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Guidance Sheet

Digital Financial Services



Key Issues

Financial inclusion remains a mass-market problem

Almost 30% of adults in developing countries still do not have an account with any kind of formal financial institution. And yet, as many as one third of adults in Sub-Saharan African countries, where banking facilities are extremely scarce, have a mobile money account (a digital account accessible from their mobile phone). These two 'good news/bad news' statistics, which come from the World Bank's 2021 Global Findex Database report, show the large gap prevailing in the market and the large contribution that digital financial services (DFS) can make. Digital financial services are about finding large-scale solutions to financial exclusion that also incrementally benefit those already banked. DFS aspires to be a mass-market rather than a niche solution to financial inclusion.

Last mile service delivery costs as an access barrier

Traditional banking typically happens in banking halls. But what if the closest banking hall is two hours away? Or it is nearby but you are forced to queue up for an hour before you are served and are not made to feel welcome? This is the reality of formal banking for millions of people. Digital financial inclusion solutions need to be focused on addressing this last mile gap.

Lack of competitive business models

If there are not enough banks where poor people live, one solution might be simply to have more banks, so that competitive pressure between them forces growth-seeking banks to penetrate previously unserved or underserved markets. But many banks will not make the steep last mile costs go away as an access barrier. What we need is more competition between banking business models, not just more competition between banks. The rapid pace of innovation in digital technologies offers the best opportunity to find new, effective ways of approaching the last mile problem, and to bring new kinds of players with different corporate interests and core competencies to try their hand.

Digital divide

DFS carries the promise of overcoming last mile physical access problems. Still, in practice we observe a digital divide, meaning certain populations are excluded or struggle to use DFS. The barriers causing the divide deserve special attention when rolling out DFS platforms and services. Persons who are illiterate and/or who lack digital literacy face greater challenges in using DFS. Access to mobile phone infrastructure and ownership of mobile phones are other important limitations. Additionally, cultural barriers can make the digital divide even more pronounced for women. For example, in certain cultures, women's education has lower priority, women have limited mobility due to responsibilities at home, spouses are resistant to having a financially independent wife, and there are cultural restrictions on when and how women may interact with men outside their family.

What is digital financial services (DFS)?

Digital financial services (DFS) refer to the use of digital platforms to deliver financial services and products straight into customers’ digital devices, such as mobile phones or payment cards. These are distinct from more traditional financial service delivery models based on brick-and-mortar bank branches or the field officers of microfinance institutions. Digital platforms bring the opportunity for financial institutions to interact directly with their clients with a much reduced direct physical presence in the territory, therefore in principle enabling financial inclusion at lower unit transaction costs and on a more massive scale. Most financial inclusion-oriented DFS systems that exist today rely on mobile phones already in customers’ possession, rather than issuing bank-specific cards, in order to further reduce per customer setup costs and offer a higher level of service interactivity. This is why the term mobile money is now tantamount to digital money. But in general, it is better to define money with reference to the medium used (paper notes, metal coins, digital 0s and 1s) or the issuer of the money (fiat money, cryptocurrency) rather than the type of device it is put in or transacted through (leather wallet, point-of-sale terminal, mobile phone).

Financially inclusive DFS models need to address the reality that most people’s financial lives, especially those on lower incomes and more marginalised groups, are conducted in hard cash. DFS providers’ success therefore hinges crucially on building customer trust in digital money and providing effective mechanisms for customers to exchange their cash for digital money and vice versa. DFS providers delegate this task to local retail stores and sometimes also to agents who go door to door. They also build branded and supervised networks of DFS agents who operate stands in public areas, such as market places, and incentivise them with per-transaction commissions.

Customer deposits and withdrawals processed through such agents can be trusted because all transactions are authorised, confirmed and recorded digitally in real time by the DFS provider, and they happen against agents’ own balance of digital money in their account with the DFS provider and the cash in their till. There is therefore no credit element in a cash in/out transaction, and agents never hold any moneys that are owned by the DFS provider or its clients. DFS agents can be thought of as providing a liquidity network that is anchored on but extends well beyond the reach of bank branches.

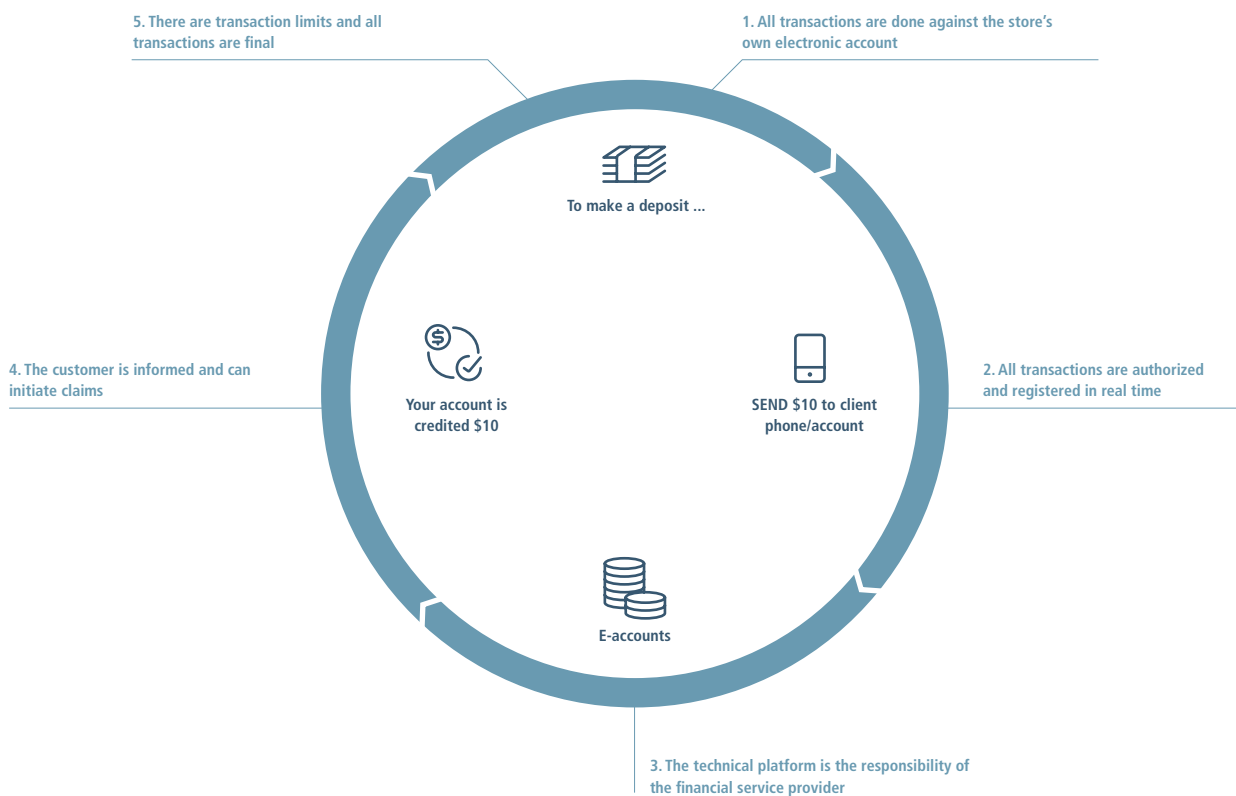


Figure 1 Making it safe to transact using an agent

DFS systems are often deployed by non-bank players, such as mobile telephony operators, as they (i) are fully accustomed to selling their service through third-party retail networks on a prepaid basis, (ii) already enjoy a strong mass-market brand and large pre-existing customer bases to whom they can cross-sell financial services, and (iii) benefit from some degree of control over phones in customers' hands (especially low-end phones) through which they can enhance digital security and the quality of the customer experience.

Banks, on the other hand, tend to be more focused on high-income customer segments in urban centres. They are often reluctant to build low-cost DFS systems with extensive agent networks for fear of cannibalising their existing branch-based business model.

To ensure public trust and financial soundness, non-bank DFS providers ought to be properly licensed by the central bank and required to invest all customer funds they hold in bulk (or pooled) accounts at commercial banks. Thus, non-bank DFS providers can be said to individualise pooled bank accounts and, as such, are best viewed as a marketing and service extension of the banking system.

Why is DFS important?

DFS systems are best thought of as a mechanism for delivering digitally the two key functions of money: as a store of value (money sitting in a digital account, i.e. savings) and as a means of payment (money moving between accounts, i.e. money transfers). Once digitised, money and transactions can be treated simply as individual entries and updates in a networked system of accounts which can potentially include everyone. DFS accounts then become people's connection points to a low-cost, instant, multi-purpose and universal digital payment grid. This is the grand vision.

The practical uses of being thus connected are many and varied. You may be an economic migrant in an urban centre sending money to your family back home. You may be an entrepreneur collecting money from remote clients prior to sending them the goods, or paying wages to your far-flung workers. You may be part of a savings group that needs to keep the group's surplus easily accessible but safe. You may be a regular beneficiary of government welfare payments. You may be an NGO organising urgent humanitarian payments after a hurricane has swept through. You may be a housewife wanting to create a nest egg to ensure your children's education and your own future. Faced with a medical emergency, you may need to borrow money from richer relatives in the capital or from a loan provider over in the next town. You may want to make regular payments on your life insurance, pay for your children's school fees or the electricity bill. You may now be presented with the option to make contributions on a pay-as-you-use basis for the solar panel kit that lights your home at night. And, of course, you now can avail yourself of banking services even if there is no bank branch anywhere near you. For all these things, having access to a digital payment network or grid can help you.

By enabling micropayments that can reach millions of people, digital payment networks are spawning much service innovation in microfinance and in non-finance areas as well. For example, in finance, they are enabling Mbao micropensions in Kenya, the use of digitised collateral for SME lending in Nigeria, and life and disability microinsurance in Uganda and Cambodia. Beyond finance, Nepal mobile money subscribers can now pay for and access telemedicine services and Covid-19 insurance from their mobile phones. Humanitarian agencies, such as MercyCorps and Concern Worldwide, are able to roll out faster relief to families in need following natural disasters or human conflict through digital cash distributions in places such as Kenya, Pakistan and Haiti.

The 2021 Global Findex Database report documents the common experience in many countries where people initially open a DFS account to receive money (reported by 57% of adult users in developing countries), which then becomes a stepping stone to using financial services more extensively.

How to plan projects on DFS

1. Understanding DFS within a Market Systems Development (MSD) approach

Building sustainable DFS platforms requires large upfront capital investments, vigorous ecosystem building, and strong public trust. It also requires identifying how to offer DFS in a way that avoids harming clients, particularly marginalised groups, and then educating DFS providers on management practices that can prevent harm to clients, and even create benefits for them. It is a huge, expensive task. So it is important to leverage what already exists, build appropriate partnerships, and firmly ground your activities in MSD thinking.

As with all network-based systems, the success of DFS platforms is highly dependent on achieving critical mass as quickly as possible. It is hard to attract early adopters when there is little familiarity with this new form of making payments, the agent network for cash in/cash out is patchy, and there are only a few people and institutions within your circle that you can pay or be paid by. But once there are enough users and agents in the platform, network effects kick in: a growing customer base brings more value to existing customers, word of mouth kicks in, and non-users are pressured by users to join the system. It is important to recognise, however, that word of mouth can both attract new users or repel potential new users, depending on how positive or negative the early adopters' experiences have been. Today, there is evidence of significant customer protection deficiencies in the digital financial sector, particularly in the areas of cybersecurity, fraud prevention,

complaints resolution, data privacy, and transparency, especially transparency regarding product terms and conditions, pricing, fees, and whether/how DFS providers share data with third parties. Therefore, the business plan needs to address customer needs and pain points, both in relation to barriers to access and the mitigation of customer protection risks incurred by active users of DFS, and this needs to be reflected in the specific use cases that will be deployed to design and market the system to get to critical mass as quickly as possible.

Network size can be greatly enhanced if there is an interoperability framework across players, and policies should therefore favour industry-development collaboration and interoperability. Joining the network is more valuable if you can pay anyone on any system, and not just those on your system. On the other hand, larger players may resist that, opting for a closed loop approach and excluding customers of smaller players from paying into or out of their system.

DFS platforms have public deposit-taking at their core, so financial regulators need to ensure that this happens in a responsible and sustainable fashion. On the other hand, regulations should not be so heavy-handed as to preclude the entry of new types of players, such as telecoms operators and pure internet players, into this new and innovative space. The key is to design a proportionate regulatory framework that provides lighter regulation of those whose activities pose little risk to DFS users. A good example is providing a non-banking license for DFS providers who do not themselves intermediate customer funds but instead invest them in pooled bank accounts.

Widely deployed digital telecoms networks

Real-time transactions



Rapid spread of mobile phones

Deployed base of cards/terminals



Retail shops in every village/neighborhood

Cash in/out outlets



Non-banks as e-money service providers

Reach, brand, prepaid transactional models



Banks as financial ecosystem supporters

Custody of funds through pooled accounts, branches for cash rebalancing by agents, complementary service provision e.g. credit



Figure 2 Leverage what already exists

The most successful mobile money schemes (such as M-PESA in Kenya and Tanzania, bKash in Bangladesh) operate on this basis.

Another critical regulatory area are the rules to ensure financial integrity and to prevent money laundering and the financing of criminal or terrorist activities, as they can have a significant impact on the account opening process. Here again, however, there is a balance to be struck between requiring enough due diligence on account opening to avoid financing criminal activity and not making the requirements so demanding that people who do not have identification and/or lack formal paperwork cannot gain access to basic services.

A lighter touch regarding account opening documentation for accounts that transact only small amounts of funds in limited ways could facilitate greater financial inclusion while not posing a risk to the financial integrity of the system.

2. Understanding the target groups and their constraints

Financial inclusion-oriented DFS schemes need to take account of the special circumstances of those who are currently unbanked or underbanked. These people tend to be poorer, so the business model will likely have to be more based on transaction charges than margin income. In some cases, financial services providers may offer a low or zero fee account that is not profitable, based on the theory that it helps poorer people feel comfortable using formal financial services, enabling them to become more confident customers that will use a wider range of financial products that would then generate revenue for the provider.

For any product or service, the design needs to provide a participation mechanism for those without a smartphone, for example by using simple text messages or interactive voice response protocols which work on any phone or even without a phone at all, or by using cards or letting the transaction happen entirely on the agent's phone.

A significant proportion of users may also live in rural or peri-urban settings where cellular coverage is patchy or non-existent, in which case it may be necessary to build a system based on smartcards which can operate offline. In addition, even companies that provide purely digital channels for delivering products and services will still benefit from incorporating some element of 'touch', meaning live human interaction, in addition to the 'tech'.

Research shows that new users of a service, people with questions and people with complaints, in particular, value being able to interact with a live human. Retaining a touch element for these circumstances seems advisable for, and possibly even essential to, the growth and success of DFS.

Impact-linked Finance/Gender Inclusive FinTech (ILF/GIF)

The Impact-Linked Fund for Gender Inclusive Fintech (ILF for GIF) provides Impact-Linked Finance and technical assistance to fintechs to support a stronger focus on gender-transformative outcomes for financial inclusion. Fintechs, identified by renowned impact investment funds, are directly rewarded with financial incentives for achieving social impact, improving their profitability. The investment from the partnering impact funds helps the fintechs to scale, magnifying their impact even further. In March 2022, this fund secured commitments of USD 13.4 million from the Swiss Agency for Development and Cooperation (SDC) and the Austrian Development Agency in a first closing. The full target fund size is USD 21 million.

Poorer rural populations may be harder to reach by traditional marketing methods, and this can be a big barrier to selling a new DFS service which requires substantial explanation and customer education. Customer communications and education will need to be undertaken through local events and roadshows, giving people the opportunity to hear about the service first-hand and maybe even try it. The service may need to be offered in a range of local languages.

Currently, financially excluded people will, by definition, have little familiarity with the benefits and operation of formal financial services. As discussed in the Guidance Sheet on Financial Education, providers need a process to help customers improve their financial literacy by acquiring the knowledge, skills, and attitudes they need to take the right decisions concerning their finances. It is important that services are structured and explained in a way that resonates with the informal services currently used by such customers. The design of the customer experience needs to take account of the fact that customers will also be less comfortable with using new digital technologies and may even be illiterate. Many will not have national IDs, or even a street address, which may be a big barrier to opening an account and trying out the service. This problem will be more acute with migrant populations and possibly also women.

The [Guidance Sheet on Financial Education](#) explains how a focus on financial education is especially important for women as they disproportionately experience poverty, stemming from limited opportunities for educational attainment, employment outside of the household, asset and land ownership, the inheritance of assets, and control over their financial futures in general. DFS providers will need to work around and challenge established gender norms. For instance, social norms may prevent women from interacting with male agents, so it may be important to emphasise the recruitment of women-owned businesses as agents. Men often feel entitled to check their wives' financial records, citing concerns about infidelity, so women may need special help to ensure the privacy of their financial transactions.

To identify and address all these issues, it will be important for DFS providers to partner with organisations with strong local knowledge and presence within these communities so that they can help in the design of appropriate services and customer experiences, deliver local communications and education campaigns, and offer direct support to agents or customers as required.

How to implement projects on DFS

Developing digital payment networks or digital microfinance ecosystems requires concerted efforts by different types of players: frontline providers, managers of digital platforms, regulators, funders and more. The G20 and international standard-setting bodies agreed on a set of High-Level Principles for Digital Financial Inclusion that should guide these interdependent efforts.

If you want to offer specific financial services through DFS platforms, the first decision you will need to make is whether to build your own DFS platform or to use someone else's. That will depend as much on the nature and scale of your intended operation as on your core competencies.

1. Building DFS platforms: realities on the ground

Say you are a telecoms operator and see payments essentially as another form of secure messaging — something you think of as a logical service extension from your core service. Creating the digital services may come easily to you as a tech company, but the harder part for you will be developing the customer interfaces, and especially those that bridge the physical and digital domains.

For people whose lives are currently conducted in cash, most transactions will start and end with cash, so agent availability will be the most critical constraint. Agents will sign up and flourish if you give them enough transactions, but without agents it is hard to trigger the transactions. Such is the chicken-and-egg problem you need to crack. If agents do not get enough business, they will see no point in holding sufficient levels of liquidity (cash and digital money) at all times, they will not promote and explain the service to the people coming to their store for other things, or may relegate the signage about the DFS service to the background. Eventually they will just drop out.

A second physical-digital interface you may need to work on is the account opening process. Depending on regulations, you may need to physically check, photocopy and store the IDs of all prospective customers. That presents a huge logistical problem, and you are likely to rely heavily on agents to do the heavy lifting here too. It is important to reduce as much as possible the hurdles to customers who are new to formal financial services trying out the DFS service.

The third interface you will need to sort out relates to ongoing customer care. Some common issues are customers who forget their PIN, who lose or replace their SIM card, who send money inadvertently to the wrong phone number, or whose transactions were interrupted part way through due to system outages, and it is unclear to them whether the transaction succeeded or failed. You need scalable solutions to these daily problems.

2 Using DFS platforms: choice of provider

Say you are a humanitarian relief agency wanting to offer emergency financial help to a particular group of people.

Cash is costly and risky to move around, especially in extreme locations and circumstances. You will likely want to offer your financial assistance digitally, on top of someone else's DFS platform, so as not to be distracted from your core activity and to be able to react faster. You will first need to conduct a thorough provider landscape and understand what type of solutions are available in the market. You will need to define your specific programme needs, such as the size and location of target population, any special needs they have, your timelines and cost envelope, the skills and capabilities you need to get from partners, your data privacy policies and reporting requirements, etc. All this will set you up well to write an appropriate request for proposal (RFP) that is based on what is possible in the market and geared towards your own needs.

The contract you sign needs to take account of the different perspectives and business interests that you and the payment provider have. Frame it as a partnership, and make sure you accommodate their interests when they are not in direct conflict with yours. Also, in the partnership agreement, define not only roles and responsibilities, but also specific performance expectations (e.g. X people served within Y timeframe), and agree in advance who within the partner organisation will be the point of contact to work with the financial services provider to resolve problems should they arise. But even a great contract does not guarantee results. It is a good idea to pilot with a small user group first and scale up only when you are satisfied with the operator's performance.

The SCBF is a public-private development partnership (PPDP) that funds technical assistance (TA) for financial sector partners to develop and scale up client-centred financial products, channels and services in developing and emerging countries. The financial products and services provided include savings, loans, insurance, digital financial services and financial education.

During the Covid-19 pandemic, a digital tele-medicine and Covid-19 insurance product was developed in Nepal through the SCBF's support. The product has two core features: e-health tele-consultation bundled with Covid-19 insurance. This is a first-of-its-kind product that will improve the resilience of low- and middle-income families in Nepal.

How to monitor and measure results

Measuring the performance of digital finance platforms in addressing financial inclusion needs to be thought of as a multi-dimensional and ongoing exercise:

- ▶ **How many people among target groups have registered for such services?**
- ▶ **Among those, how many have demonstrated an ability to use the services in practice, perhaps as demonstrated by having performed at least one transaction?**
- ▶ **Among those, how many use the services with some regularity, perhaps as measured by those who have done at least one transaction in the last 30 days?**
- ▶ **Over time, are transactions increasing or decreasing?**
- ▶ **How many use the services for a single purpose versus those who use a variety of services?**
- ▶ **As a proxy for impact, how important are the transaction volumes they process through digital platforms as a percentage of their total monthly cashflow?**

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