance	Mobile microinsurance is an option by which insurance premiums are paid from a mobile wallet through a mobile money platform.
Mobile money operator	A mobile money operator is "a company that has a government-issued licence to provide telecommunication services through mobile devices."
Over-the-counter transactions (OTC)	These transactions include money transfers or bill payments that are conducted without a registered account. "Some mobile money services [e.g., bill payments] are being offered primarily OTC. In such cases, a mobile money agent performs the transaction on behalf of the customer, who does not need to have a mobile money account to use the service."
Pay-as-you-go	Pay-as-you-go is an option by which an end customer makes a deposit for a product with the end goal of owning the device through a series of usage payments paid through a DFS channel.
Peer-to-peer transfers	These transactions (also known as person-to-person transfers) originate from a customer DFS account and terminate in another customer DFS account.
Registered customers	Registered customers are the cumulative number of customers who have registered for a service, regardless of whether they are active.
(Agent) Revenue	Revenue comprises the total commissions earned by agents for all the transactions they conduct through their agent accounts.
Second-generation products	These products are more advanced DFS, such as microcredit and microinsurance products, loan repayments, merchant payments, push (to bank)/pull (from bank) transfers and international remittances.
Third-party operators	Third-party operators are DFS providers that leverage existing infrastructure of mobile network operators (MNOs). They are usually MNO agnostic and, in some cases, could be master agents or others acting on behalf of a DFS provider or an MNO, whether pursuant to a service agreement, a joint venture agreement or another contractual arrangement.
Transaction	A transaction could involve cash-in, peer-to-peer transfer, cash-out, bill payment and/or airtime purchase. A transaction does not include any other type of activity that does not involve the movement of value (e.g., balance inquiry).

Foreword

The UN Capital Development Fund (UNCDF) developed an annual provider survey that aggregates industry data on digital finance services (DFS) in the country over the course of a year. This report, which is based upon the survey results, provides industry participants with a comprehensive view of the state of the DFS market in Zambia. It aims to deliver relevant information to DFS stakeholders so that they can make informed decisions regarding the growth of the industry.

The survey has become a valued industry tool. This year, UNCDF collaborated with the Bank of Zambia to administer the third edition of the survey. It is a critical partnership as both UNCDF and the Bank of Zambia drive to achieve greater financial inclusion in the coming year. The third annual provider survey was completed and published within a shorter interval than the previous because providers' need for accurate, actionable data has escalated, with providers expressing a desire to be able to use the data to inform some of their services and operations. It is the hope of UNCDF that the data available in this report will further propel growth and the diversity of products and services in the industry.

As this report details, the industry continued to show growth in 2018, as seen across various indicators, as well as greater opportunities for more players and services. Namely, there was an expansion of second-generation products, agent networks to increase DFS access, and partnerships between financial service providers and non-financial service providers. However, the survey revealed several areas where there was no change: agent liquidity remains an issue, especially in rural areas; there is still a great need for providers to include customers in the product development process; and, banks' less aggressive roll-out continues to result in slow adoption of those DFS they offer.

The Zambian financial landscape has transformed over the last five years. Specifically, a huge demand for DFS has emerged, with the percentage of Zambian adults using DFS jumping from 2% in 2014 to 44% in 2018. There has been a corresponding surge in the number of agents, growing from 7,000 in 2015 to more than 47,000 by the end of 2018. Customers have shown greater demand for products beyond just over-the-counter (OTC) domestic remittances. Zambians have increasingly used DFS to complete airtime payments, make on-grid and off-grid solar payments, take out loans and repay them, and save, in some cases, in interest-bearing accounts.

Similarly, there has been a rapid rise in micro-, small- and medium-sized enterprises in Zambia, many of which are turning to mobile money as a payment mechanism for their goods and services. One example is ZPOS, a company that offers a POS and inventory app for small 'mom-and-pop' shops that is integrating mobile money payments into its system. Another is Ulendo, a popular ride-sharing app similar to Uber that is considering the integration of mobile money into its payment service, in addition to credit card and cash. A third example is Live Clean, which provides pay-as-you-go toilets, with cash and mobile money as payment options. As for fintechs, according to a landscaping exercise UNCDF completed in February 2018 by surveying more than 25 fintechs, DFS partnerships have become a key factor to the success or failure of the business models.

While 54% of Zambians, especially those in rural areas, still live below the poverty line and have largely not had access to any basic service, new business models are transforming basic services—making them more affordable and accessible. However, without the right partnerships, these models may not provide the necessary bridge between the real economy and the digital economy.

UNCDF will continue to support multiple key industry initiatives, such as improved data analytics, greater incentives that drive increased activity among customers and agents, better agent network management and more innovation.

While the Zambian DFS ecosystem has escaped the sub-scale trap, much remains to be done for it to reach its full potential. Our vision continues to be aligned with the National Financial Inclusion Strategy (2017–2022), one in which Zambians are able to reach their familial, personal and entrepreneurial goals with accessible and affordable digital financial products and services.

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STATE OF THE GLOBAL DIGITAL FINANCIAL SERVICES INDUSTRY

1

In 2018, after a decade of strong growth, the mobile money industry experienced an evolution that saw it serving as a platform not only for financial inclusion but also for social inclusion. The latest *State of the Industry Report on Mobile Money* by the GSM Association described it thus: "Mobile money accounts continue[d] to provide a gateway to life-enhancing services, such as healthcare, education, financial services, employment and social protections, which are reaching customers who have traditionally been underserved by the financial system. Many industry players have reached scale, and account registrations, activity rates and transaction values continue to grow steadily."[1] The report also identified the following trends, which shaped the development of mobile money around the world in 2018:[2]

1. **Continued vital role of mobile money in financial inclusion:** Globally, around 1.7 billion people still lack access to safe, reliable and convenient financial services. However, 31 emerging markets have seen an impressive increase in financial inclusion rates, which can be attributed to growth in active mobile money use.

2. **Expansion of the mobile money value proposition:** In [the] GSMA 2018 Global Adoption Survey, close to 80% of providers reported that most of their revenues are driven by customer fees. Many providers are now seeking to strengthen their value proposition with a 'payments as a platform' model. This connects consumers and businesses with a range of third-party services to meet their evolving needs, from enterprise solutions for micro-, small- and medium-sized enterprises to e-commerce, credit, savings and insurance.

3. **Increasingly complex regulation:** As the number of players in the DFS ecosystem grows exponentially, regulation is becoming increasingly complex. Five main themes dominated the mobile money regulatory landscape in 2018: taxation, KYC [know-your-customer] requirements, cross-border remittances, national financial inclusion strategies and data protection.

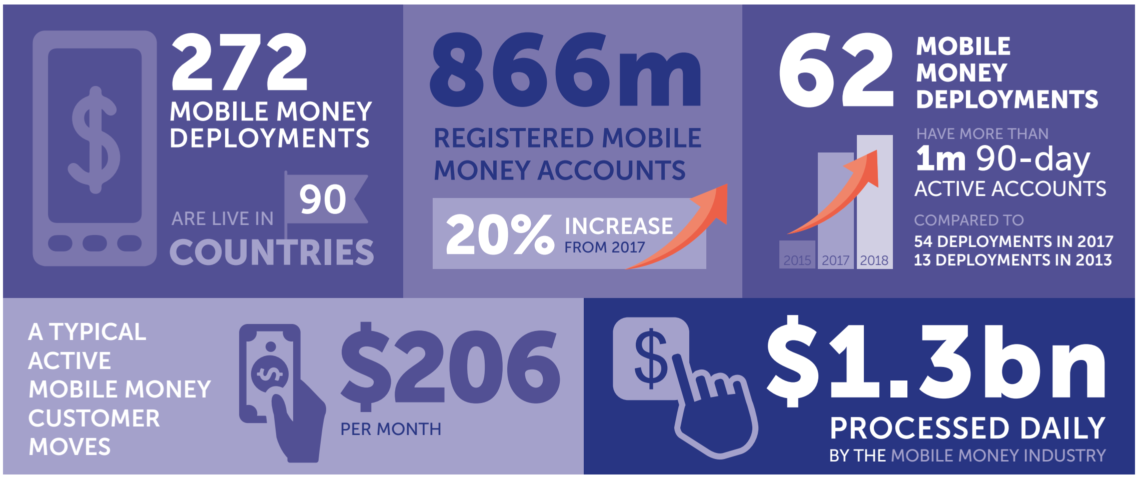
4. **Diversification of the financial services landscape:** While large groups of MNOs [mobile network operators] still dominate the African mobile money ecosystem, in Asia, fintechs and tech giants have entered the payments space and developed a range of customer-centric use cases, from transportation to food, medical and financial services, and amassed a vast number of partners, including financial institutions. Mobile money providers in both Asia and Latin America, including fintech players, are driving growth in the mobile payment ecosystem and expanding from e-commerce to offer financial services such as credit.

[1] Francesco Pasti and others, *State of the Industry Report on Mobile Money 2018* (London, GSM Association, 2019), p. 5.

[2] Ibid, pp. 4 and 5.

Figure I summarizes the state of the global DFS industry in 2018.

Figure I
State of the global digital financial service industry (2018)



Source: Francesco Pasti and others, *State of the Industry Report on Mobile Money 2018* (London, GSM Association, 2019), p. 7.

State of digital financial services in Zambia

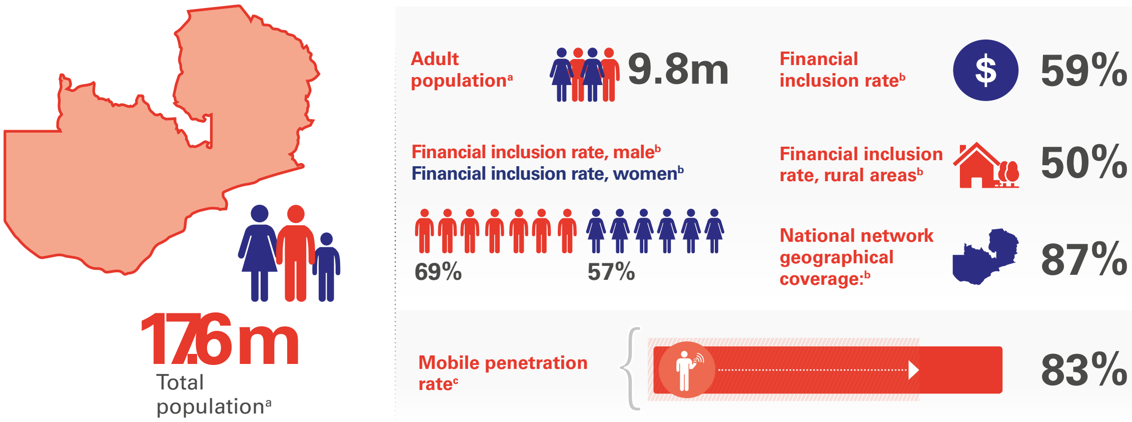
The DFS industry in Zambia experienced significant growth in terms of the number of active customers, agents and DFS providers. The industry went from having only 2% active DFS accounts from four providers in 2014 to 44% active DFS accounts from 18 providers in 2018. Between December 2017 and December 2018, active DFS accounts grew by 89%. Responding to the rise in active customers, the number of active agents grew from 22,965 to 46,747 in the same period. With greater trust in DFS, demonstrated by the increase in active customers, there was also an expansion in use cases and partnerships between financial service providers and non-financial service providers in 2018 (e.g., microloans and savings, bank-to-wallet and wallet-to-bank and pay-as-you-go solar services).

As seen in a number of DFS markets around the world, there were also developments in the Zambian fintech sector. The fintech industry, which is mainly focused on financial services for education, agriculture and health, continued to grow, with increased demand for partnerships with key DFS stakeholders (including financial service providers, development partners and regulators to create an enabling environment for innovation).

Figures II and III provide selected key statistics on Zambia and the state of its DFS market.

Figure II

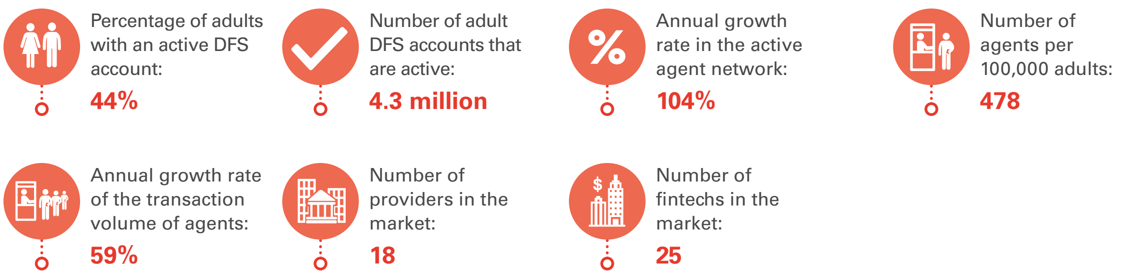
General statistics about Zambia



[a] UN World Population Prospects, 2018; [b] FinScope, 2015; [c] ZICTA, 2018.

Figure III

State of the Zambian digital financial service market (December 2018)



Methodology

This report provides key insights into the state and development of the DFS market in Zambia, drawing on data collected through the survey. This edition of the survey was developed by the UNCDF-MM4P team in collaboration with the Bank of Zambia and administered to DFS providers, including banks, microfinance institutions (MFIs), MNOs and third-party providers. Survey data were self-reported and validated with the support of the Bank of Zambia. Of 18 total providers in Zambia, 13 responded to the survey:[3]

The survey included both quantitative and qualitative questions. Quantitative data were collected on the following indicators:

- Total number of adult customers, registered and active (90 days)
- Total number of unique active adult customers by product type
- Total volume and value of transactions conducted by active DFS customers
- Total volume and value of transactions conducted by customers by product type
- Total volume and value of transactions conducted by customers at agent locations
- Total number of agents, registered and active (30 days)
- Total value of commissions paid to agents

Qualitative information was collected on the performance of the institutions interviewed along with their strategic focus areas, key challenges, and engagement level with the UNCDF-MM4P programme in Zambia as well as key regulatory-related discussion areas.

Institutions were guaranteed that their submissions would remain confidential in line with the United Nations standard policy on handling proprietary information supplied by its members. UNCDF signed non-disclosure agreements wherever required by the providers.

All data presented in this report have been aggregated and anonymized. DFS providers that participate in the survey receive a benchmarking report that allows them to gauge their performance relative to the rest of the market, in terms of adoption as well as usage of services and the distribution network.

[3] Six providers responded to the first annual provider survey, which was completed in 2017, while 13 responded to the third annual provider survey.

2 FINDINGS

The following sections share the key findings of the survey.

Providers

As of December 2018, there were 18 DFS providers in Zambia. In 2018, the industry saw the consolidation of existing players and the expansion of partnerships between financial providers as well as partnerships between financial and non-financial providers. The high growth rates of active customers and agents were a result of increased execution of organizations' digital strategies. The DFS providers in Zambia in 2018 included the following:

- **Banks/MFIs:** Atlas Mara, Barclays Bank, Ecobank, FINCA, First National Bank, Indo Zambia Bank, Investrust Bank, Standard Chartered Bank, United Bank for Africa and Zambia National Commercial Bank (better known as Zanaco)
- **MNOs:** Airtel Money, MTN Mobile Money and Zambia Telecommunications Company (known as Zamtel)
- **Third-party providers:** cGrate, Spargris (Kazang), SpeedPay, Zambia Postal Services Corporation (known as ZamPost) and Zoona

Figure IV lists the digital financial products offered in the market as of December 2018. No new products were launched during the year. Even though the industry was still heavily dominated by the use of first-generation products like peer-to-peer (P2P) transactions, airtime purchases and bill payments, there was significant growth in the usage of second-generation products, particularly digital loans, bank-to-wallet transactions and merchant payments. More than US$5.1 million were disbursed as digital loans in December 2018, up from US$420,000 in December 2017.

Of those providers surveyed, 85% reported that DFS represent a commercially sustainable business. This finding could be attributed to efforts by providers to increase investment toward improving technical and organizational capacity. Moreover, the growth in active agents could be attributed to the fact that providers dedicated more than 72% of their DFS staff to 'agent distribution network management' in 2018.

Figure IV

Types of products offered by provider type (December 2018)

Banks and MFIs

FIRST GENERATION:
- Domestic peer-to-peer transactions
- Cash-in/Cash-out transactions
- Airtime purchases
- Savings
- Bulk payments

SECOND GENERATION:
- International remittances
- Bank-to-wallet and wallet-to-bank transfers
- Merchant payments
- Digital loans

MNOs

FIRST GENERATION:
- Domestic peer-to-peer transactions
- Cash-in/Cash-out transactions
- Airtime purchases
- Bill payments
- Bulk payments

SECOND GENERATION:
- International remittances
- Bank-to-wallet and wallet-to-bank transfers
- Merchant payments
- Digital loans

Third-party providers

FIRST GENERATION:
- Over-the-counter money transfers
- Cash-out transactions (from bank)
- Airtime purchases
- Bill payments
- Loan repayments
- Bulk payments

Customers

Registered and active customer accounts: In 2018, the total number of registered and active DFS accounts grew by 22% and 91% respectively. As a result, there were 16.5 million registered DFS accounts and 4.3 million active DFS accounts, as shown in figure V(a). The percentage of adults with an active account, which was 24% in December 2017, has now reached 44% in December 2018 (Figure V(b)).

The **customer activity rate**, which is the share of registered accounts that are actively used (i.e., at least one transaction conducted during the past 90 days), increased from 17% in 2017 to 26% in 2018. It reveals that 74% of all registered accounts were still inactive in December 2018.

Figure V(a)
Number of registered and active customer accounts (December 2016, 2017 and 2018)

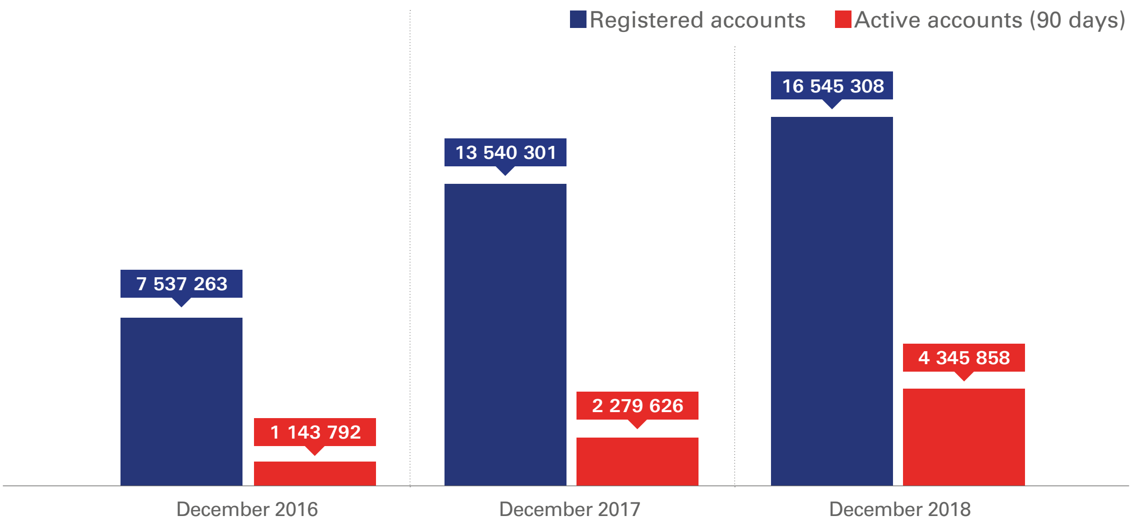
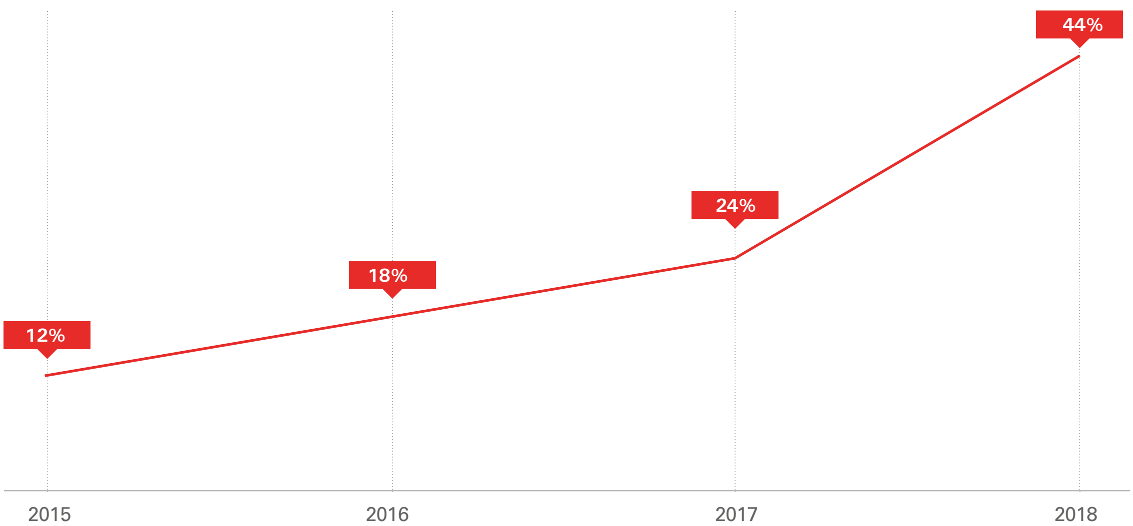


Figure V(b)
Percentage of adults with an active DFS account (2015-2018)



In order to heighten the activity rate of their customer base even further, providers need to direct their efforts toward improving the conversion of existing registered accounts into active accounts. Such initiatives could include the following:

- **Target customer education efforts:** Customer education remains a key focus area. Exploring different communication channels and strategies to target selected groups of customers could propel activity among users.
- **Profile and segment customers:** Based on deeper dives into trends of customer data usage, providers will be able to profile and segment the customer base. This segmentation would allow providers to develop targeted campaigns, products and incentives to trigger usage.
- **Offer incentives to drive usage:** Incentives to onboard partners that focus on education and usage could help drive activity. Such incentives could address the inactive customer base.
- **Conduct data analysis coupled with a survey of inactive customers:** There is a need to better understand why consumers sign up for a service that they eventually end up not using. These insights could help providers identify which improvements they need to make to their existing products or new products in order to expand usage.

In December 2018, the increase in active DFS accounts was largely driven by MNOs, as demonstrated by figure VI. The share of active accounts by MNOs rose from 75% in December 2017 to 88% in December 2018, with third-party providers, banks and MFIs all falling in their market share. The strong growth by MNOs could be attributed to the aggressive sales and distribution model adopted by MNOs to drive acquisition.

Figure VI

Market share of active customer accounts by provider type (December 2017 and December 2018)

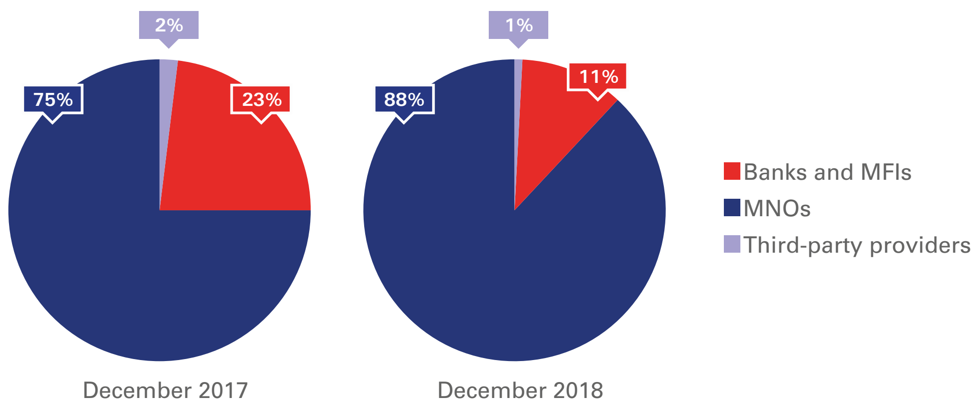
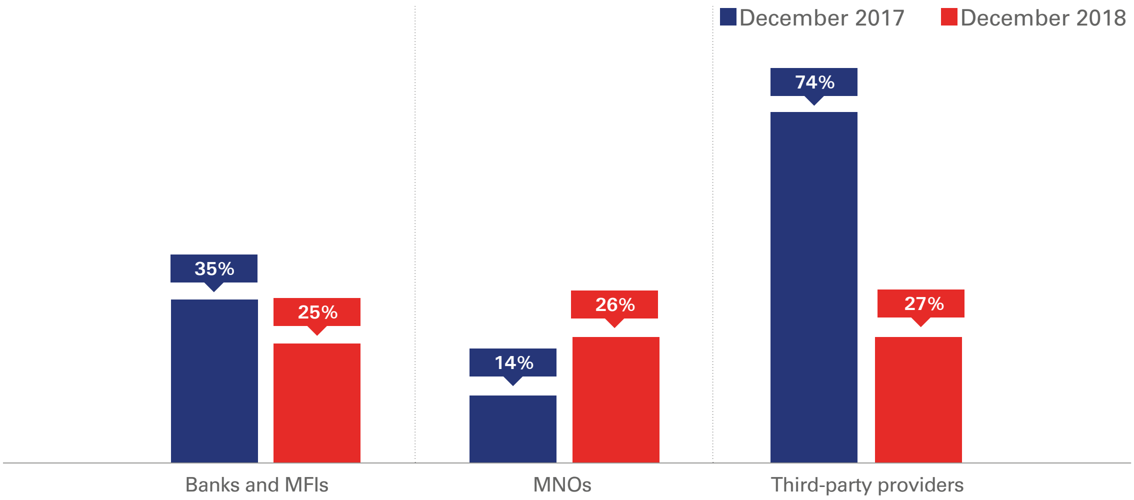


Figure VII highlights the customer activity rate by provider type. Comparing December 2017 to December 2018, the customer activity rates experienced by banks, MFIs and third-party providers decreased while the rate for MNOs grew from 14% to 26%. The decline in the banks', MFIs' and third-party providers' customer activity rates could indicate a need for them to review their customer value proposition in comparison to other DFS providers in the market. The growth in customer activity rate for MNOs could indicate that efforts to address inactivity are yielding results or that MNOs have improved their onboarding processes and product offerings to suit a higher-spending segment of their customers.

Figure VII
Customer activity rate by provider type (December 2017 and December 2018)



Spotlight 1
Customer profile of Zambian mothers

The financial lives of Zambian mothers are dynamic and multifaceted, requiring diverse types of financial services at different times in their lives. In 2018, UNCDF conducted research to gain a better understanding of Zambian mothers. A total of 750 mothers were interviewed. The following paragraphs highlight some of the key research findings regarding Zambian mothers:

#1 All mothers save but mostly at home: Of those interviewed, 63% reporting saving. Of those that primarily stored money at home, 69% were rural inhabitants. Living expenses, emergencies and school fees ranked as the top three savings motivators, indicating that savings products that help mothers reach these goals could serve as an important pathway for introducing financial services.

#2 Mothers are the original 'gig economy'/short-term employment workers and rely on multiple income streams to meet the financial needs of the family: Across all income levels, mothers indicated that they take on various part-time jobs in the formal or informal sector to meet household expenses and support their children. Of those interviewed in low-income households (urban and rural), 75% worked in the informal sector (agriculture, piecework or service industries).

#3 All mothers borrow but mostly from family members and friends: While higher- and middle-income Zambian mothers may have greater access to formal financial institutions, they said they prefer, just as poorer mothers do, to borrow from friends or family members (31% across all income levels) or to use *chilimbas*.* Developing relevant products that help women save towards their specific goals and daily needs throughout their lifetime and that are introduced through relevant social networks might convince Zambian mothers to use these services.

#4 Mothers may be the key to unlocking education payments via DFS: Across all income levels and geographies, mothers indicated that they value education—both their own and that of their children—and saw it as a means to improve their family's welfare.

#5 Mothers are insurance 'naturals' but do not use insurance products: Zambian mothers, by necessity, use informal mechanisms—largely through saving and lending—to deal with financial shocks when they occur (e.g., bad crop seasons, health problems, death).

Text extracted from the following: Nandini Harihareswara and Uloma Ogba, 'Labour Pains: Discovering the Financial Lives of Zambian Mothers' (n.p., UNCDF, 2019).

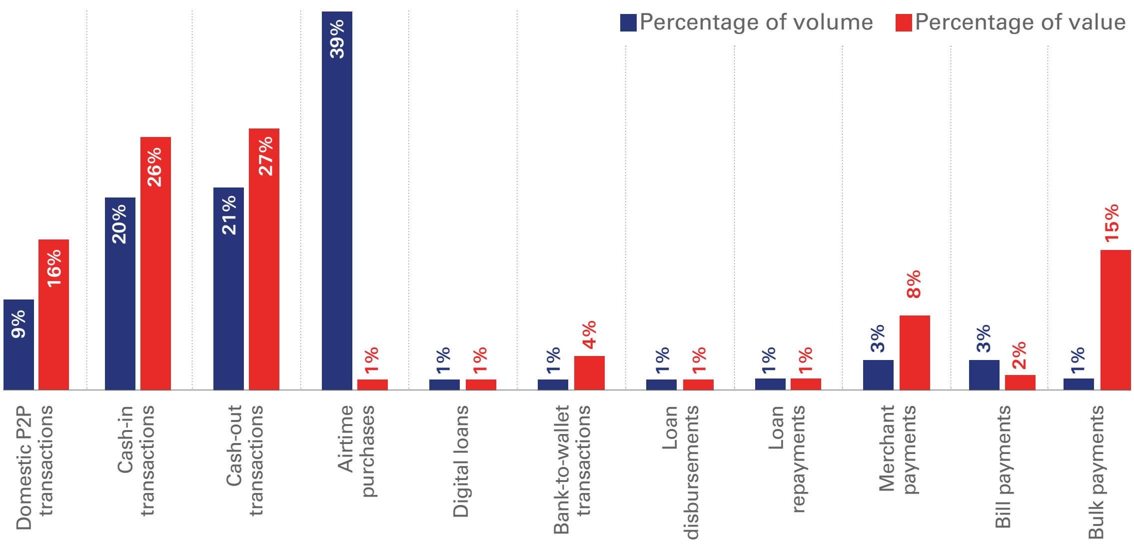
* "The word *Chilimba* means strengthening. *Chilimba* is an informal rotating savings scheme—a group of individuals come[s] together at regular intervals to pool an agreed upon amount of money, which is then paid out (i.e., the full sum of money pooled) to *Chilimba* members in turn. In Zambia, 12.4% of adults use *Chilimba* services—the main driver of usage being access to lump sum of money." *Source*: Financial Sector Deepening Zambia, 'FinScope 2015: Top Line Findings,' p. 30 (Lusaka, 2016).

Transactions

Figure VIII compares the share in the volume and value of transactions by product type. It highlights that, even though airtime purchases represented 39% of total transaction volume, they accounted for only 1% of total transaction value. Bulk payments had the highest volume-to-value ratio, indicating a significant opportunity for those providers that focus on bulk payments. Bulk payments, domestic P2P transactions, cash-in transactions and cash-out transactions contributed the highest share of transaction value at 15%, 16%, 26% and 27% respectively.

Figure VIII

Share in volume and value of transactions by product type (December 2018)



Cash-in and cash-out transactions: Cash-in transactions contributed 20% of total transaction volume and 26% of total transaction value in December 2018. Cash-out transactions contributed 21% and 27% of transaction volume and value respectively. The fact that the value of cash-in transactions is almost equal to the value of cash-out transactions could indicate that a significant share of customers use their accounts to store value (deposit) or as a safe place to keep their money before they cash it out again.

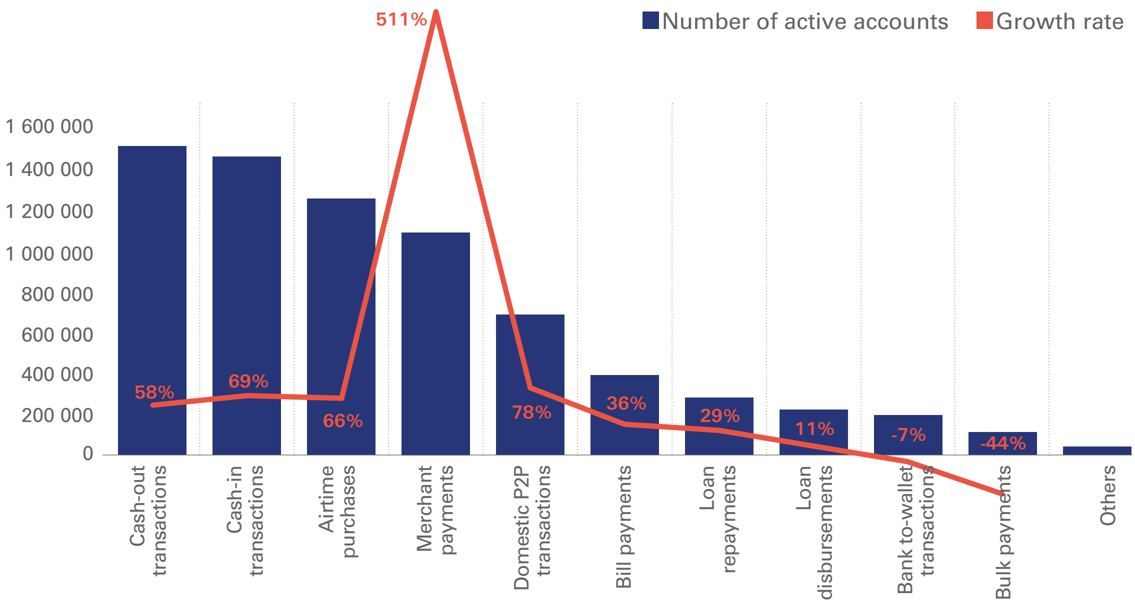
Airtime purchases: Airtime purchases contributed more than 39% of total transaction volume, though that translated to just 1% of total transaction value. Similar to 2017, the continued growth of customers purchasing airtime using their mobile money wallets can be attributed to incentive schemes from providers that give extra talk time for airtime purchased through mobile money. Purchase of airtime through mobile money provides MNOs with key benefits like reduced cost of airtime distribution and printing of airtime scratch cards and increased 'stickiness' of users to make them more frequent users. It is for these reasons that MNOs offer promotions to drive airtime purchases through mobile money.

Domestic P2P transactions, bulk payments and merchant payments: With their share of total transaction value at 16%, 15% and 8% respectively, domestic P2P transactions, (one-to-many) bulk payments and merchant payments were the three other use cases that had noticeable contributions to total transaction value through DFS platforms in 2018. This result could indicate that second-generation products, while still nascent in the market, are beginning to take hold. More consumer education, acquisition of merchants and improved holistic business-to-business offerings (e.g., bundled offerings with airtime purchases, phones, data and loans/financing) for bulk payment partners is likely to increase usage of these services in the future.

Figure IX shows that merchant payments (511%), P2P transactions (78%), cash-in transactions (69%), airtime purchases (66%) and cash-out transactions (58%) recorded the highest growth rates of active users from December 2017 to December 2018. In December 2018, there were almost as many customers conducting cash-out transactions as there were conducting cash-in transactions. While it is not possible to confirm that they were exactly the same customers, it could indicate that a significant portion of the customer base conducts cash-in and cash-out transactions and hence uses DFS accounts primarily as a safe place to store money. Further investigation by DFS providers into the needs of these particular customers could unlock new use cases that could potentially drive higher transaction volumes.

Figure IX

Percentage of growth and total number of active accounts by product type (December 2018)



Spotlight 2

Smart mass payments

In Zambia, bulk payments are currently offered by 50% of the DFS providers that are categorized as banks, MNOs and third-party providers. A 2019 UNCDF white paper identified opportunities for bulk payments based on the following segments:

- **Market opportunity #1: Employer-sector focus** – To capitalize on this opportunity, the market is broken down by labour-force type. The payment of salaries and wages presents the single largest bulk payment opportunity.

- **Market opportunity #2: Transaction-value focus** – Based on analysis of existing bulk payment clients, operational payments represent 82% of bulk payments that can be digitized.

- **Market opportunity #3: Geographical focus** – Although mobile penetration is high in urban provinces of Zambia, low mobile penetration in rural areas presents a barrier to uptake. Yet it also presents an opportunity: in other markets, bulk payments and mobile-enabled payments (e.g., bill payments and collections) have provided the foundation for the business case to increase access to talk time, text and other services in rural areas.

- **Market opportunity #4: Government payments** – Based on a diagnostic report of government payments released by UNCDF and Financial Sector Deepening Zambia in collaboration with the Ministry of Finance, 35% of the 3.5 million transactions made to and by the Government every month are digital and represent 75% of the total value transacted.* The shift of government payments from cash to digital means offers a significant opportunity for bulk payments in Zambia.

Text extracted from the following: Nandini Harihareswara and others, 'Smart Mass Payments: Bulk Payments Made Easy' (n.p., UNCDF, 2019).

* Nandini Harihareswara and others, 'Government Payments Flow Diagnostic – Zambia' (n.p., UNCDF, March 2017).

Agents

The 2016 and 2017 *State of the Digital Financial Services Market in Zambia* reports highlighted the need for providers to focus their efforts on improving agent network management.[4] In both 2016 and 2017, registered agents grew at a much faster rate than active agents did. However, in 2018, the growth rate of active agents was higher than that of registered agents. Specifically, as figure X(a) reveals, the number of registered agents rose by just 8% from 62,857 to 67,747 while the number of active agents rose by 104% from 22,965 to 46,781 between December 2017 and December 2018. These results correspond to an increase in the number of active agents per 100,000 adults from 243 to 478. These findings indicate that providers are focusing more on their existing agents and providing strong incentives for them to become active agents.

The **agent activity rate** is the percentage of registered agents who are active (i.e., have conducted at least one transaction in the past 30 days). As figure X(b) indicates, the agent activity rate overall increased from 37% in December 2017 to 69% in December 2018. This growth in agent activity could be attributed to providers dedicating over 72% of their staff to agent network management. More distribution incentives and support to agents could see agent activity rates going even higher. Figure X(b) also compares the agent activity rate by provider type between December 2017 and December 2018. The agent activity rates of banks and third-party providers declined while that of MNOs grew from 22% to 69%.

Figure X(a)
Number of registered and active agents (December 2017 and December 2018)

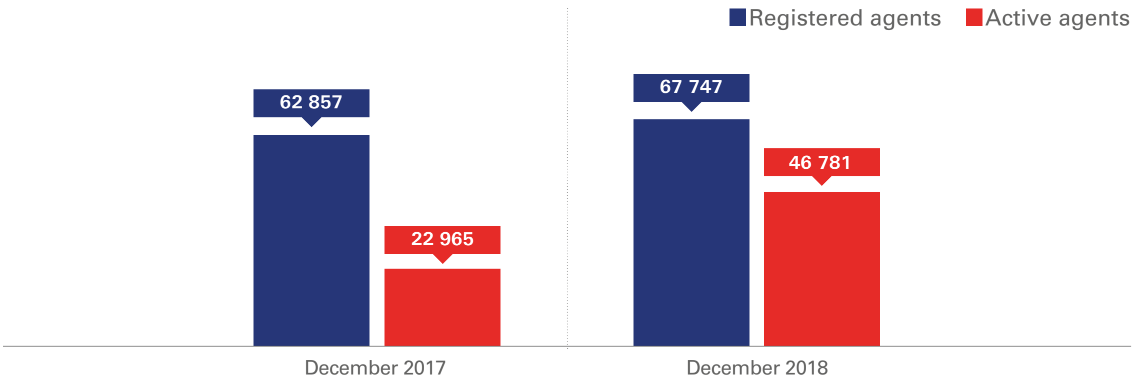
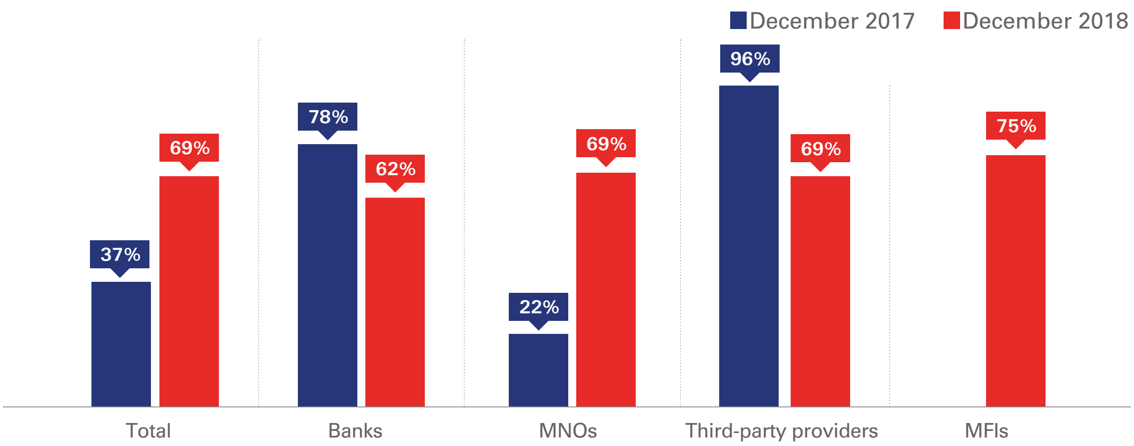


Figure X(b)
Percentage of active agents by provider type (December 2017 and December 2018)



[4] See the following links to find the 2016 and 2017 reports: https://www.uncdf.org/article/2776/state-digital-financial-services-market-zambia-2016 https://www.uncdf.org/article/3899/state-of-the-digital-financial-services-market-in-zambia-2017

The decrease in the activity levels of agents from banks and third-party providers could be caused by several factors, including these:

- **Agents having low profitability:** The 2017 *State of the Digital Financial Services Market* report indicated that low profit margins for agents of third-party providers could lead to agent churn to other providers that offered higher commissions.
- **Agents serving multiple providers:** With more providers in the market, agents' resources (float in particular) are shared across multiple providers. This situation could lead to a focus by agents on providers with higher transaction volumes (resulting in better commissions) and with better agent network management strategies.

The increase in the activity level of agents from MNOs could be attributed to some of the following factors:

- **More staff focusing on agent network management:** MNOs reported an increase in the number of staff members focused on agent network management, which could have improved agent onboarding, training and management.
- **Larger active customer base:** With a larger active customer base, it is almost inevitable that agent networks would grow to support the needs of those customers. In 2018, MNOs had an 88% market share of active customers, which could have helped drive agent activity.
- **Improved profitability of agents (stronger agent value proposition):** With improved profitability of agents, due to more active customers, the active agent base is likely to grow as the opportunities that exist from serving as a mobile money agent for MNOs spread by word of mouth.

Figures XI(a) and XI(b) indicate that, in December 2018, MNO agents had the greatest share of transaction volume (62%) and transaction value (80%). This growth could indicate that the agent network management strategies implemented by MNOs have started to yield results. While third-party provider agents accounted for 6% of transaction value, they contributed 35% of transaction volume in December 2018. As highlighted in the 2017 *State of the Digital Financial Services Market*, the high customer traffic at third-party agent locations presents an opportunity for conversion of OTC customers to wallet users.

Figure XI(a)

Share of transaction volume by provider type (December 2018)

Figure XI(b)

Share of transaction value by provider type (December 2018)

Figure XII(a) shows the average volume and value transacted per agent in various months between December 2017 and December 2018. In December 2018, each active agent conducted an average of 591 transactions (20 per day, in a seven-day workweek) for an average aggregated value of ZMW 124,689 (US$10,417).[5] While there was a 20% decrease in transaction volume per agent per month, there was a 71% increase in transaction value per agent per month. This finding can be attributed to changes in commission structures of MNOs, namely to pay commission as a percentage of the transaction value. Figure XII(b) reveals that MNOs dominated the market in terms of transaction value, which could be attributed to the growth of active users and the greater usage of existing services.

Figure XII(a)
Average transaction volume and value (ZMW) per agent (December 2017–December 2018)

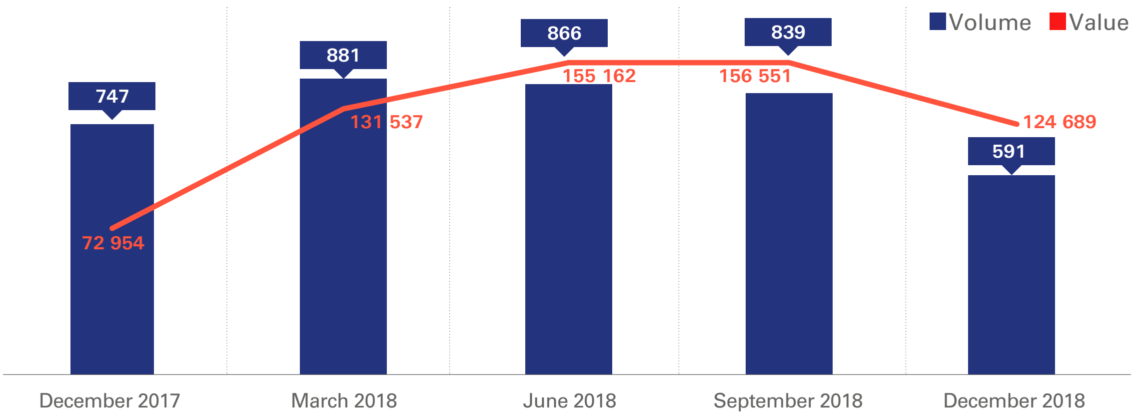
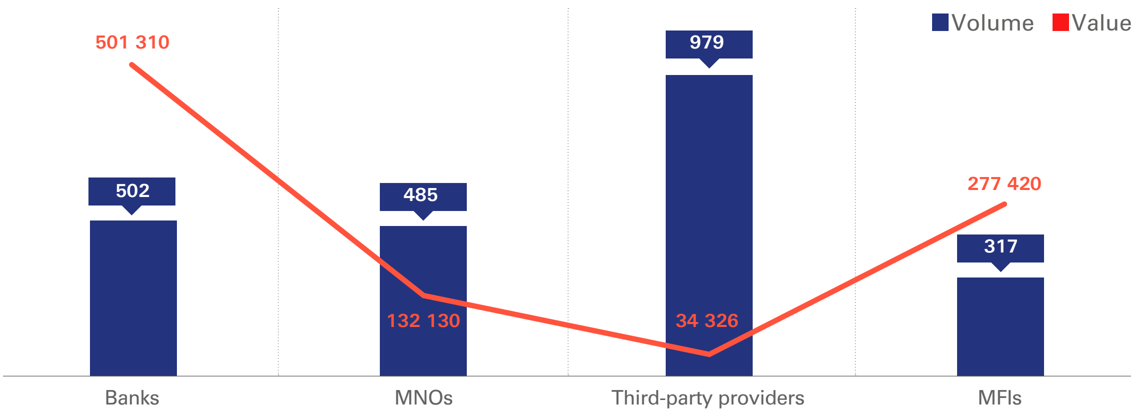


Figure XII(b)
Average transaction volume and value (ZMW) per agent by provider type (December 2018)



Agent commissions: The increase in the value of transactions conducted with agents discussed above resulted in an increase in the total value of commissions paid to agents. As figure XIII(a) reveals, from December 2017 to December 2018, the total monthly value of commissions paid to agents rose by 205%, from ZMW 15.3 million (US$1.3 million) to ZMW 46.5 million (US$3.9 million).

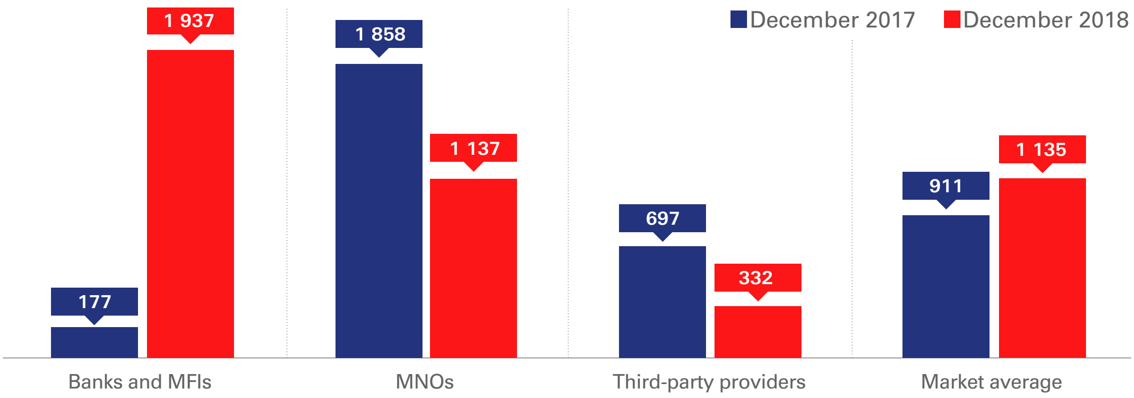
While the total value of monthly agent commissions increased, figure XIII(b) reveals a decrease in average monthly commissions earned per agent of MNOs and third-party providers (only the average monthly commissions of bank/MFI agents were reported to have improved in comparison to

[5] This report refers to the Zambian kwacha as ZMW based on guidance from the Bank of Zambia, the country's central bank, after a currency adjustment.
Conversion rate: US$1 = ZMW11.97. *Source*: https://treasury.un.org/operationalrates/OperationalRates.php#Z, 1 December 2018. *Note*: This rate is used throughout this report whenever United States dollar equivalents are provided for Zambian kwacha.

December 2017). This finding could be attributed to a decline in the active customer to active agent ratio from 101:1 in 2017 to 93:1 in December 2018. It is important that providers 'grow' active customers in tandem with active agents to ensure that the profitability of agents is not significantly affected.

Figure XIII(a)
Total value (ZMW) of monthly agent commissions (December 2017 and December 2018)

Figure XIII(b)
Average monthly commissions (ZMW) per agent by provider type (December 2017 and December 2018)



Providers' views on performance and challenges

The survey included qualitative questions on the performance of the DFS providers. The following key insights were gleaned from their responses:

- Of those providers surveyed, 85% reported that DFS represent a commercially sustainable business. Commercial viability was reported to have improved from December 2017 to December 2018 by 69% of the respondents.
- The average number of employees working in DFS increased by 16% from December 2017 to December 2018. Two thirds of these employees were focused on agent distribution.
- Of respondents, 38% reported that they track sex-disaggregated data, with women comprising 37% of the customer base in December 2018—up from 33% in December 2017.

DFS providers still face several challenges as they attempt to reach scale and sustainability. The most commonly reported challenges facing DFS providers were these:

- **Customer dormancy:** While customer dormancy decreased, it is still quite high and represents a missed opportunity to capture an existing group of customers who have already registered for the product. Providers said that the high level of dormancy can be attributed to several factors, including the following:
    - Low literacy of the target populations.
    - Low product awareness.
    - Low levels of trust in DFS.
- **Agent network management, particularly liquidity management:** Liquidity management remains the biggest barrier to the expansion of agent networks into rural areas. Providers are exploring partnerships that can address the liquidity challenges, and they are growing agent networks at a rate similar to customers, ensuring sufficient service to customers and at the same time sufficient agent profitability/sustainability.
- **Development of viable business models to support expansion into rural areas:** Providers reported challenges in developing viable business models, including strategic partnerships, to expand services into rural areas.
- **Data analysis, reporting and usage for decision-making:** Providers indicated a limited internal capacity to support sufficient data analysis and reporting. Inadequate use of data could limit the ability of providers to test improved pricing, innovative products and better product marketing strategies as well as to review commission structures to improve profitability.

The survey also sought to identify the key areas in which the providers wish to engage with the regulators. The four key areas of engagement the providers mentioned were the following:

- **Customer identification requirements and transaction limits:** Of respondents, 40% highlighted that the transaction limits for customer wallets are still low and know-your-customer requirements are still stringent.
- **Interest earned on pooled funds:** More than 40% of the providers indicated that they would like to engage with the regulators on the interest earned on pooled funds.
- **Interoperability guidance:** The providers said that more efforts are needed for the national switch and interoperability.
- **Framework to support innovation:** Fintechs continued to highlight a need for the regulators to develop a clear framework under which innovations can be tested and eventually approved.

What changed and what stayed the same

The growth in the Zambian DFS industry in 2018 was a result of some changes implemented by the providers. These changes included but were not limited to the following:

- **Rise in partnerships:** The industry saw a rise in partnerships between financial service providers as well as partnerships between financial providers and non-financial providers. Examples included partnerships between MNOs and banks to facilitate bank-to-wallet transactions and partnerships between MNOs and pay-as-you-go energy providers. These partnerships created new use cases for customers, which in turn had a positive impact on usage.
- **Growth of second-generation products and decline of OTC transactions:** A 2015 Helix Institute of Digital Finance report indicated that Zambia could become an OTC-led market.[6] However, since 2016, the Zambian DFS market has shown a steady decline in OTC usage, an increase in wallet usage and, most recently, the growth of second-generation products.
- **Improved customer education efforts:** Improved direct-marketing initiatives focused on customer onboarding and education led to growth in the registered and active customer bases.
- **Growth of fintech/innovation:** An emerging fintech/innovation industry continued to show strong growth, which resulted in greater demand by fintechs for engagement with more established DFS providers as well as with regulators in a bid to collectively build an enabling regulatory environment to foster innovation.
- **Increased agent earnings resulting in agent network growth:** Agent earnings increased from US$72 in 2015[7] to US$90 in December 2018. This growth in earnings could be why active agents grew at a much higher rate than registered agents did.

Despite these developments and growth trends, providers still need to identify ways to address some of the barriers that have held back additional DFS industry growth. The following barriers remain for the industry to tackle:

- **Lack of customer involvement in the product development process:** The product development process still requires more customer engagement. This need is reflected in the high dormancy rates across the various providers as they develop products that do not fully address the needs and wants of the intended customers.
- **Slow adoption of bank-provided DFS:** The less aggressive distribution model currently utilized by banks has led to slower adoption of those DFS they provide. There is still a need for banks to explore partnerships that will extend the reach of their products to the 'last mile.'
- **Continued liquidity management issues in rural areas:** Even though agent networks have expanded, liquidity remains a barrier, particularly in rural areas. In 2015, agents 'bounced' an average of two customers per day;[8] however, by 2017, Zambian DFS providers bounced an average of nine customers per day due to lack of adequate float.[9]
- **Inadequate use of data for decision-making:** There is still an inadequate use of data to make decisions and inform go-to-market strategies. Data analysis would provide useful insights into customer segmentation, pricing and commission strategies as well as usage trends/patterns that could improve how providers offer their services.

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[6] Akhand Tiwari and Irene Wagaki, 'Agent Network Accelerator Survey: Zambia Country Report 2015,' presentation from January 2016, slide 15. Available from http://www.helix-institute.com/data-and-insights/agent-network-accelerator-survey-zambia-country-report-2015

[7] Ibid, slide 19.

[8] Ibid, slide 24.

[9] Uloma Ogba, 'Easing Access to Liquidity for Mobile Money Agents,' 11 December 2017. Available from https://www.uncdf.org/article/2892/easing-access-to-liquidity-for-mobile-money-agents

3

OPPORTUNITIES AND THE WAY FORWARD

As providers have developed the DFS market in Zambia, the growth has been consistent from 2016 to 2018. Moving ahead, providers will need to develop innovative solutions to consolidate usage among various customer profiles. The following recommendations address providers directly, with ideas to take advantage of opportunities for DFS and to advance DFS even further in the country:

- **Providers should play to their strengths:** Each provider has been following different go-to-market strategies, and it may be time for each provider to take an internal look and to analyse its own performance and strengths. Those can then be leveraged to increase (a) customer reach and (b) profitability for the institution. That may not be launching a new agent network; it might be focusing more on innovative products.
- **Providers must pick the right distribution network structure:** Adoption and usage in rural areas can be strengthened by setting up the right distribution network structure. For instance, introducing incentives for agent network management and developing key partnerships can improve liquidity in critical areas.
- **Providers ought to open their doors:** Providers should make it easier for other fintechs to use their 'rails.' That can be either through an API or a standard form that the fintechs have to fill out to give the provider the data for a sufficient business case to partner. Fintechs could develop unique customer solutions that could drive usage among niche segments of the market that the providers might not focus on directly.
- **Providers must invest in data as a foundation for profits:** It is important to invest in internal data analysis capacity, specifically data for decision-making, customer trends, incentives, commissions and price testing. Leveraging data, coupled with qualitative insights from customer callbacks, could be the key to unlocking the dormant customer base.
- **Providers need to prepare internally and externally for an increased risk of fraud:** With the growth in DFS usage, providers and their customers are likely to face an increased risk of fraudsters. Well-communicated recourse protocols are critical for providers to share with frontline workers. In addition, it is important for providers and regulators to collaborate more in this area.

Acknowledgements

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Disclaimer

This report is based on data collected through the 2018 Annual Provider Survey of Digital Financial Services and internal analysis by the UNCDF-MM4P team.

Survey data

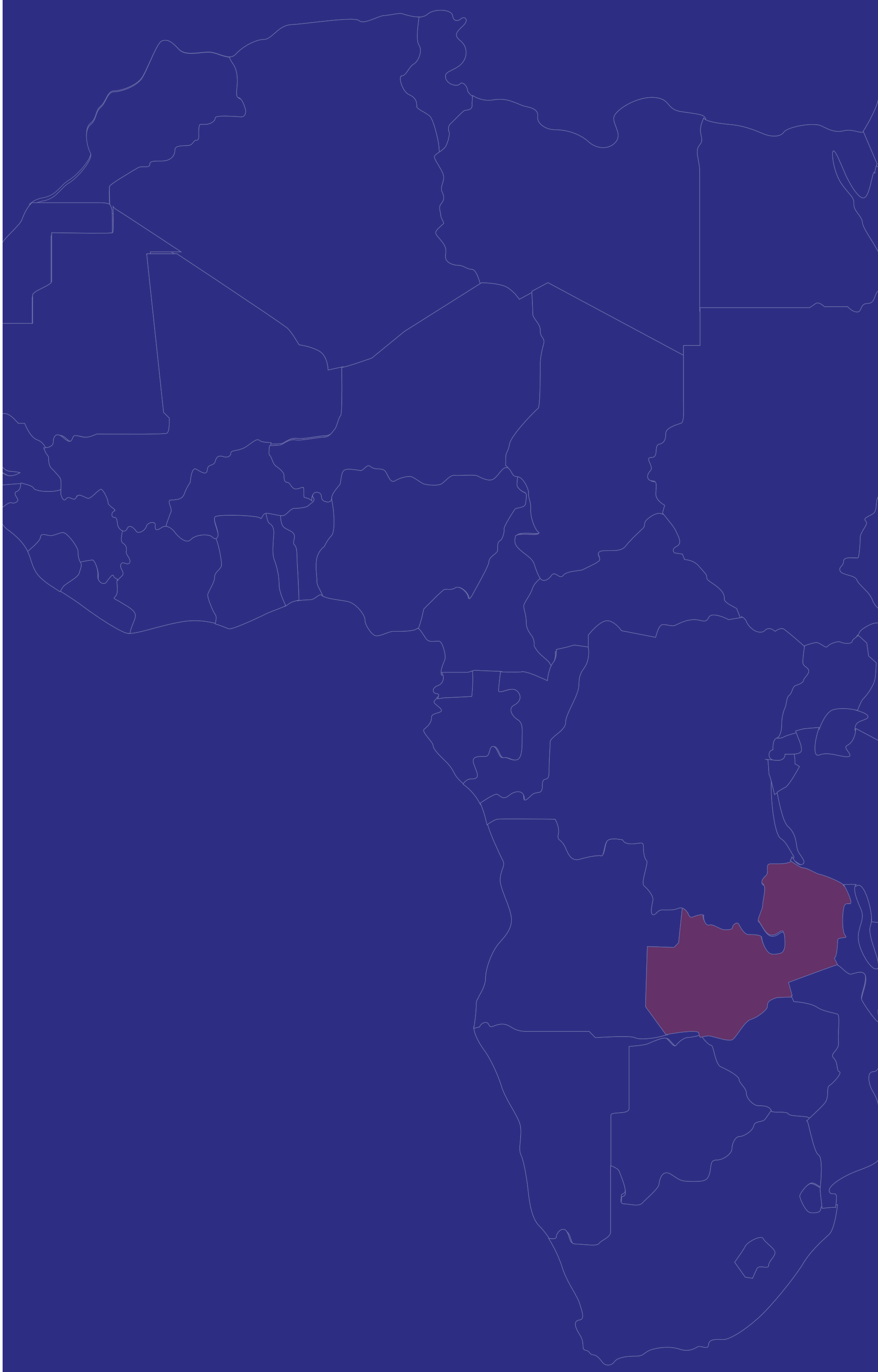
Survey data are self-reported and have not been verified independently by the UNCDF-MM4P team; however, data are thoroughly checked and crosschecked against other benchmarks and data sources.

Confidentiality

Data published in this report have been presented in a way to protect the confidentiality of each provider. Any specific references or highlights in this report have only been presented with the approval of the provider to disclose key performance information.

Limitations

All data in this report are self-reported. In some cases, providers submitted partial data. Most of the providers that participated in the survey did not have data disaggregated by gender or rural/urban split, which limited the level of analysis that could be completed with the data.



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