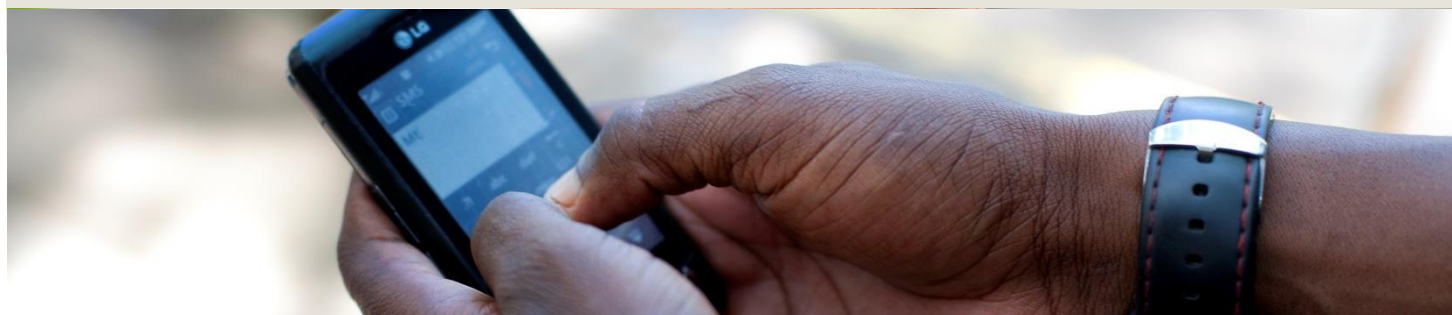


»» Materials on Development Financing



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Digital Finance: the future of the financial sector Potential opportunities and specific starting points for FC

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The financial sector worldwide is currently going through a period of (digital) change. This is opening up both opportunities and challenges – not least for the field of Financial Cooperation (FC). For instance, Digital Finance offers a previously unheard-of potential for financial inclusion, but at the same time it calls for new action in terms of traditional financial institutions and the approaches for funding them. By committing itself to Digital Finance, the KfW Development Bank can help to shape the progress of digital change around the world, can improve the effectiveness of FC measures and can promote financial systems that are fundamentally more inclusive.

Relevance of financial inclusion for development policy

The provision of need-based financial services such as micro-loans, savings products or insurance to individuals, households and micro, small and medium sized companies (MSMEs) is

improving access to the offerings of the financial sector, particularly in relatively poor classes of the population. As a result, more people can increase their income and protect themselves against life risks, while jobs are being protected and created in the MSME sector. Financial inclusion is therefore an important prerequisite for achieving the development targets in other sectors. Accordingly, 7 of the 17 targets of the Agenda 2030 for Sustainable Development referred to the necessity of financial inclusion through the development of financial systems.

Financial exclusion and its causes

Financial exclusion, however, remains a global challenge. More than 2 billion adults around the world do not have a bank account. This affects over 50% of the world's poorest people and 42% of women, whereas the figure stands at only 35% for men. Most of the over 450 million smallholder households have no or only limited access to an account. With regard to companies,

about 200 million MSMEs in developing countries have no bank account, while over 45% of SMEs in low-income countries do not have the possibility of obtaining a formal loan. The resulting financial gap among MSMEs in developing countries is estimated at USD 2.2 billion.

One of the main causes of financial exclusion is the high cost of the traditional sales model of banks. Bank branches, cash transactions and paper-based processes make the provision of financial services expensive, which means that the offering is not worthwhile for all customer groups. Rural areas with a low population density and low transaction volumes therefore often fall by the wayside in terms of service provision. Equally, the granting of loans to small and often informal MSMEs is generally not financially viable because of the high costs of an analogue loan appraisal.

Potential and developmental relevance of Digital Finance in the development of the financial sector

Digital Finance refers to financial services that are offered, marketed and used via digital channels and/or are made possible by digital technology. In this way, financial institutions can tap into new customer groups and revenue sources and at the same time save considerable costs. For instance, informal MSMEs and smallholders that could not be reached cost-effectively in the past can now become profitable target groups. On the other hand, “traditional” providers run the risk of lower income from transfer fees or even a loss of competitiveness if they do not exploit the advantages of digital innovations in their sales and in their back-office processes and are therefore overtaken by the competition.

The developmental and economic potential of Digital Finance is huge (see graphic). In a recently published study, McKinsey estimates that over 1.6 billion people, of whom more than half are women, will gain access to financial services through the expanded use and/or scaling of Digital Finance by 2025, and that additional loans in the amount of USD 2.1 billion will be awarded to MSMEs.

The digitalisation of payment flows will allow governments in industrializing countries to make greater cost savings and to improve both the transparency and the efficiency of the public sector. For instance, the government in Mexico is making annual savings of USD 1.3 billion, which corre-

sponds to 3.3% of the total expenditure of the relevant departments, by paying the salaries of civil servants, pensions and social benefits through digital channels.

Digital Finance components

Digital Finance services are firmly anchored in systems that consist of various actors, institutions and technological components. These systems are referred to as “ecosystems” – every part is essential for the success of the whole.

General conditions. The specific way in which a Digital Finance ecosystem is used depends on the general regulatory conditions. The supervisory conditions regulate, among other things, the payment transactions, the mobilisation of deposits, e-money and the use of alternative sales channels and/or interfaces such as *outsourcing* to third-party suppliers or *agents*. In addition, there are general regulations for financial service providers outside the banking sector, such as mobile network companies or fintechs.

Financial infrastructure. The infrastructure that is relevant for Digital Finance includes payment transactions, the access points to the financial sector and effective systems for customer identification. National payment transactions consist of payment systems for large-value payments (primarily Interbank Clearing, the *large-value interbank gross settlement system*) and processing units for small-value payments and instruments such as cards and mobile phones (*automated clearing house*,

interbank payment processing platform).

Physical access points are a core component, because digital transactions and cash payments will coexist in the medium term. Even in Norway, which boasts the world's highest share of digital payments, 22% of payments are still made in cash. Innovative access points are enabling deposits and payments away from traditional bank branches, such as at kiosks, at informal third parties or even petrol stations, as well as at ATMs.

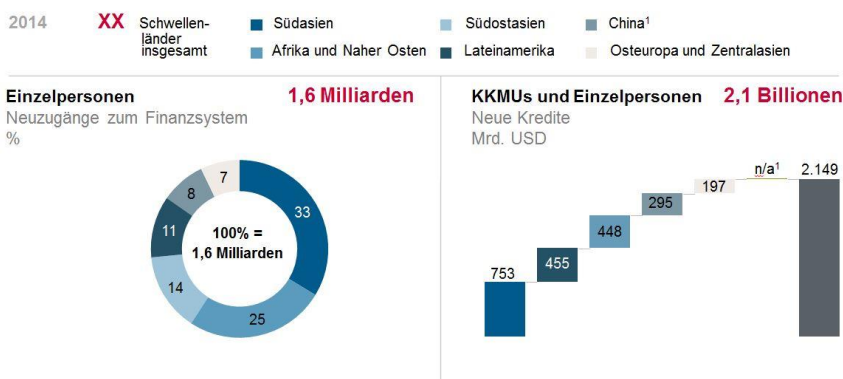
Digital Finance providers. Digital Finance can be provided both by traditional and non-traditional financial service providers. Traditional financial service providers refers to institutions such as those currently funded by KfW Development Bank: banks, micro-finance institutions, postal banks, cooperatives, etc. However, the pioneers of innovation are often the non-traditional providers such as mobile network companies, payment service providers and *fintechs*. These players have appeared for the first time on the financial market in the course of the global expansion of ICT and progressive digitalisation, and they are now causing a radical transformation of the structures in the global financial sector. In order to sustainably support the innovative dynamic in the area of Digital Finance for the benefit of the customers, it is necessary to create innovation-friendly general conditions and an effective infrastructure without any access restrictions.

Support services. This refers to services that are required by Digital Finance suppliers for the provision of their products, such as for process optimisation in the hardware and software segments, for data processing or for operations management. The acquisition and processing of data play a crucial role here, where unforeseen opportunities for automation are opening up in the area of *credit scoring*.

Digital Finance services. The absolute heart of the offering is digital (mostly mobile network-based) payment transactions. Using digital access, such as a mobile phone or a

The potential of Digital Finance in figures (2014)

Vielfacher Nutzen durch Digital Finance-Leistungen



Source: McKinsey & Company

¹ Excluding new loans in China, as the current level of debt is already extremely high there.

SmartCard, customers can carry out transactions and also access a wide range of other financial services such as savings, loans and insurance policies. It is particularly worth mentioning *digital credit products*, which are marketed via digital channels and where the loan appraisal is carried out or supported on the basis of large data volumes using technological tools (algorithms). The data source here may be historical mobile-phone credit balances and digital payments that the applicant has made in the past. Such innovative approaches to loan appraisals are particularly beneficial for poor households – such as smallholders – and informal MSMEs, who often cannot provide any collateral and do not possess any reliable bookkeeping.

Challenges

It seems that the potential is already being exploited in the individual Digital Finance components – either in terms of a rapid growth in fundamental services such as mobile payment systems or individual success stories such as M-Shwari from Kenya in the area of *digital credit*. However, there is still a great deal to be done before the full potential has been exhausted. Even in advanced markets, the development is still in its early days. In order to support the emergence of inclusive financial sectors in this way, it is necessary to face up to a series of challenges.

Privacy and data security. There is a number of challenges in customer protection and privacy. Any regulations regarding customer protection in the financial sector should take the innovative character of the sales channels into account, as well as the fact that relatively poor people in particular often have no experience of ICT. Every digital transaction leaves behind a digital footprint. The storage and use of data must be subject to clear privacy regulations.

Another system-related obstacle is the question of proof of identity, which is often particularly challenging for relatively poor people: in the Africa/MENA region, only 62% of the

population are formally registered, and in South Asia only 64%.

Infrastructure. The digital payment systems in developing countries are often self-contained (*closed loop*). This means that transactions are possible only within the respective system and not with customers of other payment systems. Moreover, the fact that all the financial suppliers are dependent on agreements with – in some cases, dominant – providers of closed-loop systems tends to hamper innovation. This is particularly problematic for relatively small service providers such as micro-finance institutions, who have to invest in their own systems in order to avoid competitive disadvantages. The challenge is to enable transactions of any size from every financial service provider (banks, MFIs, mobile network providers, fintechs or any other) to every other provider – in real time. This objective can only be achieved by procuring or renewing the relevant hardware and software components. On the central level, there is a need for investment in clearing and processing houses that guarantee interoperability between the suppliers and reduce the costs for all financial service providers. In many countries, the integration of the payment systems of mobile network providers into the national payment transactions is of primary significance.

The physical access points to the network of financial service providers are generally limited in most developing and industrializing countries and are focused on urban areas. One remedy for this would be to make better use of existing sales points such as post offices. .

Starting points for KfW Development Bank measures

Digital Finance is a key component in modern and inclusive financial systems, which deserves to be a high priority in promotional strategies. In this sense, independent FC measures for funding the Digital Finance infrastructure seem to be both entirely possible and needed. Wherever possible, existing potential should be considered more closely in ongoing programmes, in order to support the

emergence of Digital Finance.

#1: Funding of the Digital Finance infrastructure through independent FC measures

Infrastructure of digital payment transactions. An efficient and widely accessible infrastructure for payment transactions is a crucial prerequisite for quick, inclusive and sustainable growth and innovation in the field of Digital Finance. In many countries, investments are needed in major hubs of the payment transaction system (*national switches*), especially for the processing of relatively small transactions. In addition, relatively small financial institutions in particular need to invest in technological components in order to be able to use the central infrastructure efficiently and smoothly. Successful examples can be found in Peru and India. In Peru, the system has allowed interoperability between the 32 largest banks and three of the most important mobile network providers, enabling real-time transactions between all of the participating institutions, and it features a standardised infrastructure for deposits and payments and for customer identification. A similar, promising initiative has been launched in India on an even larger scale.

Development of national networks of innovative access points to the financial sector. In countries where innovative access points are not yet widespread, there is considerable potential for expanding the range of the financial sector quickly and significantly with selective measures. Experiences from Latin America show that the retail trade in particular is suitable for building large networks quickly (lottery chains in Brazil, supermarket chains in Mexico). Post Office branches also offer potential, because they are more widely spread in many developing countries than the branch networks of the financial sector. Investments in the ICT infrastructure for financial transactions (POS devices) and, if required, in the networking of the branches are necessary to make it possible to exploit this potential for creating access points to the financial sector. A profitable business model is available here for the Post Office and other retail networks: new revenue

sources can be exploited with fees for financial transactions that are carried out on behalf of financial institutions. FC funds are deployed for financing investments in ICT infrastructure (such as SmartCard Readers) and/or for networking financial institutions and networks of paying agencies. In addition, the liquidity in the system could be guaranteed through refinancing. In an accompanying measure, the training capacities for agents and branch employees ought to be promoted.

Identification mechanisms. Suitable ICT solutions make it possible to produce digital identification documents and to confirm transactions with a fingerprint. This reduces access barriers, for instance for illiterate users.

#2: Consideration of Digital Finance in existing FC strategies

Enhancement of existing strategies for funding financial institutions.

Digital Finance opens up new opportunities for financial institutions who will have no choice in the medium term but to renew their processes in order to remain competitive. Due to its existing relations with financial and apex institutions, KfW is in a position to promote Digital Finance effectively. The potential of Digital Finance to contribute to achieving the objectives of FC measures in the financial sector should therefore be assessed in detail, so that corresponding investments can be supported wherever possible.

Funding Digital Credit. Innovative digital credit products can fill existing financial gaps – for instance, in the financing of MSMEs and agriculture. In a similar way to the micro-financing segment, appropriate refinancing also needs to be guaranteed for *Digital Credit*, in order to achieve scaling that is widely effective.

Digitalisation of payment flows in FC measures in other sectors. Digital Finance can fundamentally contribute to the target achievement and the effectiveness of projects under Financial Cooperation in all sectors, in part by improving the effectiveness and transparency in transactions with the general public. This affects all state payments and transfers that are

currently made in cash – in many countries, this includes social benefits, civil-servant salaries and the procurement of services and goods. Specific points of mutual connection can be identified through the cooperation of KfW Development Bank with state institutions. For instance, the payment of teacher salaries can be digitalised in the education sector. In the field of decentralisation, digital payments help to ensure that funds actually reach the local administration and to combat corruption in the system. The digitalisation of government payments therefore improves the transparency of the public finance system (*Good Financial Governance*). At the same time, this promotes financial inclusion and the people's faith in digital payments, as they are linked to a specific application purpose which can form the basis of further financial services.



Photos

Title: KfW Photo Archive/Bernhard Schurian



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