



DIGITAL FINANCIAL
**INCLUSION TRENDS
STUDY**

2022

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EXECUTIVE SUMMARY

Digital Financial Services (DFS) are financial services accessed and delivered using digital channels, including mobile devices. Its impact on the availability, cost, and usage of financial services is growing, with the potential to drive sustainable economic and social development through digital financial inclusion.

Digital financial inclusion is commonly defined as digital access to and use of formal financial services by excluded and underserved populations. Its drivers include (1) technology and distribution networks, (2) policy and regulation, (3) open ecosystems, and (4) data. The services should be suited to the customers' needs and delivered responsibly, at a cost that is affordable to customers and sustainable for providers. The essential components of digital financial inclusion include (1) digital platforms, (2) devices, (3) retail agents, and (4) additional financial services.

Across the world, digital financial inclusion initiatives are being led by various role players. For example, in Africa the initiatives are being led by telecommunication companies, commonly known as “telcos”, while South Asia and Latin America are primarily bank-led.

In line with global trends, the advent of Covid-19 in South Africa led to an increase in the use of digital channels, such as banking apps and cell-phone banking for transactional banking services. However, digital system failures, the high cost of technology, and connectivity exacerbated by the lack of reliable network infrastructure in some regions, continues to be a challenge to the take-up of digital financial services by the mass market in South Africa.

From the study, we observed risks to digital channels deriving from: the retail agent business model; consumers' inexperience and unfamiliarity with technology; and the

digital technology itself, including inadequate technological infrastructure. However, there are also meaningful potential benefits, including improved take-up and usage of formal financial products and services by those that are currently under-serviced or excluded, primarily through a better value proposition.

A set of considerations is proposed for providers of DFS and policymakers/regulators to reflect on, to fully realise the benefits of digital financial inclusion. These considerations relate to the demand and supply of the services, and include taking steps to improve financial literacy, third-party governance, and risk management related to infrastructure improvement.

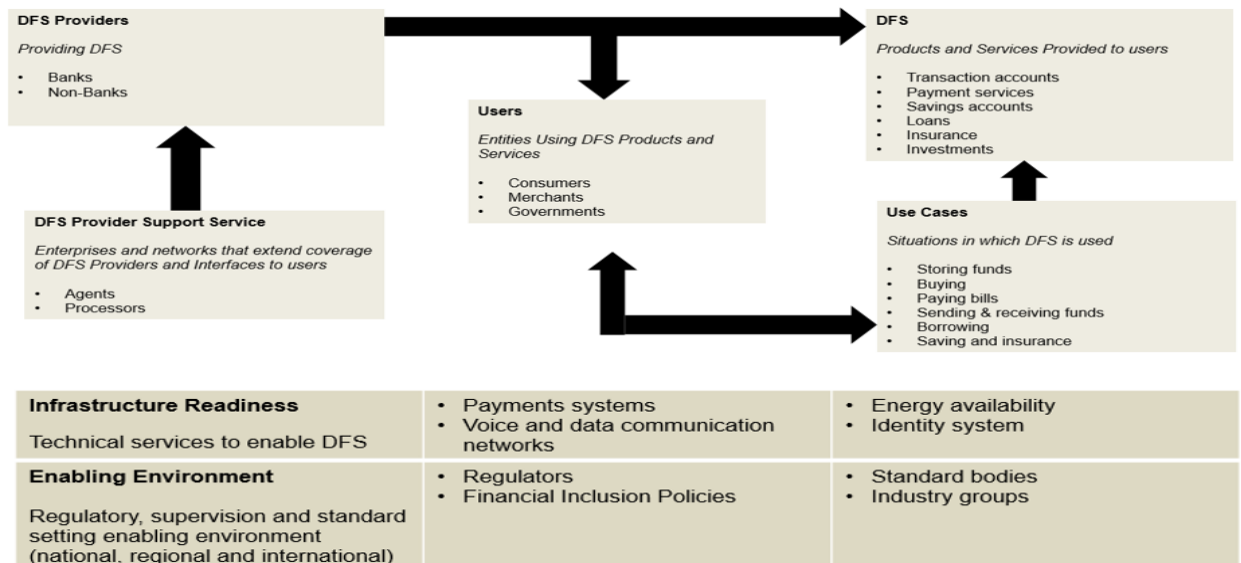
1. INTRODUCTION

1.1. Digital Financial Services (DFS) at glance

DFS are financial services accessed and delivered by digital channels, including mobile devices. It includes established instruments such as debit and credit cards offered primarily by banks, as well as new solutions built on cloud computing, digital platforms, and distributed ledger technologies (DLT), and which span mobile payments, crypto-assets and peer-to-peer (P2P) applications.

The DFS ecosystem consists of: users requiring financial products and services; providers to supply them digitally; financial, technical, and other enabling infrastructure; and governmental policies and laws which should ideally promote their efficient and safe delivery. Figure 1 below shows a typical DFS ecosystem.

Figure 1: DFS ecosystem



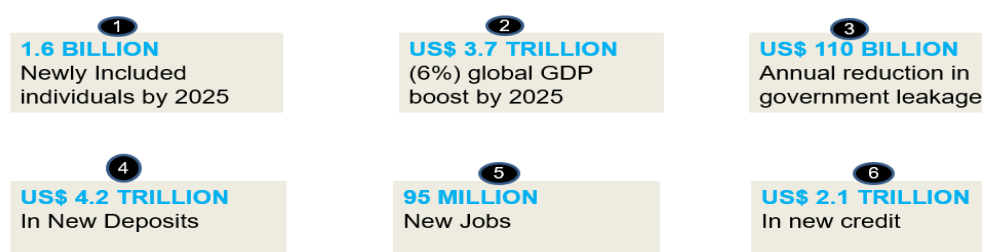
Source: International Telecommunication Union July 2016¹

¹ International Telecommunication Union “Digital Financial Inclusion 2016”. Available at: https://www.un.org/esa/ffd/wp-content/uploads/2016/01/Digital-Financial-Inclusion_ITU_IATF-Issue-Brief.pdf

DFS and their impact on the financial sector is growing, with the potential to drive sustainable economic and social development through lower costs and more readily available products and services that better meet customer needs.

A study by Mckinsey & Company indicates that by 2025, DFS will potentially provide access to financial services for 1.6 billion people in emerging economies, more than half of them women². The study further finds that DFS could increase the volume of loans extended to individuals and businesses by US\$2.1 trillion and allow governments to save US\$110 billion annually by reducing spending and tax revenue leakage³. These developments derive from an envisaged US\$400 billion annual savings in direct costs for financial services providers through stimulating efficiency and productivity gains, supporting balance sheets by as much as US\$4.2 trillion. Collectively, these developments are projected to potentially boost the collective annual Gross Domestic Product (GDP) of emerging economies by US\$3.7 trillion by 2025 (6 percent), creating up to 95 million jobs across all sectors.

Figure 2: DFS potential economic impact



Source: Mckinsey and Company Digital Finance Report, 2016⁴

² Mckinsey & Company: Finance for all: Powering Inclusive Growth in Emerging Economies. Available at: <https://www.mckinsey.com/~media/mckinsey/featured%20insights/Employment%20and%20Growth/How%20digital%20finance%20could%20boost%20growth%20in%20emerging%20economies/MGI-Digital-Finance-For-All-Executive-summary-September-2016.ashx>

³ DFS can strengthen accountability by improving the ability to track where and how government funds are collected and spent. Tax leakage, due to corruption and theft, can be reduced through the heightened transparency and monitoring associated with digital payments, so that intended beneficiaries receive the full value of funds they are due.

⁴ Mckinsey & Company: Finance for all: Powering Inclusive Growth in Emerging Economies. Available at: <https://www.mckinsey.com/~media/mckinsey/featured%20insights/Employment%20and%20Growth/How%20digital%20finance%20>

1.2. DFS and digital financial inclusion

DFS are catalysts for digital financial inclusion. Digital financial inclusion is commonly defined as digital access to, take-up and effective use of formal financial services by excluded and underserved populations. Akin to traditional financial inclusion, DFS should be suited to customer needs and delivered responsibly, at a cost affordable to customers and sustainable for providers. The digital dimension warrants particular attention, implying that the financial inclusion “tests” of access, take-up, and usage should be considered from the perspective of the digital value chain, including the distribution channel.

1.3. Essential components of digital financial inclusion

The essential components of digital financial inclusion include (1) digital platforms, (2) devices, (3) retail agents, and (4) additional financial services. Studies have shown that the rapid and widespread availability of each component will likely prepare fertile ground for meaningful growth in digital finance access, resulting in digital financial inclusion.

BOX 1: Essential components of digital financial inclusion

Digital transactional platforms make it possible for customers to make or receive payments and transfers easily, as well as store value electronically, by using devices that transmit and receive transaction data and connect to another bank or non-bank permitted to store electronic value⁵.

The customer interface can either be a digital device, like a mobile phone that transmits financial services information, or a traditional payment instrument, like a card. In both instances the payment instrument connects to a receiving digital device, such as a point-of-sale (POS) terminal.

Retail agents with a digital device connected to a communications infrastructure and enabled to transmit and receive transaction details, in turn enable customers to convert cash into electronically stored value. This means cash-in and transforming stored value back into cash, which is cash-out.

Additional financial services using a digital transactional platform may be offered by banks and non-banks to the financially excluded and underserved. A typical example is a platform that offers credit, savings and investment, and insurance products, which often rely on digital data to target customers and manage risk. Online trading platforms are also commonplace.

⁵ The extent that governing law enables non-banks to offer payment services determines the extent that non-banks – like telcos – can fully operate in this space, without partnering banks for the “deposit taking” component.

1.4. Drivers of digital financial inclusion

Digital financial inclusion is being driven by:

1) Technology and distribution networks. During the past decade, rapid growth in the capability and availability of technology has emerged as the most significant driver of digital financial inclusion. For example, access to a mobile connection across Africa, Asia and South America has driven innovative fintech solutions. The emergence of large and well-functioning agent networks⁶ have also played a considerable role in driving the large-scale adoption of digital financial services. Effectiveness may be shaped by the extent these urban and rural agent networks can facilitate cash-in and cash-out⁷.

2) Policy and regulation remains at the centre of digital financial inclusion. East Africa has adopted a more coordinated effort to build interconnected services, such as interoperability and cross-border remittances. There is also an increasing focus on policy objectives such as competition and consumer protection. In 2015 the Bank of Tanzania introduced enabling legislation to further regulate mobile money and payment systems in Tanzania, with a focus on Mobile Network Operators (MNOs).⁸ Governments, like the Philippines and Chile are channelling state-made payments like state grants to citizens using digital infrastructure, and in some markets citizens can pay governments too (for services rendered, licence fees and tax)⁹.

⁶ Banks and other financial service providers may use agent networks instead of traditional branches to reach more customers at a lower cost. It leverages established distribution networks like those of post offices or retail chains, or independent small-scale traders like spaza shops.

⁷ Agent Network Journeys Toward the Last Mile: A Cross-Country Perspective, CGAP, 2020.

⁸ Operators intending to offer electronic mobile money services were now required to obtain several licences, including a payment systems licence, an electronic money licence and an application services licence issued by the Tanzania Communications Regulatory Authority (TCRA).

⁹ This refers to Person to Government (P2G) payments, whereby payments can be applied to a wide range of government services, covering payments such as monthly utility bills, or a one-off payment for a car license registration fee.

3) Open ecosystems. An open ecosystem refers to a digital platform that freely supports and encourages integration with other technologies, services, and platforms. By doing so it allows customer data, like transactions and payments data, to be shared with third parties, to facilitate personalised customer experiences and enhanced access to specialised services (both financial and non-financial)¹⁰. These collaborative approaches are helping to broaden the digital ecosystem. Sometimes these emerge as purely private initiatives; sometimes they are pursued explicitly as public goods, i.e., are made available to members of society at no cost.

Two important examples are interoperability and open Application Programming Interfaces (API). Interoperability is important because it broadens a network, creating a frictionless experience for users and enabling participants to compensate one another for using their infrastructure¹¹. For example, interoperability among payment systems in India has facilitated unparalleled ease of transactions. Unified Payments Interface (UPI) is a mobile-based payment system launched in August 2016 which allows users to send and receive money instantly using a Virtual Payment Address (VPA) set by the user itself. It powers multiple bank accounts into a single mobile application of any participating bank/non-bank Third Party Application Provider (TPAP). Funds can also be transferred through UPI using an account number of the bank branch¹².

Open APIs increase an ecosystem's size by allowing third parties to access customers' data from big players, such as banks or mobile network operators,

¹⁰ The Future belongs to ecosystems. Available at: <https://www.forbes.com/sites/forbestechcouncil/2021/07/23/the-future-belongs-to-ecosystems/?sh=4b9a48b85b2a>

¹¹ The National Payment System Framework and Strategy, Vision 2025. Available at: www.tralac.org/documents/resources/by-country/south-africa/4599-the-national-payment-system-framework-and-strategy-vision-2025-sarb/file.html

¹² BRICS Digital Financial Inclusion Report 2021. Available at: <https://m.rbi.org.in/scripts/OccasionalPublications.aspx?head=BRICS%20Digital%20Financial%20Inclusion%20Report>

to develop innovative products. For example, in India the Aadhaar biometric identification system - which covers over one billion people - provides the foundation for an integrated set of APIs (the so-called “India Stack”). With user consent, this data is shared with financial institutions and third parties like telcos to enable remote identification and authentication for account opening and financial transactions.

4) Data has been described as the new “oil” because of its importance in the 21st century, and the growing reliance of society and economies on its ready availability. Connected services – referring to devices such as smart watches, smart phones, laptops, etc. – make it possible for people, who previously left no data trail, to begin to exist in a digital world. Traditional financial institutions and fintechs are increasingly capturing consumer data to garner insights into consumer behaviour, to build financial and non-financial products and services that better service these customer needs. By building profiles of previously excluded groups, financial service providers can deliver services in ways they could not have done before.

Digital credit has already been delivered to millions of poorer households in Kenya, Tanzania, Zambia, and Ghana. In these countries, digital lending is tailored to user needs and facilitated using machine-learning models that leverage alternative data, such as payments, e-commerce, social media, or mobile phone activity, with much less need for human intervention.

1.5. Overview of digital financial inclusion global trends

An estimated 31 percent¹³ of adults worldwide are unbanked. But the growth of mobile phone users and other digital financial solutions has translated into increasingly accessible financial services, which have the potential to unlock banking options to the world's unbanked individuals.

Figure 3: Digital usage around the world



Source: Competition Commission Digital Competition study 2021¹⁴

The recently developed International Monetary Fund (IMF) digital financial inclusion Index comprises indicators related to access and usage of financial services provided through fintech channels, in comparison to traditional channels¹⁵. It finds that the adoption of the fintech has been a critical driver of

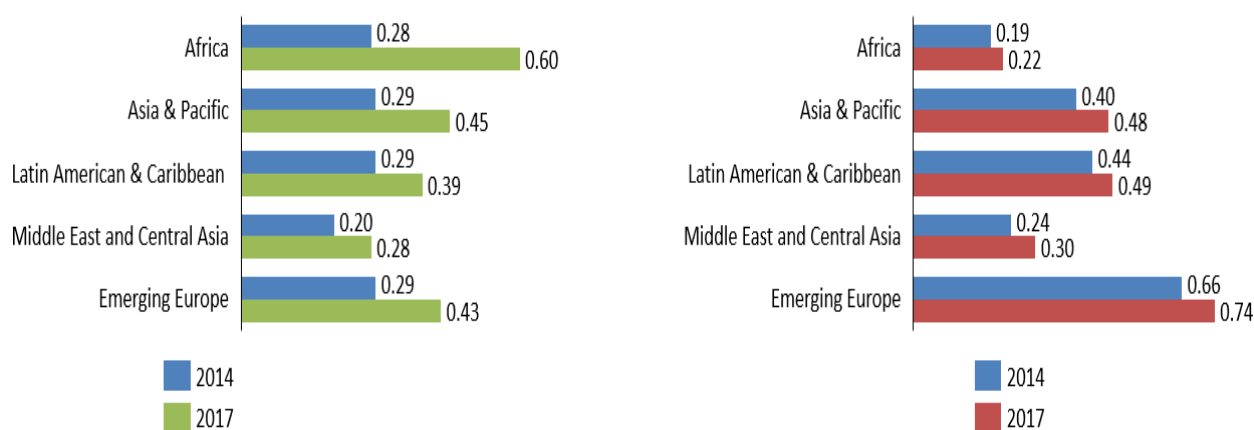
¹³ Financial inclusion is a key enabler to reducing poverty and boosting prosperity. World Bank note March 2022. Available at: www.worldbank.org/en/topic/financialinclusion/overview

¹⁴ Competition in the Digital Economy, 2021, version 2. Available at: <http://www.compcom.co.za/wp-content/uploads/2021/03/Digital-Markets-Paper-2021-002-1.pdf>

¹⁵ It derives from expanded data coverage of the World Bank Global Findex Database and IMF's Financial Access Survey (FAS) data series on mobile money and other means of online financial services; IMF working paper. Measuring Digital Financial Inclusion in Emerging Market and Developing Economies: A New Index available from:

financial inclusion, but there is a wide variation across countries and regions, with digital financial inclusion being most effective in Africa (especially Ghana, Kenya, Senegal, Uganda, and Rwanda) and the Asia and Pacific regions (especially China, Bangladesh, and Malaysia)¹⁶. In East Africa, fintech may be filling the gap of traditional financial services. In countries like China and Malaysia, digital services are seen to be complementing and enhancing traditional offerings.

Figure 4: Digital and traditional financial inclusion indices by region (2014–2017)



Source: IMF Working Paper, Measuring Financial Inclusion in Emerging Market and Developing Economies: A New Index, 2021¹⁷

www.imf.org/en/Publications/WP/Issues/2021/03/19/Digital-Financial-Inclusion-in-Emerging-and-Developing-Economies-A-New-Index-50271

¹⁶ Both traditional and digital financial inclusion indices saw improvement for most countries in the sample. While some countries like Benin, Ghana, and Senegal saw a greater improvement in digital inclusion, others like Mongolia, Namibia, and Peru saw greater improvement in traditional inclusion.

¹⁷ Is Digital Financial Inclusion Unlocking Growth? IMF Working paper. Available at: www.imf.org/en/Publications/WP/Issues/2021/06/11/Is-Digital-Financial-Inclusion-Unlocking-Growth-460738

BOX 2 Impact of digital financial inclusion on economic growth and inequality

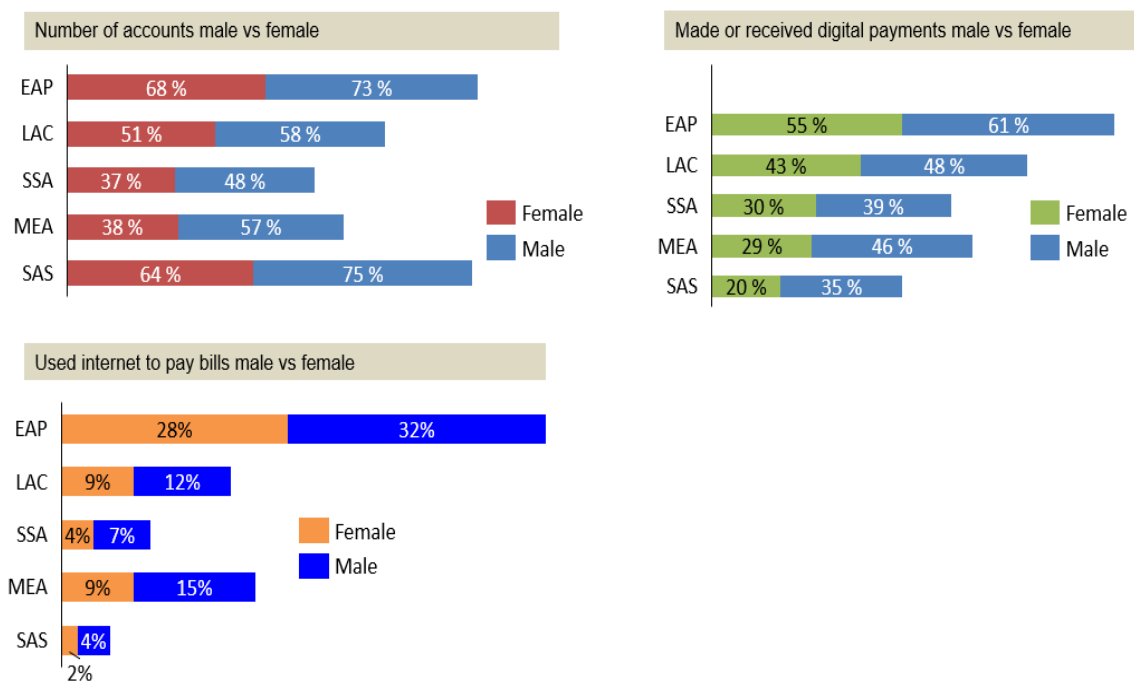
Over the years, much research has unpacked the linkages between traditional financial inclusion and economic development and growth. More recently, this work is being expanded to consider the specific effects of digital financial inclusion. A recent study (employing the IMF traditional and digital financial inclusion indexes discussed above) focuses on developing countries between 2011 and 2018 shows that digital financial inclusion can accelerate economic growth¹⁸. It identifies access to infrastructure, financial, and digital literacy, together with the quality of institutions, as important drivers of digital financial inclusion. Of particular interest, increasing digital financial inclusion in payments is found to boost annual economic growth by up to 2.2 percentage points (it is speculated that these effects would be amplified by fintech credit, but supporting data is currently unavailable).

The paper also differentiates between the effectiveness of digital financial inclusion across countries with low versus high supply of financial products and services (this speaks to access), and countries with low versus high take-up of such products and services (this speaks to usage). It sees countries with high usage but low access as presenting the largest opportunity for digital financial inclusion through fintech, encouraging technological innovation in the payments landscape. Alternatively, countries reflecting the availability of financial products, but low usage suggests the need to improve financial literacy and general trust in the financial system (these countries may have social barriers augmenting the strength of the informal sector). Access to technology is essential in all cases.

¹⁸ Is Digital Financial Inclusion Unlocking Growth? IMF Working paper. Available at: www.imf.org/en/Publications/WP/Issues/2021/06/11/Is-Digital-Financial-Inclusion-Unlocking-Growth-460738

The potential for digital financial inclusion to reduce spatial, class (income) and gender inequality is mixed and may be impeded by cultural and social norms, financial literacy and education, and safety and disparity in access to resources. Figure 5 below shows gender gap in digital financial inclusion across three measures (number of accounts, received digital payments, and used internet to pay bills).

Figure 5: Gender gap



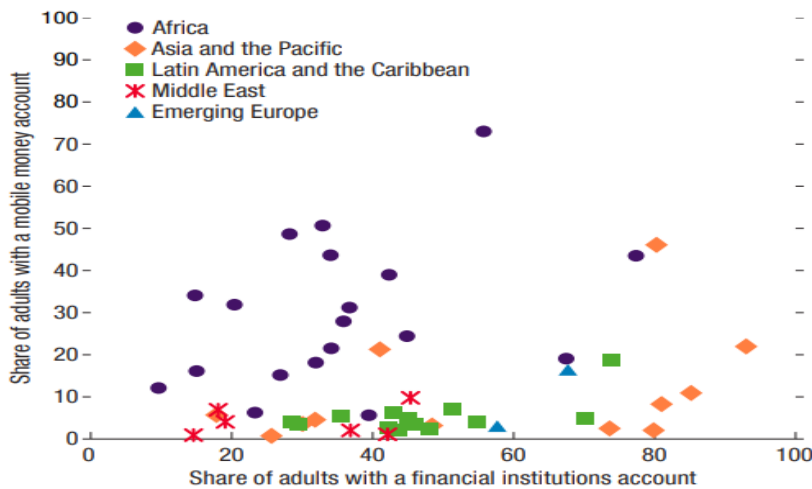
Note: Middle East and North Africa = (MEA), Sub-Saharan Africa=(SSA), Latin America and Caribbean= (LAC), East Asia and Pacific=(EAP) and South Asia= (SAS)

Source: IMF Working Paper 22/80, 2022¹⁹

¹⁹ Fintech: Financial Inclusion or Exclusion, IMF working paper 2022. Available at: www.imf.org/en/Publications/WP/Issues/2022/05/06/Fintech-Financial-Inclusion-or-Exclusion-517619

According to the IMF digital financial inclusion Index, in 2017 the share of adults with a mobile account was larger than the share of adults with traditional accounts (Figure 6).

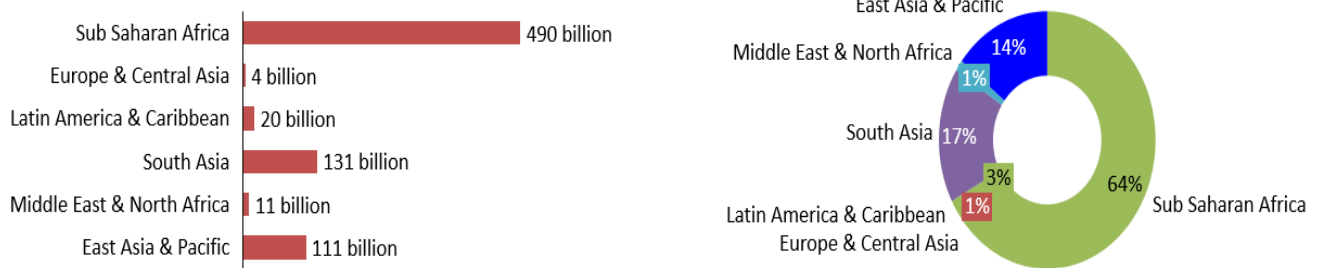
Figure 6: Use of digital and traditional financial accounts



Source: IMF Working paper No. 20/09 2020

Mobile money services are driving digital financial inclusion worldwide, led by the Sub-Saharan Africa region. This region processed mobile money transactions to the value of about US\$490 billion during 2020, equivalent to over 60 percent of the global market share. The region was followed by the South Asia region with 17 percent, East Asia and Pacific with 14 percent, Latin America and the Caribbean with 3 percent, Middle East, North Africa, Europe and Central Asia with 1 percent. Mobile money services are facilitated by mobile money operators and agents, of which agents support cash-in/cash-out transactions, peer-to-peer transfers and bill payments.

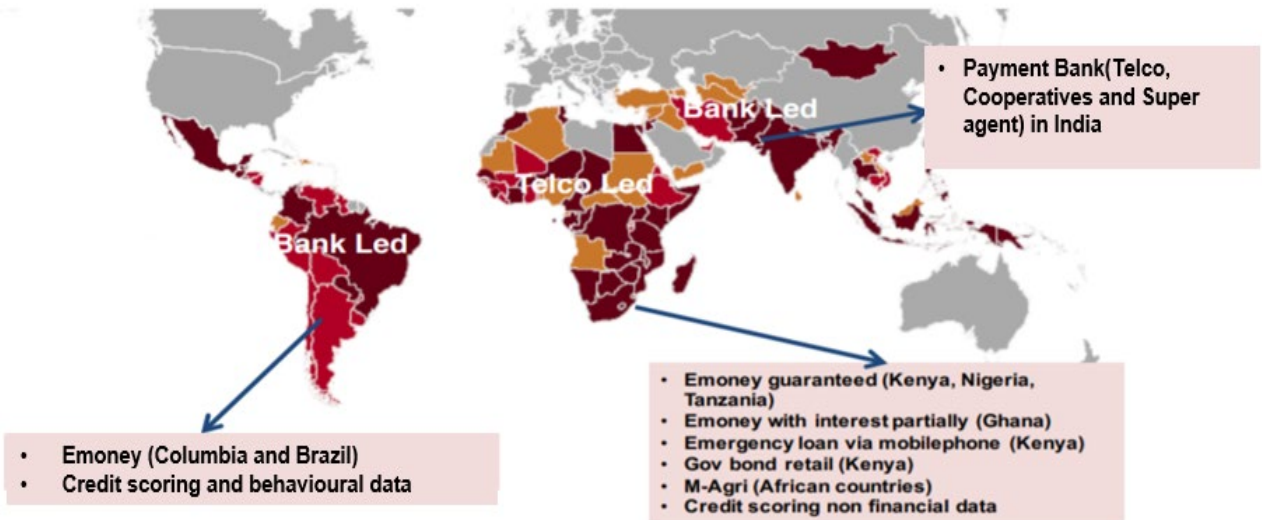
Figure 7: Mobile money transaction values and shares by region



Source: GSMA industry report on mobile money 2021²⁰

Besides mobile money, digital financial inclusion activities are diverse, as seen in figure 8.

Figure 8: Digital financial inclusion activities across the globe



Source: GSMA Digital Inclusion Report 2014²¹

²⁰ GSMA industry report on mobile money 2021. Available at: www.gsma.com/sotir/wp-content/uploads/2022/03/GSMA_State_of_the_Industry_2022_English.pdf

²¹ Digital Inclusion Report 2014. Available at: <https://www.gsma.com/mobilefordevelopment/resources/digital-inclusion-report-2014/>

2. SELECTED COUNTRY CASE STUDIES IN RESPECT OF DIGITAL FINANCIAL INCLUSION

Around the world, digital financial inclusion activities are being led by various players. In this section, we identify countries whose recent experiences highlight lessons that could be applied in South Africa, based on the impact made in their own communities.



India²²

India's major success in DFS was realised in a significant scaling up in access to accounts and volume of transactions via digital channels, and a significant scaling up in digital government to person payments. Between 2017 and 2020, over 300 million adults gained access to bank accounts in India. The share of adults with an account surged from 53 percent in 2014 to 80 percent in 2017, and the gender gap shrank from 20 percent to 6 percent in the same period.

With a comprehensive digital payments system in place, the government of India was able to digitise government to person payments at scale. As of 2017, more than 925 banks had helped facilitate 106.75 million government to person payment volumes, with a total value of over 44.14 billion Indian Rupees (INR) being electronically deposited in the recipient's bank accounts, instead of being paid out in cash. The recipient can use debit cards and mobile apps linked to these accounts to receive and make payments. Each account is linked with a unique ID

²² Digital Financial Services. World Bank Report. Available at: <https://pubdocs.worldbank.org/en/230281588169110691/Digital-Financial-Services.pdf>

(Aadhaar), which enables detection of duplicates. Based on 2017 estimates from the Ministry of Communications and Information Technology, this direct transfer to accounts resulted in US\$7 billion in savings over two and a half years. This is largely due to savings from eliminating/reducing leakages caused by double dipping and pay outs to ineligible recipients. In addition, digitising government to person payments to women beneficiaries not only brought lower costs, higher security, and greater transparency to government to person payments, but also helped empower women.

Government commitment to financial inclusion was a critical enabler, reflecting its vision to provide the necessary infrastructure and systems for innovation and digitisation of government to person payments to fast-track development of digital payments. This required suitable regulations that level the playing field between traditional providers and fintechs and promote interoperability. India's experience also shows that a bank-led approach to financial inclusion can work, supported by increased competition by allowing non-banks to enter the market through differentiated banking licenses. The growth in financial inclusion in India has been entirely led by banks. Though non-banks can offer e-money, this is generally not targeted at the unbanked.

Fino Payments Bank²³



Fino Payments Bank is one of the pioneers in the financial inclusion space and a leading player in India's payments banking sector. Formed in 2017, in a short period the bank has expanded its reach across the length and breadth of the country, providing banking access to millions. It has successfully adopted a phygital approach – deploying a mix of physical outlets and digital platforms. It is one of the few payments banks to turn a profit regularly. Payments banks differ from retail banks because they cannot offer credit or loan services. This removes a vital revenue stream. The challenge for payments banks, Fino Payments Bank included, is to operate at scale and with a persistent focus on operational efficiency.

Fino Payments Bank's work proved critical during the Covid-19 crisis. Using its network, the government could make welfare payments to local communities and businesses – communities that would have been beyond the reach of traditional banks. This kind of reach demonstrates the importance of financial inclusion. The Indian government is keen to extend the service scope of payments banks, including payment of pensions, provident funds and various welfare direct benefit transfer (DBT). This will enhance Fino Payments Bank's footprint in financial inclusion.

²³ Fino Payments Bank case study. Available at: <https://www.hpe.com/psnow/doc/a50004109enw>



Kenya²⁴

Kenya has the largest and most successful mobile money sector in Africa and has consistently led the continent both in scale and innovation. M-PESA was first introduced in 2007 by MNO (Safaricom). It has become a ubiquitous way to transfer money among individuals, driving formal financial inclusion to over 80 percent of the population in 2019. By December 2019, there were 58.3 million mobile wallets, representing 1.7 mobile wallets for every adult. Mobile money has actively lifted two percent of Kenyan households out of poverty, driven by changes in financial resilience and savings, a shift from farming towards business, and a significantly positive effect on women.

M-PESA's basic person to person payment solution was a foundational building block for the development of a wider and more diversified DFS ecosystem. M-PESA offered services to the lower income population, facilitating internal remittances, mostly from urban to rural areas. This was backed by an extensive agent network that enabled M-PESA customers to convert their cash to e-money and back, as and when needed. Over time M-PESA developed a variety of person to person and person to business payments, covering many use-cases from small informal sector payments and contributions to the informal savings groups, to utility bills as well as payments at gas stations, supermarkets and hospitals.

Over the years, Safaricom built partnerships with a variety of commercial banks to provide additional services beyond its flagship person to person and merchant payments. One of the most important developments occurred in 2012 when

²⁴ Digital Financial Services. World Bank Report. Available at: <https://pubdocs.worldbank.org/en/230281588169110691/Digital-Financial-Services.pdf>

Safaricom partnered with the Commercial Bank of Africa (CBA) and started offering MShwari – a mobile operated bank account which gives access to an interest-earning savings account and a fully automated digital credit product. In 2016, Safaricom partnered with the Kenya Commercial Bank (KCB) to provide a similar digital credit product on its platform (KCB M-PESA).

Success to Kenya can be attributed to (1) regulatory flexibility, the test-and-learn approach taken by the regulator was also instrumental to the success of M-PESA, (2) simplified customer due diligence (critical for the development of mobile-based bank accounts), and (3) private-sector led initiatives (both in terms of the MNO Safaricom, that launched in M-PESA, and reliance on agent networks).

MTN Mobile Money (MoMo)²⁵



Momo is a secure electronic service that enables MTN Mobile Money wallet holders to store funds, send and receive money, make payments and do a number of other transactions simply using their mobile phone. The service is offered by MTN in partnership with over 10 partner banks, in a number of countries across Africa. Momo stores funds in a secure electronic account linked to an MTN mobile phone number. MoMo wallet holders can use their mobile money account in several ways. For example, they can receive and store money, send money to any MTN mobile phone user, send money to mobile phone users on other local networks, withdraw cash at any authorised MoMo agent, top-up MTN airtime, pay for insurance, and pay employee salaries, airline tickets, school fees and other goods and service.

²⁵ Everything you need to know about MTN Mobile money. Available at: <https://www.worldremit.com/en/mtn-mobile-money>



China²⁶

In China the, the People's Bank of China (PBoC), together with relevant ministries in 2016, formulated and released a pilot program for financial inclusion in the Lankao County of Henan Province. The program focused on strengthening financial inclusion infrastructure and used digital technologies for online-offline integration²⁷. The program also featured a one-stop digital service platform, financial service system, the financial inclusion credit system, a credit information system, and the risk control system. It addressed the difficulty confronting SMMEs and farmers in accessing loans, and the difficulty in collecting their information and control risks with traditional finance and digital finance integration.

Given the constraints of traditional financial services such as high costs and limited fixed outlets, the Lankao Pilot Zone built Pu Hui Tong, a one-stop digital service platform for financial inclusion and launched online the businesses that are closely related to people's daily lives, such as account management, micro finance, agriculture-related insurance, savings and wealth management, payments and agricultural subsidies, making financial inclusion services easily accessible to people.

The digital financial inclusion platform reduced the cost of financial inclusion, increased its accessibility, and expanded its service scope. Estimates by a financial institution outlet in the Lankao Pilot Zone showed that the time needed to

²⁶BRICS Digital Financial Inclusion Report 2021. Available at:

<https://m.rbi.org.in/scripts/OccasionalPublications.aspx?head=BRICS%20Digital%20Financial%20Inclusion%20Report>

²⁷ To address the digital divide that is prevalent among the middle-aged and the elderly in rural areas, the Lankao Pilot Zone embedded financial inclusion in the county, township, and village-level convenience service system. This gave people access to convenience services in their village. In addition, it also launched the risk sharing mechanism along with incentives, clearly defining the roles and responsibilities of the local government, financial institutions and borrowers, in a bid to improve the sustainability of financial inclusion.

handle a loan application online is 28 percent faster than offline and the management cost is down by 20 percent.

As of end-2019, more than 900 financial inclusion products of over 180 banks (including branches) were launched in the Pu Hui Tong App, covering credit, wealth management, and payments. Across Henan province, 2.47 million users downloaded and subscribed to the app, including more than 500 000 real-name users, and a total amount of RMB690 million was loaned. Thus, equal and fair opportunities are presented by financial institutions at low cost and low risk.

3. DIGITAL FINANCIAL INCLUSION LANDSCAPE IN SOUTH AFRICA

We reviewed the data on the access and usage of essential components of digital financial inclusion to assess the state of digital financial inclusion in South Africa. This includes data on access to mobile phones and internet, usage of digital channels, usage of retail agents and usage of digital platforms to access various financial services. We consider these aspects as indicators of digital financial inclusion in South Africa.

Compared to its peers in Africa, Latin America and South Asia, South Africa has made significant progress on digital financial services and non-traditional players, including fintechs, are gradually transforming the market. However, despite a broad range of DFS services and products offered, its usage remains low due to factors ranging from high infrastructure cost to low customer awareness and preference for cash.

As the World Bank South Africa Retail Banking Diagnostic Study (2018) highlighted, product designs and fees on transaction accounts by major South African banks do not distinguish between low-income and high-income customers thus making these products and services costly for low-income customers. In addition, consumers may be reluctant to use internet or mobile banking due to high costs, including the cost of data/airtime to access such electronic services, as highlighted in the financial infrastructure section of the report. For a certain section of the population, there is likely to be a strong preference for human interaction, whether due to a lack of understanding or lack of trust or comfort, with electronic channels.

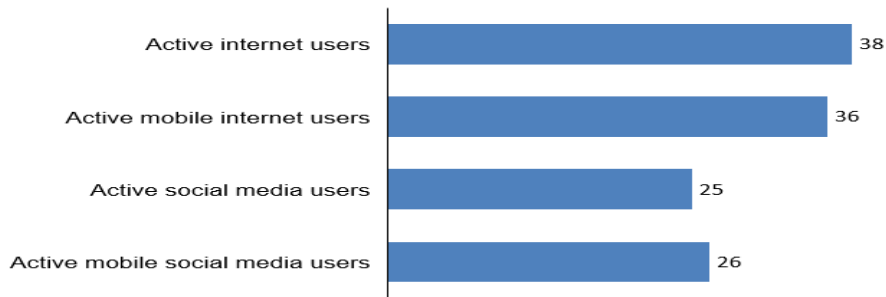
South Africa is also currently upgrading the regulatory environment to reduce barriers to entry to retail payment systems and support to development of fintech ecosystems. Going forward, the interoperability of person to person payment instruments and solutions needs to be improved to promote usage. With the expansion of digital delivery channels by banks and fintech, there is a need to improve consumer protection and simplified “know your customer” (KYC). The use of alternate data is gaining traction and could help in access to credit for consumers and Micro Small and Medium Enterprises (MSMEs), particularly in the informal sector.

Access to mobile phones has increased significantly over the past ten years in South Africa. Overall, there has been a sharp increase of 65 percent in access to cell phone subscribers per 100 inhabitants in South Africa during the past ten years²⁸. By 2019 the number was at its highest, recording 166 mobile subscriptions registered per 100 inhabitants, before slowing down to 161.8 mobile subscriptions registered for every 100 people in 2020.

As of January 2021, there were 38.13 million active internet users in South Africa, equivalent to 66 percent of the population. Among them, an overwhelming majority (over 36 million) also used mobile internet. During the same period, it was also found that nearly 99 percent of those using social media accessed their accounts using mobile phones. The use of digital channels in South Africa is high and is expected to continue trending upwards in the coming years.

²⁸ The number of mobile cellular subscriptions is divided by the country's population and multiplied by 100. As it is, the number of cellphones in South Africa is more than that of its citizens.

Figure 9: Digital population in South Africa (in millions) as of January 2021

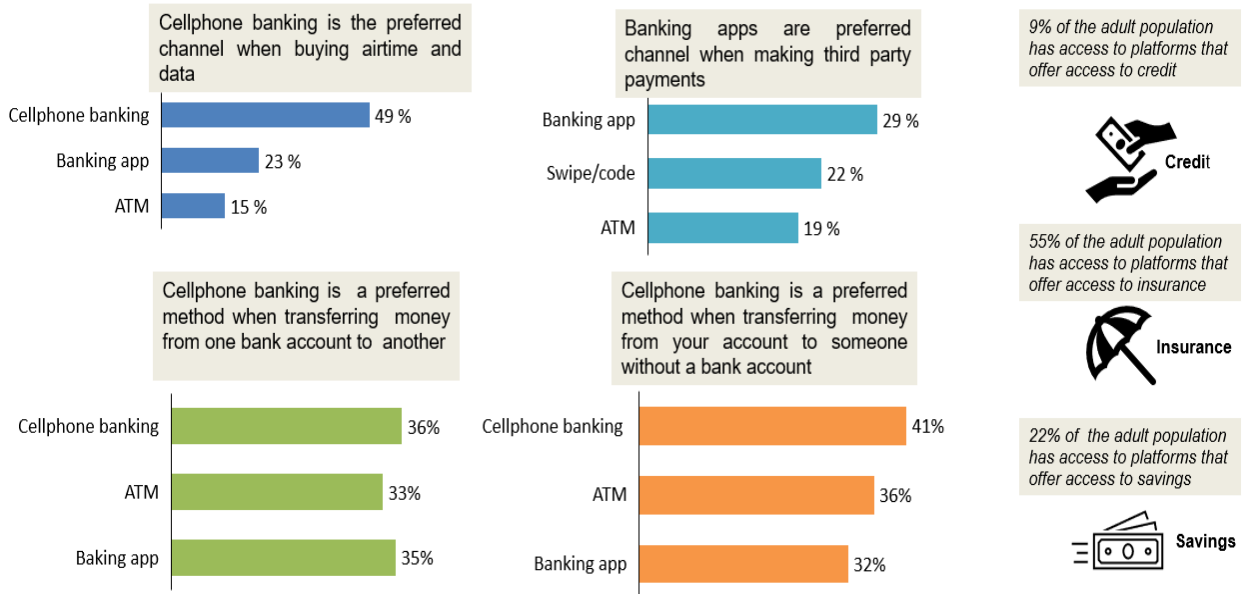


Source: Statista 2022²⁹

Many South Africans use digital channels to transact, as shown in figure 10 below. Cell phone banking is the preferred channel when buying airtime and data. Banking apps are a preferred channel when making third-party payments; cell phone banking is a preferred method for transferring money from one bank account to another and transferring money to someone without a bank account. South Africans are also accessing other financial services such as insurance, credit, and savings via digital platforms, with insurance being the most popular service.

²⁹ Digital population in South Africa as of January 2022 in millions. Available at: <https://www.statista.com/statistics/685134/south-africa-digital-population/>

Figure 10: Percentage of South African citizens accessing and using digital channels for financial transacting



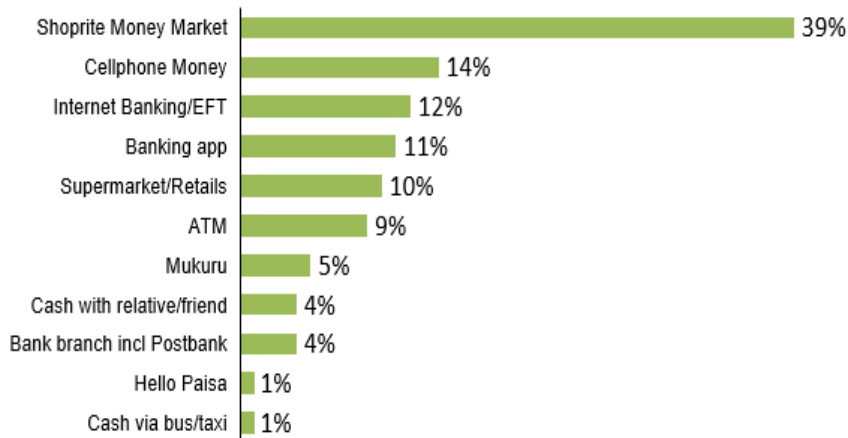
Source: Finscope Consumer Survey 2021³⁰ & Cenfri focus note 2019³¹

Digital channels featured prominently among the top five preferred methods for sending and receiving money in South Africa (figure 11). The Shoprite Money Market is the preferred channel for sending money, followed by cell phone money, internet banking/EFT, banking apps and so on. Digital channels such as cell phone money, internet banking, and banking apps are proving very popular for sending money. As a result, fewer people use informal channels such as sending cash via bus or taxi.

³⁰ FinScope South Africa Consumer Survey 2021 report.

³¹ Africa's digital platforms and financial services: An eight-country overview, March 2019. Available at: <https://cenfri.org/wp-content/uploads/ADP-Focus-Note-2019.pdf>

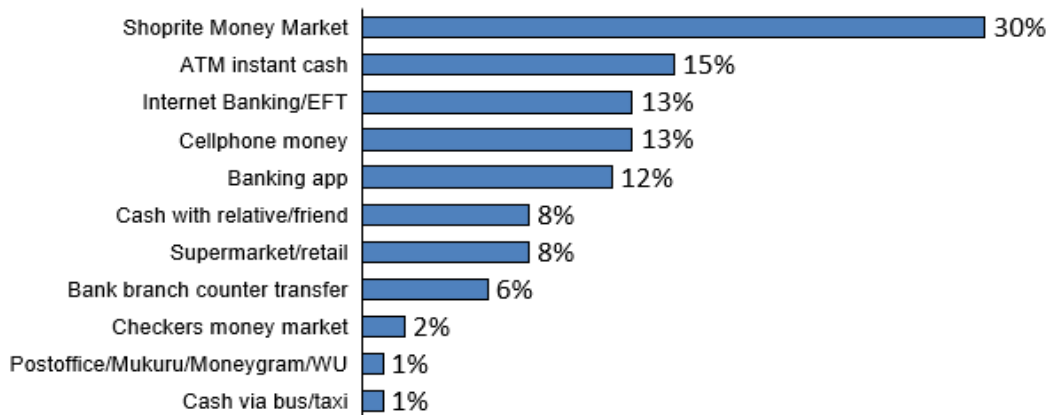
Figure 11: Channels for sending money



Source: Finscope Consumer Survey 2021³²

The Shoprite Money Market is the most preferred channel for receiving money, followed by ATM instant cash, internet banking or EFT, cell phone money and others. Digital channels such as ATM instant cash, cell phone money, internet banking and banking apps are popular for receiving money. We have seen fewer people using informal channels such as sending cash via bus or taxi.

Figure 12: Channels for receiving money



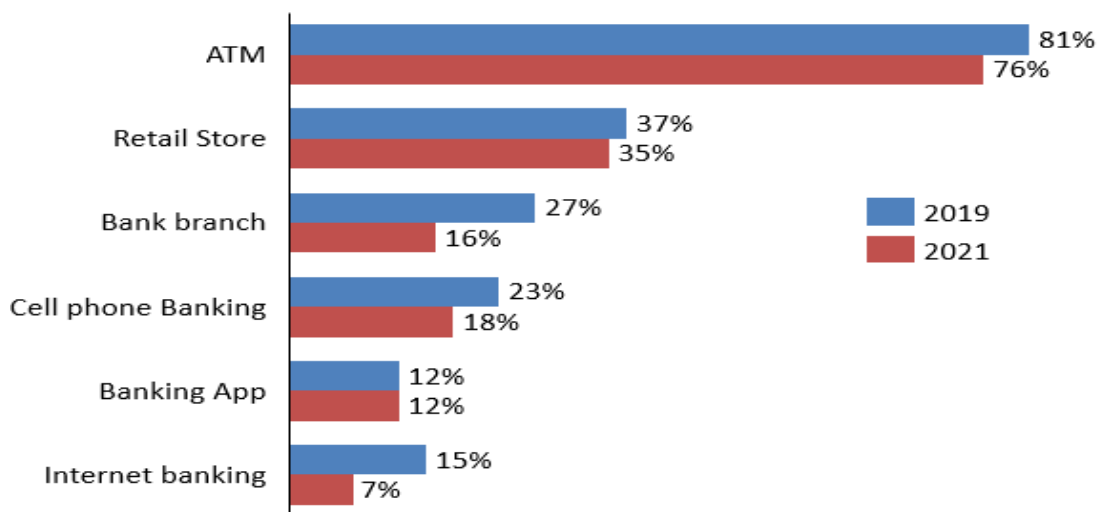
Source: Finscope Consumer Survey 2021³³

³² FinScope South Africa Consumer Survey 2021 report.

³³ FinScope South Africa Consumer Survey 2021 report.

Looking at the overall banking transaction channels amongst the banked, ATMs are still the most popular channel of transaction at 76 percent, followed by retail stores 35 percent, cell-phone banking 18 percent, bank branch 16 percent, banking app 12 percent and internet banking 7 percent. This bears testimony to the fact that most South Africans put more reliance on cash-in and cash-out capable channels and South Africa is still a cash dominated society.

Figure 13: Usage of banking channels



Source: Finscope Consumer Survey 2021³⁴

³⁴ FinScope South Africa Consumer Survey 2021 report.

4. RESEARCH FINDINGS

The majority of adult South African residents are well placed to participate in the digital economy, having access to mobile devices and internet service. In line with global trends, the advent of Covid-19 in South Africa led to an increase in the use of digital channels such as banking apps and cell-phone banking for transactional banking services due to the lockdown protocol, closure of some post office branches and reduced bank opening hours³⁵. The pandemic heightened the importance of digital transactions, including online, mobile, and contactless payments.

Although there has been an increase in the usage of digital channels in payments, access to and usage of other financial services such as credit, insurance, and savings and investments has not evolved to the same extent.

Furthermore, digital systems failures, high cost of technology and connectivity exacerbated by the lack of reliable network infrastructure in some regions continues to be a challenge in South Africa. Most of these digital innovations are typically adopted by the higher income, tech-savvy market segments but not by the less developed market segments, where cash usage is high. For example, even though 81 percent of South Africans have a bank account, about 73 percent of retail payment volumes are still cash-based. This only includes cash through the formal channels and excludes the informal sector. Other studies that have considered the informal sector, estimate the volume of cash usage to be as high as 89 percent. According to Finscope's 2017 South African consumer survey, only about 1 in 5 people with a bank card and an income below R3000 per month used their bank card to make a purchase at a store. This quickly rises to 75 percent for those that earn more than R8000 per month. With over 80 percent of South

³⁵ BRICS Digital Financial Inclusion Report 2021. Available at: htm.rbi.org.in/scripts/OccasionalPublications.aspx?head=BRICS%20Digital%20Financial%20Inclusion%20Report

Africans being financially included through their access to a bank account, this suggests that financial inclusion is wide but lacks depth³⁶.

The payments industry is now moving onto the next phase of establishing such a low-cost, easy to use real-time retail payments system for South Africa through the Rapid Payments Programme (RPP), an initiative pursued in the banking industry and aimed at establishing a functioning system with certain key features required to move South Africa and the industry closer towards the Project Future end-state vision to truly displace cash.

³⁶ PWC analysis takes consumers transactional behavior (total volume and value of transactions per annum and the ticket size per transactions) into account.

The study also uncovered some key benefits and risks of digital financial inclusion. These key risks and benefits are unpacked in table 1 below:

Table 1: Digital financial inclusion key risks and benefits

Key risks	Key benefits
<ul style="list-style-type: none"> • Lack of awareness risks for customers due to lack of knowledge of the products, services and providers and resulting vulnerability to exploitation and abuse. • Retail agent-related risks due to new providers offering services not subject to the stricter consumer protection provisions that apply to banks and other traditional financial institutions. • Digital technology-related risks can lead to disrupted service and data loss, such as payment instructions, and the risk of a privacy or security breach resulting from digital transmittal and data storage. • Inadequate technological infrastructure and high levels of informality, mostly in rural communities, reduce the demand for digital financial transactions. 	<ul style="list-style-type: none"> • Access to formal financial services: payments, transfers, savings, credit, insurance, securities and so on. • Government to person payments, such as grant transfers, enable digital stored-value accounts, which provide a path into the financial system for the financially excluded. • Lower costs of digital transactional platforms, both to the provider and the customer allow customers to transact locally in irregular, tiny amounts, helping them to manage their characteristically uneven income and expenses. • Reduced risk of loss, theft and other financial crimes posed by cash-based transactions. Reduced costs associated with transacting in cash and using informal providers. • It can also promote economic empowerment by enabling asset accumulation and, for women increasing economic participation.

5. CONCLUSION AND KEY CONSIDERATIONS

It is evident that DFS and its impact on the availability, cost, and usage of financial services is growing, with the potential to drive sustainable economic and social development through digital financial inclusion. Furthermore, the study shows that for a country to realise meaningful growth in digital finance access, resulting in digital financial inclusion, essential components of digital financial inclusion including (1) digital platforms, (2) devices, (3) retail agents, and (4) additional financial services need to be in place. Across the developing world, digital financial inclusion initiatives are growing with telcos and banks leading the way.

South Africa has essential components of digital financial inclusion in place resulting in its adult citizens better well placed to participate in the digital economy. Statistics indicate that a large proportion of South African citizens have access to mobile devices and internet services, digital platforms and other financial services. During the past four years the country has been experiencing an increase in the use of digital channels such as banking apps and cell-phone banking for transactional banking services and the pandemic heightened the importance of digital transactions, including online, mobile, and contactless payments.

However, these successes have been met by various challenges, such as digital systems failures; the lack of innovations which cater for the lower income segment population; and the high cost of technology and connectivity, which continues to be a challenge in South Africa is due to the lack of reliable network infrastructures in some regions.

The Financial Sector Conduct Authority (FSCA) should continue to support initiatives that will enable the realisation of its strategic financial inclusion pillars³⁷, such as supporting technological innovation that enables financial inclusion and collecting and monitoring data on financial inclusion to monitor financial inclusion progress. In doing so, the FSCA will continue to motivate for initiatives aimed at driving financial inclusion to be tested through the Intergovernmental Fintech Working Group (IFWG)³⁸ Regulatory Sandbox³⁹.

Finally, to fully realise the benefits and mitigate the drawbacks of digital financial inclusion, certain considerations are proposed for providers of DFS and regulators to reflect on.

Consideration 1: Inadequate technological infrastructure

Prioritise infrastructure and connectivity by developing strategies specifically for rural and remote communities to account for gaps. For example, products that work on ⁴⁰feature phones and create an ecosystem accounting for gaps in connectivity.

- The growth of digital financial services is linked to infrastructure, including reliable electricity, mobile phone penetration and internet connectivity.
- Although this is beyond the scope of the financial sector, infrastructure problems can make digital payments less effective, which needs to be considered when solutions are deployed. South Africa's ICT infrastructure is abysmal compared to the best international standards. Efficient

³⁷ FSCA financial Inclusion strategy. Available at:

<https://www.fsca.co.za/Documents/FSCA%20Financial%20Inclusion%20Strategy.pdf>

³⁸ The IFWG is a collaborative effort and resultant body of several South African financial sector regulators, including National Treasury, the Financial Intelligence Centre (FIC), the Financial Sector Conduct Authority (FSCA), the National Credit Regulator (NCR), the South African Reserve Bank (SARB), South African Revenue Service (SARS), and the Competition Commission.

³⁹ The Regulatory Sandbox (RSB) provides market innovators with an opportunity to test new products and services that push the boundaries of existing legislation and regulation responsibly, all under the responsible supervision of relevant regulators.

⁴⁰ A type or class of mobile phone that retains the form factor of earlier generations of mobile telephones, typically with press-button based inputs and a small non-touch display.

information infrastructure that promotes economic growth and more significant inclusion requires a stronger broadband and telecommunications network at a lower price. The economic and employment benefits outweigh the costs.

Consideration 2: Familiarity risks

Improving financial literacy by leveraging digital platforms to provide information and training and incorporating insights from behavioural economics, such as nudges and reminders or the use of entertainment.

- Improving financial literacy and capability can increase uptake and use of digital financial services, especially for underserved consumer groups such as women.
- This will increase their knowledge of the products, services, and providers, resulting in them escaping exploitation and abuse.

Consideration 3: Digital technology-related risk

There is a need to drive effective risk management in the digital environment.

- Support risk management by conducting digital technology-related risk awareness workshops and training.
- Take up digital technology-related risk as a proactive exercise embedding it in the organisation's strategy instead of merely keeping it reactive.
- Periodically monitor, review, and update the digital risk framework.

Consideration 4: Retail agent-related risk

Improve third-party governance by implementing an integrated risk management strategy designed to catalogue, assess, evaluate, treat, and monitor third-party

risk, prioritising areas with external access to internal systems and customer channels.

- An integrated approach improves third-party risk management by bringing together capabilities to track and monitor third-party activity, detect cyber threats in systems that third parties access, authenticate third-party users and govern their access.

6. GLOSSARY

Application programming interface: a set of rules and specifications followed by software programmes to communicate with each other, and an interface between different software programmes that facilitates their interaction; APIs enable direct database-to-database data transmission enabling granular, real-time reporting and automated validation.

Digital financial inclusion: digital access to, take-up and effective use of formal financial services by excluded and underserved populations.

Digital financial services: are financial services accessed and delivered using digital channels, including mobile devices.

Distributed ledger technology: a network to securely propose, validate and record changes to a synchronised ledger distributed across multiple nodes.

FinScope consumer survey: a probability survey with an end user focus (individual or household) of financial services and products. The FinScope consumer survey is uniquely aimed at increasing understanding of the informal financial product/service market. Widely used by both governments, to direct policy development, and financials service providers, to build more relevant and profitable financial products and services.

Gross domestic product: the total value of goods produced and services provided in a country during one year.

Interoperability: seamless flow of payments from and through multiple accounts held by consumers arising from transactions from different service providers. It enhances user experience, promotes product development to meet user needs, increase convenience, relatively reduces costs and several other benefits.

Open ecosystem: a digital platform that freely supports and encourages integration with other technologies, services, and platforms.

Micro Small and Medium Enterprises: businesses that maintain revenues, assets or a number of employees below a certain threshold. Each country has its own definition of what constitutes a micro, small and medium-sized enterprise. Certain size criteria must be met and occasionally the industry in which the company operates in is taken into account as well.

Rapid Payments Programme: Rapid Payments is designed to be a viable alternative to cash payments with a core focus on humanising digital payments for all of South Africa. Simultaneously, Rapid Payments is designed as a platform infrastructure to enable future modernisation. It aims to enable the wide-spread use of digital payments for low value but high-volume payments that are currently serviced mostly in cash.



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