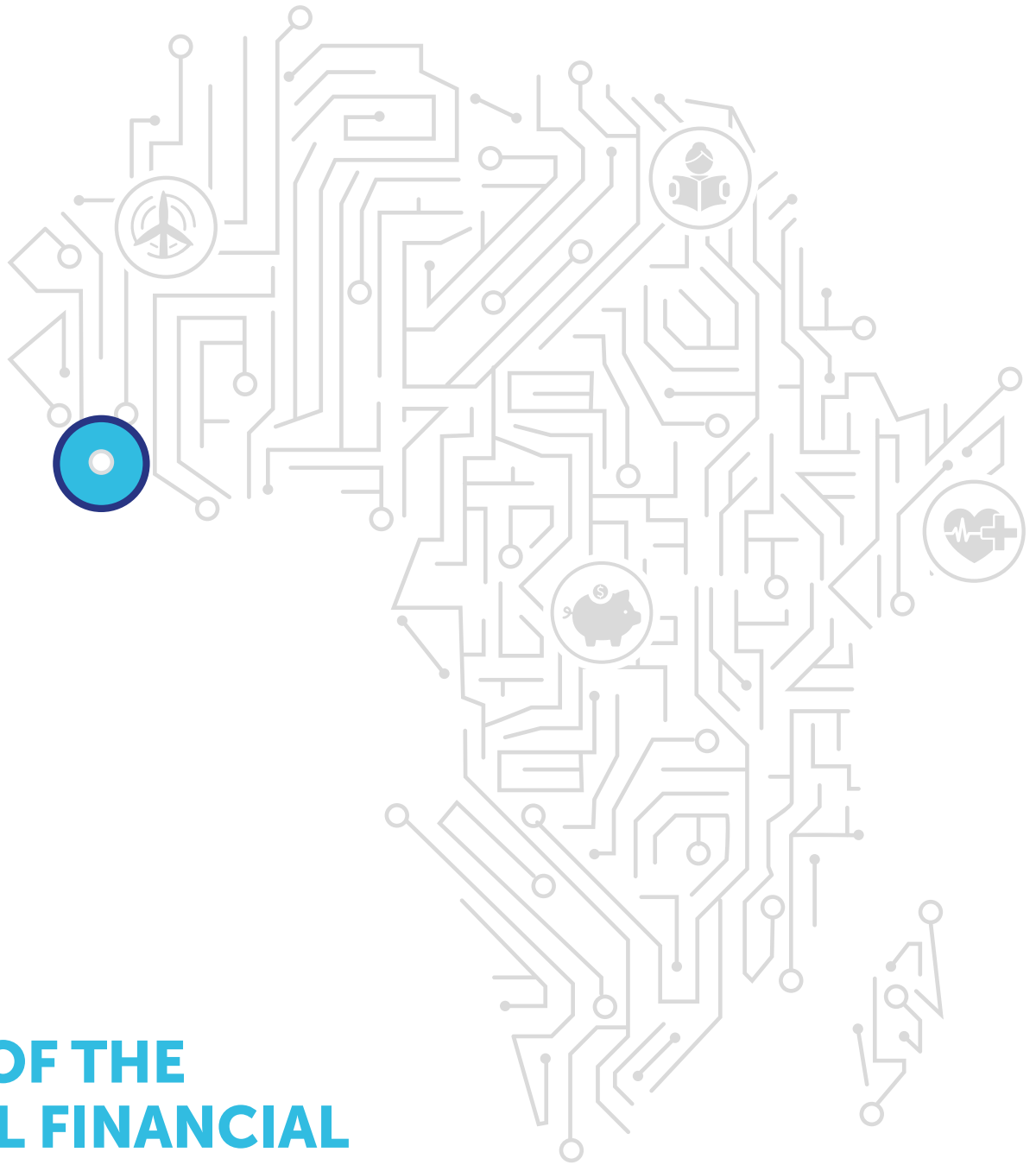




Unlocking Public and Private  
Finance for the Poor



## STATE OF THE DIGITAL FINANCIAL SERVICES MARKET IN

# SIERRA LEONE, 2018

| Results from the UNCDF  
Annual Provider Survey





# UNCDF



## The Bank of Sierra Leone

The Bank of Sierra Leone is the central bank of the Republic of Sierra Leone and is charged with developing the country's financial sector. It led the development of the *National Strategy for Financial Inclusion (2017–2020)* and provides leadership and coordination support to the Digital Financial Services Working Group.



## 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 'Leaving no one behind in the digital era' strategy

The UNCDF strategy 'Leaving no one behind in the digital era' is based on over a decade of experience in digital finance in Africa, Asia and the Pacific. UNCDF recognizes that reaching the full potential of digital financial inclusion in support of the SDGs aligns with the vision of promoting digital economies that leave no one behind. The vision of UNCDF is to empower millions of people by 2024 to use services daily that leverage innovation and technology and contribute to the SDGs. UNCDF will apply a market development approach and continuously seek to address underlying market dysfunctions.

In Sierra Leone, UNCDF and the BetterThan Cash Alliance have been providing technical assistance and investment grants for digital services since December 2014, when asked to implement the Payments Programme for Ebola Response Workers with the National Ebola Response Centre. The efforts successfully demonstrated the usage of digital payments, which led to an overall savings of US\$10 million for the Government of Sierra Leone. Since June 2017, UNCDF has supported the Regulatory Sandbox Pilot Programme, which is currently supervised by the Bank of Sierra Leone and is the first of its kind in the region.



## The UNCDF project team

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



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### Acronyms

<b>BSL</b>	Bank of Sierra Leone
<b>DFS</b>	digital financial service(s)
<b>Le</b>	Leones*
<b>MNO</b>	mobile network operator
<b>UNCDF</b>	UN Capital Development Fund
<b>US\$</b>	United States dollars*

\*Conversion rate: US\$1 = Le 8711. Source: <https://treasury.un.org/operationalrates/OperationalRates.php>, 1 May 2019. Note: This rate is used wherever United States dollar (US\$) equivalents are provided for Sierra Leone Leones (Le).

## Glossary<sup>a</sup>

<b>Active customer account</b>	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.
<b>Agent, Agent outlet, Active agent outlet</b>	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.
<b>Airtime purchases</b>	Airtime purchases (also known as top-ups) are airtime transactions funded from customer digital finance accounts.
<b>Automated (or Automatic) teller machine (ATM)</b>	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.” <sup>b</sup> ATMs may be operated either offline or online with real-time access to an authorization database.
<b>Bank account to mobile money account transfers</b>	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.”
<b>Bill payments</b>	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.” <sup>c</sup>
<b>Bulk payments</b>	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’.
<b>Cash-in transactions</b>	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.”
<b>Cash-out transactions</b>	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.”
<b>(Agent) Commissions</b>	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.
<b>Customer activity rate</b>	Customer activity rate is the share of actively used registered accounts (i.e., at least one transaction conducted in the past 90 days).
<b>Debit card</b>	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.

<sup>a</sup> 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).

<sup>b</sup> 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.

<sup>c</sup> 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)

<b>Digital financial services (DFS)</b>	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.
<b>Financial inclusion</b>	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).
<b>Fintech</b>	This entity is a financial technology company.
<b>First-generation products</b>	These products comprise basic DFS, such as peer-to-peer transfers, airtime purchases, bill (utility) payments, and cash-in and cash-out transactions.
<b>Float</b>	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."
<b>Informal over-the-counter (OTC) transactions</b>	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.
<b>International remittances</b>	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."
<b>Know-you-customer (KYC)</b>	"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."
<b>Liquidity management</b>	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)."
<b>Merchant payments</b>	These transactions are movements of value from a customer to a merchant to pay for goods or services at the point of sale.
<b>Mobile microcredit (also microloans)</b>	Mobile microcredit is a solution that enables mobile money customers to access small amounts of credit instantly via their mobile phone.
<b>Mobile microinsurance</b>	Mobile microinsurance is an option by which insurance premiums are paid from a mobile wallet through a mobile money platform.
<b>Mobile money operator</b>	A mobile money operator is "a company that has a government-issued licence to provide telecommunication services through mobile devices."

**Glossary (continued)**

<b>Over-the-counter transactions (OTC)</b>	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.”
<b>Pay-as-you-go</b>	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.
<b>Peer-to-peer transfers</b>	These transactions (also known as person-to-person transfers) originate from a customer DFS account and terminate in another customer DFS account.
<b>Registered customers</b>	Registered customers are the cumulative number of customers who have registered for a service, regardless of whether they are active.
<b>(Agent) Revenue</b>	Revenue comprises the total commissions earned by agents for all the transactions they conduct through their agent accounts.
<b>Second-generation products</b>	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.
<b>Third-party operators</b>	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.
<b>Transaction</b>	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

Sierra Leone made significant gains in the area of digital financial services (DFS) in 2018. The number of registered DFS customers increased by more than one million, from 4,214,866 in 2017 to 5,438,888 in 2018. Additional growth in DFS adoption and usage is expected in 2019 as providers consider and implement changes in strategy.

Despite this growth, primarily driven by customers in major towns and cities, there is still a need to improve access to and usage of DFS among new and existing customers, including previously excluded segments of the population such as rural inhabitants, women and youth. For instance, only 8% of women and 15% of men have a bank account in Sierra Leone, according to a survey of smallholders conducted by the UN Capital Development Fund (UNCDF) in partnership with the Ministry of Agriculture and Forestry and funded by the European Union through the Boosting Agriculture and Food Security project.<sup>1</sup>

Informal financial services remain the go-to solution for most smallholders in Sierra Leone, with under-the-matress savings at the top of the list. While banks are considered a safe investment, saving at home is more convenient as money can be quickly accessed in an emergency. Among women, 62% of those who said they did not have a bank account considered minimum-deposit requirements to be too high.<sup>2</sup> A few women surveyed even reported having no knowledge of banks and the services offered there.

Traditional financial services are still barely accessible in remote rural areas of Sierra Leone—where most smallholders operate—so they do not seem to be the most appropriate modality to make finance available to farmers. Providers could leverage DFS to close the access gap since they offer the advantages of informal services without the limitations and the operation costs of formal institutions. There is an opportunity for DFS providers to offer innovative solutions that better meet customer needs and drive regular usage of affordable and accessible financial services.

UNCDF developed an Annual Provider Survey that aggregates DFS industry data in the country over a year. This report, which is based on the survey results, provides industry participants with a comprehensive view of the state of the DFS market in Sierra Leone. It aims to deliver relevant

information to DFS stakeholders so that they can make informed decisions regarding the growth of the industry.

The 2017 Annual Provider Survey inspired many industry stakeholders to work even harder to drive financial inclusion in the country and make the DFS market more competitive and responsive to Sierra Leonean customers.<sup>3</sup> We at UNCDF hope to do the same with the 2018 report. Under the new strategy of ‘Leaving no one behind in the digital era,’ we will continue to work with various players and 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. We will also focus on building inclusive digital economies by empowering youth, women, migrants and micro-, small- and medium-sized enterprises—customer segments that are often marginalized and denied digital innovations.

We are very encouraged by the results thus far achieved and remain committed to providing support to our Sierra Leonean partners in order to enhance stakeholders’ understanding of, interest in, and willingness and ability to develop, improve and expand DFS in the country.

We remain inspired by the leadership of the Bank of Sierra Leone and are hopeful that all the work started in 2017 and continued in 2018 will continue to bear fruit in the years to come.



**Wycliffe Ngwabe**

UNCDF Digital Financial Services  
Expert

<sup>1</sup> UNCDF, ‘Boosting Agriculture and Food Security: DFS Ecosystem Assessment for Smallholder Farmers in Sierra Leone,’ Launch presentation, 16 August 2018. Available from <https://www.uncdf.org/article/3879/dfs-ecosystem-assessment-for-smallholder-farmers-in-sierra-leone>

<sup>2</sup> Ibid.

<sup>3</sup> Follow the link to access the 2017 report: <https://www.uncdf.org/article/4292/state-of-the-digital-financial-services-market-in-sierra-leone-2017>



# 1

## INTRODUCTION

For the second year in a row, the Bank of Sierra Leone (BSL) and UNCDF have partnered to collect data on the Sierra Leonean DFS market. This Annual Provider Survey is vital to providing industry participants with a comprehensive view of the state of the DFS market in the country. Encompassing DFS-related data on customer adoption, usage and trends, the Survey aims to equip BSL and other regulatory bodies with the information and expertise to better monitor, manage and guide the various DFS providers in the country, while simultaneously offering DFS providers valuable insights into the performance of their products and services relative to the market. In turn, it shall help the country achieve the goals outlined in the *National Strategy for Financial Inclusion (2017–2020)*.



## Methodology

This report provides key insights into the state of the DFS market in Sierra Leone, drawing on data collected through the Annual Provider Survey. The survey was developed and conducted by UNCDF in partnership with BSL.

The Annual Provider Survey was shared electronically by BSL with all DFS providers and followed by in-person interviews conducted by one representative from UNCDF and another from BSL. BSL successfully secured the participation of all DFS providers, including nine banks and two mobile network operators (MNOs).

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

- Total number of customers, registered and active (30 and 90 days)
- Total number of unique active customers by service type
- Total volume and value of transactions by service type
- Total number of agents, registered and active (30 days)
- Total volume and value of transactions conducted with agents
- Total value of commissions paid to agents
- Total number of merchants accepting DFS payments, registered and active

Qualitative information was collected on the performance of the institutions interviewed, along with key challenges encountered and level of engagement with the UNCDF Sierra Leone programme.

Institutions were guaranteed that their submissions would remain confidential per 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 were aggregated and anonymized. DFS providers that participated in the Annual Provider Survey receive a benchmarking report that allows them to gauge their performance relative to the rest of the market.

*Note:* Any variations from the 2017 report may be due to changes in the questionnaire and/or methods of aggregation and calculation.



## State of the global digital financial services industry

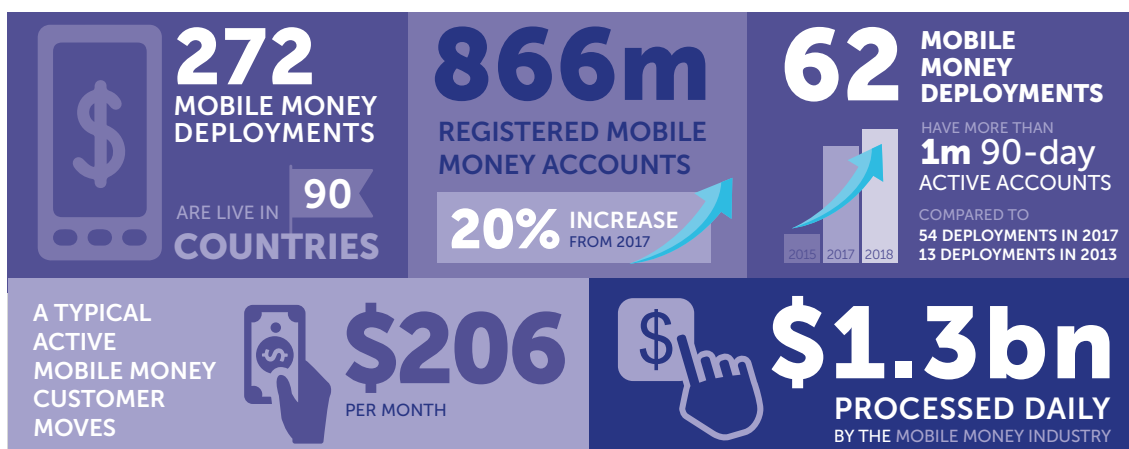
In 2018, after a decade of strong growth, the mobile money industry experienced an evolution that saw it serving as a platform not only for financial inclusion but also for social inclusion. The latest *State of the Industry Report on Mobile Money* by the GSM Association described it thus: “Mobile money 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.”<sup>4</sup> The report also identified the following trends, which shaped the development of mobile money around the world in 2018:<sup>5</sup>

- 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 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.

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.

<sup>4</sup> Francesco Pasti and others, *State of the Industry Report on Mobile Money 2018* (London, GSM Association, 2019), p. 5.

<sup>5</sup> Ibid, pp. 4 and 5.



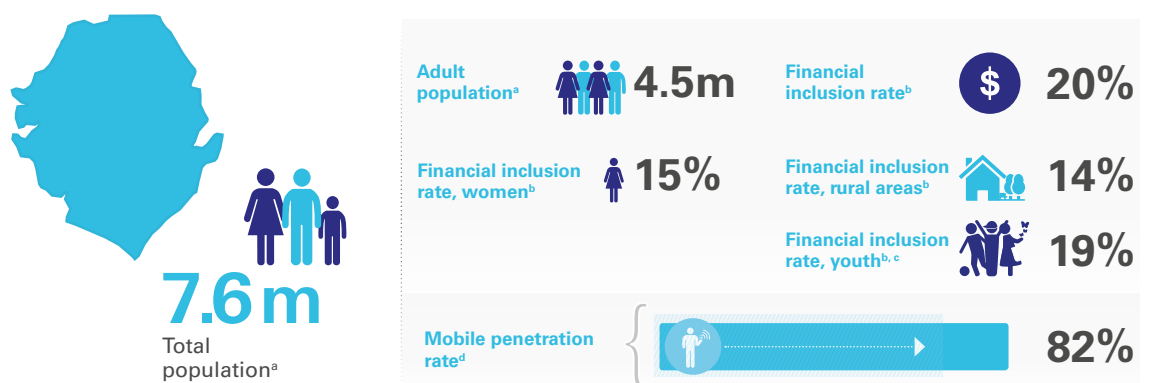
## State of digital financial services in Sierra Leone at a glance

The latest data on Sierra Leone put the financial inclusion rate at 20% in 2017, which placed the DFS market at an early stage of development.<sup>6</sup> However, the country evolved quite rapidly since 2017. For example, the number of adults actively using a DFS account increased from 404,733 (9% of adults) in December 2017 to 647,188 (14% of adults) at the end of December 2018. While this news was positive, a more detailed analysis revealed a contrasting picture: while the number of registered DFS accounts grew by 81% in 2017, the number of active customers only grew by 39% that year.<sup>7</sup> These figures highlighted one of the major challenges that providers in Sierra Leone had to face in 2018: activating customers and increasing usage of a wider range of financial services.

The year 2018 was about testing different business models and partnership types as well as leveraging technologies to help shift the economy from cash-based transactions to DFS-driven ones. Providers mainly focused on marketing and communication strategies to activate registered customers and on launching or redesigning products to retain active customers. Providers are validating their products with their current customers before expanding to new regions and customer profiles. Expansion will be possible once agency banking regulations, which BSL has been developing, are passed by Parliament.

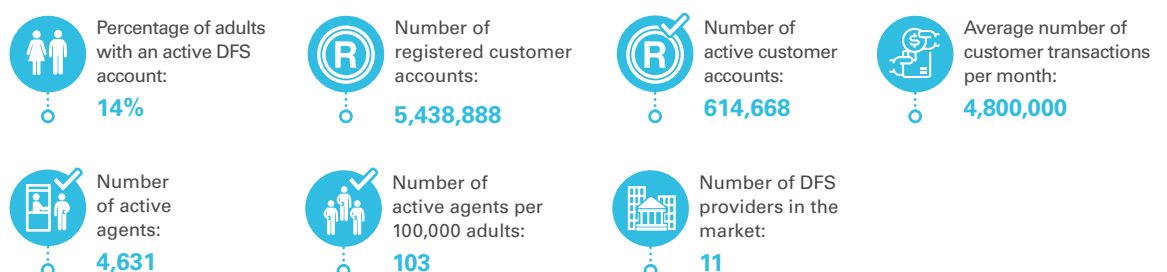
Figures II and III provide an overview of Sierra Leone and the state of its DFS market as of 2018.

**Figure II**  
General statistics about Sierra Leone



<sup>a</sup> UN World Population Prospects, 2019; <sup>b</sup> Global Findex, 2017; <sup>c</sup> The definition of youth by the Global Findex is anyone in the age group of 15–24 years; <sup>d</sup> GSM Association, 2017

**Figure III**  
State of the Sierra Leonean digital financial service market (2018)



<sup>6</sup> Asli Demirgüç-Kunt and others, *The Global Findex Database 2017: Measuring Financial Inclusion and the Fintech Revolution* (Washington DC, World Bank, 2018). doi: 10.1596/978-1-4648-1259-0. Licence: Creative Commons Attribution CC BY 3.0 IGO.

<sup>7</sup> Wycliffe Ngwabe and others, *State of the Digital Financial Services Market in Sierra Leone, 2017* (UNCDF, Freetown, 2019).



2

FINDINGS



## Providers

Rokel Commercial Bank entered the DFS market in 2018, increasing the total number of DFS providers to 11 (nine banks and two MNOs) by December of that year. A microfinance institution has been working to develop DFS, which should be ready to launch in the second semester of 2019. The 11 DFS providers include the following:

- Banks: Access Bank, Ecobank, Guaranty Trust Bank, Keystone Bank, Rokel Commercial Bank, Sierra Leone Commercial Bank, Standard Chartered Bank, United Bank for Africa and Zenith Bank
- MNOs: Africell and Orange Money

While MNOs continued to be the dominant players in the DFS market in 2018, figure IV shows that their market share in terms of active DFS accounts decreased from 79% in December 2017 to 72% in December 2018.

**Figure IV**

Market share of active digital financial service accounts by provider type (December 2017 and December 2018)

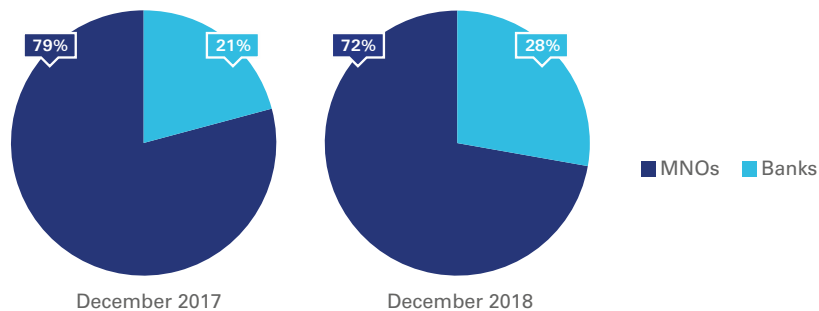


Table 1 lists the DFS offered in the market as of December 2018. While no new service types were launched in 2018, banks did show a more diverse portfolio and now offer the same types of services as banks. Except for merchant payments and international remittances, second-generation services remain nascent in the Sierra Leonean market.

**Table 1**

Types of digital financial services offered by provider type (December 2018)

Banks	MNOs
Person-to-person transfers	Person-to-person transfers
Cash-in transactions	Cash-in transactions
Cash-out transactions	Cash-out transactions
Airtime purchases	Airtime purchases
Bulk payments	Bulk payments
Merchant payments	Merchant payments
Bill payments	Bill payments
Wallet-to-bank account transfers	Wallet-to-bank account transfers
Bank account-to-wallet transfers	Bank account-to-wallet transfers
International remittances	

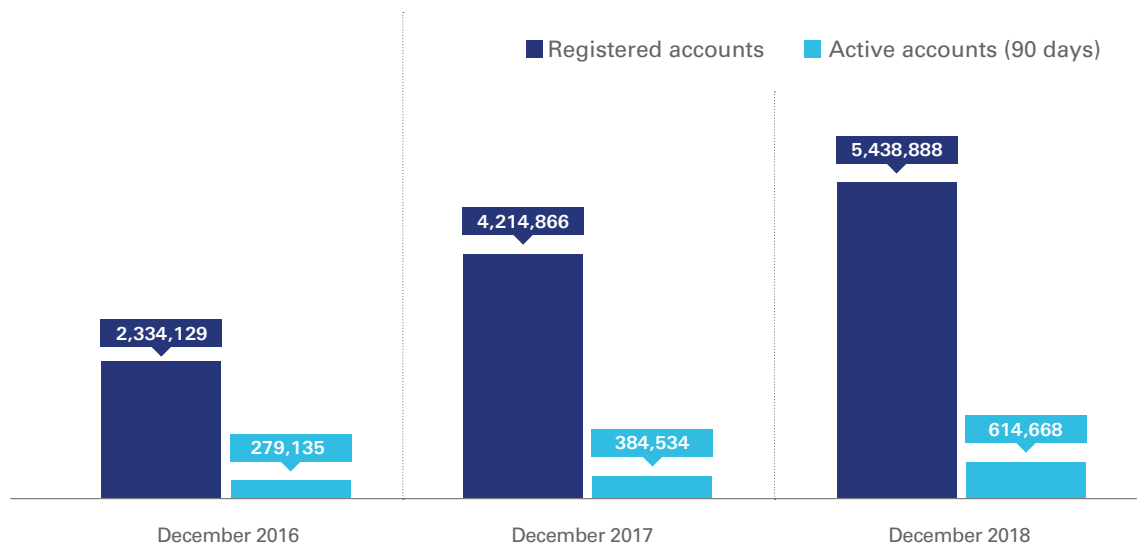


## Customers

**Registered and active DFS accounts:** There were 5,438,888 registered DFS accounts as of December 2018, of which 614,668 were active (see figure V). The number of registered DFS accounts increased by 29% in 2018, compared to an annual growth rate of 81% in 2017. However, the active customer base showed a higher annual growth rate: 60% in 2018, compared to 39% in 2017. These findings may have been a result of a shift in strategy by providers, from a focus on onboarding new customers to expanding their active DFS customer base.

**Figure V**

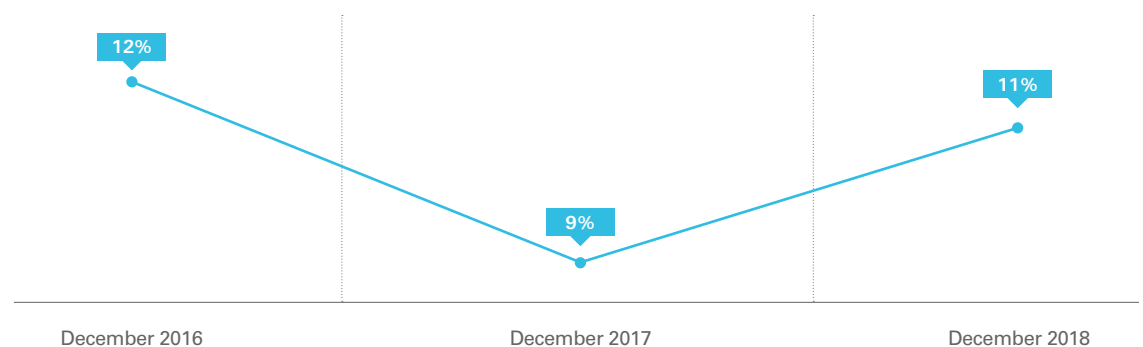
Number of registered and active digital financial service accounts (December 2016, 2017 and 2018)



**Customer activity rate** (the percentage of registered customer accounts that are actively used): Because of the strategy shift just mentioned, the customer activity rate increased from 9% in December 2017 to 11% in December 2018 (see figure VI). It has yet to regain the rate of 12% achieved in December 2016.

**Figure VI**

Customer activity rate for the market (December 2016, 2017 and 2018)



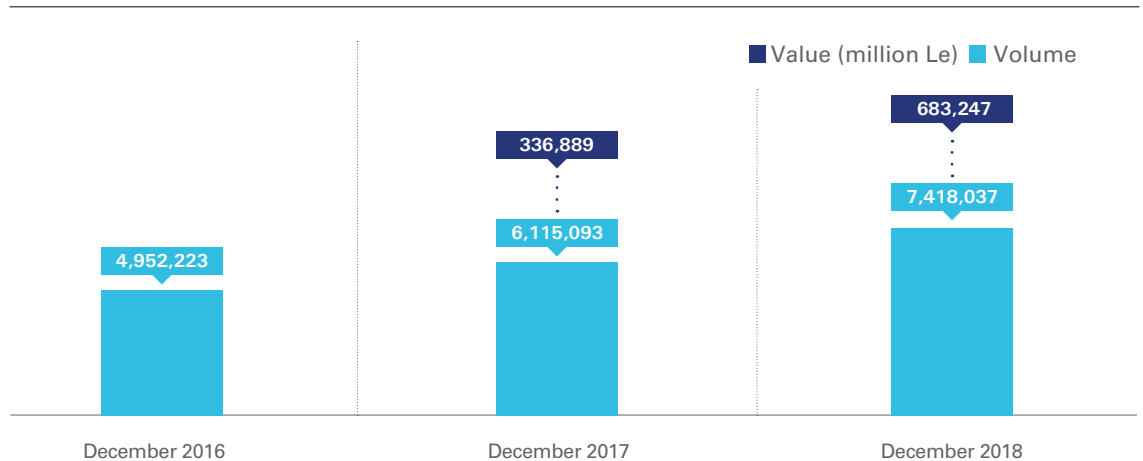
Banks have always shown a higher customer activity rate than MNOs, and the gap has only grown in the last two to three years. While banks were able to achieve a 77% activity rate among their registered customers in December 2018, MNOs were only able to activate 8% of their registered customer base (see figure VII).

**Figure VII**  
Customer activity rate by provider type (December 2016, 2017 and 2018)



**Transactions:** In December 2018, 7.4 million transactions were conducted for a total value of Le 683 billion (US\$78.4 million).<sup>8</sup> Both the volume and value of transactions have increased since 2016, with the latter more than doubling since December 2017 (see figure VIII). Note that the increase in the volume of transactions was not linear throughout 2018. In March 2018, the number of transactions decreased to 4.2 million, which was likely due to an overall slowdown of activities in the country before presidential elections. The average value per transaction increased from Le 55,091 (US\$6) in December 2017 to Le 92,106 (US\$11) in December 2018.

**Figure VIII**  
Volume and value of monthly transactions conducted by customers with a registered digital financial service account (December 2016, 2017 and 2018)



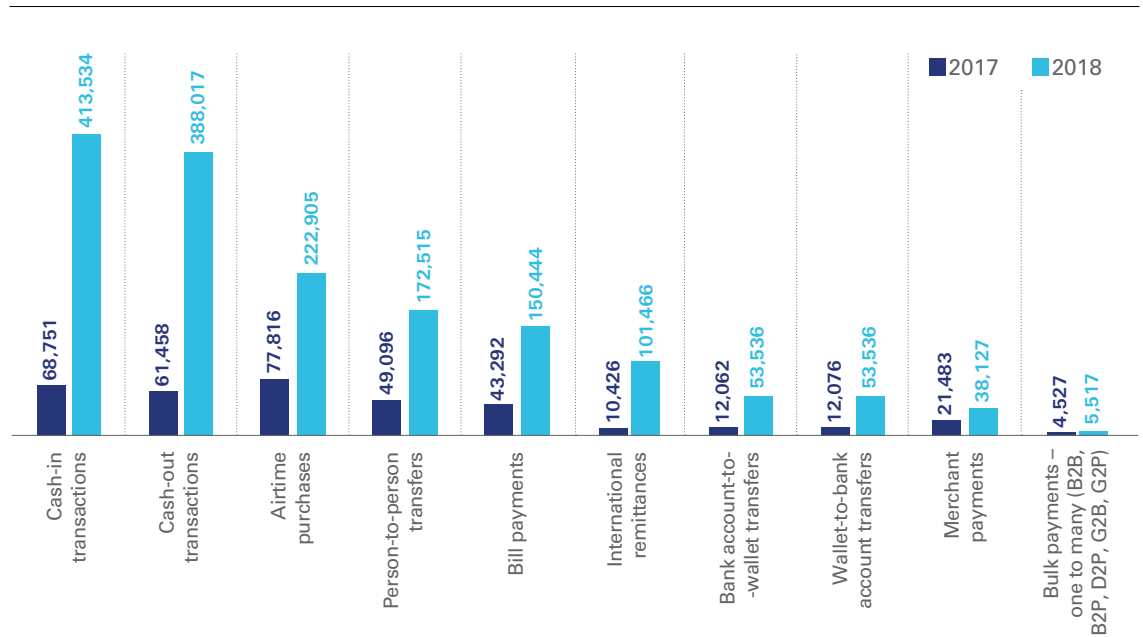
Note: The value of transactions in December 2016 is not provided because those data were not being collected at the time.

**Service types:** No new service types were introduced in Sierra Leone in 2018; however, the total number of unique active users increased for all services. Figure IX presents the number of unique active customers by service type in December 2017 and December 2018.

<sup>8</sup> Conversion rate: US\$1 = Le 8711. Source: <https://treasury.un.org/operationalrates/OperationalRates.php>, 1 May 2019. Note: This rate is used wherever United States dollar (US\$) equivalents are provided for Sierra Leone leones (Le).

**Figure IX**

Number of unique active users by service type (December 2017 and December 2018)



*Acronyms:* B2B, business to business; B2P, business to person; D2P, donor to person; G2B, government to business; G2P, government to person.

**Cash-in and cash-out transactions:** Unsurprisingly, cash-in and cash-out transactions were the most used service types, with a total of 413,534 unique customers having conducted at least one cash-in transaction and 388,017 unique customers having conducted a cash-out transaction in December 2018. These findings correspond to a 145% increase from December 2017.

**Airtime purchases, person-to-person transfers and bill payments:** These service types experienced a strong growth rate of around 230%, which can be explained by better education of customers and greater availability of service points around Freetown.

**Second-generation services overall:** Second-generation services are still nascent in Sierra Leone, with providers only offering international remittances, bulk payments and merchant payments. In December 2018, less than 10% of the total number of active unique customers used second-generation services. Usage of second-generation services is likely to increase since providers are currently working on launching new products and are increasing their customer education efforts.

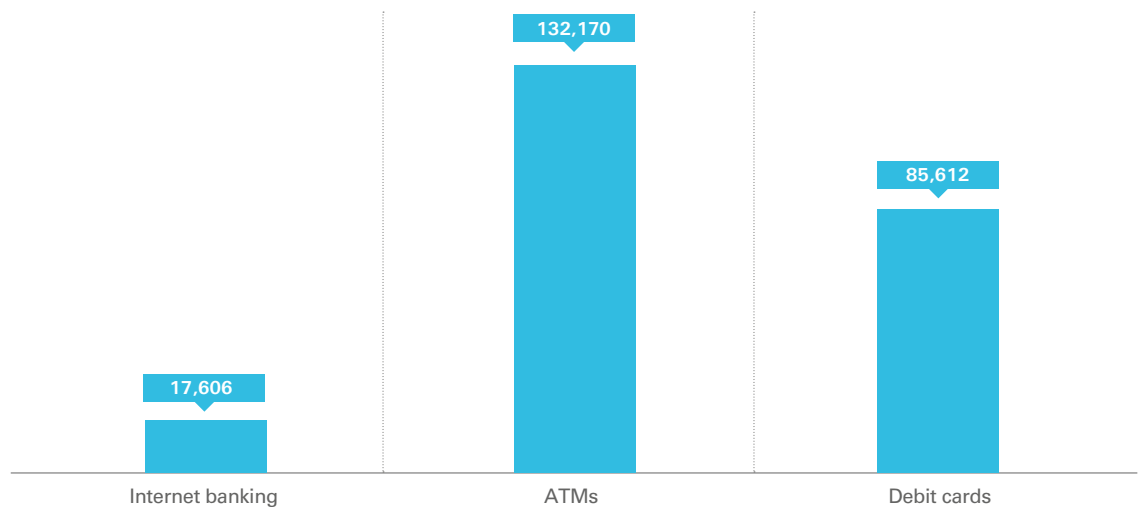
**International remittances:** This service type picked up drastically in 2018, showing growth of almost 900%. Just under 10 times more unique customers were using international remittances in December 2018 than a year earlier.

**Merchant payments and digital bulk payments:** These service types showed much slower growth in the number of unique active customers using them between December 2017 and December 2018, respectively growing by 77% and 22%. However, the offer and usage of digital bulk payments are likely to increase in the coming years as government agencies and utility companies (water companies, electricity companies, etc.) start integrating digital solutions into their payment systems.

**Other service types:** Banks in Sierra Leone also offer DFS through Internet banking, ATMs and debit cards, targeting salaried employees and businesses in the formal sector. The number of active customers using these services grew between December 2017 and December 2018, reaching a total of 132,170 users of ATMs, 85,612 users of debit cards and 17,606 users of Internet banking (see figure X). These figures are expected to grow even more in 2019 as providers adapt their services to different customer profiles. For example, some providers are discussing the provision of debit cards to students at special rates, which could directly affect the adoption and usage of debit cards. The growth in the number of ATM users was a direct result of expansion strategies implemented by several providers during 2018. Providers rolled out additional ATMs across Freetown, and they plan to roll out more in other major cities soon.

**Figure X**

Number of active bank customers using Internet banking, ATMs and debit cards (December 2018)



**Customer profiles:** The data collected through the Annual Provider Survey did not allow for an analysis of the customer base in terms of gender or rural/urban location because DFS providers did not track these data or were not able to provide disaggregated data. However, box 1 provides some insights on the profiles of farmers in Sierra Leone based on a 2018 study.



**Box 1**

Spotlight – Digital financial services as a driver of farmers’ financial inclusion

UNCDF coordinated an ecosystem review of the agricultural sector in Sierra Leone in 2018. The review, which was requested by the European Union, was led by GIZ (Gesellschaft für Internationale Zusammenarbeit) and the West African Rice Company. Some of the findings are summarized below.

**Agriculture in Sierra Leone is mainly led by small-scale farming.** Most farmers rely on informal financing solutions to access basic agricultural inputs. These financing solutions do not provide enough financial capacity for farmers to invest capital to grow their businesses.

**“Women represent over 70% of the agricultural labour force in Sierra Leone.”\*** However, they lack unfettered access to financial services to enable them to undertake productive investments in agriculture.



The potential of digital finance for women is huge because, according to the review, mobile-phone penetration is already close to 60% among farmers. Private-sector players could easily develop strategies to increase DFS adoption and further boost phone ownership of the remaining 40%.

**Only 23% of the youth interviewed report having a bank account.** Youth face challenges in accessing quick, appropriate and affordable finance.



Youth have reasonable exposure to and basic knowledge of digital technologies, which can be leveraged to deliver appropriate DFS for youth.

**DFS might be the solution to making the formal banking sector accessible to the above-mentioned segments of the farming community, which are also strategic segments in the Sierra Leonean economy.**

\* UN Women, ‘Sierra Leonean women in agribusiness are critical for inclusive economic growth,’ 29 June 2017. Available from <http://africa.unwomen.org/en/news-and-events/stories/2017/06/women-in-agribusiness-in-sierra-leone>



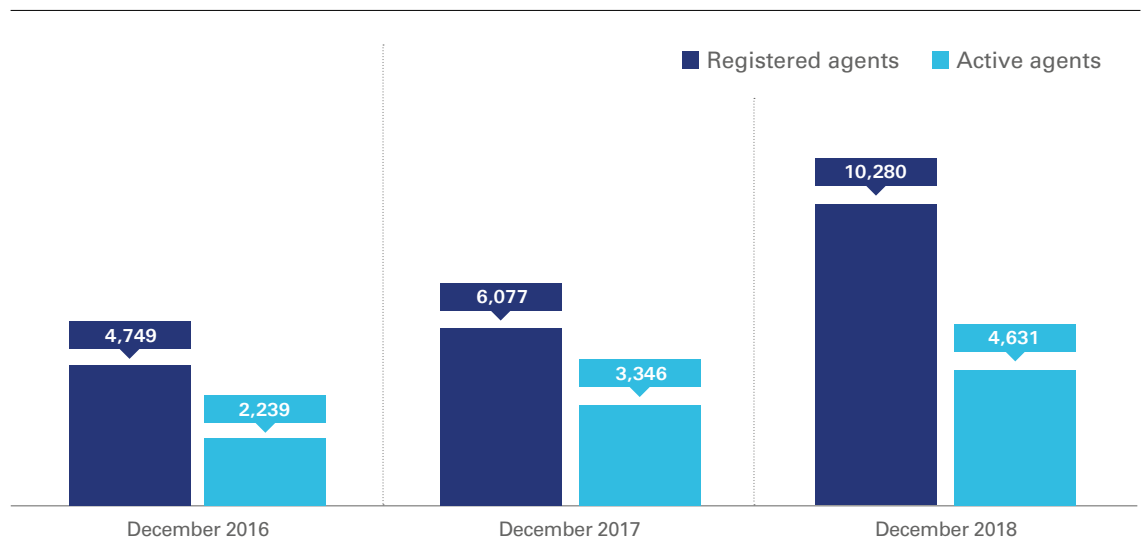
## Agents

In Sierra Leone, MNOs are still the only providers that have agent networks. BSL has been working on agency banking regulations, which once approved and passed by Parliament will enable banks to offer agency banking.

**Registered and active agents:** The total number of registered agents more than doubled in two years, from 4,749 agents in December 2016 to 10,280 in December 2018 (see figure XI). The total number of active agents showed a similar pattern. A total of 4,631 active agents were operating in Sierra Leone as of December 2018, mainly in Freetown. Figure XI suggests that providers invested in onboarding new agents during 2018. The average number of active agents per 100,000 adults was 103 in December 2018, compared to 76 in December 2017 and 53 in December 2016.

**Figure XI**

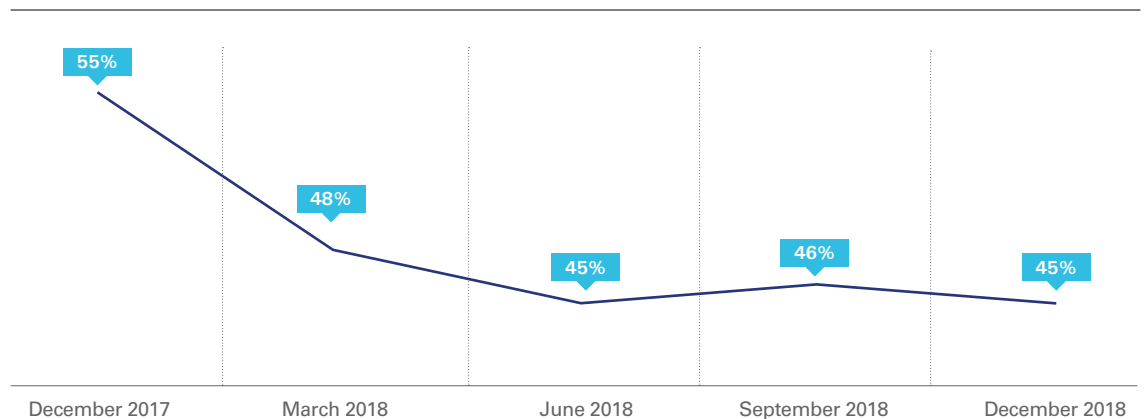
Number of registered and active agents (December 2016, 2017 and 2018)



**Agent activity rate** (the percentage of registered agents who conducted at least one transaction in the past 30 days): The agent activity rate decreased in 2018, dropping from 55% in December 2017 to 45% in December 2018 (see figure XII). The high level of agent inactivity could have been caused by several factors, including ineffective agent network strategies and poor commercial viability of agent locations. In their efforts to expand their agent networks, MNOs would benefit from understanding the underlying patterns and reasons for agent inactivity.

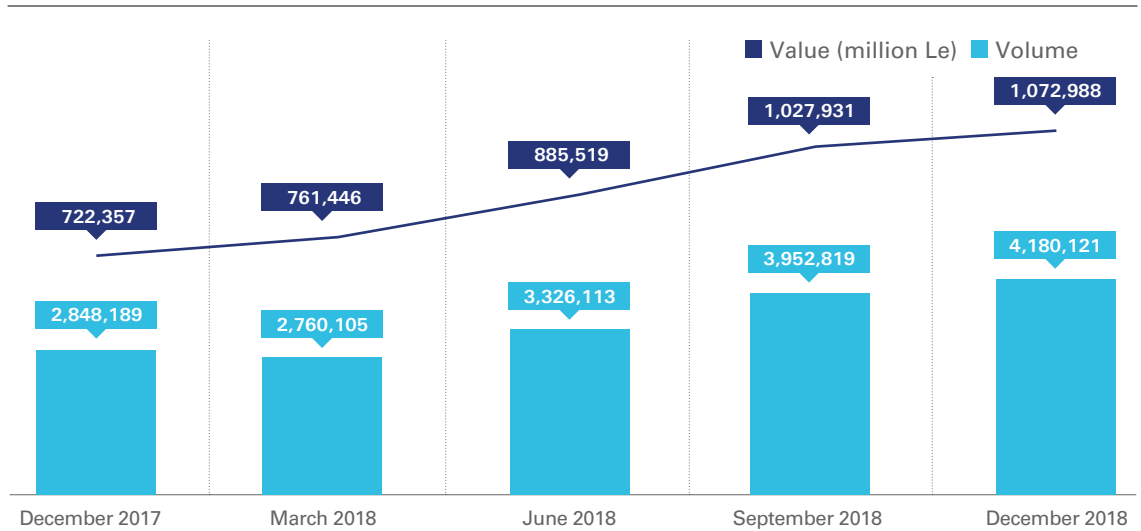
**Figure XII**

Agent activity rate (December 2017–December 2018)



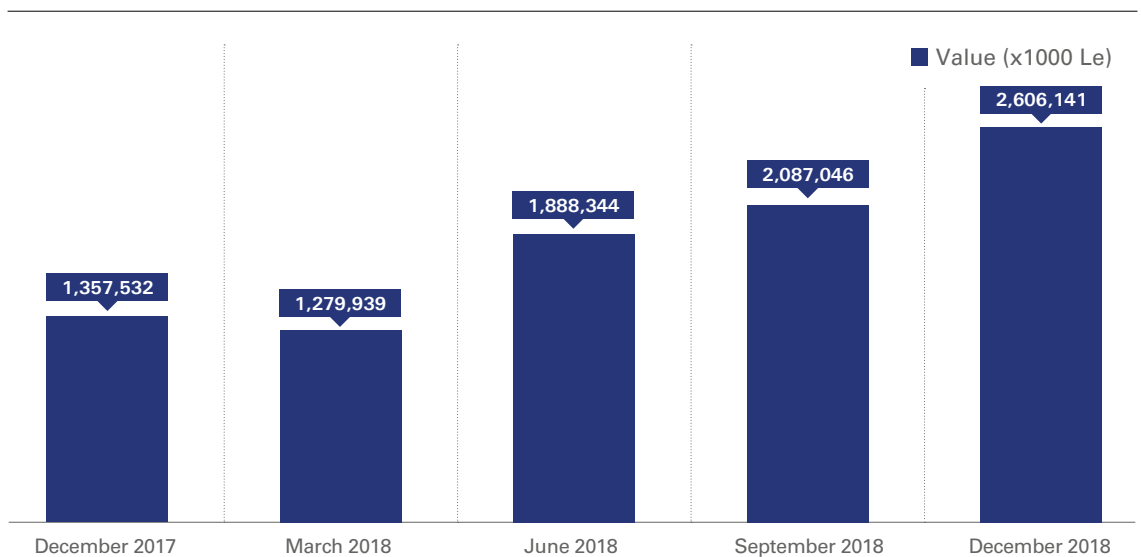
**Transactions with agents:** The monthly volume of transactions conducted with agents steadily increased throughout 2018, surpassing 4 million transactions in December 2018 (see figure XIII). This finding corresponds to a 47% annual growth rate. The monthly value of transactions conducted with agents followed the same trend, reaching Le 1,072,988 million (US\$123 million) in December 2018 and an annual growth rate of 49%. The value per transaction conducted with an agent averaged Le 264,712 (US\$30) in December 2018.

**Figure XIII**  
Volume and value of transactions with agents per month (December 2017–December 2018)



**Agent commissions:** Agents received a total of Le 2.6 billion (US\$299,178) in commissions in December 2018 (see figure XIV). This finding corresponds to a 92% annual growth rate. The average value of commissions received by an agent also increased between December 2017 and December 2018, showing a 40% annual growth rate. Specifically, an agent pocketed an average Le 569,773 (US\$65) per month in commissions in December 2018, compared to Le 405,960 (US\$47) in December 2017.

**Figure XIV**  
Total value of monthly agent commissions (December 2017–December 2018)



**Agent profiles:** Due to limited availability of data disaggregated by gender and rural/urban location, further analysis of agents' profiles could not be completed.



## Merchants

While still few, merchants are increasingly accepting DFS for the payment of goods and services at their points of sale. In December 2018, there were 582 registered merchants and 192 of them were actively receiving DFS payments.



## Providers' performance and challenges

The Annual Provider Survey posed qualitative questions to providers in order to better capture their overall performance, their level of investment in the sector as well as their challenges in terms of developing DFS, dealing with regulatory barriers and reaching a wider customer base.

While all providers reported an increase in the financial sustainability of their DFS offerings from 2017 to 2018, 40% of them indicated that DFS have not reached financial sustainability yet.

Financial investments in the DFS sector showed growth, with over half of the providers having invested at least 50% more in 2018 than they did in 2017. The investment strategy for 2019 seems to be following the same growth trend.

**Examples of investments:** 2018 was a year of consolidation of the customer base and the product offering. Providers experimented with different strategies to change the cash culture and to spread awareness of DFS in the country:

- Strengthening their marketing and communication departments to work on customer-awareness issues, by conducting customer-awareness or mass-activation campaigns
- Developing modules embedded in a mobile app to improve financial literacy
- Improving customer experience by developing new customer-service channels (e.g., Chatbox)

Financial investments were also reflected in a greater number of people working in DFS departments (a 45% annual growth rate between December 2017 and December 2018). Both banks and MNOs heavily focused on developing their DFS departments.

While providers made investments in 2018, they still reported facing several key challenges that considerably hinder the expansion and improvement of DFS in the country:

- **Regulatory barriers** were cited by half of the banks and microfinance institutions as their number-one challenge. Although BSL is preparing agency banking regulations, banks and microfinance institutions still need to wait before being allowed to roll out their agent networks. Examples from other countries show that agent networks can facilitate the expansion and usage of DFS in a country, so it is no surprise that banks and microfinance institutions are looking forward to launching this new distribution channel.
- **Limited digital skills of the target population** continued to inhibit uptake and usage and negatively affect profitability.
- **Lack of interoperability between providers** still hindered customer usage and competitiveness among providers, but this issue should be solved in the last quarter of 2019 as BSL is in the process of developing a national payment switch (see below for more details).

When asked about challenges more specific to underserved population segments, providers noted few improvements since the Annual Provider Survey conducted for 2016; providers faced the same issues in 2018:

- Low levels of literacy within the target population
- Low levels of product awareness
- Limited digital skills



3

**OPPORTUNITIES AND THE WAY FORWARD**

The next phase for DFS in Sierra Leone will depend highly on the regulatory changes that are expected to occur in 2019 and early 2020. The regulatory changes will set the stage for the sustainability of DFS and support the gains thus far seen in the adoption and usage of DFS. Establishing supportive regulations and policy frameworks will be key, specifically regarding agent networks, risk-based know-your-customer requirements, e-money and consumer protection. Such advances will, in turn, enable providers to safely expand the range of their services and to grow their customer base.

With the growth of second-generation services and the emergence of fintech players in the market, it has become necessary to put the right policies in place. These policies call for significant support to build the capacity of the Regulatory Sandbox Pilot Programme team to ensure proper onboarding and monitoring of innovations.<sup>9</sup> The Sandbox will enhance the central bank's understanding of emerging technologies and support evidence-based approaches to regulation that advance the goals of financial inclusion, financial stability and integrity, as well as consumer protection.

In terms of government initiatives, BSL is in the process of developing a national payment switch with support from the World Bank. The national switch should be ready to launch in the last quarter of 2019. BSL envisions the creation of a competitive digital retail payment infrastructure in the country, which will partly reduce the cost of interoperability among DFS providers and hence improve usage. UNCDF is supporting BSL, through the Sierra Leone Fintech Challenge 2019–2020, to improve domestic resource mobilization in the country.<sup>10</sup> It will provide an opportunity to identify innovative business models that can help shift current cash-based transactions to digital ones.

Lastly, the data collected from this Annual Provider Survey indicate that more than 89% of registered customers are inactive. UNCDF will focus on providing technical assistance to providers to explore some of the innovative options listed below to drive adoption and usage:

- Developing and communicating a clear proposition for customers registered with a wallet.
- Building networks that are more accessible and helping MNOs to focus on improving the activity rates of agents as well as expanding their reach into rural areas to serve currently excluded or untapped rural segments.
- Supporting the bundling of product offerings. Providers of financial services can partner with providers of non-financial services to offer bundled products that increase the 'stickiness' of digital solutions and eventually of financial services. Bundling could include offering pay-as-you-go solar services, providing information services to farmers, connecting buyers and sellers of goods and services, etc.

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<sup>9</sup>Tenzin Keyzom Ngodup, 'Sierra Leone becomes the second country in Africa to launch the Sandbox Framework to test fintech innovations,' 10 April 2018. Available from <https://www.uncdf.org/article/3486/sierra-leone-becomes-the-second-country-in-africa-to-launch-the-sandbox-framework-to-test-fintech-innovations>

<sup>10</sup> UNCDF, 'Calls for Applications: Sierra Leone Fintech Challenge 2019-2020 for Financial Inclusion,' 2 May 2019. Available from <https://www.uncdf.org/article/4452/sierra-leone-fintech-challenge-2019-2020-for-financial-inclusion>



# Acknowledgements

The UNCDF team would like to thank the following organizations for championing responses to the Annual Provider Survey:



**Disclaimer**

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

**Survey data**

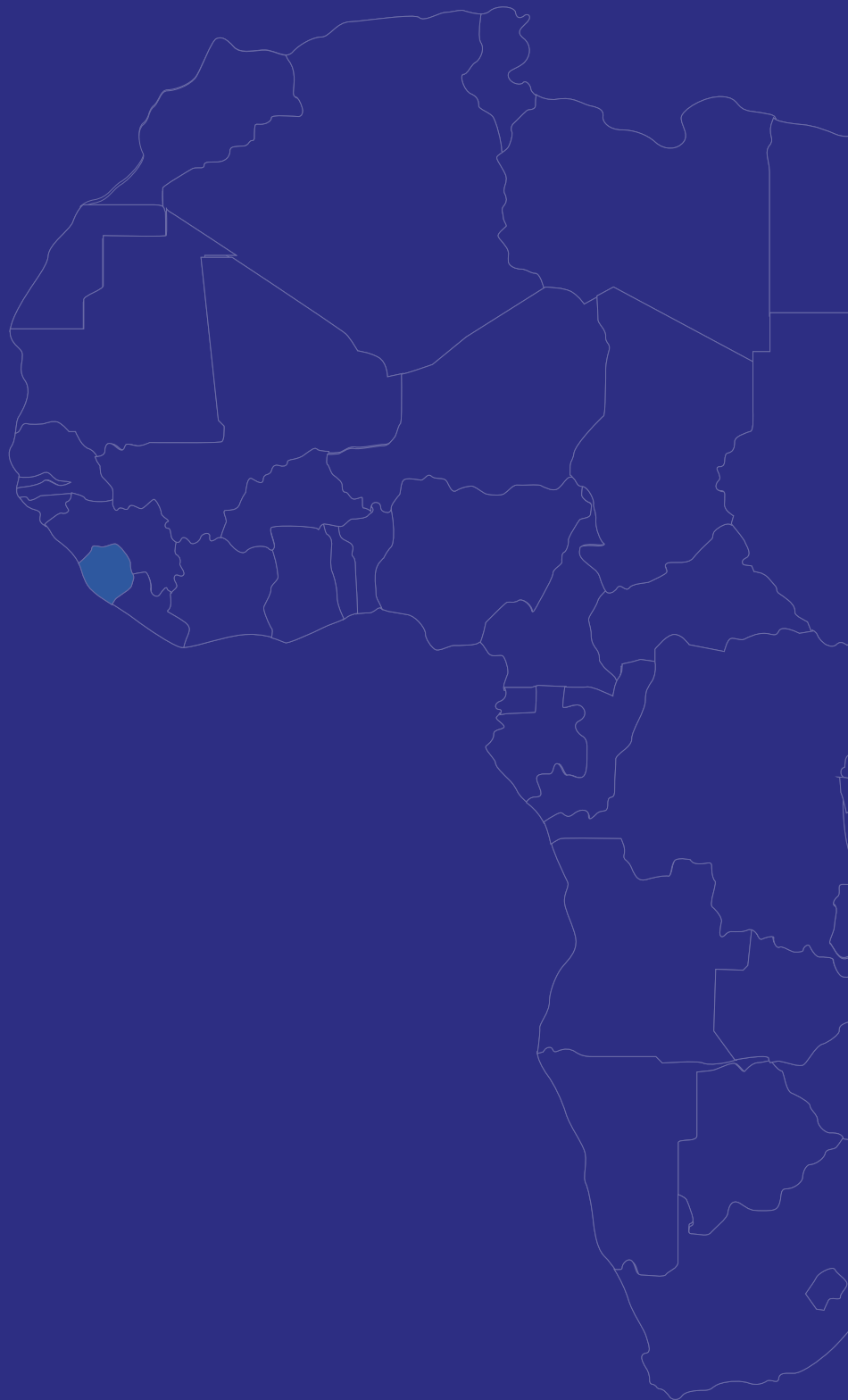
Survey data are self-reported and have not been verified independently by the UNCDF team; however, data are thoroughly checked and crosschecked against other benchmarks and data sources.

**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. Only a few of the providers that participated in the survey had data that were disaggregated by gender and/or rural/urban split, which limited the level of analysis that could be completed with the data. While this report is based only on data submitted by 11 DFS providers, UNCDF expects a larger number of providers to be represented in the 2019 report.



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