

STATE OF THE DIGITAL FINANCIAL SERVICES MARKET IN

SIERRA LEONE 2021

Results from the United Nations Capital
Development Fund Annual Provider Survey

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Note: Sierra Leone redenominated its currency (SLL) effective 1 July 2022. The ISO currency code of the redenominated Leone is SLE; 1 SLE equals 1,000 SLL. The data collected for this survey is for the year 2021 and is therefore denominated in the old currency (SLL).

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Acronyms and abbreviations

ATM	Automated (or Automatic) Teller Machine
BSL	Bank of Sierra Leone
DFS	Digital Financial Services
IDES	Inclusive Digital Economy Scorecard
KYC	Know Your Customer
MMO	Mobile Money Operator
MNO	Mobile Network Operator
MSME	Micro, Small and Medium Enterprises
NSFI	National Strategy for Financial Inclusion
POS	Point of Sale
SDG	Sustainable Development Goal
SLL	Sierra Leone Leone*
UNCDF	United Nations Capital Development Fund
USSD	Unstructured Supplementary Service Data

***Conversion rate:** US\$1 = SLL10,215. This rate is used wherever United States dollar (US\$) equivalents are provided for Sierra Leone Leones (SLL).
Source: United Nations. "Treasury — UN Operational Rates of Exchange". Available at <https://treasury.un.org/operationalrates/OperationalRates.php> (accessed on 13 December 2022).

Glossary

Term	Definition
Active customer account	An account with which at least one transaction was conducted within the last 30 or 90 days. A transaction includes: cash-in, peer-to-peer transfer, cash-out, bill payment and/or airtime top-up. Conducting a balance inquiry, resetting a Personal Identification Number or completing another transaction that does not involve the movement of value does not qualify a customer account as active.
Agent/active agent	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.
Airtime top-up	When customers add credit to a pre-paid phone to access the network's services—voice, mobile data, SMS, etc.—until the credit has run out.
Automated (or automatic) teller machine (ATM)	An electronic telecommunications device that enables customers of a financial institution to perform financial transactions without the need for a cashier. ATMs may be operated either online or offline with real-time access to an authorization database.
Bank account to mobile money account transfer	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.
Bank of Sierra Leone	Central bank of Sierra Leone.
Bill payment	The payment of bills using digital financial services (DFS), either from the customer's DFS account or using an agent (i.e. over the counter).
Bulk payment	A transaction conducted from one account into many accounts, or from many accounts into one account. The former, such as salary payments or government transfers, are referred to as "one to many." The latter, such as a number of customers paying for utilities, comprise collections of payments by an organization from multiple payers; these are referred to as "many to one."
Cash-in transaction	Deposits of any value from a customer into a wallet (mobile money account) through an agent. In other words, the process by which customers pay cash to an agent which is then credited to their account.
Cash-out transaction	Transfers of any value from an agent to a customer—the process by which customers deduct cash from their wallets (mobile money accounts). Usually, an agent gives the customer cash in exchange for a transfer of e-money from the customer's wallet.
(Agent) commission	Revenues paid by the DFS provider to its agents. Generally, agents earn commission by conducting transactions and onboarding new customers.
Customer activity rate	The number of active customer accounts as a percentage of the total number of a DFS provider's registered customer accounts.
Debit card	An electronic card issued by a bank that provides customers with access to their accounts to withdraw cash or pay for goods and services. It eliminates the need for customers to go to a physical branch to withdraw cash, as they can go to an ATM, pay electronically at merchant locations or make payments online.
Digital financial services (DFS)	A broad range of financial services accessed and delivered through digital channels, including payments, credit, savings, remittances, pensions and insurance. Digital channels include ATMs, point-of-sale (POS) terminals, mobile phones and the Internet.
Digital loan	A loan granted to a customer by a DFS provider, either online or via a mobile device. The entire process is automated, from loan applications to disbursal and repayment.
e-Money (mobile money)	The currency stored on electronic systems and digital databases with which users can conduct transactions electronically.

Glossary (continued)

Financial inclusion	Access to a range of affordable, convenient and appropriate financial services for all eligible citizens. These services could be formal financial products or services that are provided by formal financial institutions (banks and/or non-bank financial institutions bound by legally recognized rules) or informal financial products or services that are unregulated and operate without recognized legal governance (e.g. village banks or village development funds).
International remittance	Either the total number of inbound or outbound cross-border fund transfers, or a cross-border fund transfer from one person to another. The transaction may be a direct mobile money remittance or may be completed through an intermediary organization such as Western Union.
Know-your-customer (KYC) requirements	Financial institutions and regulated financial service providers are obligated under regulations to perform due diligence to identify their customers. KYC refers to these requirements and/or to the regulations that govern these activities. The Financial Action Task Force recommends a risk-based approach to due diligence for anti-money laundering and counter-financing of terrorism controls. Due to the lack of formal identity documents in some markets, solutions such as tiered KYC requirements and adjusting the acceptable documentation requirements can help DFS providers facilitate customer adoption, thus increasing both the number of customers and their use of a provider's products and services. In turn, this increases financial inclusion, especially in rural areas.
Merchant	An individual or a registered business that accepts payments for goods and services via a DFS channel. The DFS channel could be through a POS device, mobile device or the Internet.
Merchant payment	Movements of value from a customer to a merchant to pay for goods or services at the POS.
Mobile money operator (MMO)	A licensed provider of financial services through mobile phones and mobile telephone networks.
Over-the-counter transaction	Money transfers or bill payments that are conducted without a registered account. Some mobile money services (e.g. bill payments) are offered primarily in this format. 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.
Peer-to-peer transfer	Also known as person-to-person transfers, these originate from a customer DFS account and terminate in another customer DFS account.
Registered customer	Customers who have registered for a service, regardless of whether the service is active.
Third-party provider	A DFS provider that leverages the infrastructure of mobile network operators (MNOs). A third-party provider is usually MNO agnostic and, in some cases, is a master agent or an agent who acts under a service agreement, a joint venture agreement or another contractual arrangement on behalf of a DFS provider or an MNO.
Transaction	Any activity that involves the movement of value, for example cash-in, peer-to-peer transfer, cash-out, bill payment and/or airtime top-up.
Unstructured supplementary service data (USSD)	A communications protocol used in Global System for Mobile Communications networks for sending SMS messages. USSD is an instant messaging service, so messages are not stored by the operator or on the subscriber's device. Customers can access basic financial services using a Global System for Mobile Communications mobile phone.

FOREWORD

For the fifth consecutive year, the United Nations Capital Development Fund (UNCDF), in partnership with the Bank of Sierra Leone (BSL) and with support from the Joint SDG Fund, is pleased to publish the 2021 report on the State of the Digital Financial Services Market in Sierra Leone. This report presents the findings from the Annual Provider Survey, a data collection exercise conducted between June and August 2022.

There have been several very interesting developments in the digital financial services (DFS) market in the Republic of Sierra Leone over the past year. The country re-denominated its currency by removing three zeroes, a move that required DFS providers to recalibrate their platforms to accommodate the change. The preparation for redenomination, which superseded every other development in the financial services industry, also led to many providers putting other projects on hold, such as agency banking and other DFS developments.

The number of both registered and active DFS accounts continues to increase year on year. In December 2021, there was a total of 7 million registered DFS accounts and 3.5 million active DFS accounts. This corresponds to an annual growth rate of 55 percent and 61 percent, respectively. This growth is an indication of the strides being made to accelerate the use of DFS in Sierra Leone. In addition, there has been increased interest in the use of certain services, especially via mobile money platforms. These include digital loans and merchant payments at supermarkets and hotels.

Renewed collaboration has been seen among players with increased levels of integration, especially between mobile network operators (MNOs) and banks. In this respect, the number of account-to-wallet and wallet-to-account transactions has increased. These collaborations are good for the financial services industry, as providers are leveraging each other's platforms and infrastructure to develop new use cases and are deploying additional services to customers. Such collaborations also foster growth in the DFS space, as providers not only see themselves as competitors, but also as partners.

The survey is based on data collected from 12 providers, consisting of 10 commercial banks and 2 MNOs. The microfinance institution sector is also making progress in deploying DFS. However, the pace has been slow, with only a few microfinance institutions investing in the use of tablet-based applications for customer onboarding and transaction processing.

Over the years, efforts have been made to promote the use of merchant services. Banks continue to deploy point-of-sale (POS) terminals, while MNOs are onboarding an increased number of merchants to allow for mobile transactions at strategic points such as supermarkets, major hotels and other retail outlets. In the last year, the number of registered merchants doubled in Sierra Leone, with a total of 1,549 POS terminals in operation as of December 2021. The growth in active POS terminals was even higher, with an annual increase of 130 percent.

In terms of digital platforms and infrastructure, DFS providers continue to invest in building robust IT infrastructure to enable them to gradually capture more granular data and allow for faster and more secure transactions. This improved infrastructure should help Sierra Leone keep up with current global trends, which predict more mobile payments and the increased use of advanced digital tools, even more so as the central bank draws closer to deploying the national switch.

The drive towards digital is here to stay, not only with regard to financial services, but also in many other sectors of the economy, such as agriculture, transport, health, education and energy. To foster growth in other sectors, identifying key market constraints that hinder the development of an inclusive digital economy should be a key priority for the government. In line with the strategy of leaving no one behind in the digital era, and with the need to help governments in the least industrialized countries measure the inclusiveness of digital development, UNCDF has developed an Inclusive Digital Economy Scorecard (IDES). The IDES is a strategic policy tool that governments can use to help set the priorities of their country's digital transformation agenda. UNCDF is currently working closely with Sierra Leone's Ministry of Information and Communication on IDES domestication.

At UNCDF, we feel encouraged by the results achieved so far and remain committed to providing support to our stakeholders to develop, improve and expand DFS in Sierra Leone. We remain inspired by the leadership of the BSL and are hopeful that the work undertaken since 2017 will continue to yield results in the coming years.



Wycliffe Ngwabe

Country Lead and Technical Specialist





PREFACE

To compile this report, the United Nations Capital Development Fund (UNCDF) and the Bank of Sierra Leone (BSL) were able to rely on the dedication of every provider and ensure full participation in the survey. This is testament to the motivation and hard work of industry stakeholders and to the added value that this report gives to digital financial services (DFS) providers in Sierra Leone.

► Bank of Sierra Leone

The Bank of Sierra Leone is the country's central bank and is responsible for developing the country's financial sector and promoting financial inclusion by fostering an enabling regulatory environment. The BSL takes its lead from its latest National Strategy for Financial Inclusion (NSFI) (2022 – 2026), provides leadership and coordination support to the Digital Financial Services Working Group. The Strategy builds on the successes of the first NSFI and recommendations from an evaluation of the first NSFI. This report thus outlines the progress achieved, while suggesting further improvements and highlighting underlying challenges. The findings from this report will further support the development of DFS initiatives and policy decision-making as the Bank continues its implementation of the NSFI-2..

► UNCDF

UNCDF makes public and private finance work for the most disadvantaged people in the world's 47 least industrialized 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 finance models work in two ways. First, these models promote financial inclusion, which in turn provides more opportunities for individuals, households and small businesses to participate in the local economy, equipping them with the necessary tools to climb out of poverty and manage their financial lives. The second way in which these models work is through localized investments (fiscal decentralization, innovative municipal finance and structured project finance) which drive the public and private funding that underpins local economic expansion and sustainable development.

By strengthening finance operations for disadvantaged people at the household, small business 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 the market segments in which innovative finance models can have a transformational effect on reaching the "last mile," while addressing exclusion and inequalities in terms of access, UNCDF also contributes to SDG 5 (on achieving gender equality) and SDG 10 (on reducing inequalities).

► Leaving no one behind in the digital era

The UNCDF strategy of "Leaving no one behind in the digital era" (United Nations Capital Development Fund, 2019) 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. By 2024, the vision of UNCDF is to empower millions of people to use, on a daily basis, services that leverage



innovation and technology, while contributing to achieving the SDGs. To do this, UNCDF will apply a market development approach and continuously seek to address underlying market dysfunctions.

Since June 2017, UNCDF has supported the Regulatory Sandbox pilot programme, which is currently supervised by the BSL and is the first of its kind in the region. A regulatory sandbox is designed to deploy and test innovative products, services and solutions in a live environment prior to launch. The Sierra Leone Sandbox will advance 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 (United Nations Capital Development Fund, 2018).

Alongside the original NSFI, UNCDF provided technical assistance for the development of a second NSFI (NSFI-2), which was launched in April 2022. The new strategy has three priority intervention areas, with DFS being one of them. A working group exists for DFS, consisting of experts from various DFS providers whose role is to support the implementation of the priority intervention area activities. The NSFI-2 thus aims to build on the successes that were achieved during the implementation of NSFI-1, while addressing the challenges identified in the first strategy. The development of the new strategy is based on recommendations from the evaluation of NSFI-1. The strategy development process also considered feedback gathered during stakeholder consultations with industry players within the financial inclusion space. NSFI-2 therefore aims to take a more focused approach to increase the use of and access to financial products and services, while enhancing their quality. It will do this by prioritizing strategic interventions and by targeting women, youth, rural populations, and micro, small and medium enterprises (MSME).

UNCDF has been working with providers to expand the agent network across the country, with a focus on increasing the percentage of female agents, which currently stands at 4 percent. In addition, a significant amount of effort is being made surrounding financial and digital literacy using educational technology (EdTech), and increasing demand has been seen for digital credit on mobile money—another area that UNCDF is supporting.

► Annual Provider Survey project team

Developing the UNCDF Annual Provider Survey included gathering data, assessing the incentives of Sierra-Leonean digital finance providers and surveying local stakeholders. Information was gathered in May and June 2021 and represents data for December 2019 to December 2020.

The following project team members authored the report:

Wycliffe Ngwabe Sierra Leone Country Lead	Eric Sena Morttey Inclusive DFS Expert, Sierra Leone	Moïra Favrichon Results Measurement Expert
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The Financial Sector Development Unit of the BSL participated in all engagements with the providers and provided support with the collection of data (both quantitative and qualitative) and with the report writing. The BSL is gradually warming to the idea of taking full ownership of the Annual Provider Survey.



1

INTRODUCTION

The fifth Annual Provider Survey provides information on the state of the digital financial services (DFS) industry by aggregating industry data and compiling interviews. This report presents the number of players in Sierra Leone that offer DFS, the number of registered and active customers, the volume and value of transactions conducted on a monthly basis and the type of services offered in the market. In addition, this report provides information on the different DFS distribution channels in Sierra Leone and highlights the barriers and challenges that providers face. Finally, the report also gives recommendations to address certain challenges, outlines the direction of DFS in the country and reveals global best practices.

► Mobile money continues to grow globally

The latest report on mobile money from the GSM Association (2022) demonstrates sustained growth, not only in access to and the use of DFS, but also in the type, volume and value of transactions. Each year, new customers are embracing the digital economy, shifting away from the traditional cash-based economy.

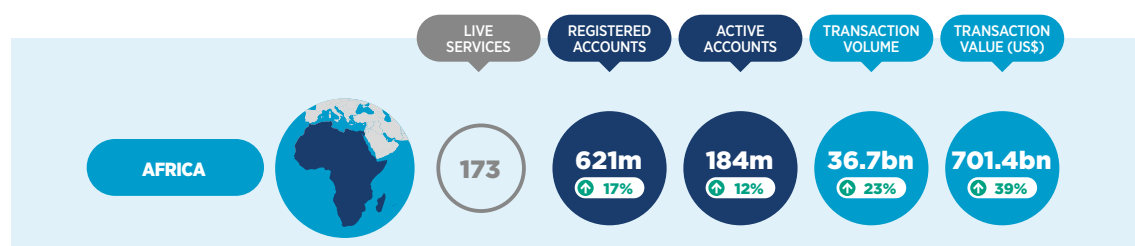
Although the report recognizes the role of the COVID-19 pandemic in this sustained growth, whether this was a determining factor can potentially be disputed. This is because, for some countries, growth prior to the pandemic was similar to, if not higher than, the level of growth seen during the pandemic (McCaffrey, 2022).

As a result, to what extent can we attribute the growth in the number of registered and active accounts to the pandemic alone? Could it be that the pandemic convinced new client profiles to adopt DFS, or is the level of growth observed simply a continuation of the good work of the providers and naturally occurring shifts in the industry? Whether COVID-19 played a notable role or not, it is undeniable that growth was sustained across the world, including in Western Africa.

Globally, there were a total of 518 million active mobile money accounts in December 2021 and 1.35 billion registered mobile money accounts for the same month. Looking at Africa specifically, Figure I presents key statistics for the 2021 period.

Figure I.

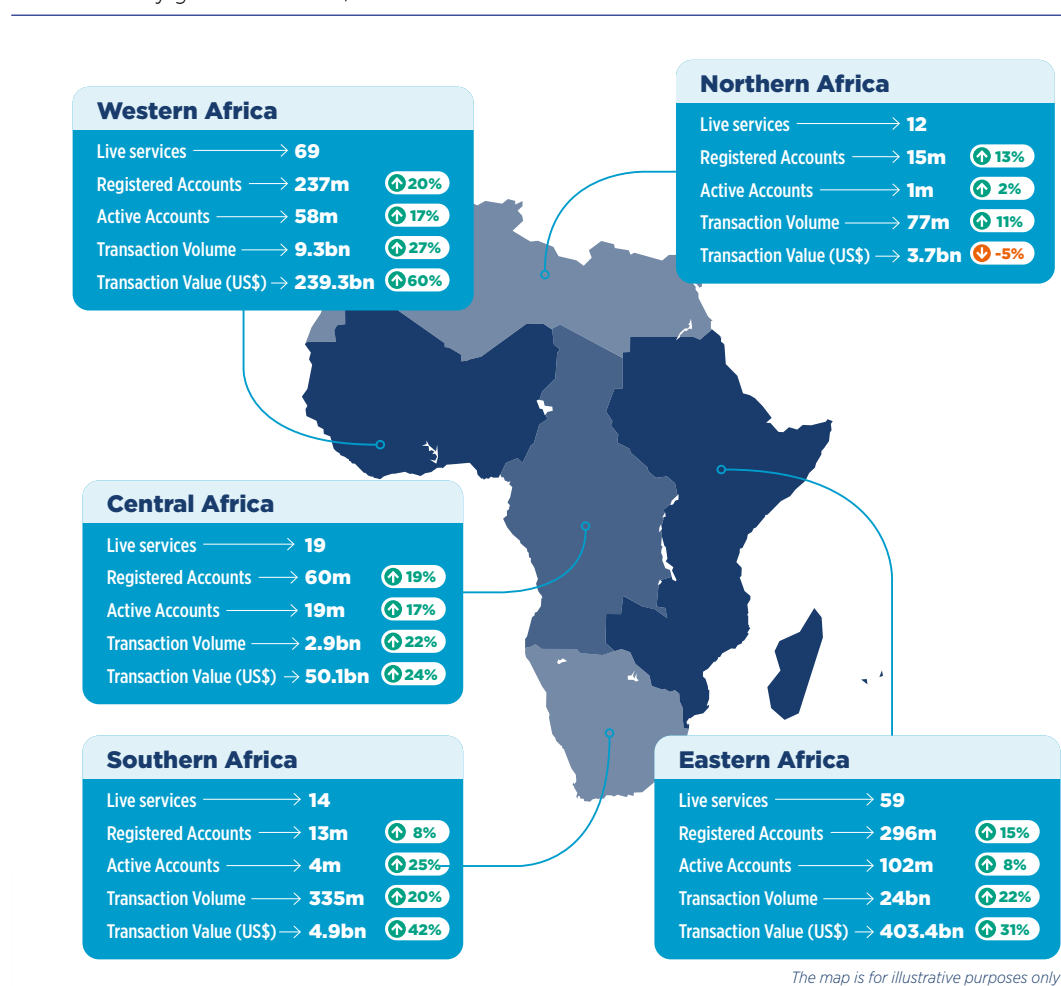
Mobile money growth in Africa, 2021



Source: GSM Association, State of the Industry Report on Mobile Money (London, 2022).

Compared to other regions, Western Africa shows the highest level of growth in the number of registered accounts (+20 percent), transaction volume (+27 percent) and value and (+60 percent). It also scores second on the growth rate for active customer accounts (+17 percent). These figures show that, despite the economic slowdown resulting from the COVID-19 pandemic, the Western Africa region continues to embrace the digital shift.

Figure II.
Mobile money growth in Africa, 2021



Source: GSM Association, State of the Industry Report on Mobile Money (London, 2022).

According to the GSM Association report (2022), some of the noticeable industry trends for 2021 are:

- Increased value was transacted through mobile money in 2021, with greater diversification in the transaction types.
- New customers are embarking upon the DFS journey every day.
- Agent networks remain a cornerstone of the industry and the volume and value of transactions at their locations is increasing.
- Regulations and policies can be further improved to ensure limited negative consequences on customers and providers alike.
- The gender gap remains a concern as women are still less likely to own a mobile phone or have the required skills and knowledge to use one.

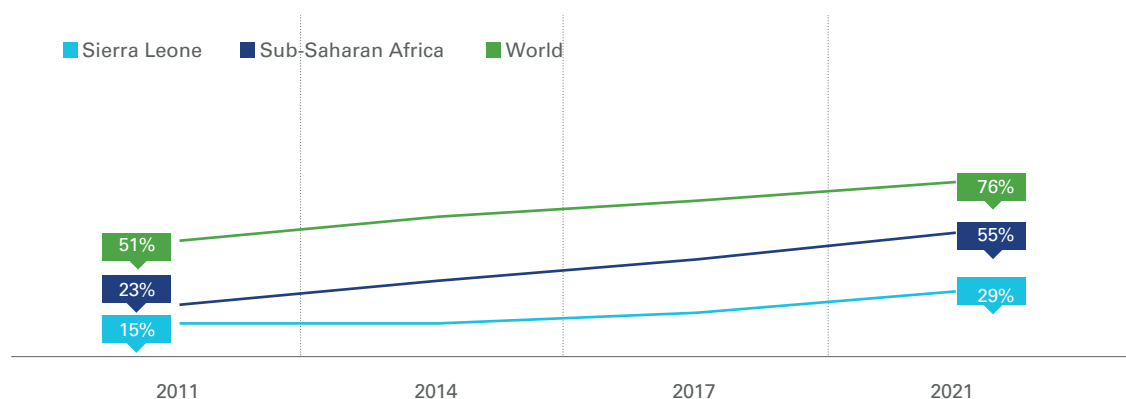
► Deep-dive into Sierra Leone's financial inclusion data

Earlier this year, the World Bank released its new Findex data for 2021, which presents interesting findings on financial inclusion in Sierra Leone.

1. Global account ownership¹ in Sierra Leone grew from 15 percent in 2011 to 29 percent in 2021 (Figure III). This means that in 2021, 1.4 million adults had an account, compared to 565,000 adults in 2011.²

Figure III.

Account ownership (percentage of people aged 15 and over)

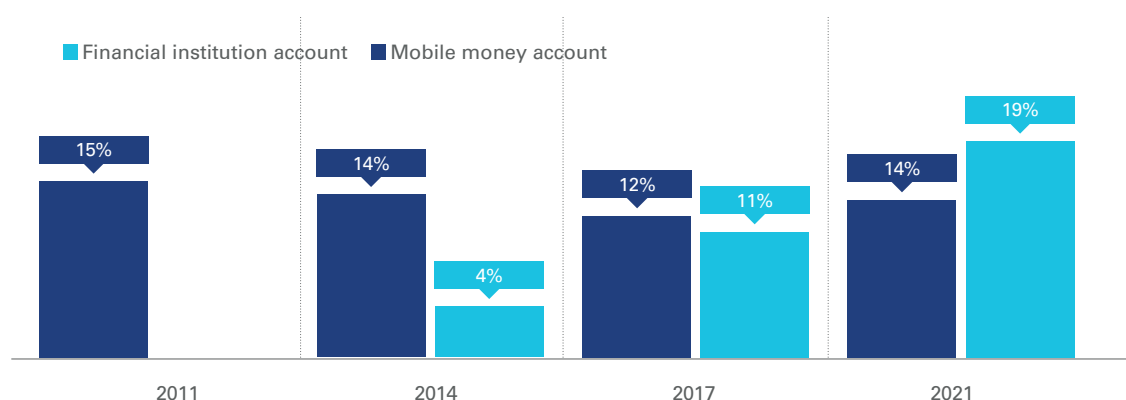


Source: World Bank. "The Global Findex Database 2021". Available at <https://www.worldbank.org/en/publication/globalfindex/Data> (accessed on 13 December 2022).

2. Mobile accounts are the most commonly owned type of account, confirming the role of mobile money as a key driver to financial inclusion. Indeed, 19 percent of the population holds a mobile money account with a network operator as opposed to only 14 percent for financial institution accounts (Figure IV).

Figure IV.

Account ownership by type of account (percentage of people aged 15 and over)



Source: World Bank. "The Global Findex Database 2021". Available at <https://www.worldbank.org/en/publication/globalfindex/Data> (accessed on 13 December 2022).

¹ An account is defined by the World Bank as any account that can be used to save money, make or receive payments, or to receive wages or financial assistance, at a bank or another type of financial institution.

² The number of adults with an account has been calculated using United Nations population estimates from the Population Division Data Portal. Source: United Nations. "Population Division Data Portal". Available at <https://population.un.org/dataportal/home> (accessed on 13 December 2022).

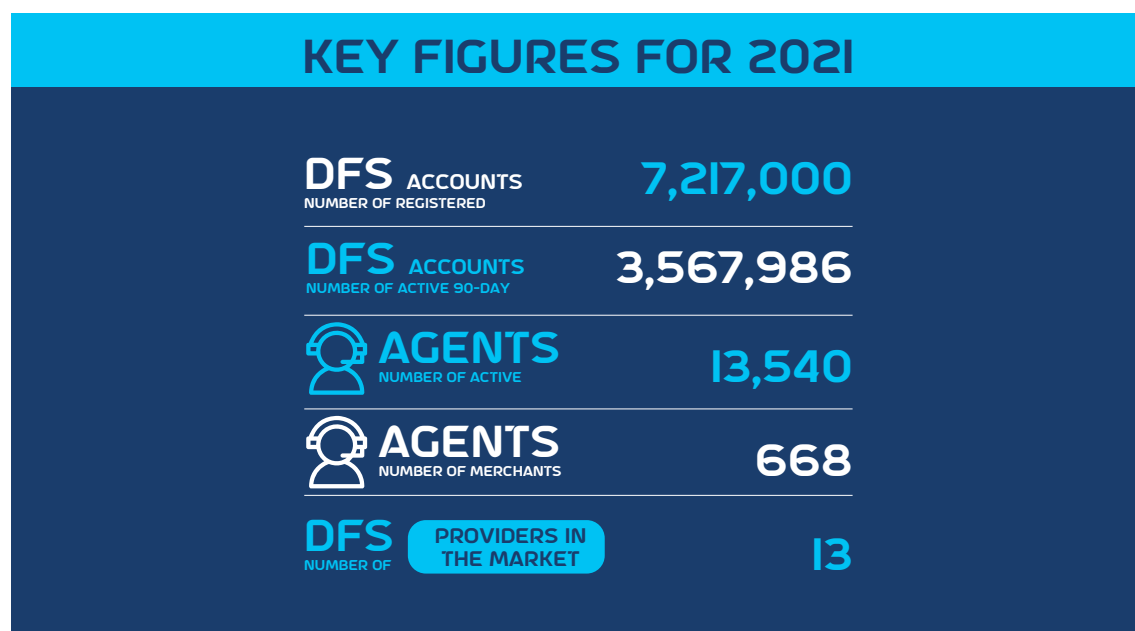
3. The gender gap in mobile money account ownership has not improved, remaining at five percentage points in 2021, as in 2017. In 2021, 17 percent of adult women reported owning a mobile money account, compared to 22 percent of adult men. This is aligned with the GSM Association's latest findings at the global level, which state, "women still have lower access and use of mobile money services compared to men. This is due to a variety of reasons, including the lack of awareness of mobile money, not owning a mobile phone and low literacy, digital and financial skills" (2022).
4. The gap in mobile money account ownership between individuals who have completed primary versus secondary education has fallen from an 18-point gap in 2017 to a 12-point gap in 2021, with an account ownership rate of 15 percent for individuals who have completed primary education and 27 percent for those with a secondary-level education. This is encouraging as it demonstrates the role of mobile money in including vulnerable members of the population. However, sustained efforts will be needed to ensure that DFS become more inclusive for all segments of the population, including those living in rural areas, women, youth and so on.



2

STATE OF THE DIGITAL FINANCIAL SERVICES MARKET IN SIERRA LEONE

This section of the report will examine key statistics that demonstrate the remarkable growth of the DFS ecosystem in Sierra Leone between 2017 and 2021.

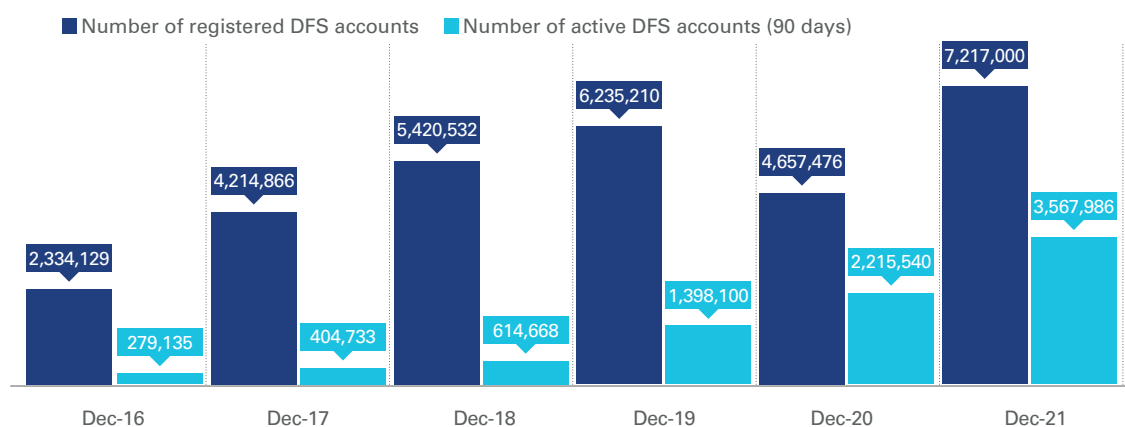


► Increased use of digital financial services in Sierra Leone

As shown in Figure V, both the number of registered and active accounts increased during 2021. In December 2021, there were a total of 7 million registered DFS accounts and 3.5 million active DFS accounts. This corresponds to an annual growth rate of 55 percent and 61 percent, respectively, compared to December 2020.

Figure V.

Number of registered and active digital financial services accounts



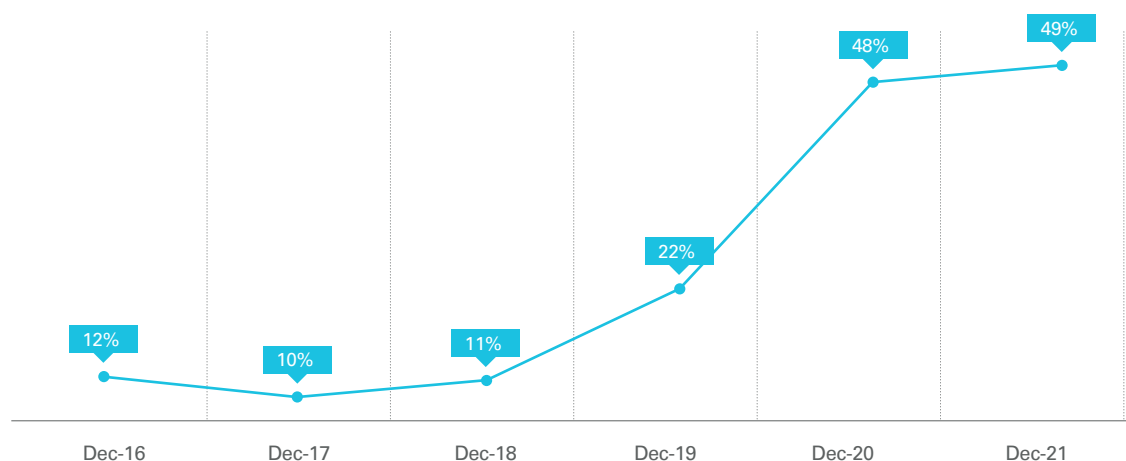
Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

Regarding registered accounts, caution must be exercised when analysing this figure. This is because mobile network operators (MNOs) automatically report a new registered account each time a new SIM card is sold. In practice, the customer has not necessarily completed the additional steps required to register and activate a new DFS account, which leads to high and misleading figures for registered accounts. Conversely, a drop in registered accounts may be due to the cyclical cleaning of inactive accounts by providers.

The trend of DFS in Sierra Leone is better analysed based on the number of active accounts. The number of active accounts (90 days) has grown at a steady rate over the past two years, with an annual growth rate of 59 percent in 2020 and 61 percent in 2021. In 2019, the growth rate was 127 percent.

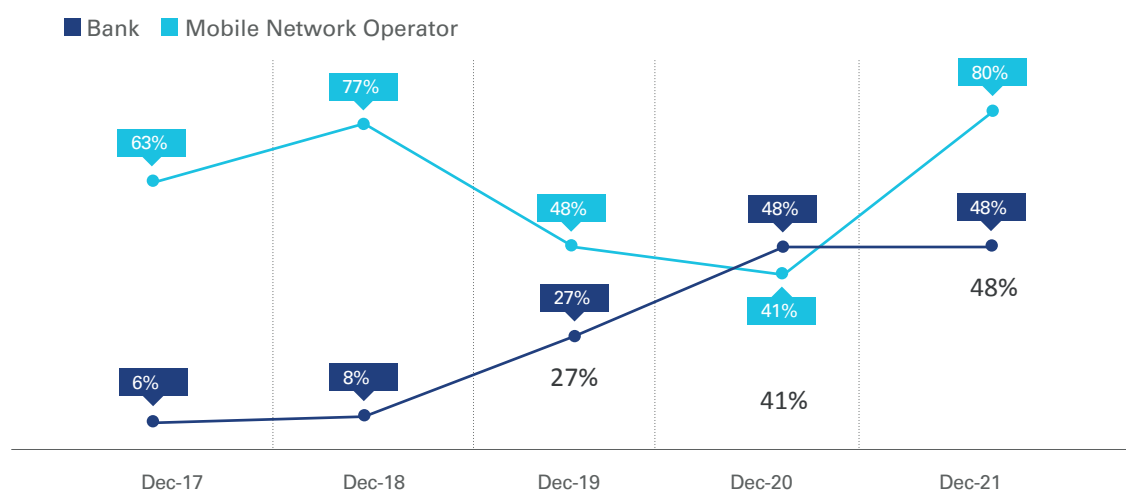
In comparison to 2020, there is no significant change in the customer activity rate (see Figure VI), which increased from 48 percent to 49 percent between 2020 and 2021, as a result of cleaning of the registered account database. For 2021, however, findings are particularly interesting in terms of activity rates (disaggregated by provider type), with a real improvement in the activity rate for banks (Figure VII). This questions whether, in the midst of the COVID-19 crisis and its effect on the economy, banks found a way to adapt their product offering to better meet the needs of their customers.

Figure VI.
Digital financial services account activity rates



Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

Figure VII.
Digital financial services account activity rates per provider type

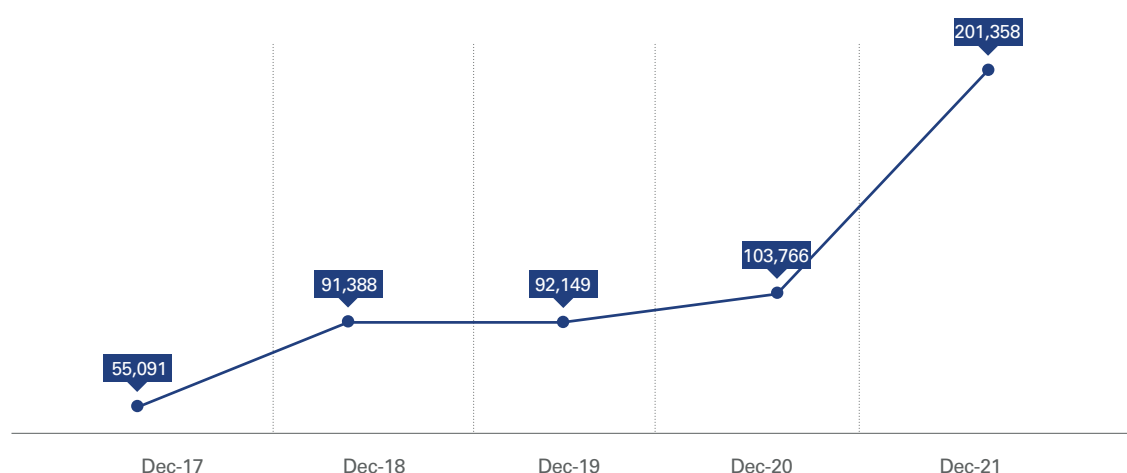


Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

Even after the cleaning of the MNO database, only half of the remaining account holders use the services regularly. From this, it is possible to deduce that access to a mobile money account is not enough to lead to customer adoption and use of DFS. In addition, the rather steady growth in active accounts throughout 2021 does not fully support this narrative, which presents the COVID-19 crisis as a disruptive unlocker of DFS adoption. This does not seem to be the case in Sierra Leone, as the sustained growth observed in 2021 seems to be a continuation of the industry growth which started before the pandemic.

Figure VIII shows the average transaction value for the providers who were able to report on this data type.³ This has increased from SLL103,766 in December 2020 to SLL201,358 in December 2021 (adjusted with the inflation rate). In this respect, the increasing average transaction size suggests an increasing trust in DFS.

Figure VIII.
Average transaction value



Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

Figure IX presents the variation (in percentage points) in the market share of the transaction volumes for different transaction types between December 2019 and December 2021. While this does not provide absolute values, it highlights trends relating to product usage in the market:

- Fewer cash-out transactions were made, confirming a slow adoption of mobile money, not just as a means to receive a salary and cash it out, but also to adopt different use cases.
- The market share of airtime top-ups (in number of transactions) is also lower, showing that customers are adopting new digital use cases slowly. In absolute values, airtime top-up represents 26 percent of all transactions in December 2021 compared to 35 percent in December 2019.
- The share of domestic P2P transfer transactions in the market almost doubled over the two-year period, from 8 percent in December 2019 to 16 percent in December 2021. Merchant payment transactions, bank-to-wallet and wallet-to-bank transactions are also slowly gaining momentum.

³ One of the key providers was not able to provide data on the volume and value of transactions this year. The total monthly volume and value of transactions in Sierra Leone are therefore not presented in this year's edition of the report.

Figure IX.

Variation in market share for transaction volumes for different transaction types between December 2019 and December 2021



Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

While there are positive signs that customers are slowly adopting and using a broader range of digital services, cash remains the go-to option for payments for the majority of the population in Sierra Leone, particularly in rural areas, with the shift to digital not yet complete. This is largely because there are very few use cases where customers can use digital payments, especially in country where it is very safe to carry cash. The value proposition for digital payments has also not been established for most customers.

► Continuous expansion of distribution networks

The majority of activities that occur within the DFS ecosystem are concentrated in Freetown and other major cities, such as Bo and Kenema. More rural parts of the country are less attractive in terms of DFS, partly due to lower infrastructure coverage. In this respect, the industry must continue to strengthen its various DFS distribution networks to better connect last-mile customers in rural areas.

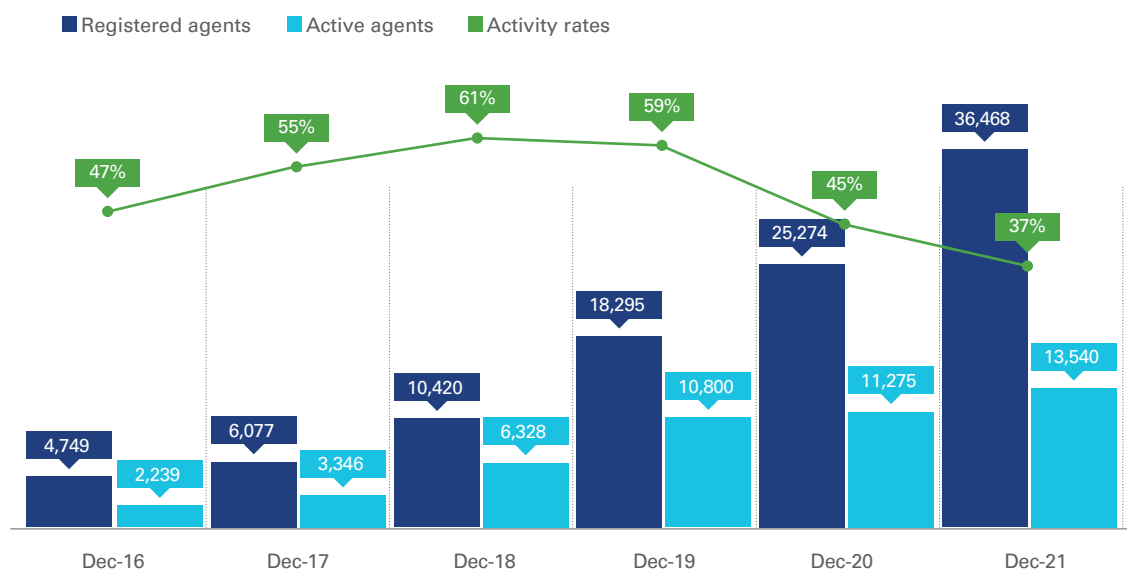
Agents network

The expansion of agent networks is continuing across Sierra Leone, driven by MNOs, who still own 99 percent of the market share for both registered and active agents. Between December 2020 and December 2021, the number of registered agents rose by 44 percent, with 36,468 in total at the end of the year. However, the growth in active agents was slower, with an annual growth rate of 20 percent, corresponding to a total of 13,540 active agents in December 2021.

MNOs are investing heavily in onboarding new agents, but are not able to effectively engage with the agents to ensure that they remain active. This is reflected in the drop in agent activity rates, from 45 percent in December 2020 to 37 percent in December 2021.

The agency banking guidelines were published in January 2020 by the BSL to promote the use of agents as a channel for the delivery of financial services. Since then, three financial institutions have taken advantage of these new guidelines and deployed their own agency networks. This slow pace is largely due to system integration issues and the associated cost of deploying agency banking platforms. In addition, the preparation towards redenomination took centre stage in 2021, temporarily shifting the attention of most providers away from agency banking expansion. In spite of these setbacks, many more institutions are piloting agent banking operations or are adapting their business models to utilize agents to further their banking operations in rural communities.

Figure X.
Registered and active agents in Sierra Leone



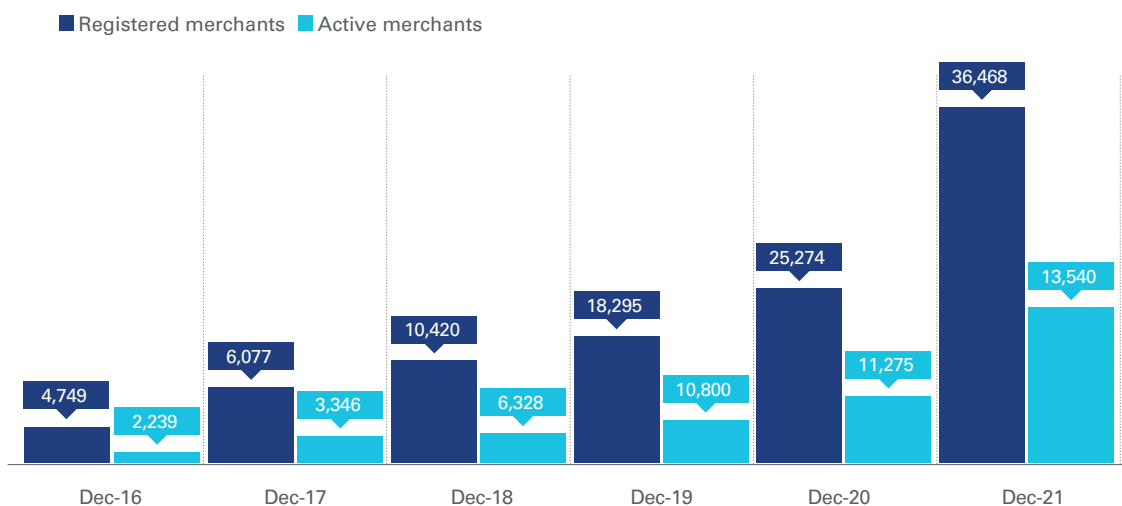
Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

Between December 2016 and December 2021, the number of transactions conducted through agents grew steadily, both in volume and in value. In December 2020, the average transaction value was SLL291,528, increasing to SLL339,319 a year later. The average monthly commission earned by an active agent also increased, reaching SLL431,023 in December 2021. This corresponds to a 15 percent increase compared to December 2020.

Merchant services

In the years leading up to 2021, several advances were made to promote the use of merchant services. As of December 2021, four banks had deployed point-of-sale (POS) terminals at strategic points such as supermarkets and hotels. Mobile money operators (MMOs) were also onboarding additional merchants to allow for mobile money transactions at various retail locations. Between 2020 and 2021, the number of registered merchants doubled in Sierra Leone, with a total of 1,549 merchants in operation in December 2021. The growth in active merchants was even greater, with an annual growth rate of 130 percent and a total of 668 active merchants for the month of December 2021.

Figure XI.
Registered and active merchants in Sierra Leone



Source: United Nations Capital Development Fund, Annual Provider Survey, 2021.

An increasing number of providers are considering introducing new merchant solutions such as quick response (QR) codes. At present, only a few providers offer this service, but the market will be looking for the uptake of such innovative products to drive digital payments.

► Enabling regulatory environment

The growth in the digital finance industry in Sierra Leone has been facilitated by the changes made to the regulatory environment over the last few years. The BSL, along with other government ministries, departments and agencies, has introduced various regulations, guidelines, directives and strategies which have created an enabling environment to support the growth of the digital ecosystem. Overall, these regulatory interventions have been well received by financial institutions. However, many providers are yet to take full advantage of these opportunities in their implementation strategies. Some providers also feel that some regulatory interventions could be further reviewed and tailored more specifically.

Tiered Know your Customer (KYC) and electronic-Know Your Customer advancements. In previous years, the issuance of the Tiered KYC guidelines was an important part of efforts to remove barriers to citizens accessing financial accounts. This is particularly true for those in rural communities and for underserved populations. These guidelines have been positively received by the financial sector, but many still feel that it is important for financial institutions to have additional training. There is also a sentiment that these guidelines should be constantly reviewed to ensure that those at the bottom of the pyramid are able to access bank accounts. More recently, the BSL has been working closely with the National Civil Registration Authority to advance eKYC practices. This chip-based, securitized, biometric digital identification platform can help the financial sector identify customers in real time using the customer's unique National Identification Number.

Guidelines on use of agents. These guidelines have been issued in addition to the country's National Financial Inclusion Strategy to make formal financial services more available and accessible. Agency banking guidelines promote the use of agents as a channel for the delivery of financial services. At present, only three financial institutions within the sector have taken advantage of these guidelines. However, it has been noted that many more are piloting agent banking operations or adapting their business models to utilize agents to further their banking operations in rural communities.

Consumer protection guidelines. The recent Consumer protection guidelines offer a strong step forwards in enhancing the quality of financial products and services. These guidelines enhance and promote financial stability, protect customers, improve communication between Financial Services Providers (FSPs) and their clients, and support customers in managing their finances. Financial institutions have demonstrated appreciation towards these guidelines as they have been useful in ensuring that customer complaints and concerns are addressed promptly and accurately. However, as with the Tiered KYC guidelines, FSPs, particularly the commercial banks, have stated that there is little or no awareness or knowledge of these guidelines. As a result, more effort needs to be made to boost understanding, both from a supply and a demand perspective, so that consumers are protected and are aware of their rights. As new digital products enter the market and the uptake of DFS increases, it will be important for customers to have trust in the sector.

Guidelines for e-Money issuers and money remittance businesses. E-money and remittance guidelines are also important as they focus on promoting a safe and secure system for e-money and for businesses that want to understand remittances, particularly on an international scale. MMOs in particular have shown their appreciation for this foundational step to promote digital finance. However, they have also expressed a need for these guidelines to be more widely shared and for the sector to be more informed about them. There has also been feedback that a more collaborative approach needs to be taken to reviewing the guidelines, with input from DFS providers, to understand how it affects their operations.

Cyber security and IT risk management guidelines. BSL has also developed cyber security and IT risk management guidelines to ensure that the benefits derived from technological innovations can be fully enhanced without adversely affecting financial stability, consumer protection and cyber resilience. Training sessions have been conducted, particularly for commercial banks, to ensure that robust and effective IT risk management processes, governance structures and cyber-security controls are in place. This includes making sure that IT departments are adequately staffed and that risk frameworks and controls have been established.

National Payment Systems Act. With the national payment switch on the horizon, key legislature and regulations have been in progress. The National Payment Systems Act is a cornerstone document that will provide the legal framework for the national payment system, once introduced.

► Persistent development barriers and challenges

Despite the progress seen within the industry over the last few years, especially more recently following the pressures of COVID-19, growth in Sierra Leone could be accelerated further. However, a few limiting factors are currently preventing this from happening. These are network and connectivity issues, and issues with financial sustainability, regulatory barriers and low levels of digital financial literacy.

Network coverage/connectivity issues. DFS providers voiced concerns regarding the lack of network coverage and continued connectivity issues, especially in rural communities. To realize the benefits of DFS (e.g. broader reach, lower transaction costs), a reliable network infrastructure must exist across the country.

There is a continued need for more investment into building technology infrastructure across the country. Under the new National Financial Inclusion Strategy (2022–2026), there is a concentrated effort to work with the government and public-private partnerships to catalyse investments towards having a more reliable network across the country. This could include having more telecommunication towers and fibre-optic technology. Moreover, the introduction of the national switch will prove to be a significant catalyst for digital finance in Sierra Leone.

Financial sustainability. Since the introduction of mobile money into the market, the financial sector in Sierra Leone (as in many other countries) has been under pressure to innovate to keep up with emerging financial technologies. As a result of these developments, digital transformation has now become an urgent need for FSPs, particularly for traditional banks.

FSPs have acknowledged that the significant investment required and high initial operational costs have posed challenges in terms of DFS operations being profitable in the short term. Such challenges have limited the expansion of operations in rural areas. To obtain a broader reach in rural communities, commercial banks are looking to leverage agency banking and integrate with MMOs. In discussions, all DFS providers have mentioned that, with the right infrastructure, DFS can be sustainable and profitable in both the short and the long term, and that they are optimistic that going digital is the way forward.

Regulatory barriers — interoperability. Despite the progress that has been made in the regulatory environment in Sierra Leone, there are still some policy challenges that pose barriers to or hinder the growth of DFS. As reported in regard to financial stability, DFS providers showed appreciation for the efforts that have been made by the BSL to develop policies such as Tiered KYC, Use of agents and Consumer protection guidelines. However, there is a need to conduct more awareness campaigns or sensitization efforts surrounding these guidelines to help reach and protect more customers. MMOs also expressed the need for further clarification on some of these guidelines, such as those regarding e-money.

All providers also highlighted the need for a more deliberate push by the government to counter cash transactions. This comes in the form of a clearer vision and direction from the government and policy makers to draft regulations or guidelines limiting cash transactions, or shifting government services and payments towards digital methods. Recently, the BSL has issued regulations to limit over-the-counter cash withdrawals. However, more efforts are needed from the government to make various government-to-person and person-to-government payments digital, such as those for driving licences, car registrations, taxes, social payments and so on.

The lack of a national switch remains a challenge for DFS providers. However, they have all noted that once the switch is operational, it will be a tremendous step forwards in accelerating digital finance, thanks to the improved efficiency and reduced operating costs.

Digital financial literacy. Limited digital and financial literacy also presents barriers to the effective adoption of DFS. Despite the number of Internet users increasing by 20 percent and mobile connections increasing by 14 percent between January 2020 and January 2021, only a limited number of digital and financial literacy products and tools are available in the market.

Although progress is being made with the introduction of mobile banking applications and Internet banking by commercial banks, the literature and financial education provided is very product specific. At present, only one DFS provider has partnered with an EdTech organization to provide financial literacy training to help customers in receiving and servicing loans.

More investment into digital and financial literacy programmes, both by the public and private sectors, will translate into high DFS adoption rates and will help the industry to move forwards. This includes raising more awareness about various regulations and guidelines such as the Tiered KYC and Consumer protection guidelines. Popularizing these documents on both the supply and demand side will help empower customers to better understand their rights and responsibilities as consumers. This is a key component in the latest financial inclusion strategy from the BSL.



3

CONCLUSION AND WAY FORWARD

The digital financial sector continues to be a priority for both the government and the private sector. Building on the growth observed within the sector last year as a result of COVID-19, there remains a sustained interest in advancing the digital economy in Sierra Leone. Through discussions with DFS providers, FSPs are making greater investments to adapt to digital trends, shifting business strategies to introduce new products and maintain a positive outlook on the future of digital finance in the country.

► **Greater investments in operations**

One of the major takeaways from conversations with DFS providers is their commitment to embracing technology. This can be seen through the increasing number of investments from providers, as they develop their IT infrastructure and human resources capacity to support their DFS operations. A primary example of this is the investment into acquiring improved software and data collection platforms. With regard to the ability of providers to track their customers profiles, while most can now disaggregate their data by sex, others are in the process of upgrading their systems to collect data on MSME clients, as well as on youth and rural populations. This information is vital as it supports product development and helps to reduce the digital gap between different customer segments.

Other investments that DFS providers have been making include employing aggressive marketing strategies to improve uptake among their respective customers, creating teams dedicated to DFS and adapting their business strategies to demonstrate their interest in digital finance.

► **Shifting business strategies — new products and innovations**

While there has not been a significant increase in the number of DFS providers over the past year, new DFS products and services are being offered in the market. Most commercial banks have now introduced either online banking or a mobile application, as well as offering an integration with mobile money (e.g. wallet-to-bank and bank-to-wallet transfers).

In addition, commercial banks are embracing new “branch-less” or “branch-lite” alternatives to broaden their reach and expand financial services to rural communities. Approximately half of the commercial banks surveyed have either already started rolling out agent networks, or are planning or piloting the deployment of agents. Commercial banks are shifting their strategies to include agent banking; however, progress has been slow. This can be attributed to priorities being shifted to emerging issues such as the redenomination. Other issues include system integrations and the high cost of software.

Unfortunately, the microfinance institution sector is lagging behind in adopting digital finance or alternative methods of operations. However, the industry is seeing a few microfinance institutions shifting their strategy and investing in the use of tablets and mobile applications for client interactions and for tracking repayments.

On the merchant side, several advancements have been made to promote the use of merchant services. Approximately four banks have POS terminals deployed in strategic points such as supermarkets and hotels. In addition, MMOs are onboarding more merchants to allow for mobile money transactions at supermarkets and other retail outlets. New merchant solutions such as QR codes are currently being discussed and introduced into the market. However, at present, only a few service providers offer these solutions and they are slow to enter the market. One provider has also mentioned innovative products catered to merchants that will allow for cash-in and cash-out services, payments and cardless transactions which cater to all segments of the population.

At present, three or four providers have successfully offered Unstructured Supplementary Service Data (USSD) services as part of their operations, while another provider is in the final stages of deploying their USSD operations. Unfortunately, many banks have attributed high costs, unreliable network/infrastructure and issues with integration to their lack of investment in offering USSD services. However, the market has seen some commercial banks take advantage of innovative solutions by partnering with an MMO to mitigate some of these costs.

Long-term sustainability and the future. While FSPs have invested in advancing digital finance, it has not been easy. Many providers have voiced their concerns regarding the high operating costs and large amount of capital that is required to enter the DFS market. As a result, they have indicated that short-term profitability is limited. However, all providers have noted that digital finance is the future and claim that these investments will prove to be sustainable and profitable in the long term. This long-term mentality is positive and shows the optimism that FSPs have for the DFS market in Sierra Leone. This is also echoed by the government and the BSL under the latest NSFI (2022–2026), where DFS are one of the three priority intervention areas.

APPENDIX: METHODOLOGY

The Bank of Sierra Leone (BSL) successfully secured the participation of all digital financial services (DFS) providers: 10 commercial banks, 2 mobile network operators (MNOs) and 1 microfinance institution. Two other microfinance institutions that were interviewed are currently designing DFS products and may participate in future surveys.

The Annual Provider Survey was shared electronically by the BSL with all DFS providers in March 2021. A kick-off meeting was initially held with the Financial Sector Development Unit team from the BSL, after which meetings were held with each provider as per an agreed schedule. The meetings were to explain the rationale behind the 2021 Annual Provider Survey and to explain the findings and recommendations from the 2020 survey. Due to COVID-19 protocols, data was collected through digital discussions. Online interviews were conducted by two representatives from the United Nations Capital Development Fund (UNCDF).

As with previous versions of the survey, the 2021 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)
- Composition of customer base (percentage of males/females, youth, and micro, small and medium enterprises)
- Total number of unique active customers by service type
- Total volume and value of transactions by service type
- Total number of registered and active agents (30 days)
- Composition of providers' agent base (gender, urban/rural)
- Total volume and value of transactions conducted with agents
- Total value of commission paid to agents
- Total number of merchants, both registered and active, accepting DFS payments
- Volume and value of cash-in and cash-out transactions at automated teller machines (ATMs)

Qualitative information was collected on the performance and financial sustainability of the institutions interviewed, along with the key challenges encountered, strategic priorities for development and the level of engagement with the UNCDF Sierra Leone programme. The interviews also captured the impact of COVID-19 on businesses, the use of application programming interfaces among providers and the development of digital and financial literacy training.

Institutions were guaranteed that their submissions will remain confidential, as per the standard United Nations policy on handling proprietary information supplied by its members. UNCDF signed non-disclosure agreements wherever required by providers. All data presented in this report were therefore aggregated and anonymized. In addition to receiving this publicly available report, DFS providers who participated in the Annual Provider Survey will also receive a confidential benchmarking report that allows them to gauge their performance relative to that of the rest of the market.

Please note that any variations from the 2020 report may be due to changes in the questionnaire and/or methods of aggregation and calculation.

REFERENCES

GSM Association, State of the Industry Report on Mobile Money (London, 2022).

McCaffrey, M., "Did the COVID-19 Pandemic Accelerate Growth of Mobile Money?", UNCDF, 30 June 2022.

United Nations Capital Development Fund, "Sierra Leone becomes the second country in Africa to launch the Sandbox Framework to test FinTech innovations", 10 April 2018.

United Nations Capital Development Fund. Leaving No One Behind in the Digital Era. 2019.

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Disclaimer

This report is based on data collected through the 2021 Annual Provider Survey of DFS and an internal analysis by the UNCDF team.

Survey data

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

Confidentiality

Data published in this report have been presented in such a way as to protect the confidentiality of each provider. Prior approval has been obtained from the provider for any specific references or highlights in this report which 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 by a rural/urban split, which limited the level of analysis that could be completed.



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