

STATE OF THE DIGITAL FINANCIAL SERVICES MARKET IN

SIERRA LEONE 2020

Results from the United Nations Capital Development Fund Annual Provider Survey

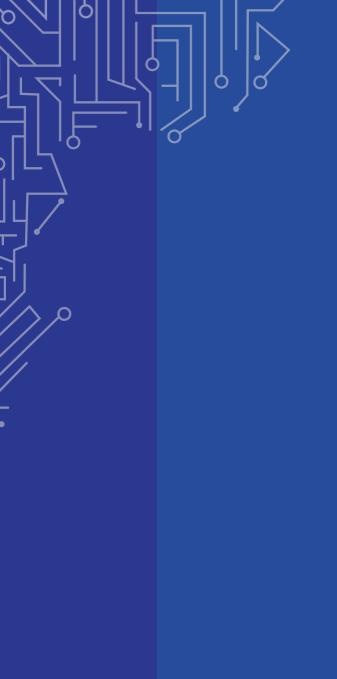




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Acronyms and Abbreviations

АТМ	automated (or automatic) teller machine
BSL	Bank of Sierra Leone
DFS	digital financial services
FinTech	financial technology
IBSA	India, Brazil and South Africa
Le	leone*
MFI	microfinance institution
мио	mobile network operator
NSFI	National Strategy for Financial Inclusion
SDG	Sustainable Development Goal
UNCDF	United Nations Capital Development Fund
USSD	Unstructured Supplementary Service Data

^{*}Conversion rate: US\$1 = Le10,215.

Source: United Nations Treasury operational rates of exchange (https://treasury.un.org/operationalrates/OperationalRates. php), 1 June 2021. This rate is used wherever United States dollar (US\$) equivalents are provided for Sierra Leone leones (Le).

Glossary

Term	Definition
Active customer account	An account with which at least one transaction was conducted in the last 30 days or the last 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 for a customer account to be considered 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, in order to access the network's services – voice, mobile data, short text messages, etc. – until the credit has run out.
Automated (or automatic) teller machine (ATM)	An electronic telecommunications device that enables the clients of a financial institution to perform financial transactions without the need for a cashier. ATMs may be operated either offline or online with real-time access to an authorization database.

Term	Definition
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 DFS, either from the customer's DFS account or using an agent (i.e. over the counter).
Bulk payment	Transaction conducted from one account to 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 several customers paying for utilities, comprise collections by an organization from multiple payers; they are referred to as 'many to one'.
Cash-in transactions	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 to be credited to their account.
Cash-out transactions	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 clients with access to their accounts to withdraw cash or pay for goods and services. It eliminates the need for the clients to go to a physical bank 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 terminals, mobile phones and the Internet.
Digital loan	A loan given to a customer by a DFS provider via a mobile device or online. 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.
Financial inclusion	Access to a range of affordable, convenient and appropriate financial services for all eligible citizens. These services could be formal financial products/services that are provided by formal financial institutions (banks and/or non-bank financial institutions bound by legally recognized rules) or informal financial products/services that are unregulated and operate without recognized legal governance (e.g. village banks or village development funds).
FinTech	The integration of technology into financial services companies' offerings, to improve their use by and delivery to consumers.

Term	Definition
International remittances	Either the total number of inbound or outbound cross-border fund transfers, or the cross-border fund transfer from one person to another person. The transaction may be a direct mobile money remittance or may be completed through an intermediary organization such as Western Union.
Know-your-customer requirements	Financial institutions and regulated financial service providers are obligated by regulation to perform due diligence to identify their customers. Know your customer refers to these requirements and/or to the regulation that governs 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 know-your-customer requirements and adjusting the acceptable documentation requirements can help DFS providers facilitate customer adoption (increasing both the number of customers and their use of a provider's products and services) and increase financial inclusion, especially in rural areas.
Liquidity management	The management by a mobile money agent of the balance of cash and e-money held to meet customers' demands to purchase (cash-in) or sell (cash-out) e-money. This balance (also known as the float balance) is the key metric used to measure the liquidity of an agent.
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 point-of-sale device, mobile device or the Internet.
Merchant payments	Movements of value from a customer to a merchant to pay for goods or services at the point of sale.
Mobile money operator	A licensed provider of financial services through mobile phones and mobile telephone networks.
Over-the-counter transactions	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 transfers	Also known as person-to-person transfers, these originate from a customer DFS account and terminate in another customer DFS account.
Registered customers	Customers who have registered for a service, regardless of whether the service is active.
(Agent) Revenue	The total commission earned by agents for all the transactions they conduct through their agent accounts.
Second-generation products	More-advanced DFS, such as microcredit and microinsurance products, loan repayments, merchant payments, push (to bank)/pull (from bank) transfers and international remittances.
Third-party provider	DFS provider that leverages the infrastructure of MNOs. A third-party provider is usually MNO-agnostic and, in some cases, are master agents or act on behalf of a DFS provider or an MNO under a service agreement, a joint venture agreement or another contractual arrangement.
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 GSM (Global System for Mobile Communications) networks for sending short text 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 GSM mobile phone.



FOREWORD

The United Nations Capital Development Fund (UNCDF), in partnership with the Bank of Sierra Leone and with support from the India, Brazil and South Africa (IBSA) fund, is pleased to publish the *State of the Digital Financial Services Market in Sierra Leone report* for 2020. The report presents the findings from the Annual Provider Survey conducted between March and June 2021.

This year's survey presents very interesting outcomes. The COVID-19 pandemic, which first hit Sierra Leone in early 2020, reinforced the need for accelerated adoption of DFS by private and public sector actors and customers alike. The number of active DFS users for a 90-day period reached 2.2 million in December 2020, from 1.4 million in the same period in 2019. The growth indicates the resilience of transactions to the pandemic, and the increased value proposition for DFS usage. There were also more varied transaction types, including bulk payments and digital loans.

To adapt to the crisis, providers relied on wider cooperation, which resulted in increased integration, especially between mobile network operators (MNOs) and banks. Account-to-wallet and wallet-to-account transactions 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 deploying additional services for clients. Seven institutions currently share APIs (application programming interfaces) with other establishments, aimed at building partnerships and deepening the value proposition.

The number of DFS providers increased in 2020, bringing the total to 13 providers. For the first time since the introduction of the Annual Provider Survey in Sierra Leone in 2017, a microfinance institution (MFI) has joined the list of providers offering DFS. In addition, two other MFIs are currently designing DFS interventions and intend to deploy full solutions by early 2022.

Agency banking is a new addition to the channels available, with the issuance of agency banking guidelines by the Bank of Sierra Leone in January 2020. Some commercial banks have already started building their agency banking platforms and processes with the view of full implementation by the fourth quarter of 2021 and first quarter of 2022. Providers see agency banking as a means to extend their presence and also reach more rural areas of the country. The model must, however, be carefully thought through and run in line with the context of Sierra Leone and best practices from different countries.

During 2020, more DFS providers invested 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 that predict more mobile payments and increased use of advanced digital tools. The implementation of the national switch will further deepen this proposition, as it will help facilitate interoperability among industry players and improve the DFS ecosystem.

The drive towards digital is inevitable, not only with regards to financial services but also in many other sectors, such as 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-developed 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.

This year's Annual Provider Survey was conducted at the same time as the evaluation of the National Strategy for Financial Inclusion (NSFI) 2017–2020. The NSFI had DFS as one of its thematic areas. Inputs from the Annual Provider Survey will therefore be incorporated into the design and development of the next NSFI.

We at UNCDF are 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 Bank of Sierra Leone and are hopeful that the work undertaken since 2017 will continue to yield results in the coming years.



Wycliffe Ngwabe Country Lead - UNCDF Sierra Leone

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PREFACE

To compile this report, the United Nations Capital Development Fund (UNCDF) and the Bank of Sierra Leone counted on the dedication of all providers, and were successfully able to secure full participation in the survey. This is testimony to the motivation and hard work of the industry players and to the added value that this report gives DFS providers in Sierra Leone.



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. The bank led the development of the National Strategy for Financial Inclusion (NSFI) in Sierra Leone (2017–2020) and provides leadership and coordination support to the Digital Financial Services Working Group. At the time of writing (June 2021), the NSFI is in the assessment phase. This *State of the Digital Financial Services Market in Sierra Leone* report outlines the progress achieved, while suggesting further improvements and highlighting underlying challenges. The findings from this report can support the design of the next NSFI in Sierra Leone (2021–2025).



UNCDF

The UN Capital Development Fund makes public and private finance work for the poor in the world's 46 least developed countries (LDCs).

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 financing models work through three channels: (1) inclusive digital economies, which connects individuals, households, and small businesses with financial eco-systems that catalyze participation in the local economy, and provide tools to climb out of poverty and manage financial lives; (2) local development finance, which capacitates localities through fiscal decentralization, innovative municipal finance, and structured project finance to drive local economic expansion and sustainable development; and (3) investment finance, which provides catalytic financial structuring, de-risking, and capital deployment to drive SDG impact and domestic resource mobilization.



Leaving No One behind in the Digital Era

The UNCDF strategy 'Leaving no one behind in the digital era'¹ is based on over a decade's 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 achieving the SDGs. To achieve this vision UNCDF uses a market development approach and continuously seeks to address underlying market dysfunctions that exclude people living in the last mile.

In Sierra Leone, UNCDF and the Better Than Cash Alliance have been providing technical assistance and investment grants for digital services since December 2014, when they were asked to implement the Payments Programme for Ebola Response Workers with the National Ebola Response Centre. The efforts successfully demonstrated the use of digital payments, which led to a US\$10 million saving 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. 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.²

Recently, UNCDF partnered with the Directorate of Science, Technology and Innovation to map the digital landscape in Sierra Leone and identify opportunities to accelerate digital development and financial inclusion for all.



UNCDF Project Team

Developing the UNCDF Annual Provider Survey included gathering data, assessing the incentives of the providers of Sierra Leonean digital finance, 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 wrote the report.



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¹ UNCDF, Leaving No One Behind in the Digital Era (May 2019). Available at https://www.uncdf.org/article/4931/global-strategy-leaving-no-one-behind-in-the-digital-era (accessed 21 August 2021).

² UNCDF, 'Sierra Leone becomes the second country in Africa to launch the Sandbox Framework to test FinTech innovations' (Freetown, Sierra Leone, 10 April 2018). Available at https://www.uncdf.org/article/3486/sierra-leone-becomes-the-second-country-in-africa-to-launch-the-sandbox-framework-to-test-fintech-innovations (accessed 21 August 2021).



This fourth Annual Provider Survey provides information on the state of the digital financial services (DFS) industry by aggregating industry data and through 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 monthly, as well as the type of services offered in the market. The report also provides information on the different DFS distribution channels in Sierra Leone and highlights 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.

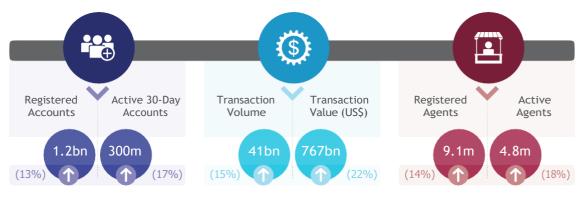
State of the Global DFS Industry

The year of 2020 was marked by the unprecedented pandemic, the impacts of which lasted throughout the year and beyond. To stem the COVID-19 pandemic, restriction measures were put in place: economies came to a halt, physical businesses shut down, and people refrained from gathering and moving around. Overnight, physical bank branches closed and mobile money agents were restricted in their operations.

Central banks, governments and health practitioners encouraged use of cashless and contactless modes of payment to reduce the risk of virus spread through handling of cash, thus creating new opportunities for the adoption of DFS. Providers took on the challenge to adapt quickly to offer digital services to their customers. Customers had to adapt quickly to digital payment solutions. In addition, DFS enabled governments to provide quick and secure financial support to hard-to-reach people and businesses, as demonstrated in Namibia, Peru, Zambia and Uganda.³ This helped mitigate the economic fallout and strengthened the recovery.

Figures 1 and 2, from the *State of the Industry Report on Mobile Money* in 2020, published by GSMA, present how the industry grew in 2020. Overall, there was a 17 percent increase in the number of active 30-day accounts, which brought the total number of registered accounts to over 300 million. In addition, the total transaction value grew by 22 percent – faster than the number of transactions, which grew by 15 percent. Providers also invested in growing and activating their agents' networks; at the end of 2020, there were 4.8 million active agents around the world.

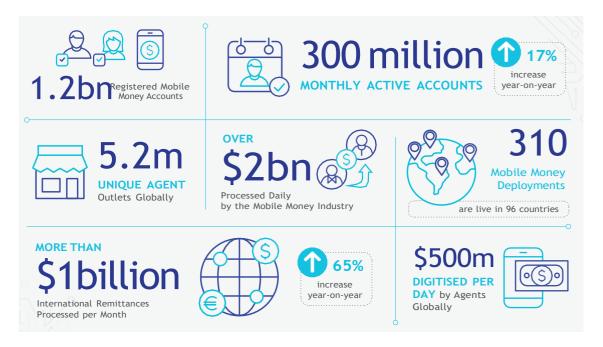
Figures 1
2020 Global Overview



Source: State of the Industry Report on Mobile Money: 2021, GSMA

³ Ulric Eriksson von Allmen and others, 'Digital financial inclusion in the times of COVID-19', IMF Blog (1 July 2020). Available at https://blogs.imf.org/2020/07/01/digital-financial-inclusion-in-the-times-of-covid-19/ (accessed 21 August 2021).

Figures 2 Mobile Money in 2020



Source: State of the Industry Report on Mobile Money: 2021, GSMA

The digital financial inclusion space is growing globally; Africa and Asia made great progress in 2020, but with significant variations across countries. In Africa, for instance, Ghana, Kenya and Uganda are front-runners. Kenya, Ghana and Liberia supported the shift towards digital with measures such as lowering fees and reducing restrictions on mobile money transactions.

The following will allow for further expansion of DFS in the post-COVID era.

- Improved access to digital infrastructure for all (access to electricity, mobile and Internet coverage, and digital ID)
- Greater financial and digital literacy
- Consideration of consumer and data protection principles
- Interoperability among players nationally and across borders

The fallout from the pandemic shows that the trend towards greater digitalization of financial services will persist. To build inclusive societies and address rising inequalities during and after the ongoing crisis, global and national leaders must aim to close the digital divide across and within countries to reap the benefits of DFS. This means finding the right balance between enabling financial innovation and addressing several risks – insufficient consumer protection; lack of financial and digital literacy; unequal access to digital infrastructure; data biases that need action at the national level; and money-laundering and cyber risks – through international agreements and information sharing, including on antitrust laws, to ensure adequate competition.

State of DFS in Sierra Leone

UNCDF has been providing technical assistance and investment grants for DFS since December 2014, when it was asked to implement the Payments Programme for Ebola Response Workers with the National Ebola Response Centre. The consequent successful demonstration of digital payments led to overall savings of US\$10 million for the Government of Sierra Leone.

UNCDF noted the following industry changes in Sierra Leone for 2020:



Increased registration of DFS

Out of the 13 providers, 12 reported growth in their registered customer base between December 2019 and December 2020. On average, the number of registered DFS accounts grew by 47 percent per provider. The number of active 90-day DFS accounts reached 2.2 million in December 2020, from 1.4 million in December 2019, representing a 63 percent growth.

Increased use of DFS through innovative channels



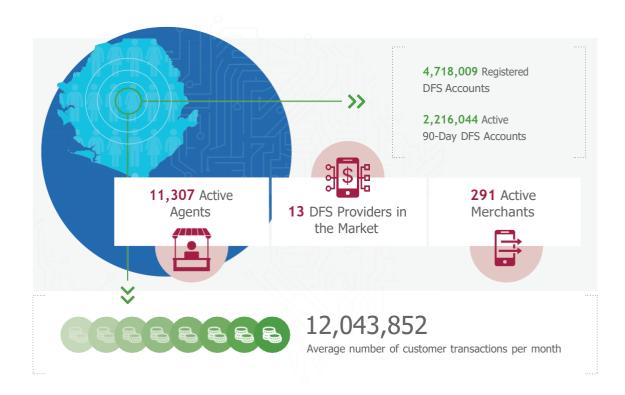
With the fallout from the COVID-19 pandemic, traditional bank branches became increasingly unsafe, and it became a priority to reduce the over-reliance on cash handling. Consequently, customers shifted to using mobile banking, mobile money platforms, automated teller machines (ATMs) and Internet banking.

Merchant payments, however, remained low, as they have not yet resonated with both customers and merchants. Providers attribute the low uptake to: (i) merchants not using the channel because the option is more expensive than accepting cash or simple peer-to-peer transfers; and (ii) lack of trust and a low level of consumer awareness of the use and benefits of the channel.

Changes in the volumes and values of different transaction types

In 2020, basic transaction types such as airtime top-up, cash-in and cash-out represented a smaller share in terms of total volume and value of transactions in the DFS space compared with previous years. More-advanced service types became increasingly available and attractive to customers. Bulk payments and transfers increased as more corporate entities adopted the technology to facilitate payments, also in response to the COVID-19 crisis. Digital loan products were also designed and developed to offer better services to clients.

Key Figures for December 2020





Increased Interest in DFS

There is growing interest from financial service providers in DFS, and this is evident in their increased investments in digital infrastructure and support services. Out of the 13 providers that responded to the survey, 9 reported having invested more in DFS in 2020 compared with 2019. The same institutions plan to increase their investments in DFS for 2021.

Amidst the COVID-19 crisis and the subsequent economic downturn in 2020, DFS providers in Sierra Leone recruited more manpower to work specifically in the DFS space. The annual growth in the number of people working in DFS departments was 110 percent for the year 2020. This growth can be partly attributed to the entry of new players, but also reflects increased investment in human resources by six other players.

Microfinance Institutions

Microfinance institutions (MFIs) that previously were not using DFS are beginning to embrace digital payment, because the value proposition for customer usage of digital products and services continues to become more compelling, especially due to the COVID-19 pandemic. An MFI has already deployed staff as mobile agents to market centres to process basic transactions for clients using a tablet-based application, and two additional MFIs are piloting projects using the Unstructured Supplementary Service Data (USSD) and mobile money/bank integration.

The transition to digital will not only improve the customer experience for clients of MFIs but also increase competition within the financial services industry. MFIs will have renewed confidence and will be able to develop suites of digital financial products and services. MFIs are often the only formal financial service providers in most rural areas, so the digitalization of such institutions would offer the opportunity to better serve low-income and rural people.

Commercial Banks

Two commercial banks have launched DFS operations in Sierra Leone, bringing the total number of commercial banks that offer DFS in the country to 10.

Bank and Mobile Network Operator Integrations

Bank and mobile network operator (MNO) integrations and API (application programming interface) sharing are increasing among industry players. Six providers now offer bank-to-wallet and wallet-to-bank services, and seven providers share their APIs with other players in the sector. By transactions between bank and mobile money accounts being allowed, value is more likely to stay within the digital ecosystem. Instead of withdrawing money to transact in the cash economy, customers can now conduct the same transactions digitally. The integration suggests that banks and MNOs do not view each other as competitors, but work as collaborators driving an innovative and inclusive digital payment ecosystem.

Emphasis on Simplifying Processes and Protecting the Customer

Guidelines on Tiered Know-Your-Customer Requirements

The Bank of Sierra Leone published guidelines on tiered know-your-customer requirements in June 2020, a move that creates many new opportunities for providers and customers in the banking industry. The guidelines allow for flexible registration requirements, particularly for low-value accounts; this has helped institutions to reach out to the unbanked population and to people living in rural areas with ID challenges.

Customer Protection is a Priority

The Bank of Sierra Leone set up a consumer protection unit in 2018 to promote confidence, discipline and harmony in the banking sector. Consumer protection guidelines outline the rights and responsibilities of customers. The unit handles issues including: hidden fees and charges not being disclosed to customers; terms and conditions not being clearly spelt out; breaches in contractual terms by the banks; lack of disclosure and transparency-, fraud- and dispute-related issues. The unit has a framework to ensure that if providers fail to address a customer-related issue, the issue is escalated for resolution.

Providers Aim to Raise Awareness of DFS

Most institutions are designing training materials for their products. Awareness-raising campaigns are being conducted through radio and print media advertisements or by field officers targeting crowded areas like market centres. In mid-2020, however, face-to-face campaigns were suspended due to restriction measures during the COVID-19 pandemic.

The campaigns offer information on the features, benefits, and terms and conditions of each product. Such campaigns have also proven to provide a good opportunity for account registration.

Providers are considering designing awareness campaigns that target specific population segments, including people living in rural areas, women and youth, with the objective of attracting these customers in the coming years.

Leveraging Innovative Channels to offer DFS

Agency Banking

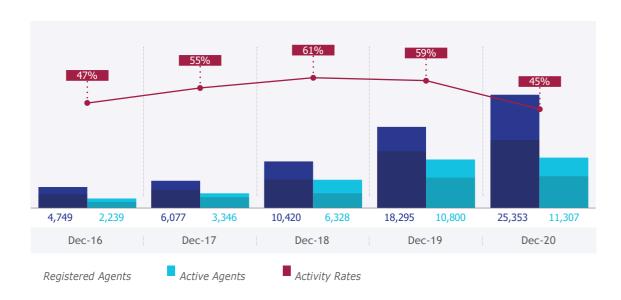
The number of registered agents increased from 18,295 in December 2019 to 25,353 in December 2020, a growth of 38% (see Figure 3). Despite this increase, activity rate decreased from 59 percent in 2019 to 45 percent in 2020, an indication that more work needs to be done by providers to increase agent activity.

Overall, agency banking networks are a means of increasing financial inclusion. Agents allow clients to access basic banking services within their catchment areas. Agency banking also reduces the travel costs for populations in more remote areas to carry out transactions.

The agency banking regulations published in January 2020 provided the regulatory guidelines for banks to roll out agency banking networks. As a result, most providers spent 2020 and the first half of 2021 working on their agency banking platforms. Results from the survey show that since January 2020, four providers (banks and MFIs) have started rolling out agent networks, and at least three additional providers intend to commence full agency banking operations in the first quarter of 2022 at the latest.

The entry of new players into the agency banking business should slowly reduce the monopoly held by the two MNOs operating in Sierra Leone. As of December 2020, MNOs still had 99 percent of the total number of agents in the country.

Figures 3
Number of registered and active agents in Sierra Leone



Providers identified agency banking as a channel that might enable them to grow their footprints across the country, increase their market share, and also enable them to reach the population located in the more remote areas of the country. Agency banking providers, however, experience the following challenges: managing liquidity to serve customers, trust issues with agents, and poor telecommunications infrastructure in remote communities.

Experience in different markets shows that developing financially profitable and sustainable agent networks is challenging and requires prioritization, precision and customization to increase efficiency and reduce costs. While all agent networks should consider the local and country context, the points below provide basic guidance to providers looking to develop such models.

- **Start Urban:** The low population density of rural areas and the limited economic activity, coupled with the lack of access to key infrastructure such as bank branches, makes it challenging to operate agent networks and reach sustainability. In Sierra Leone, places other than Freetown are considered rural. Providers especially banks should therefore first pilot their agent networks in Freetown and peri-urban areas before scaling to rural areas.
- Customize Agent Networks: The 'one size fits all' approach does not work in the agency banking
 business. Although there may be learnings from across the industry that are applicable generally,
 different country and cultural contexts require different solutions. It is therefore important for
 providers in Sierra Leone to design and develop their models based on the financial climate and
 country context.
- Manage Liquidity: Agents must always balance their e-float (till or operating capital) to facilitate customer transactions. Agents must also have enough cash to serve customers. This is crucial for a good customer experience. Clients should be able to withdraw part of their funds as and when they need it, and agents must always be able to provide this service during their operating hours. Providers need to train agents and provide the tools and information that agents can use to predict and monitor liquidity; teams (super-agents and/or staff) should oversee the liquidity management of agents. Offering agents rebalancing options such as a network of rebalancing points, liquidity delivery or overdraft/credit facilities is also a good option. Financial services providers may also decide to outsource agent liquidity management to experts.⁴
- Collect Data to Inform Sustained Business Growth: Agent networks require heavy initial investments. It is important that providers monitor top-performing agents to identify common success factors. Data and monitoring are important for decision-making and to facilitate the formulation of growth strategies. The most effective approach is to digitalize most operations, from agent registration to performance management. Several options, including new technology firms, provide such services, facilitating the generation of business intelligence for agent network providers.

Among providers that have launched their agency banking networks in Sierra Leone, only a third of them collect gender-disaggregated data on their agents. The lack of data makes it difficult to validate hypotheses linking female agents with an increased female customer base, but this hypothesis is worth testing in Sierra Leone.

ATMs

Providers have been looking at options to expand their footprints across the country without opening traditional bank branches, which is costly. Increasing the number of ATMs is one option. The survey did not capture data on the number of ATMs in Sierra Leone, but it did show that, during December 2020, a total of 60,000 unique customers used ATMs; that represents 14 percent annual growth.

ATMs in Sierra Leone currently only allow for cash withdrawals. Providers are now looking at replacing ATMs with machines that have more advanced features. The new ATMs would allow for cash deposits, bill payments and peer-to-peer transfers. Setting up these more advanced ATMs is an innovative solution

³ For more information on how to improve liquidity management for agents, see Lisa Chassin and John Balaba, 'Savings at the frontier – how to improve liquidity management for agents serving small informal groups and savers' (Oxford Policy Management, March 2020). Available at https://www.opml.co.uk/files/Publications/a0600-savings-at-the-frontier/kp2.2-how-to-note-on-agent-liquidity-management-final.pdf?noredirect=1 (accessed 21 August 2021).

for financial services providers looking to offer formal DFS in remote localities in Sierra Leone. Such ATMs would also increase the suite of digital products and services offered by providers. Sufficient ATM uptime (network target of 98 percent) is, however, vital for a great customer experience and increased usage.

Merchants Payments

As of December 2020, seven providers offered merchant services. The total number of registered merchants in December 2020 was 750 (see Figure 4), which corresponds to 37 percent growth in a year. The number of active merchants was, however, quite low, with fewer than 300 active merchants in December 2020. This corresponds to a 39 percent activity rate.

Figure 4
Number of registered and active merchants in Sierra Leone



Merchant payments are a relevant service and could drive the uptake and use of digital services. However, merchants are reluctant to accept debit card and mobile money payments for goods and services, and customers still tend to prefer cash over digital. Guidelines on merchant payments could ensure a more enabling environment to drive uptake and use of the channel. The guidelines could include merchant-selection criteria, dos and don'ts for merchants and financial services providers, and guidelines on transaction dispute resolution and fraud and risk management.

Experience from other countries (such as Rwanda and Tanzania)⁵ shows that the government taking the lead and supporting digitalization helps bridge the digital divide. (Processes including those related to tax, passport requests, driving licences, vehicle registration and business registration may be improved by leveraging digital technology.)

⁵ Nicolas Fichers and Lamia Naji, *Digitalising person-to- government payments* (GSMA, October 2020). Available at https://www.gsma.com/publicpolicy/wp-content/uploads/2020/09/GSMA-Digitalising-person-to-government-payments.pdf (accessed 21 August 2021).

Remaining Challenges Slows DFS Offering

Network Coverage

Around the world, the coverage gap – the percentage of the world population living outside areas covered by mobile broadband networks – dropped from 10 percent to 7 percent in 2019.⁶ Despite this improvement, however, some populations remain out of reach of networks or have poor connectivity. DFS providers in Sierra Leone report that poor mobile broadband coverage is a recurring challenge, and that their efforts to reach the unbanked population in remote areas have been hampered.

Investment in developing reliable network infrastructure is, therefore, key for the further expansion of DFS in Sierra Leone. Building such infrastructure requires major investment, from which gains can only be experienced in the long term. Government support, domestic resource mobilization, catalytic investments and other private—public partnerships are required.

Financial Sustainability of DFS

Interviews show that DFS providers in Sierra Leone are convinced that going digital is the way forward. For the most recent players in the DFS space, the shift to digital had been embedded in the institution's strategy. The pandemic has reinforced the use case. Shifting to digital requires significant investment, however, and the time to achieving financial sustainability is often considerable. As of December 2020, 60 percent of providers consider that DFS generate enough revenue to cover the operating costs.

Regulatory Barriers

A number of regulatory barriers still hinder DFS development and providers' ability to quickly offer innovative services in response to the needs of the market.

Interviews with providers suggest a lack of clarity around the laws and regulations governing USSD in the country. Banks mentioned delays in regulators issuing USSD codes, which affects the deployment of innovative digital payment solutions. This suggests a need for clarification and guidance on the topic from the different regulatory bodies.

Providers also highlighted lengthy approval processes for DFS and the lack of transparent timelines.

Providers expressed an interest in better understanding the government's vision on retail financial services. This will allow providers to formulate strategies in line with the government's developmental agenda.

The lack of a national switch came up in almost all discussions with providers. Providers reiterated the importance of the national switch in driving the digital economy agenda and improving the digital payment ecosystem in Sierra Leone. Providers highlighted how the national switch will enhance interoperability among industry players, improve efficiency, reduce operating costs and reduce fees/ charges for customers.

⁶ Kalvin Bahia and Anne Delaporte, The State of Mobile Internet Connectivity 2020 (GSMA, September 2020). Available at https://www.gsma.com/r/somic/ (accessed 21 August 2021).



The DFS industry has been growing significantly in Sierra Leone – as shown in the number of active accounts and use of DFS.

Customers Turn to DFS

One major provider in Sierra Leone completed an upgrade of its system during the first half of 2020, and accounts that had been dormant for over a year were deleted from the database. The total number of registered DFS accounts in 2020 therefore dropped to 4.7 million in December 2020 (see Figure 5). Analysis shows that, except for this one player, all other DFS providers reported growth in their registered customer base.

Figure 5
Number of DFS accounts registered

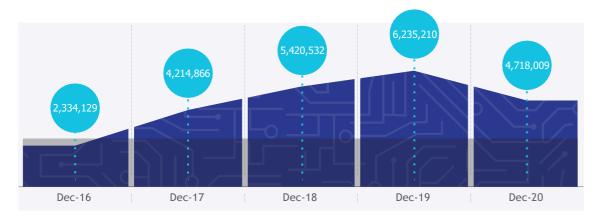


Figure 6 presents the total number of active DFS accounts for a 90-day period as well as for a 30-day period. There was a slight decrease in the number of active accounts between December 2019 and June 2020, which corresponds with the period when the COVID-19 crisis first hit Sierra Leone. Following this period, however, the figures rose above previous levels. The uptake of DFS was largely due to some MNOs zero-rating peer-to-peer and bulk payments in an attempt to discourage the use of cash.

The number of active 90-day DFS accounts grew by 59 percent between December 2019 and December 2020, reaching a total of 2.2 million active DFS accounts in December 2020. The annual growth rate for 30-day customer accounts was 48 percent.

Figure 6
Active (90 days and 30 days) DFS accounts in 2020



■ Number of active DFS accounts (90 days)

Number of active DFS accounts (30 days)

Figure 7 shows activity rates. In December 2020 the client activity rate was 47 percent. The increase is mainly due to the deleting of dormant accounts from the database, as discussed above.

Figure 7
DFS account activity rates



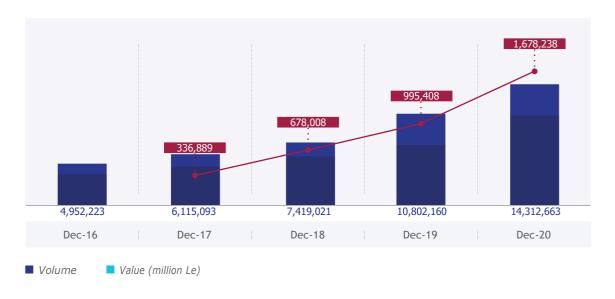
Increased Volume and Value of Transactions

The number of transactions conducted through DFS accounts has been increasing over the years, reaching a total of 14.3 million DFS transactions in December 2020 (see Figure 8) – an increase of 32 percent compared with December 2019.

The value transacted through DFS increased faster than the volume of transactions. In December 2020, a total of Le 1.7 billion (US\$164 million) was transacted through DFS, which corresponds to a 69 percent increase in the value of transactions from December 2019. The average transaction value increased from Le92,149 in December 2019 to Le103,766 in December 2020⁷ (adjusted with the inflation rate).

Overall, this suggests that customers are using DFS to conduct high value transactions, which in turn suggests greater trust in the service. This hypothesis about customers' transaction habits would, however, need to be validated over the next few years.

Figure 8 Volume and value of DFS transactions (December 2016 to December 2020)



 $^{^{7}}$ Le 92,149 = US\$8.9. Le 103,766 = USD 10.1

A closer look at the transactions conducted for each type of service provides insight into the services that drove the increase in the average transaction values in 2020.

— More Services are Offered and Used

No new DFS were launched during 2020, but more providers have been able to widen their service offering, particularly for bank-to-wallet and wallet-to-bank services, bill payment services, bulk payments and digital loans. The digital loan offering, particularly, improved in 2020, allowing customers to not only apply for and receive their loans, but also to use their wallets (mobile money accounts) to repay loans.

Figure 9
Market share of transaction volumes, 2019

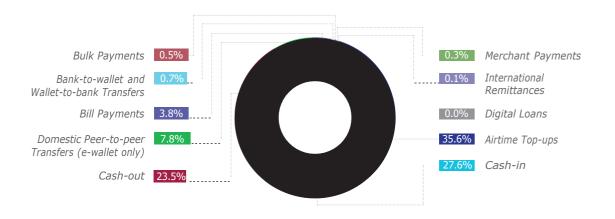
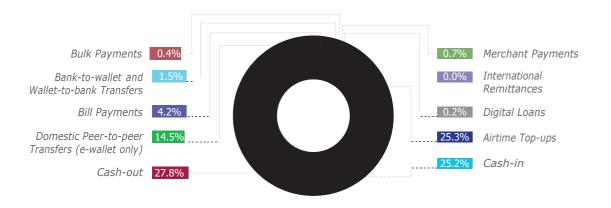


Figure 10 Market share of transaction volumes, 2020



Figures 9 and 10 present the share volumes of transactions of different DFS types in December 2019 and December 2020. Figures 11 and 12 show the values of the transactions in December 2019 and December 2020.

Figure 11
Market share of transaction values, 2019

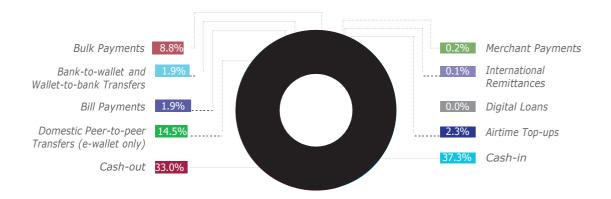
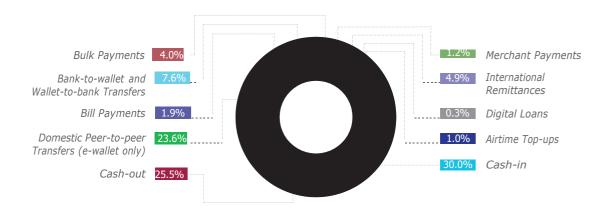


Figure 12
Market share of transaction values, 2020



Airtime Top-ups

While airtime top-ups accounted for 35.6 percent of the total number of transactions conducted in December 2019, the percentage dropped to 25.3 percent in December 2020. As an absolute number, airtime transactions did not drop, but the trend in transactions seems to be changing: customers are using mobile money for more advanced services such as bill payments and remittances, instead of the usual airtime and peer-to-peer transactions.

Domestic Peer-To-Peer Transfers

In December 2019, domestic peer-to-peer transfers represented 7.8 percent of the overall volume of transactions. The percentage of domestic peer-to-peer transfers increased significantly, to 14.5 percent, in December 2020. In terms of value, 23.6 percent of transactions were domestic peer-to-peer transfers.

Bank-To-Wallet and Wallet-To-Bank Transactions

Not only did the absolute number of bank-to-wallet and wallet-to-bank transactions increase in 2020, but the value of transactions increased even more, accounting for 7.6 percent of the overall value of DFS transactions in December 2020. This reflects increased collaboration between banks and MNOs and confirms the relevant value proposition of such integrations and transactions.

International Remittances

In Sierra Leone, many people rely on international remittances – that is, on money sent by workers abroad to their families at home. Sierra Leone's share of international remittance transaction values increased from 0.1 percent in December 2019 to 4.9 percent in December 2020.

With improved access and usage of DFS, the number of international remittance transactions is likely to grow even further.

Bulk Payments

Bulk payments – both in volume and value of transactions – did not increase between 2019 and 2020. The number of unique customers actively using bulk payment services doubled in a year, however, reaching more than 22,000 accounts in December 2020; this increase may be linked to the COVID-19 crisis. Many corporate entities leveraged mobile money and Internet banking platforms to conduct bulk transfers.

Digital Loans

In Sierra Leone, demand for digital loans soared during the peak of the pandemic as providers looked for ways to meet the needs of their customers. Partnerships emerged between MFIs and MNOs to offer loans to micro, small and medium enterprises (MSMEs).

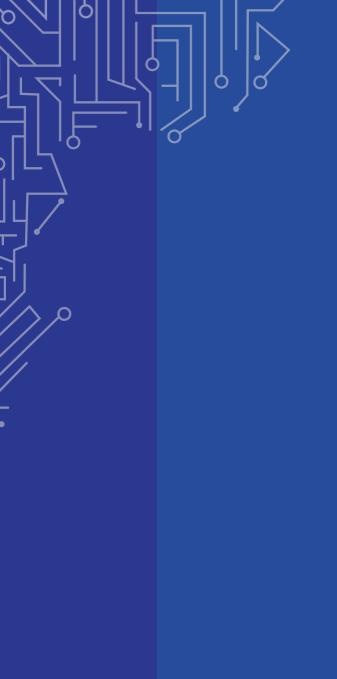
Data collected through the survey show an uptake in the number of unique customers using digital loans. The marginal uptake of digital loans is visible in market share, given as the volume and value of transactions recorded. From barely 0.1 percent in December 2019, the number of digital loans reached 0.2 percent of transaction volumes and 0.3 percent of transaction values by December 2020. The service is, however, quite recent and provided by only three providers.

CONCLUSION AND FUTURE DEVELOPMENTS IN DFS

The Annual Provider Survey 2021 clearly depicts growth in DFS in the year 2020 compared with previous years across key service and channel indicators. The move by MFIs towards digitalization, the drive towards agency banking, and the growing integration between MNOs and banks are indicative of the progress made by providers in deepening the value proposition for DFS.

The COVID-19 pandemic has had a devasting impact on economies globally, but also underscores the importance of DFS interventions in today's world. Providers in Sierra Leone must be encouraged to further accelerate the growth of the sector through innovative digital financial products and services that meet the needs of different population segments.

Overall, Sierra Leone has made progress in expanding DFS. Implementation of the national switch will drive this growth by facilitating interoperability among players and enhance further collaboration. Providers require a common platform to share information and resources to advance the DFS space.





APPENDIX

Methodology

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

The Annual Provider Survey was shared electronically by the Bank of Sierra Leone with all DFS providers in March 2021. A kick-off meeting was first held with the Financial Sector Development Unit team from the Bank of Sierra Leone, after which meetings were held with each provider based on an agreed schedule. The meetings were to explain the rationale behind the Annual Provider Survey 2021 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).

Like previous versions of the survey, the Annual Provider Survey 2021 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: male/female gender; youth; 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 agents, registered and active (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 transaction at automated teller machines (ATMs)

Qualitative information was collected on the performance and financial sustainability of the institutions interviewed, along with key challenges encountered, strategic priorities for development, and level of engagement with the UNCDF Sierra Leone programme. The interviews also captured the impact of COVID-19 on businesses, the use of APIs (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 United Nations standard 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 that 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.

Note: Any variations from the 2020 report may be due to changes in the questionnaire and/or methods of aggregation and calculation.



Acknowledgements

The UNCDF team would like to thank the following organizations for responding to the Annual Provider Survey.



























Disclaimer

This report is based on data collected through the 2021 Annual Provider Survey of DFS 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.



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