Policy Guidebook:
Harnessing Digital Technology for Financial Inclusion in Asia and the Pacific

UNITED NATIONS
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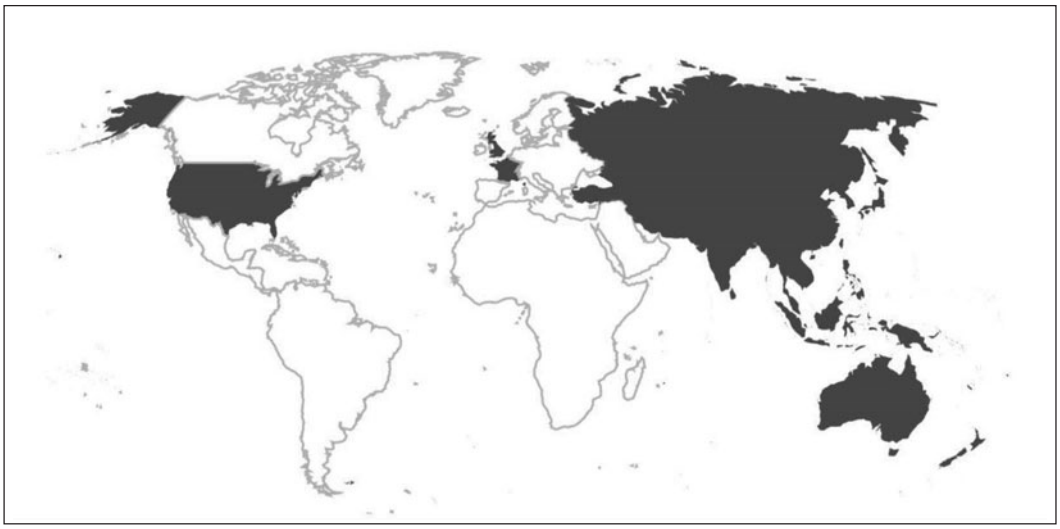
Economic and Social Commission for Asia and the Pacific



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Executive summary

The significance of strengthening economic growth and sustainable development through financial inclusion is critical for the Asia-Pacific region. Harnessing the advent of digital technology to enable financial inclusion is one of the most promising opportunities to bring millions of unserved and underserved people across the region into the formal financial sector. This is especially true for people who are living at the base of the economic pyramid (BoEP) and for women, who are especially marginalized and disadvantaged through persistent barriers that perpetuate inequality.

However, digital technology does not represent a 'silver bullet' for solving the challenges associated with financial inclusion. By introducing digital financial services (DFS) into financial inclusion strategies, several new challenges are emerging, including exposing BoEP populations to new or exacerbated risks. While the promise of DFS is appealing, policymakers and regulators have an important role to play to ensure that digital services are delivered responsibly and that they are achieving the desired outcomes, including enhanced resilience and economic opportunity for women and other disadvantaged groups.

Innovative policy interventions, when targeted appropriately to women and BoEP populations, can have a positive ripple effect into the households, communities and countries where they live. When considering the policy needs for an enabling digital environment, BoEP populations and women have both general and specific needs that must be addressed to maximize the potential for financial inclusion to have a positive impact on their lives. For both groups of people, DFS can lead to positive outcomes; but an uninformed approach to the provision of DFS has the potential to engrain inequalities even further, leaving vulnerable populations at even greater risk.

The policy approach and interventions need to be informed by the country, provincial and local level characteristics, demographics and local cultural and gender norms. The vast differences in the uptake of digital technologies such as mobile phones, and how technologies are used, varies greatly among women and BoEP populations and is determined by a variety of factors, including the state of infrastructure development, the availability of digital products or services, and the regulatory environment. Policy interventions must be fit for purpose and tailored to local requirements to increase their likelihood of success.

While the country-level context is critical for the implementation of effective digital technology for financial inclusion, a common framework can be applied to guide this process. Governments across the Asia-Pacific region should approach digital financial inclusion through the nexus of their roles as market facilitators, market participants and market regulators. Targeting policies to the supply, demand and regulatory levels enables Governments to play multiple roles and maximize impact.

Within these roles, there are specific policy interventions which Governments should prioritize in order to expand the reach of DFS and enhance its value for BoEP populations. These include the following:

- Develop national plans for financial inclusion that include the role of digital finance in supporting BoEP populations;
- Develop digital financial literacy strategies to improve utility of digital finance to BoEP populations;
- Invest in digital financial infrastructure, especially universal broadband connectivity, to improve access;
- Ensure a safe and flexible digital banking infrastructure, including open and interoperable digital payment rails;
- Establish digital payment systems, including government-to-person payments;
- Use digital technology to enhance access to credit;
- Use digital technology to boost savings of BoEP populations;

- Design consumer protection regulatory frameworks that are fit for the digital age;
- Establish universal, secure and private identification schemes, including electronic know-your-client systems;
- Establish effective enforcement mechanisms, including for consumer complaints and redress.

To better address the unique needs of women and ensure that the delivery of DFS does not exacerbate inequality, priority policy interventions should include the following:

- Incorporating women and gender within national plans and strategies for digital financial inclusion;
- Developing financial literacy initiatives which target women specifically;
- Designing women-led initiatives that enable greater access to support at the local level;
- Establishing digital payment systems, including government-to-person payments, to target women beneficiaries;
- Adjusting banking policies to enable non-traditional banks to provide technology-driven services and products for women;
- Establishing universal, secure digital identification using biometric technology to ensure payments reach women beneficiaries;
- Establishing specific central government targets for the financial inclusion of women;
- Designing policy levers within bureaucracy to incentivize the use of digital technology to advance women's financial inclusion.

The Asia-Pacific region has made significant progress in recent decades on financial inclusion, however significant disparities still exist in access to financial services both between and within countries. This is especially apparent for BoEP populations and women. Digital technologies bring opportunities to the financial sector, and effective policy interventions can unlock this potential and bring the region's poorest and most disadvantaged groups into the formal economy.

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Contents

List of Boxes and Tables

Boxes

Tables

Chapter

1

Introduction

Financial inclusion is a critical step in the promotion of sustainable development and economic growth.[1] At the individual level, access to financial services can reduce poverty, improve well-being and enable entrepreneurship and small business activity. For national economies, the broadening of access to and usage of financial services by people at the base of the economic pyramid (BoEP) tends to boost growth and reduce income inequality.

Given that access to formal financial products and services (e.g. savings, credit, payments, insurance, securities, etc.) can have an impact on improving the well-being of BoEP populations, progressing towards financial inclusion has become a priority for many Governments. The coronavirus disease (COVID-19) pandemic has put even greater urgency on achieving financial inclusion as it has highlighted the important role access to financial services can have on enhancing resilience among vulnerable groups.

Over the past decade, the Asia-Pacific region has made considerable progress in financial inclusion, however disparities in access to financial services still exist both between countries and in-country. Despite attempts to shape the formal financial sector to serve low-income, rural and marginalized populations, large segments of the population remain excluded. Evidence suggests that unserved or underserved segments of the population include vulnerable groups such as youth, the uneducated, the unemployed, women and the poor in rural areas.

Issues constraining the advancement of financial inclusion vary between countries and often relate to multiple factors including the state of the development of financial markets,

[1] The benefits of financial inclusion directly support progress on 7 of the 17 Sustainable Development Goals: Goal 1 (no poverty); Goal 2 (zero hunger); Goal 3 (good health and well-being); Goal 5 (gender equality); Goal 8 (decent work and economic growth); Goal 9 industry, innovation and infrastructure); and Goal 10 (reduced inequalities).

politics, poverty levels, geography or cultural norms. Examples of specific barriers commonly faced by BoEP populations to access formal financial services include limited financial literacy skills, cost of services, lack of necessary documentation or distance to financial institutions. However, the most prominent issue preventing the poor from opening formal accounts is simply the lack of sufficient funds to use them.

These challenges highlight the need for financial inclusion strategies to address both supply- and demand-side issues, including support for income generating activities and the development of micro-, small and medium-sized enterprises.

Achieving women's financial inclusion is of particular importance. Globally, women make up the largest portion of the poorest populations, have the highest rates of illiteracy and are most likely to be employed in the informal sector. Closing the gender gap and achieving greater economic empowerment through financial inclusion can lead to significant positive impacts on the lives of women, as well as their families and broader communities. The benefits of enabling women's equitable access to economic activity as entrepreneurs, employees and consumers also has a direct impact on economic growth.

Achieving success with women's financial inclusion requires an understanding of the unique and often complex challenges they face. These challenges, which are typically influenced by social or cultural norms that can be counterproductive for achieving inclusion, are often not understood well enough to be addressed adequately through financial inclusion programmes and policies. Governments have an important opportunity to improve the results of financial inclusion programmes and policies and to establish a policy and regulatory environment that directly focuses on addressing the needs of women with the aim of closing the gender gap.

Within this context, the emergence of digital technologies is the most promising development in decades. Digital technology-based interventions and innovations can be an effective and empowering way to make financial services more inclusive. The significant advances in affordability and accessibility offered by digital financial services (DFS) have the potential to reach billions of new customers, offering financially excluded segments of the population, including the unbanked and those who are engaged in informal financial ecosystems, the chance to enter the formal financial sector.

In response to the COVID-19 pandemic, the development of the digital economy has become a core component of many government recovery strategies as a way to enhance economic growth, innovation and inclusion. As a result, the Asia-Pacific region is now experiencing an unprecedented acceleration of digital transformation. Within the finance sector, this has led to significant developments in the delivery of traditional financial products and services digitally through technology devices (e.g. computers, tablets, smartphones, etc.) allowing many customers to conduct transactions remotely for the first time.

Among BoEP populations, the advantages of technology-driven financial inclusion, such as lower transaction costs or better product designs, are well documented and represent a significant opportunity to overcome many of the traditional barriers to achieving financial inclusion. Financial technology, especially mobile money, has helped to improve financial inclusion in developing economies where the traditional banking system is underdeveloped (Demirguc-Kunt et al., 2018).

Several Asia-Pacific emerging markets are at the forefront of fintech[2] use, and there is much excitement about new opportunities to expand access to digital financial products and services through technology, however the reality of harnessing digital technology for financial inclusion remains an enormous challenge facing Governments in the region. While the gains that can be achieved through digital technology are potentially transformative for the financial inclusion agenda, studies have also identified obstacles that stand in the way of the adoption of mobile- and Internet-based financial services (Jack et al., 2013; Suri 2017). Access to financial services does not necessarily translate into active participation in the financial

[2] Fintech refers to financial services or products delivered through digital technologies.

system or effective usage of financial services. Despite the presence of digital technologies, inclusion in the financial system remains out of reach for millions of individuals across the region. In many cases, risks such as privacy breaches, fraud or transaction errors, are exacerbated among BoEP populations who generally lack the capability to mitigate them effectively. Limited digital and financial literacy skills coupled with easily accessible credit through digital lending can also result in inappropriate use of financial services, leading to issues such as overindebtedness.

This guidebook aims to support the region's policy makers and regulators to capitalize on the opportunity to harness digital technology as an effective means to advance financial inclusion and enhance the well-being of BoEP populations. It contains key policy considerations for digital financial inclusion to successfully enhance economic opportunities and resilience for BoEP populations, with a particular focus on policies to address the unique needs of women. Within this context, this guidebook examines the distinct government roles and policy tools, backed by a series of practical case studies from the Asia-Pacific region, to demonstrate specific actions Governments can take to enable effective digital financial inclusion.

Chapter

2

Digital financial inclusion for the poor

Supported by the proliferation of mobile phones, Internet technologies and a rapidly growing fintech industry, digital transformation across the Asia-Pacific region is enabling greater opportunities for consumers to connect and engage with the digital world. This includes new opportunities to provide digitally enabled financial products and services to remote and poor populations which traditional providers and infrastructure have struggled to serve.

Realizing the benefits of digitalization, however, is not a foregone conclusion. It requires the implementation of specific government policies that leverage digital technology to promote financial inclusion for BoEP populations. At the same time, economically poor communities need to be protected from the risk that they will experience further disadvantage through the process of digitization (Haenssgen, 2018). The onus is on Governments to establish processes of policy formulation and implementation that can respond to the fast-evolving fintech environment in a way that contributes to building an inclusive, sustainable and equitable digital financial ecosystem (UNCDF, 2021).

Intended benefits of digital financial inclusion

The use of financial inclusion in the effort to achieve more equitable economic growth has become central to many countries, with empirical research revealing a link between inclusive financial activities and poverty reduction (Nwanne, 2015; Onaolapo, 2015). At the individual level, the benefits of financial inclusion for BoEP populations are numerous. For example, financial inclusion can improve an individual's capacity to save and to accumulate assets; it allows for consumption to be smoothed with borrowing and for

investments to be made in education and health; and it can enable a person to start or expand a business, to prepare for emergencies and ride out financial or other shocks that may otherwise exhaust their resilience (e.g. Bruhn and Love, 2014; Lyons et al., 2020; Prina, 2015; Swamy, 2014). At the macro level, the availability of appropriate and affordable financial services can benefit the economy at large, providing a boost to gross domestic product (e.g. Kim, 2016; Inoue and Hamori, 2016).

Digital technologies, the existing evidence suggests, can be harnessed to accelerate the financial inclusion agenda, and to close the gap between those included in the formal financial sector and those who remain excluded (ADB, 2017).

Mobile money services are considered the most promising means to overcome traditional physical and economic barriers to financial inclusion. Advancements in technology and declining costs have contributed to the increasing penetration of mobile phone ownership and services, with two thirds of financially excluded individuals now having access to a mobile phone (Lyons et al., 2020). Between 2010 and 2017, 1.2 billion people located mostly in the developing world gained a financial or mobile money account for the first time (World Bank, 2017).

Digital solutions have created an unprecedented opportunity to revolutionize livelihoods through financial inclusion (Saxena and Puneka, 2020). Such solutions include:

- Digital identification systems, enabling fast, low-cost, and convenient customer identification and verification processes (client on-boarding procedures);
- Simplified account opening processes, including low-cost, physically accessible and digitally enabled points of access to services;
- Government-to-person (G2P) payment services (including employee payments, such as wages and pensions, as well as social transfers) which can create the initial momentum for electronic payments, thereby supporting the development of viable supply-side business cases;
- Innovative products, such as mobile wallets, targeted at the financial needs and behaviours of different groups to enhance savings;
- Credit databases with alternative sources of customer data, including payment transaction records and telecom analytics, to enable easier credit risk assessment and improve the willingness of financial institutions to extend credit.

Beyond the immediate potential benefits of mobile money services, fintech presents the opportunity for countries to develop the infrastructure necessary for a digital financial ecosystem that not only serves financial development, but also inclusion and sustainable development (Arner et al., 2020).

Key constraints and risks for the poor

While it is generally agreed that the diffusion of information and communications technology (ICT), particularly mobile phone penetration, has the potential to accelerate financial inclusion and contribute to poverty reduction, the impacts of digital advancements on the financial transaction needs and behaviours of low- and irregular-income households remain constrained by access barriers, including fundamental motivational issues related to social norms or trust, as well as issues related to deficiencies in appropriate skills and capabilities to use new technologies (Van Dijk and Hacker, 2003). The uneven distribution and benefits of access to new technologies are not isolated challenges, but rather are attached to existing social, economic and cultural divisions across populations (Haenssgen, 2018).

When considering digital approaches to financial inclusion for BoEP populations, the leading question that needs to be asked is: when and how is technological innovation useful in promoting the financial inclusion and enhanced wellbeing of poor households?

Physical access to financial services does not necessarily translate to active or beneficial use of the financial system. Most of the existing barriers to financial inclusion for BoEP populations will not be addressed by simply making digital technologies physically available. Material access to digital technology must be accompanied by a supportive social environment, including social inclusion and social capital, to enable the effective adoption of financial services (Aziz and Naima, 2021). A particularly critical component of accessibility when it comes to digital technology is digital literacy. People may have access to digital solutions but lack the necessary skills or trust required to participate in the digital world.

Empirical evidence emerging from interdisciplinary studies of the social implications of technology indicate that it is possible for the processes of digitization not only to fail in being 'pro-poor', but to lead to adverse consequences for poor households (Haenssgen, 2018). The rapid diffusion of new technologies can have unintended effects on people's day-to-day lives, as well as equity implications that require careful consideration. Those people, for example, who cannot use mobile phones because of social, economic, or spatial marginalization may face new barriers to essential services if use of a mobile phone is required to access essential services. The move of financial services to online platforms, if not thoughtfully implemented, risks creating a further barrier to the financial inclusion of poorer segments of the community (Morgan and Trinh, 2020).

Policy tools to harness digital technology for financial inclusion of the poor

Acknowledging the access barriers for BoEP populations, as well as the unique risks posed for poor DFS customers, only serves to highlight the scope for Governments to consider what policy frameworks can best leverage digital solutions for financial inclusion.

The role of government ICT policies is critically important. The design of effective strategies and interventions plays a major role in transitioning towards digital economies in such a way that already marginalized communities are not left further behind.

When and how should Governments intervene in the market? How can Governments facilitate meaningful and effective access to and use of DFS for everyone? And what types of regulatory frameworks are necessary to enable the potential of fintech products and services to be harnessed while at the same time ensuring financial stability and the protection of the consumer's rights?

The varying country-specific conditions, challenges and needs require varied approaches to harness digital technology for financial inclusion. Complementary measures representing a holistic approach are also critical, since the factors that affect financial inclusion outcomes are complex and multi-faceted. These measures should be based on country-level diagnosis of the barriers to access, use and viability.

Across the region, countries have chosen diverse methods to harness digital solutions for financial inclusion, with varying results. The range of current government policy tools can be organized into three different roles: Government as market facilitator; Government as market participant; and Government as market regulator.

Table 1 provides a summary of the policy examples that are discussed in detail in this chapter. The examples listed in the table showcase some of the solutions implemented by Governments across the region.

Table 1

Overview of policy tools to harness digital technology for financial inclusion of the poor

Government role	Policy tool	Case examples
Market facilitator (Demand-side)	National government plans for financial inclusion that include the role of digital finance in supporting BoEP populations	• National "Taza Koom" digital transformation programme in Kyrgyzstan • Plan for Advancing the Development of Financial Inclusion (2016–2020) in China
	Investment in digital financial infrastructure, especially universal broadband connectivity, to improve access	• Legislative agenda to boost telecommunication infrastructure in the Philippines
	Digital financial literacy development plans to improve utility of digital finance to BoEP populations	• Digital financial literacy in Cambodia
Market participant (Supply-side)	Safe and flexible digital banking infrastructure, including open, interoperable digital payment rails	• Successful enabling of mobile financial services in Bangladesh • Indonesia Payment System Blueprint 2025
	Establishing digital payment systems, including government-to-person payments	• Digital cash transfers in the Philippines
	Using digital technology to enhance access to credit	• Digital personal loan programme in Thailand
	Using digital technology to boost savings of BoEP populations	• Laku Pandai in Indonesia
Market regulator	Consumer protection regulatory frameworks fit for the digital age	• Enabling infrastructure and regulatory sandboxes in Thailand • Diagnostic assessment of consumer protection practices, Papua New Guinea
	Universal, secure and private identification schemes, including electronic know-your-client (E-KYC) systems	• E-KYC in India
	Enforcement, including mechanisms for consumer complaints and redress	• Regulatory guidelines for mobile financial services in Bangladesh

2.1 Government as market facilitator

As market facilitators, Governments empower people to participate in digital financial ecosystems. In the Asia-Pacific region, Governments have used several key policy tools to facilitate inclusion of BoEP populations.

2.1.1 National plans

Several Governments have developed national plans or strategies for digital financial inclusion. National plans are centralized strategies that enable Governments to set priorities and develop comprehensive

and coordinated approaches specific to harnessing digital solutions for financial inclusion. They aim to make digital financial inclusion for BoEP populations a specific policy objective. They include development plans for education and digital financial literacy in urban and rural areas, as well as policies that support the development of foundational technologies, including smart phones and Internet connectivity. Ideally, national plans include a mechanism for continual review to ensure attention is paid to the gaps between policy design and outcomes.

The purpose of a national plan is to identify the vision for digital financial inclusion, and outline the actions required to bridge the gaps that currently exist. A plan increases dialogue and consultation among the various stakeholders, both in the drafting stage and in the communication and coordination around implementation of the strategy. Plans are usually three to five years in duration, enabling governments and partners to coordinate, raise funds, and assess progress.

National plans for digital financial inclusion should take into consideration the country context, including existing development challenges, and should be aligned with other national strategies such as national poverty reduction or gender equity strategies. They must consider the demand side of the picture, including challenges to access and usage for excluded and vulnerable groups and sectors, as well as the barriers in the market that inhibit providers from supplying digital financial products and services appropriate to the needs of BoEP populations. Ideally, the plans should include detailed actions, budgets, and implementation mechanisms.

Box 1

National "Taza Koom 2040" digital transformation programme in Kyrgyzstan

Following the establishment of the Council on Information and Communication Technologies in 2013, and the introduction of e-governance in 2014 with the aim of eliminating corruption, the Taza Koom 2040 ("clean society") project was introduced by the Government of Kyrgyzstan in 2017. Part of the National Sustainable Development Strategy towards 2040, the project is designed to promote comprehensive and sustainable economic growth and development through the use of digital technologies in the development of the national economy. The national programme for digital transformation includes the provision of regional digital connectivity infrastructure, expansion of digital literacy of citizens and the creation of an enabling environment for the digital economy.

Source: S. Kosogor, "On the transition to a digital economy in the context of integration and globalization", *IOP Conference Series: Earth and Environmental Science,* vol. 274, No. 1 (2019).

Box 2

Plan for Advancing the Development of Financial Inclusion (2016–2020) in China

China is one of the region's greatest success stories in regard to harnessing digital technologies for financial inclusion. The exceptional growth of the country's fintech industry, supported by the enabling of financial inclusion through both direct and indirect government policy measures, has resulted in millions of previously unbanked people now accessing a wide range of digitally enabled formal financial products and services. Recognizing that the tensions in determining the extent and nature of government intervention need to be consistently reviewed and recalibrated, the Plan for Advancing the Development of Financial Inclusion (2016–2020) reflects policymakers' determination to scale back direct measures and shift towards more market-based, commercially sustainable approaches to financial inclusion.

Source: J. Chien and D. Randall, "Key Lessons for Policymakers from China's Financial Inclusion Experience", World Bank Private Sector Development Blog, 15 February 2018. Available at https://blogs.worldbank.org/psd/key-lessons-policymakers-china-s-financial-inclusion-experience.

2.1.2 Digital infrastructure

Governments have prioritized the provision of affordable, accessible and available digital infrastructure, including universal broadband connectivity with low-cost data connection and consumption (United Nations Secretary-General, 2020). Evidence suggests that even in countries furthest behind in the financial inclusion agenda, investment in communication infrastructure has the potential to be transformative and to leapfrog countries with high levels of smart phone penetration to higher levels of development (Arner et al., 2020).

Box 3

Legislative agenda to boost telecommunication infrastructure in the Philippines

An effective telecommunication infrastructure is essential to pave the way for a digital economy, including harnessing digital solutions for financial inclusion of the poor. Although the Philippines is considered a pioneer in financial inclusion, with the Philippine Development Plan (2011–2016 and 2017–2022) identifying financial inclusion as a key objective for achieving inclusive growth, Internet infrastructure remains a persistent problem for the country. Internet download speeds are far below the global average.[a]

Internet providers are aware of the gravity of the problem, and they are willing to work with the Government to improve Internet infrastructure throughout the country. Recognizing the potential for digital finance to deal with the problems of physical (traditional) banking and the imperative of robust digital infrastructure to those communities currently unserved or underserved by broadband providers, the Central Bank of the Philippines, Bangko Sentral ng Pilipinas, has provided strong support for legislative reform necessary to address the problem. This includes passage of the Open Access in Data Transmission Act*, intended to lower the entry barriers for broadband network providers, including simplifying the licensing process, and amendments allowing the liberalization of access to satellite technology.

[a] Gilberto M. Llanto, Maureen Ane D. Rosellon, Ma. Kristina P. Ortiz, "E-finance in the Philippines: Status and prospects for digital financial inclusion", Discussion Paper Series, No. 2018-22, (Quezon City, Philippine Institute for Development Studies, 2018).

* Ratification of the Open Access in Data Transmission Act is still pending.

2.1.3 Digital financial literacy

In parallel with the emphasis on financial inclusion, financial literacy has gained an important position in the policy agenda of many countries. Rapid developments in financial technology highlight the complementary need to improve digital literacy in order to expand the use of innovative financial products and services (Morgan and Trinh, 2020).

Governments have invested in national efforts to expand digital financial literacy, including operational capabilities and trust, which are fundamental to building inclusive and equitable digital financial ecosystems (United Nations Secretary-General, 2020). In the context of financial services, digital literacy among consumers includes the awareness and basic understanding of DFS, but also the awareness of the risks involved in using DFS, including theft of personal data and fraud. Ideally, consumers would have the ability to protect themselves from cyber risks and know their basic rights and the available avenues for redress in the event of abuse (AFI, 2021a).

Box 4

Digital financial literacy in Cambodia

The digital financial ecosystem in Cambodia has expanded rapidly in recent years, particularly in digital payments and transfers, with the coronavirus disease (COVID-19) pandemic further accelerating the shift to cashless transactions. With a young population, and high levels of mobile and Internet penetration, there is great potential in Cambodia for digital solutions to be transformative in the financial inclusion of those at the base of the economic pyramid.

One of the main obstacles in translating digital and mobile banking services into financial access for the poor is low levels of financial and digital literacy. Capacity-building for digital financial literacy is crucial to expand the reach of innovative financial services and improve the likelihood of their adoption.

In a regulatory environment favourable to digital financial services, the National Bank of Cambodia has taken a leading facilitation role in the promotion of digital financial literacy, working alongside providers of digital financial services to develop and implement public awareness campaigns and initiatives particularly targeted at young adults who are keen to embrace digital services, and who can then share their knowledge with peers and family members. The initiatives have demonstrated that coordination and cooperation between regulators and market players is key to advancing digital financial literacy. Such capacity-building is crucial both for improving the adoption of digital financial services by previously excluded segments of the population and minimizing the related risks, including cybersecurity threats, to vulnerable populations.

Source: Alliance for Financial Inclusion, "Policy Note on Digital Financial Literacy for ASEAN", (2021). Available at: www.afi-global.org/wp-content/uploads/2021/10/AFI_ASEAN_PN_141021.pdf.

2.2 Government as market participant

Governments can also play a role in harnessing digital technology for financial inclusion as a market participant, incentivizing the development of pro-poor products and services for digital finance. By creating conducive frameworks, removing barriers and setting the right incentives, Governments can help to boost the provision of digital solutions for BoEP populations.

2.2.1 Safe and flexible digital banking infrastructure, including open, interoperable digital payment rails

The establishment of secure and flexible digital payment infrastructure is a crucial part of the transition towards digital financial inclusion. This is particularly the case for those currently excluded through lack of technical access, or who for reasons of individual capabilities, social norms, or cultural barriers, do not use the Internet.

Box 5

Successful enabling of mobile financial services in Bangladesh

First introduced by the Dutch-Bangla Bank Limited in 2012, mobile money services* have grown at a remarkable rate in Bangladesh, increasing by nearly 264 per cent in the first four years. Anyone with a mobile phone can transact, regardless of whether they reside in cities or in remote areas.[a]

Studies indicate that low- and middle-income groups prefer to use mobile banking services, and the availability of such services have had a material impact on financial behaviour, including increasing the likelihood that people will accumulate small savings in an account rather than keep cash at home. However, the evidence from Bangladesh also suggests that usage of mobile banking services is dependent on variables including convenience, network availability, complexity, security and trust.[a]

In particular, bKash has brought banking services to a massive number of people within a very short period. It was introduced to the market in 2011, and by the end of 2013 approximately 37.5 million adults in Bangladesh were using the service.[b] Upon registration, each bKash user receives a mobile wallet that serves as a bank account.[c] bKash entered the market of mobile money providers targeting BoEP populations and catered to populations who lacked financial literacy, were fearful of the formalized banking system, or were too far from a physical branch. By providing a broad range of financial inclusion services, bKash has managed to capture almost three quarters of the local market share to become the second largest mobile money provider in the world.[b]

Government and regulatory support were instrumental factors in the success of bKash. The concept of mobile financial services aligned closely with the goals contained in the Digital Bangladesh Vision. Since 2009, the Government of Bangladesh has implemented a large number of projects related to digital technologies, under the auspices of this long-term vision, including initiatives in e-governance, e-commerce, e-banking, as well as in the development of mobile phone network capacities. The goal of the Government has been to harness technology as a means to reduce poverty and transform lives.[d] Bangladesh Bank provided licenses allowing 28 financial institutions to provide mobile financial services, to avoid monopolization of the market. Although non-banks were not allowed to own mobile financial services, commercial banks were allowed to enter the market and to establish subsidiaries specifically dedicated to mobile financial services that would remain under the umbrella of existing banking regulations. This provided the opportunity for BRAC Bank to set up bKash, as a joint venture with United States-based Money in Motion LLC, in 2011.[b]

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[a] S.N. Khan, M. Akter and F. Zeya, "Bangladeshi banking innovations: A case study on mobile banking", in *Business and management practices in South Asia: A collection of case studies*, Arijit Sikdar and Vijay Pereira, eds. (Singapore, Springer Singapore, 2019).

[b] S. Yesmin, T.A. Paul and M.M. Uddin, "bKash: Revolutionizing mobile financial services in Bangladesh?", in *Business and management practices in South Asia: A collection of case studies*, Arijit Sikdar and Vijay Pereira, eds. (Singapore, Springer Singapore, 2019).

[c] International Finance Corporation, "How fintech is reaching the poor in Africa and Asia", EMCompass, Note 34 (March 2017). Available at https://openknowledge.worldbank.org/bitstream/handle/10986/30360/114396-BRI-EmCompass-Note-34-DFS-and-FinTech-Mar-28-PUBLIC.pdf?sequence=1.

[d] Alliance for Financial Inclusion, "Digital Financial Services Supervision in Bangladesh", (2020). Available at www.afi-global.org/wp-content/uploads/2020/12/AFI_DFS_Bangladesh_AW3_digital.pdf.

* Mobile money is a stored value account that is accessed from the user's mobile phone. The account is managed by a mobile financial service in conjunction with a mobile network operator.

Open application programming interfaces (APIs)[3] are at the heart of fast and reliable mobile financial solutions for the poor. Open APIs encourage usage by increasing the number of transaction partners and payment options, thus making participation in the digital finance ecosystem more convenient. Providers also benefit from being able to share the cost of common infrastructure.

Box 6

Indonesia Payment System Blueprint 2025

The Government of Indonesia has recognized the importance of interoperability in speeding up digitalization. The central bank, Bank Indonesia, introduced the Indonesia Payment System Blueprint 2025. One of the aims of the strategy is to promote a government regulated partnership model between fintech firms, banks and other stakeholders.[a]

Interoperability has enabled the Government to deliver subsidies to poor households of more than $15 million through electronic money accounts that are linked to bank accounts at the country's largest bank, PT Bank Mandiri Tbk. Money can be withdrawn at automatic teller machines, mobile agents and post office branches.[b]

While fostering the digital transformation of the banking industry, the Blueprint promotes digital financial inclusion by balancing the integration of people at the base of the economic pyramid, including those in remote communities, with a strong framework for consumer protection.[a] The Government has taken active steps since 2016 to clarify the legal position of fintech in Indonesia, in order to promote a fair, competitive and sustainable business climate for digital financial services. The Fintech Advisory Forum was formed in June 2017 to facilitate smooth and constructive coordination between institutions, government ministries and fintech start-ups. Strong government participation by way of market regulation and the facilitation of synergies between stakeholders has created an ecosystem that supports the financial inclusion of the poor through harnessing digital financial services.[c]

[a] Asian Development Bank, *Asia-Pacific Financial Inclusion Forum 2021: Emerging Priorities in the COVID-19 Era* (2021).

[b] F. Koh, K.F. Phoon and C.D. Ha, "Digital financial inclusion in South East Asia", in *Handbook of Blockchain, Digital Finance, and Inclusion*, vol. 2, David Kuo Chuen Lee and Robert H. Deng, eds. (Singapore, Research Collection Lee Kong Chian School of Business, 2017).

[c] D. Agustia and N. Anridho, "Financial Inclusion: Does Fintech Help in Indonesia?", in *Financial Technology and Disruptive Innovation in ASEAN*, Muhammad Anshari, Mohammad Nabil Almunawar and Masairol Masri, eds. (Hershey, Pennsylvania, IGI Global, 2020).

2.2.2 Digital government-to-person payments

Often, BoEP populations are recipients of state support payments or other government payments. Increasingly, these cash transfers are made via digital payments. Between 2010 and 2017, the estimated global value of digital social payments tripled to more than $194 billion. This trend towards digitization is expected to continue (Zimmerman and Baur, 2016).

Digital social payments offer a variety of potential benefits over traditional cash, voucher, or in-kind methods. Proponents most often cite increased efficiency, reduced leakage and faster, more convenient and more secure payments to recipients.

The digitization of government assistance payments is seen as a crucial step in paving the way to fuller financial inclusion for BoEP populations. When linked to bank accounts or mobile wallets that offer store-of-value opportunities or access to additional financial services, momentum is created for poor households to participate in digital technology for financial services, including breaking down the cultural attachment to cash (Arner et al., 2020). Once established, these accounts can help to create the business

[3] An API is a set of instructions that allow software applications to communicate with one another.

case for the development of viable supply-side products that encourage the poor to use DFS for non-government payments.

The implementation of programmes to digitize G2P payments, however, does not guarantee an improvement in digital financial inclusion. Recipients may withdraw 100 per cent of their payment and continue to use cash in their day-to-day lives, rather than taking advantage of their digital account to use other DFS that might be available to them such as savings, payments, or microinsurance.

What factors determine whether a person receiving e-payments from the Government will continue to participate in DFS? Given that most recipients are likely to be from segments of the population that are less literate, less familiar with new technology and more vulnerable to risk in using DFS, what is needed to ensure the experience of receiving a digital social payment contributes to building trust and confidence in DFS? These are some of the important policy questions that need to be addressed when it comes to digital social payments.

Existing research finds that using an e-payment system before adequate infrastructure has been established could have negative effects on recipients if the system does not work well. For example, payment delays or working with agent networks who are unable to meet liquidity needs (which is a particular challenge in remote and less secure areas) could undermine the entire programme and broader financial inclusion objectives (Zimmerman and Baur, 2016).

Box 7

Digital cash transfers in the Philippines

The Government of the Philippines has achieved considerable success in digitizing government-to-person payments. Through a partnership between the Department of Social Welfare and Development and Land Bank, approximately 50 per cent of social cash transfers are delivered digitally.[a] This includes the electronic distribution of the Government's emergency subsidy programme for low-income families and vulnerable sectors, known as the Social Amelioration Program.[b]

Another major development in support of digital cash transfers in the Philippines has been the National Retail Payment System. Under this policy and regulatory framework two automated clearing houses have been established, namely the Philippine EFT System and Operations Network and InstaPay. These interoperable payment platforms enable more inclusive electronic fund transfers by enabling small industry players, including micro-, small and medium-sized enterprises, to participate in the formal retail payments system.[c]

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[a] Asian Development Bank, "Accelerating Financial Inclusion in South-East Asia with Digital Finance" (2017).

[b] Alliance for Financial Inclusion, "Policy and Regulatory Reforms in the AFI Network 2020" (2021). Available at www.afi-global.org/wp-content/uploads/2021/06/Policy-Change-report_FINAL.pdf.

[c] Bangko Sentral Ng Pilipinas, Payments and Settlements—National Retail Payment System (Manila, 2021). Available at www.bsp.gov.ph/Pages/PAYMENTS%20AND%20SETTLEMENTS _deletethis/National%20Retail%20Payment%20System/National-Retail -Payment-System.aspx.

2.2.3 Digital technology to enhance access to credit

Limited access to credit is a significant hurdle for BoEP populations. Access can be limited by lack of physical access to bank branches, but also by more complex barriers including lack of documentation and credit history of potential borrowers. Not only is access to credit reduced for BoEP populations but when finance is available it is more likely to come at a relatively high cost with an overly complex application process.

Digital credit holds promise for overcoming some of these traditional barriers and minimising the use of informal lending including loan sharks. Programmes initiated by governments can use technology to expand the reach of formal financial services to the unbanked or underserved communities, including allowing banks and non-bank financial institutions to offer new digital loans to underserved populations.

New models developed through fintech digitize some aspects of the credit application process. This includes providing non-traditional data such as payment transaction history or telecoms data to enable credit scoring and help assess credit risks of individuals without a credit history, a formal banking history, or a verifiable income source (ADB, 2017, p. 31). Fintech can also facilitate initiatives such as crowdfunding platforms which bring potential lenders and borrowers together (Bazarbash et al., 2020).

While the opportunity to expand access to credit through digital technology is appealing, it also creates new dangers, particularly for BoEP populations. By making access to credit easier, and removing "the middle-man" (i.e. officers of a financial institution), there is a heightened risk of overindebtedness or users defaulting on loans due to lack of understanding of their repayment commitments. These issues highlight the importance of governments and service providers working together to ensure that digital credit is delivered responsibly.

Box 8

Digital personal loan programme in Thailand

The Government of Thailand has recognized digital solutions as a key driver to accelerate financial inclusion for people at the base of the economic pyramid, and more recently, as a crucial step in supporting economic recovery in the context of the coronavirus disease (COVID-19) pandemic. In 2017, the PromptPay project was launched to enable the electronic transfer of funds by individuals and businesses across the economy. The PromptPay project induced commercial banks to eliminate fees for electronic funds transfers and to introduce other incentives to attract customers. PromptPay has also increased consumer confidence in using digital financial services.[a] The value of the digital service has become all the more evident as a result of the pandemic.

Expanding on this success, the central bank of Thailand has initiated a programme tailored to utilize technology to boost the financial inclusion of unbanked or underserved communities. One component of the initiative is the Digital Personal Loan programme, through which the Government allows banks and nonbank financial institutions which are already offering credit services to offer digital loans to low-income customers. This includes the use of alternative data sources such as online transaction histories or bill payments to conduct credit risk appraisals. In the first few months of 2021 alone, more than 100,000 small loans were distributed to previously excluded individuals. The programme has proven invaluable to individuals as well as micro-, small and medium-sized enterprises bearing the brunt of economic impacts from the COVID-19 pandemic.[b]

[a] T. Moenjak, A. Kongprajya and C. Monchaitrakul, "Fintech, Financial Literacy, and Consumer Saving and Borrowing: The Case of Thailand", ADBI Working Paper Series, No 1100 (2020). Available at https://think-asia.org/bitstream/handle/11540/11606/adbi-wp1100.pdf?sequence=1.

[b] Asian Development Bank, *Asia-Pacific Financial Inclusion Forum 2021: Emerging Priorities in the COVID-19 Era* (2021).

2.2.4 Digital technology to boost savings

Boosting the rate of savings in the formal financial system is an important component of the financial inclusion agenda. However, there are a variety of reasons why BoEP populations tend not to save with a formal account, including the bureaucratic hurdles involved in establishing a savings account, the costs associated with using traditional bank accounts and considerations of physical accessibility.

Governments have intervened to help improve the capacity of poor households to save by harnessing the advantages of digital technology. This includes supporting the design of customized saving products, such as mobile e-wallets, to target the needs of BoEP populations and make saving more simple, convenient and low-cost. It also includes goal-based or commitment-based saving accounts, customized to suit the saving behaviours of the poor. In addition, access to cash-in and cash-out points can be boosted using digital technology, enabling providers to monitor liquidity in real time (ADB, 2017).

Box 9

Laku Pandai in Indonesia

Digital technology has had a proven effect on savings in Indonesia, starting when the Government introduced the TabunganKu (basic savings account), followed by the policy of the Indonesian Financial Service Authority to promote branchless banking services through the Laku Pandai (Layanan Keuangan Tanpa Kantor Dalam Rangka Keuangan) programme launched in 2014.[a]

While evidence suggests that the basic savings account resulted in 12 million new accounts being opened within the first four years of the scheme, the Laku Pandai programme has drawn 1.1 million new customers, with savings by Indonesians estimated to have increased from 15 per cent in 2011 to 27 per cent in 2014.[b] The programme has proven most effective for people who live in rural areas, have low education and generate low income.[c]

[a] A. Jaya and N.D. Setiawina, "Factors affecting customer using agent bank Laku Pandai program in Bali",*International Journal of Social Sciences and Humanities*, vol. 2, No. 2 (2018), pp. 194–213.

[b] Asian Development Bank, "Accelerating Financial Inclusion in South-East Asia with Digital Finance" (2017).

[c] P. Sastiono and C. Nuryakin, "Inklusi Keuangan Melalui Program Layanan Keuangan Digital dan Laku Pandai" [Financial Inclusion: Case Study of LKD and Laku Pandai Program], *Jurnal Ekonomi dan Pembangunan Indonesia,* vol 19, No. 2 (2019), pp. 242–262.

2.3 Government as market regulator

Research suggests that higher financial inclusion is correlated with a strong regulatory environment (Jahan et al., 2019). But the unprecedented speed of technological developments in the area of finance has presented new regulatory challenges for Governments – in particular, the need to balance the harnessing of positive opportunities for digital innovation with the management of risks that digitalization processes pose, particularly to BoEP populations (Arner et al., 2020).

In a complex and rapidly changing digital finance ecosystem, policymakers have an important role in creating an enabling environment for financial inclusion. Regulators must oversee the governance of data and digital assets, including protecting consumers from predatory practices and cyber fraud. BoEP populations are often more vulnerable, given their low levels of awareness of the risks associated with use of digital technologies, their lack of alternative options and the difficulties they face in voicing grievances.

The role for Governments includes the education of consumers regarding their rights, setting clear policies and guidelines for supply-side participants regarding their responsibilities and ensuring compliance through enforcement mechanisms (ADB, 2017).

2.3.1 Consumer protection frameworks fit for the digital age

Various countries across the Asia-Pacific region have reformed provisions within existing consumer protection frameworks in order to respond to the risks and demands of finance in a digital environment, while a small number have introduced a specific consumer protection framework for DFS. Both efforts have required the mobilization of policymakers and regulators from various domains of government to ensure that consumer protection issues are addressed through legal and regulatory models (AFI, 2021b).

Fraud and breach of privacy have been among the top concerns of Governments. Regulators across the region have adopted different methods to address data protection and privacy, including the establishment of specialized cybersecurity authorities.

The value of robust DFS infrastructure that has earned the trust of consumers, including those excluded from the formal financial system, has been demonstrated by the COVID-19 crisis, as have the opportunities for delivering essential economic assistance through digital systems (AFI, 2021a). In Bangladesh, where mobile banking has revolutionized traditional transaction processes, the Government planned to disburse almost $9 billion for safety net programmes in 2021 through mobile financial services. The initiative had to be suspended, however, when fake accounts were used to steal money, causing money loss, mistrust, and fear of DFS. Rural populations were particularly vulnerable to such instances of misconduct and fraud (Aziz and Naima, 2021).

Box 10

Enabling infrastructure and regulatory sandboxes in Thailand

Thailand has promoted and supported fintech innovation and development in the country through a twofold strategy of creating an enabling environment (including the development of interoperable structures) and the introduction of new laws and regulations (including regulatory sandboxes).* The result has been the introduction to the market of innovative digital products that have the potential to improve financial inclusion, including for those at the base of the economic pyramid.[a]

The new payment act of 2018, for example, provided increased flexibility to support the emergence of new payment systems and services. At the same time, the act also emphasized the responsibilities of payment service providers, including to provide safe, secure and efficient systems, in order to boost consumer confidence in using DFS.[a] In 2016, the Bank of Thailand introduced a regulatory sandbox to allow fintech firms to test their products in a safe environment. Electronic know-your-client by E-passport was one of the innovations tested.

[a] T. Moenjak, A. Kongprajya and C. Monchaitrakul, "Fintech, Financial Literacy, and Consumer Saving and Borrowing: The Case of Thailand", ADBI Working Paper Series, No 1100 (2020). Available at https://think-asia.org/bitstream/handle/11540/11606/adbi-wp1100.pdf?sequence=1.

* The use of a regulatory sandbox has become a common approach used by national regulators to explore the implication of new technological applications developed by the private sector. It consists of a set of rules, applied for a specified duration, that provides a safe environment for fintech firms to experiment with innovative products, while the consequences of failure are contained.

Box 11

Diagnostic assessment of consumer protection practices in Papua New Guinea

Small states in the Pacific have several unique natural characteristics which challenge financial inclusion and can complicate the delivery of financial services, including small but highly dispersed populations. While such settings present a good environment to explore the benefits of new technologies for financial inclusion, several infrastructure gaps have impacted the reliability of mobile networks and Internet coverage.

The central bank of Papua New Guinea, in collaboration with the Government of Australia, has been working to research and develop blockchain technology solutions to promote financial inclusion for the unbanked population.[a] The central bank has also developed a pilot programme called IDBox to facilitate improved customer identification and compliance.[b]

Despite the fact mobile banking is not yet widespread in Papua New Guinea, the Government carried out a participatory countrywide diagnostic assessment of consumer protection practices, including for digital financial services. This has encouraged the development of a specific regulatory approach to fintech that aims to foster innovation while safeguarding consumer rights.[c]

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[a] L. Rutherford and S. Zaman, "Unleashing the potential of Fintech: Developing effective working relationships with the private sector" (2017). Available at https://thecommonwealth.org/sites/default/files/inline/FMM%2817%29%28BG%292%20-%20CCBG_Fintech%20Discussion%20Paper.pdf.

[b] E. Loukoianova, S. Davidovic, C. Sullivan and H. Tourpe, "Strategy for Fintech Applications in the Pacific Island Countries", IMF APD Departmental Paper, (19/14) 2019. Available at www.researchgate.net/profile/Elena-Loukoianova/publication/335436526_Strategy_for_Fintech_Applications_in_the_Pacific_Island_Countries/links/5d8e7358299bf10cff151ee0/Strategy-for-Fintech-Applications-in-the-Pacific-Island-Countries.pdf.

[c] Alliance for Financial Inclusion, "Consumer Protection for Digital Financial Services: A Survey of the Policy Landscape", (2021). Available at www.afi-global.org/wp-content/uploads/2021/01/AFI_CEMCDFS_survey-report_AW2_digital.pdf.

2.3.2 Universal, secure and private identification and electronic know-your-client systems

Governments, donors and other stakeholders have stressed the importance of developing robust and inclusive national identification systems in order to simplify account opening, reduce transaction costs and improve ease of use of financial services, especially for BoEP populations (G20 Global Partnership for Financial Inclusion, 2017). Effective identification systems are also critical to preventing identify theft and fraud (United Nations Secretary-General, 2020).

Digital technology can help minimize onerous KYC requirements by creating efficient, inexpensive and convenient digital customer identification and verification processes. This includes automated customer identification, when an agent can capture digitally and automatically verify a customer's identification documents. It also includes individual-enabled identification tools such as fingerprint readers linked to national databases. In India, the Aadhaar system established E-KYC and enabled bank accounts to be activated in minutes, when previously such processes may have taken between two and four weeks.

Box 12

Electronic know-your-client in India

The unique, universal national identification project in India precipitated the development of more inclusive and accessible know-your-client (KYC) infrastructure. The Aadhaar system implemented by the Government provides a unique 12-digit identification number for all residents. Following this, banks in the country have been able to offer E-KYC service, allowing instantaneous identification of prospective customers.[a] It is estimated E-KYC facilitated by the Aadhaar system could boost savings in the country by more than $1.5 billion over a five-year period.[b]

[a] D.W. Arner, R.P. Buckley, D.A. Zetzsche and V. Robin, "Sustainability, FinTech and financial inclusion", E*uropean Business Organization Law Review*, vol. 21, No. 1 (2021), pp. 7–35.

[b] Asian Development Bank, "Accelerating Financial Inclusion in South-East Asia with Digital Finance" (2017).

2.3.3 Enforcement, including mechanisms for complaints and redress

Alongside legal and regulatory frameworks for consumer protection, policymakers have considered the need to update or reform existing supervisory and enforcement frameworks to reflect the unique and growing DFS market.

Putting in place an effective complaints resolution mechanism is a major challenge confronting regulators in many countries. Such supervisory mechanisms need to go beyond information or feedback services. It is vital for consumers to have the means to make their voices heard and to defend themselves against misconduct or harm.

While regulators in several countries have required DFS providers to establish an internal dispute resolution mechanism and set minimum requirements for the level of service expected from such instruments, some countries have taken an alternative route taken by instituting an external dispute resolution mechanism operation through an independent ombudsman. Bangladesh has done both, as discussed in the case example in box 13.

Box 13

Regulatory guidelines for mobile financial services in Bangladesh

As the peak regulatory body for the monetary and financial system, the central bank of Bangladesh mandates that all digital financial service providers must establish an internal dispute resolution mechanism. Regulatory guidelines established in 2015 maintain that mobile financial service providers must 'promptly' and 'readily' respond to complaints made through multiple channels.

As a second step, the Financial Integrity and Customer Services Department of the central bank has developed an external dispute mechanism to oversee the complaints handling performance of digital financial service providers. This mechanism is accessible through several channels, including a website submission form, a call centre, email, fax and even a mobile app.

Source: Alliance for Financial Inclusion, "Consumer Protection for Digital Financial Services: A Survey of the Policy Landscape", (2021). Available at www.afi-global.org/wp-content/uploads/2021/01/AFI_CEMCDFS_survey-report_AW2_digital.pdf.

Chapter

3

Digital financial inclusion for women

The previous chapter in this guidebook provided a discussion of the role of digital financial inclusion in sustainable development and economic growth across the Asia-Pacific region. For BoEP populations, there are enormous economic gains and social benefits that can be unlocked through proper implementation of digital finance policies. While financial inclusion has significant benefits for both individuals and national economies, digital technology has the potential to accelerate these benefits for women. Digital financial inclusion enables women to participate in the formal economy and can result in improved resilience to economic shocks and enable greater income-generating opportunities.

Intended benefits of digital financial inclusion for women

Women's access to finance is important for their livelihoods as farmers, workers, entrepreneurs and as consumers. However, women are generally poorer than men – their work is less formal, it isn't as well paid, and their money is less likely to be in a bank account (Hendriks, 2019; Matthews, 2019). In developing economies, women are less likely to have borrowed money from a formal institution. The gap between men and women within the finance sector further entrenches differences in economic outcomes, as women are less likely to benefit from market opportunities. Digital technology can play an important role in providing safe and secure access to the formal economy, which enables women to accumulate assets. Furthermore, taking lessons from the informal economy where women are more likely to operate provides valuable insights for the design of fintech products that suit the needs of women (Porter et al., 2015).

Overwhelmingly, the evidence suggests that women both access digital technology and utilise their finances differently to men, and this has a positive effect in the broader community (Ambler and de Brauw, 2017). For female-headed households, levels of education and wages are important factors in explaining their access to finance, whereas political and social factors are more relevant to explaining how finances are used (Ghosh and Vinod, 2017). When provided with bank accounts women are more likely to save money, buy healthier foods for their family and invest in education (Better than Cash Alliance et al., 2020; Prina, 2015). For women beneficiaries of G2P payments, there is a significant improvement in their lives across a range of social and economic measures. This includes self-esteem, financial security, intra-household decision-making power, reduced physical abuse and intimate partner violence, delayed marriage and pregnancy, and reduced likelihood of unsafe sex (ADB, 2019). However, to maximize the positive impact of these programmes, special attention is needed to ensure the needs of women are being met, such as enabling women to own accounts in their name rather than in the name of the household or integrating financial literacy programmes with account ownership (ADB, 2019; Field et al., 2017; Matthews, 2019).

While there is significant potential for digital financial inclusion to improve the lives of women across the Asia-Pacific region, evidence-based policymaking is important for this to be realized. For example, the premise of digital financial inclusion may be that a majority of people in developing countries own a mobile phone, yet there are country-specific differences that need to be considered. In South Asia, women are 58 per cent less likely to own a phone than men, whereas in East Asia and the Pacific the gap is only 4 per cent (GSMA, 2019). As with the case of digital financial inclusion for the poor more generally, country-level obstacles to women's financial inclusion need to be understood to properly implement effective policy interventions for women.

Key constraints and risks for women

Women face a range of unique constraints to accessing digital finance. This includes the demand for and supply of appropriate digital finance technologies, but also infrastructure and regulatory barriers. Social and economic factors also play an important role in constraining and enabling digital financial inclusion for women. While women are overrepresented among the world's poorest, the gap in women's financial inclusion in developing countries persists regardless of class, rural residency, age, income and education level (Demirguc-Kunt et al., 2013).

Access to financial services in general, let alone through digital technology, presents several barriers for women. Gender norms play a significant role in determining women's ability to access DFS. Gender norms also impact access to credit, inheritance practices and discriminatory practices in land and property ownership. Country specific and local gender norms often determine women's ability to travel and move around, participate in markets, gain employment, and open and use financial accounts (Arnold and Gammage, 2019; Matthews, 2019; Zaratti and Miles, 2020).

Women's access to digital technologies has the potential to increase economic outcomes for women, including the opportunity to earn a fair income, control their financial resources and gain agency over their lives. However, lower levels of labour force participation and higher rates of activity in the informal economy prevent women from accessing formal DFS. This is a cyclical problem where informal employment constrains access to DFS, and a lack of access to DFS constrains formal employment (Balasubramanian and Kuppusamy, 2020; Hendriks, 2019; Krieger-Boden and Sorgner, 2018).

Financial literacy is often highlighted as a key constraint for women to access DFS. However, recent research suggests that other underlying issues such as a lack of basic numeracy and literacy capability warrant greater attention (Matthews, 2019). In the context of women's economic empowerment, the lack of understanding of the link between literacy and digital finance means that there is a dearth of products suitable for the world's poorest, who are overwhelmingly women.

Access to a mobile phone and mobile Internet is a critical enabler of digital financial inclusion. The literacy divide plays an important role across the Asia-Pacific region in constraining women's ownership of a phone. In some parts of the region there are glaring differences in phone ownership and what women use mobile phones for. In some countries, such as Bangladesh, Pakistan and India, literacy is more important than cost in determining whether a woman owns a mobile phone (Matthews, 2019). Across South Asia, the gender divide in mobile Internet usage is even greater than the ownership gap, with women 25 per cent less likely to use mobile Internet than men. This is different in South-East Asia, where there is only a 2 per cent difference in the rate of phone ownership, but within the region there are enormous differences between countries (GSMA, 2018).

The regulatory environment also constrains women's access to DFS. Inflexible lending conditions or discriminatory policies prevent women from obtaining credit and accessing services. Accessing formal finance, including DFS, is often constrained by women's weaker business backgrounds, a lack of formal documentation or property ownership (including rights to that ownership), and weaker credit scores compared to men (Demirguc-Kunt et al., 2013). Regulatory constraints often have a greater impact on women than lack of collateral or lower credit scores and extend to cultural norms such as requirements that men co-sign documentation.

Access to DFS has the potential to both overcome some of these common constraints for women's financial inclusion and engrain financial services in their lives. To achieve a more inclusive financial system that enables women's participation and positive flow-on effects requires country- and region-specific policies to drive and harness this potential.

Policy tools to harness digital technology for financial inclusion for women

Governments across the Asia-Pacific region need to understand how access to DFS is experienced by women within their national context. While the economic, social and political benefits for women are innumerable, the gains for countries are equally important. However, across the region the constraints to supply and demand along with regulatory barriers vary greatly for women, and these need to be considered individually while learning from examples of successful policy innovation.

Considerable work has already been done by Governments across the Asia-Pacific region to address the supply, demand and regulatory environments that constrain and/or enable digital technology to support women's financial inclusion. Like the discussion in chapter 2, government policy interventions can be understood within three roles: Government as market facilitator; Government as market participant; and Government as market regulator.

What is apparent from policy interventions across the region is that a holistic approach across this nexus is needed to realize potential gains for women. In implementing these policies, country-level social and economic indicators, political and regulatory environment, and infrastructure need to be understood first. Targeting policy interventions against this backdrop will reap the most benefit from digital technology to advance financial inclusion among women across the region.

Table 2 provides a summary of the policy examples that are discussed in detail in this chapter. The examples listed in the table showcase some of the solutions implemented by Governments across the region.

Table 2

Overview of policy tools to harness digital technology for the financial inclusion of women

Government role	Policy tool	Case examples
Market facilitator (Demand-side)	Government plans and strategies for digital financial inclusion that incorporate women and gender	• Khyber Pakhtunkhwa Digital Policy in Pakistan • Indonesia Strategi Nasional Keuangan Inklusif Perempuan: National Women's Financial Inclusion Strategy
	Financial literacy initiatives targeting women	• Amader Kotha Helpline expansion facilitated by a2i and Better than Cash Alliance in Bangladesh
	Women-led initiatives to provide access support at a localized level	• Benazir Income Support Programme – Beneficiary committees in Pakistan
Market participant (Supply-side)	Establishing digital payment systems, including government-to-person and person-to-person applications that benefit women	• Wing Money in Cambodia
	Adjusting banking policies to enable non-traditional banks to provide technology driven services and products for women	• CARD Bank and konek2CARD in the Philippines
Market regulator	Universal, secure and private digital identity using biometric technology to ensure payments reach women beneficiaries	• Benazir Income Support Programme biometric verification in Pakistan
	Central Government targets for financial inclusion of women	• Increasing women's financial inclusion by 2025 in the Lao People's Democratic Republic through the Financial Inclusion Roadmap (2018–2025)
	Policy levers within bureaucracy to incentivise the use of digital technology to advance women's financial inclusion	• Digital India

3.1 Government as market facilitator

As market facilitators, Governments need to consider different needs of women in their policy design and innovations. This can be done through policies that specifically target women, or a gendered approach can be included within an existing or new policy intervention.

3.1.1 Government plans and strategies

Government plans and strategies need gender and digital technology for financial inclusion to intersect. Some countries in the Asia-Pacific region have national plans or strategies that specifically focus on women, such as the National Women's Financial Inclusion Strategy (Strategi Nasional Keuangan Inklusif Perempuan) in Indonesia (ADB, 2020). Other countries focus exclusively on financial development that alludes to digital technology, such as the Financial Sector Development Strategy 2016–2025 of Cambodia.

While each strategy has purposive utility, bringing the two strategic objectives together will drive more powerful changes that will ultimately increase the viability of digital technology to advance women's financial inclusion.

Government plans or strategies can be delivered at any level of government, depending on the political system of the country. This can be an effective approach in a federalized system where certain legislative and policy changes are decentralized. Provincial or local government level strategies can target localized constraints and barriers to accessing digital finance. This is particularly important for understanding the local gender norms and customs, as well as provincial level regulations that may inhibit women's access to financial products and services.

Box 14

Khyber Pakhtunkhwa Digital Policy in Pakistan

The Khyber Pakhtunkhwa Digital Policy 2018–2023 is a government strategy that approaches development of the information technology sector in Pakistan from a localized perspective. The strategy embeds the capability and needs of Khyber Pakhtunkhwa, one of four provinces in Pakistan, within the country's national context and geoeconomics considerations of its immediate region.

Key components of the strategy include harnessing digital technology not only for job creation, connectivity and economic empowerment but also inclusive growth. The four pillars within the strategy comprise access, governance, economy and skills. Across these four pillars are four policies – the very first policy focuses on financial inclusion and equitable digital dividends for women and marginalized communities. The other policies relate to the public private partnerships, rapid implementation and provisions from the central Government. The strategy also includes targets for women's participation in digital sectors.

The Khyber Pakhtunkhwa strategy is an example of how provincial governments can design localized policy interventions that address the specific constraints on women, including establishing targets that meet the needs of local communities.

Source: Khyber Pakhtunkhwa Information Technology Board, "*Khyber Pakhtunkhwa Digital Policy 2018–2023*", Government of Khyber Pakhtunkhwa (2018).

Box 15

Indonesia Strategi Nasional Keuangan Inklusif Perempuan: National Women's Financial Inclusion Strategy

Indonesia National Women's Financial Inclusion Strategy (NWFS) builds on past and existing national plans that focus on digital financial inclusion, including in the Strategy of Indonesian Financial Literacy. While the Strategy of Indonesian Financial Literacy includes policies that focus on women, it treats women as a homogenous group rather than as a diverse group with intersecting personal characteristics. The intention of NWFS is to achieve better financial inclusion through policy interventions that accommodate the range of women in Indonesia.

While NWFS is focused on women specifically, digital financial inclusion is incorporated throughout the Strategy of Indonesian Financial Literacy. This includes identifying opportunities for improved access to digital government-to-person cash transfers and harnessing smartphone technology for accessibility to financial products. At the core of the strategic objectives are three priority areas: i) financial education and literacy (including digital skills development); ii) support for women's micro-, small and medium-sized enterprises; and iii) digital financial services for women. These priority areas are accompanied by action plans, and they are measured against target dates. The ministries and agencies responsible for achieving these targets are specified in NWFS.

3.1.2 Financial literacy initiatives for women

Governments across the Asia-Pacific region have found creative ways to deliver financial literacy programmes that meet the specific needs of women. While this is important for women's financial inclusion generally, in the transition to digital products and services woman can be left behind despite previous gains. Finding mechanisms to deliver targeted digital financial literacy services can include using existing platforms while incorporating gender-sensitive implementation.

Box 16

Amader Kotha Helpline expansion facilitated by a2i and Better than Cash Alliance in Bangladesh

Bangladesh is experiencing rapid growth in its ready-made garment (RMG) sector, which is fast transitioning to digital wage payment systems. The majority of the 4 million workers in the sector are women, and they need to be protected from wage theft, fees and other uncertainties that arise from this digital transition.[a]

To provide women with information and a mechanism for complaints related to digital wage payments, the innovation unit of the Government of Bangladesh, a2i*, collaborated with the Better than Cash Alliance to extend the Amader Kotha Helpline to respond to complaints related to digital payments made to women RMG workers. The helpline was established in 2014 following the Rana Plaza tragedy for RMG workers to lodge complaints, especially related to safety. The helpline is staffed by women, so that women feel safe to express their concerns and speak more freely.

[a] T. Poutiainen and D. Rees, "How digital payment systems can boost Bangladesh's push to meet the SDGs", World Economic Forum, 2011. Available at www.weforum.org/agenda/2021/0526trategy26hh-ready-made-garments-digital-payment/.

* The term "a2i" means 'innovate for all'.

3.1.3 Women-led Initiatives to provide access support at a localized level

Including women in the development and evaluation of policy interventions has sweeping benefits. Mechanisms for the participation of women in policy development and evaluation can both raise awareness of programmes for potential beneficiaries and provide valuable insight for policymakers. Aside from the potential gains in advancing financial inclusion among women through digital technology, additional benefits to be gained from the women's participation in these processes can include greater access to education, health care and other social services and economic opportunities. Given the varying levels of development and contexts of economic and social indicators in each country, engaging women in policymaking processes can reveal how women are falling into the gaps.

Box 17

Benazir Income Support Programme – Beneficiary committees in Pakistan

The Benazir Income Support Programme (BISP) is an unconditional social protection system in Pakistan established in 2008. The programme was designed to reach the poorest in Pakistan at a time when inflation was at a 30-year high.[a] The first objective was to provide acute relief to the poor who were experiencing a food and fuel crisis, and the second objective was to provide a long-term support package to the poor and increase their resilience to future shocks.[b] Aligned with its mission, BISP focuses on social protection for women[c] and uses computerized national identification cards to ensure funds reach the intended beneficiary.

Embedded within BISP is Waseela-e-Taleem, a conditional cash transfer programme that provides additional payments to households with children attending primary school. Under BISP Waseela-e-Taleem, BISP Beneficiary Committees were established across Pakistan at the district level. In 2018, there were approximately 50,000 BISP Beneficiary Committees comprising 20–25 women each.[b]

While the committees are a mechanism for women to discuss and promote BISP, they also identify the constraints women face in accessing government-to-person cash transfers. Payments are distributed through the Benazir Debit Card or the Biometric Verification System which is linked to the computerised national identity card.[d] The BISP Beneficiary Committees provide a women-led mechanism to identity where women may be unable to access these digital technologies at the local level.

[a] Devex, "Benazir Income Support Programme (BISP)" (2021). Available at www.devex.com/organizations/benazir-income-support-programme-bisp-73559.

[b] I. Cheema, S. Hunt, S. Javeed, T. Lone and S. O'Leary, *Benazir Income Support Programme: Final Impact Evaluation Report* (Oxford Policy Management, 2016).

[c] Government of Pakistan, *Benazir Income Support Programme*, 2021. Available at https://bisp.gov.pk/Detail/YjhlZTZjYTYtMjE4ZS00NzFkLTk3NWMtNGZmNWZkNjZjNTc3.

[d] I. Cheema, M. Farhat, M. Binci, S. Javeed and S. O'Leary, *Benazir Income Support Programme: Evaluation Report* (Oxford Policy Management, 2020).

3.2 Government as market participant

As market participants Governments across the Asia-Pacific region can proactively provide and enable digital finance solutions that are tailored and targeted towards women. Governments can provide these products or create an enabling environment for new products in the market.

3.2.1 Establishing digital payment systems, including government-to-person cash transfers and remittances designed to target women beneficiaries

With policies and programmes designed to target women specifically, there should also be products and services that cater to their needs. Women are more likely to participate in informal economic activity and are more likely to rely on remittance payments or informal financial channels (Better than Cash Alliance et al., 2020; Zaratti and Miles, 2020). Low-cost mobile banking is one solution to provide this service to women. Governments in the Asia-Pacific region can either be the provider of these products or create an enabling environment for the private sector to introduce these products to the market.

Box 18

Wing Money in Cambodia

Low-cost digital payment systems for government-to-person and person-to-person cash transfers overwhelmingly benefit women. Wing Bank (Cambodia) was established in 2008 as a limited specialized bank before becoming a commercial bank in 2021. Wing Bank offers domestic and international payment methods, as well as other financial services such as utilities payments through its Wing Money service. While Wing Money is a product for both men and women, with the support of the Government the company has introduced programmes that support women in using the product beyond payment transfers.

For institutions like Wing Bank to serve people at the base of the economic pyramid and for the local entrepreneurship ecosystems and the fintech sector to build local solutions, an enabling a policy and legislative environment is needed to support innovation, including the development of sustainable and low-cost solutions for women's digital financial inclusion.

3.2.2 Adjusting banking policies to enable non-traditional banks to provide technology driven services and products for women

Traditional banking and lending policies are generally designed around the needs of men, thus women are often prevented from accessing banking and lending services. The requirement to comply with banking and lending policies can make it difficult for traditional banks to serve women, including providing access to account ownership, credit or other products and services. Policy interventions that enable alternative banking services with regulations that cater to women's financial position can remove some of the existing barriers.

Box 19

CARD Bank and konek2CARD in the Philippines

The first digital finance products began to emerge in the Philippines at a time when central bank regulations were primarily designed for traditional banks. As a result, non-traditional financial service providers, including microfinance-oriented rural banks predominantly serving women clients, faced additional barriers to introduce digital products and services to their clients. Since then, policy and regulatory changes by the central bank, Bangko Sentral ng Pilipinas (BSP), enabled a variety of players, including non-traditional financial service providers, to offer digital financial products and services to women and other marginalized groups in the Philippines.[a]

One example of the impact of these policy and regulatory changes can be found with CARD Bank – a non-traditional banking service (specifically a microfinance institution) whose clients are mostly women. The liberalization of lending policies through the General Banking Law 2000 meant that microfinance activities were mandated to be recognized by BSP, which led to the legitimacy and mainstreaming of microfinance in the banking sector.[b] Prior to BSP policy changes for non-traditional banks, financial service providers such as CARD Bank needed to comply with lending rules which disadvantaged many women as they were less likely to have the required collateral. With the growth of digital banking, CARD Bank is now able to offer women clients a variety of digitally enabled products and services through its award winning konek2CARD, a mobile banking app that can conduct remote financial transactions.

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[a] United Nations Capital Development Fund, *Top financial inclusion insights from 9 ASEAN countries,* 2021. Available at www.uncdf.org/article/6472/top-financial-inclusion-insights-from-9-asean-countries.

[b] C. Banal-Formoso and E. Bolido, *No one left behind: The Philippine financial inclusion journey*, (Bangko Sentral ng Pilipinas, 2020).

3.3 Government as market regulator

In the rapidly changing digital economy, Governments have an important regulatory role. Adjusting policies and interventions can either benefit or disproportionately disadvantage women. It is critical for Governments to implement policy mechanisms to ensure objectives for market facilitation or participation are achieved. It is equally important that Governments across the Asia-Pacific region have mechanisms and processes for adapting to new challenges and constraints as they emerge. A 'set and forget' approach to policy can lead to unintended consequences that impact women's lives and livelihoods, and thus their households and communities.

3.3.1 Universal, secure and private digital identity using biometric technology to ensure payments reach women beneficiaries

Ensuring women beneficiaries receive the funds intended for them is a common challenge across the Asia-Pacific region. In some cases men collect the money on the behalf of women or fraudulent 'ghost' beneficiaries are introduced to draw funds from the system (this can be done in a range of ways, including fake identity), exemplifying how women can be disadvantaged by systems that do not adequately address their needs (Better than Cash Alliance et al., 2020). The use of biometric systems can help to address these issues. Biometric systems have other residual benefits, including not requiring long PIN numbers that may be hard for numerically illiterate people to manage (Klapper and Singer, 2017). Biometric systems that have been implemented in some countries, such as India, have seen a reduction in the leakage of funds from digital G2P cash transfers to women (Better than Cash Alliance et al., 2020; Stuart, 2016).

Box 20

Benazir Income Support Programme biometric verification in Pakistan

Evaluation of the BISP in Pakistan revealed that only 53 per cent of government-to-person cash transfers were initiated by women, even though the programme specifically targets women beneficiaries. Recent research into the Benazir Income Support Programme (BISP) revealed that women beneficiaries were excluded in the process, and that men used third party support to access the funds. As the money was not reaching the intended beneficiaries, the flow-on impact for women was not realized.

In response to this, Pakistan is incrementally removing the debit card functionality of the programme (along with the personal identification number) and has replaced it with a biometric system. Women beneficiaries of BISP will identify themselves with biometric data – in this case, a fingerprint. The biometric system gives women more autonomy over their finances, including the decision to withdraw money, and the Government hopes that by establishing a more inclusive process might also influence more women to become active in the formal financial system.

3.3.2 Central Government targets for financial inclusion of women

Setting targets within a government strategy that specifically focus on women's digital financial inclusion can motivate the public sector to deliver on its national, provincial, or local strategies. The lack of specific targets within government strategies often leads to limited tangible results or objective markers to assess the success of policy interventions. Targets can be set to address both demand and the supply-side factors and should include specific targets for reaching women and improving their financial inclusion through the use of digital technology and fintech.

Box 21

Increasing women's financial inclusion by 2025 in the Lao People's Democratic Republic through the Financial Inclusion Roadmap (2018–2025)

The Lao People's Democratic Republic Financial Inclusion Roadmap 2018–2015 approaches financial inclusion from the supply, demand and regulatory nexus. To overcome the existing barriers to financial inclusion, including large rural populations, high rates of illiteracy, high rates of informal economic activity and financial services, and a lagging regulatory environment, the Government introduced quantifiable targets to measure the success of its financial inclusion strategy.

Targets seek to improve access to financial services and formal financial services among the adult population. The Government also aims to increase the number of financial services products that its citizens regularly use. Specifically, the roadmap set a target for increasing access to financial services among women from 76 per cent to 85 per cent.[a]

Cutting across these goals is the development of digital technologies for financial inclusion. In this respect the Government has focused on payments infrastructure and mobile money, along with other strategic goals, including access to credit and capacity-building targeting people at the base of the economic pyramid. By including a specific target for increasing women's access to financial services, the development of digital options will increase the likelihood of achieving women's financial inclusion.

[a] V.L. Latsachanh, *Lao PDR Financial Inclusion Roadmap (2018–2025)* (Bank of the Lao People's Democratic Republic, 2021).

3.3.3 Incentivize the use of digital technology for financial inclusion for women

Mechanisms within a government and its bureaucracy can facilitate the ability of women to harness digital technology to access and use a broader range of financial products and services. Rather than approaching financial inclusion from the perspective of the market that relies on individual uptake or private product development, introducing mechanisms that incentivize public servants to achieve targets and deliver on government plans can contribute to their success. Furthermore, incentivizing the use of DFS can motivate women to use these products, bearing in mind that great care is needed to ensure that DFS are delivered responsibly and that their use has a positive impact on the well-being of BoEP women.

Box 22

Digital India

Digital India is a whole-of-government effort to transform India into a digitally empowered society and knowledge economy. The framework comprises nine pillars that extend beyond digital financial services and include several digital financial inclusion initiatives that are positive for women. Pillars four and five relate directly or indirectly to incentives or benefits for officials, consumers, merchants and other stakeholders.

Pillar four of the Digital India strategy relates to policymakers and government officials. It is linked with measures of departmental performance that must be reported to cabinet secretaries and higher officials. These are also linked with peer reviews, questionnaires and official reporting. Promotions and job security are awarded based on performance, which is linked to reviews conducted once or twice per year for a role with a four-year residency.

Pillar five of the Digital India strategy relates to implementation and includes service delivery. Many of the initiatives, including the Bharat Interface for Money administered through the Ministry of Electronics and Information Technology, have targets. For the Bharat Interface for Money, the targets relate to uptake, usage and referrals to the mobile banking service.

Chapter

4

Building the foundation of digital financial inclusion in the least developed countries

The challenges and opportunities associated with progressing digital financial inclusion vary between countries across Asia and the Pacific due to a range of social, political and economic factors. Least developed countries (LDCs) and small island developing states (SIDS) often face distinct disadvantages that make it more difficult to address those issues.

For LDCs, financial inclusion is constrained by factors that include limited banking infrastructure, larger informal economies, higher rates of illiteracy or weaker regulatory frameworks or enforcement capacity. In the Pacific subregion, financial inclusion across SIDS is further challenged due remote geographies and smaller population densities (making it difficult for financial service providers to achieve scale).

While digital technology can enable opportunities to overcome many of the traditional barriers to financial inclusion, LDCs and SIDS must address a broad range of additional challenges associated with the digital economy to enable DFS to have a successful impact on BoEP populations and women. For example, Governments of LDCs and SIDS are generally less able to keep up with the rapid pace of technology development, and policy and regulatory frameworks for the fintech industry are weaker as a result. Other prominent issues include underdeveloped digital infrastructure resulting in unreliable and higher-cost digital services, or lack of demand for DFS due to limited digital skills, especially among BoEP populations.

These challenges, however, are not insurmountable. As demonstrated through this guidebook, many LDCs and SIDS have achieved remarkable progress on their digital financial inclusion journeys through the implementation of key policy interventions. Examples from countries such as Bangladesh, Cambodia, the Lao People's Democratic Republic and Papua New Guinea demonstrate innovative approaches that have been implemented to overcome many disadvantages and enable digital financial inclusion to have a positive impact on BoEP populations and women.

Such accomplishments further highlight the importance of regional cooperation. Initiatives which bring government officials, industry leaders and development experts together to share knowledge and ideas play a critical role in facilitating the development of inclusive digital economies and enabling effective digital financial inclusion. Such initiatives regional cooperation between stakeholders to identify and promote best practice strategies to address broader factors which influence the effectiveness of DFS. Examples include managing technological innovation, developing digital ecosystems, identifying priority investment needs, developing hard and soft infrastructure (including policies to promote digital technology), enhancing data privacy laws, protecting consumers, promoting financial literacy and addressing fraud and other illegal activities that are increasingly transnational (Hunter and Taylor, 2020).

The examples of policy tools described in this guidebook are intended to promote the foundation which Governments can build upon to successfully develop digital financial inclusion strategies which enable DFS to have a positive impact on BoEP populations and women. The specific case studies included represent only a small sample of the numerous interventions and innovations that have been implemented across the Asia-Pacific region. As progress continues, so too will the need to identify and promote best practice across the region, including specific support for LDCs and SIDS to accelerate regional economic growth and development that is inclusive and enables greater prosperity for all.

References

Ambler, K., and A. de Brauw (2017). The Impacts of Cash Transfers on Women's Empowerment: Learning from Pakistan's BISP Program. Social Protection and Labor Discussion Paper, No. 1702. Washington D.C.: World Bank. Available at https://documents1.worldbank.org/curated/en/840271488779553030/pdf/113161-WP-P103160-PUBLIC-Social-Protection-Labor-no-1702.pdf.

Arner, D.W., R.P. Buckley, D.A. Zetzsche, and V. Robin (2020). Sustainability, FinTech and financial inclusion. *European Business Organization Law Review*, vol. 21, No. 1, pp. 7–35.

Arnold, J., and S. Gammage (2019). Gender and financial inclusion: The critical role for holistic programming. *Development in Practice*, vol. 29, No. 8, pp. 965–973. Available at https://doi.org/10.1080/09614524.2019.1651251.

Asian Development Bank (ADB) (2017). Accelerating Financial Inclusion in South-East Asia with Digital Finance.

ADB (2019). *Social Protection Development Project (Additional Financing): Report and Recommendation of the President*.

ADB (2020). *Indonesia Strategi Nasional Keuangan Inklusif Perempuan: National Women's Financial Inclusion Strategy*. National Council for Financial Inclusion.

Alliance for Financial Inclusion (AFI) (2020). Digital Financial Services Supervision in Bangladesh. Available at www.afi-global.org/wp-content/uploads/2020/12/AFI_DFS_Bangladesh_AW3_digital.pdf.

AFI (2021a). Policy Note on Digital Financial Literacy for ASEAN. Available at www.afi-global.org/wp-content/uploads/2021/10/AFI_ASEAN_PN_141021.pdf.

AFI (2021b). Policy and Regulatory Reforms in the AFI Network 2020. Available at www.afi-global.org/wp-content/uploads/2021/06/Policy-Change-report_FINAL.pdf.

Aziz, A., and U. Naima (2021). Rethinking digital financial inclusion: Evidence from Bangladesh. *Technology in Society*, vol. 64(C).

Balasubramanian, S.A., and T. Kuppusamy (2020). Does female labour force participation contribute to better financial inclusion? Evidence from cross-country analysis. *Journal of Economic and Administrative Sciences*, vol. 37, No. 4, pp. 643–658. Available at https://doi.org/10.1108/JEAS-08-2020-0151.

Bangko Sentral Ng Pilipinas (BSP) (2021). Payments and Settlements – National Retail Payment System. Manila. Available at www.bsp.gov.ph/Pages/PAYMENTS%20AND%20SETTLEMENTS_deletethis/National%20Retail%20Payment%20System/National-Retail-Payment-System.aspx.

Bazarbash, M., and K. Beaton, U. Eriksson and von Allmen (2020). "Filling the gap: Digital credit and financial inclusion", Issue 150. International Monetary Fund. Available at www.elibrary.imf.org/view/journals/001/2020/150/article-A001-en.xml.

Better than Cash Alliance, Women's World Banking and World Bank Group (2020). *Advancing Women's Digital Financial Inclusion*. G20 Global Partnership for Financial Inclusion. Available at https://btca-production-site.s3.amazonaws.com/documents/482/english_attachments/_Advancing_Womens_Digital_Financial_Inclusion_G20_GPFI.pdf?1606113263.

Bruhn, M., and I. Love (2014). The real impact of improved access to finance: Evidence from Mexico. *Journal of Finance*, vol. 69, No. 3, pp. 1347–1376.

Demirguc-Kunt, A., L. Klapper and D. Singer (2013). Financial Inclusion and Legal Discrimination Against Women: Evidence from Developing Countries. Policy Research Working Paper 6416. Washington D.C.: World Bank. Available at https://openknowledge.worldbank.org/handle/10986/15553.

Demirguc-Kunt, A., L. Klapper, D. Singer, S. Ansar and J. Hess (2018). Global Findex Database 2017. World Bank Publications. Washington, D.C.: World Bank.

Field, E., R. Pande, S. Schaner, N. Rigol, and C. Troyer-Moore (2017). An Account of One's Own: Can Targeting Benefits Payments Address Social Constraints to Labor Force Participation? GLM | LIC Policy Brief No. 18. Bonn, Germany: Institute of Labor Economics.

G20 Global Partnership for Financial Inclusion (2017). "Digital Financial Inclusion: Emerging Policy Approaches". Available at www.gpfi.org/sites/gpfi/files/documents/Digital%20Financial%20Inclusion-CompleteReport-Final-A4.pdf.

Ghosh, S., and D. Vinod (2017). What Constrains Financial Inclusion for Women? Evidence from Indian Micro data. *World Development*, vol. 92, pp. 60–81. Available at https://doi.org/10.1016/j.worlddev.2016.11.011.

GSMA (2018). *Connected Women: The Mobile Gender Gap Report 2018*. Available at www.gsma.com/mobilefordevelopment/wp-content/uploads/2018/04/GSMA_The_Mobile_Gender_Gap_Report_2018_32pp_WEBv7.pdf.

GSMA (2019). *The Mobile Gender Gap: Asia*. Available at www.gsma.com/mobilefordevelopment/wp-content/uploads/2019/02/The-Mobile-Gender-Gap-in-Asia.pdf.

Haenssgen, M.J. (2018). "The struggle for digital inclusion: Phones, healthcare, and marginalisation in rural India", in *World Development*, vol. 104(C), pp. 358–374.

Hendriks, S. (2019). The role of financial inclusion in driving women's economic empowerment. *Development in Practice*, vol. 29, No. 8, pp. 1029–1038. Available at https://doi.org/10.1080/09614524.2019.1660308.

Hunter, S. and S. Taylor (2020). *Enabling Shared Prosperity Through Inclusive Finance: Leaving No One Behind in an Age of Disruption*. Kenmore, Australia: Foundation for Development Cooperation.

Inoue, T., and S. Hamori (2016). Financial access and economic growth: Evidence from Sub-Saharan Africa. *Emerging Markets Finance and Trade,* vol. 52, No. 3, pp. 743–753.

Jack, W., A. Ray, and T. Suri (2013). Transaction Networks: Evidence from Mobile Money in Kenya. *American Economic Review*, vol. 103, No. 3, pp. 356–361.

Jahan, S., J. De, F. Jamaludin, P. Sodsriwiboon, C. Sullivan and D. Kihara (2019). "The financial inclusion landscape in the Asia-Pacific region: A dozen key findings", Issue 079. International Monetary Fund. Available at www.elibrary.imf.org/view/journals/001/2019/079/article-A001-en.xml.

Kim, J.H. (2016). A study on the effect of financial inclusion on the relationship between income inequality and economic growth. *Emerging Markets Finance and Trade*, vol. 52, No. 2, pp. 498–512.

Klapper, L., and D. Singer (2017). The Opportunities and Challenges of Digitizing Government-to-Person Payments. *The World Bank Research Observer*, vol. 32, No. 2, pp. 211–226. Available at https://doi.org/10.1093/wbro/lkx003.

Krieger-Boden, C., and A. Sorgner (2018). Labor market opportunities for women in the digital age. *Economics: The Open-Access, Open-Assessment E-Journal*, vol. 12, No. 28, pp. 1–8.

Lyons, A., J. Kass-Hanna and A. Greenlee (2020). Impacts of Financial and Digital Inclusion on Poverty in South Asia and Sub-Saharan Africa. Available at https://ssrn.com/abstract=3684265.

Matthews, B.H. (2019). Hidden constraints to digital financial inclusion: The oral-literate divide. *Development in Practice*, vol. 29, No. 8, pp. 1014–1028. Available at https://doi.org/10.1080/09614524.2019.1654979.

Morgan, P.J., and Trinh, L.Q. (2020). Fintech and Financial Literacy in Viet Nam.

Nwanne, T.F.I. (2015). Relationship between financial inclusion and economic growth in Nigerian rural dwellers. *International Journal of Small Business and Enterpreneurship Research*, vol. 3, No. 7, pp. 17–27.

Onaolapo, A.R. (2015). Effects of financial inclusion on the economic growth of Nigeria (1982–2012). *International Journal of Business and Management Review*, vol. 3, No. 8, pp. 1–28.

Porter, B., N. Widjaja and K. Nowacka (2015). Why technology matters for advancing women's financial inclusion. *The OECD Observer*, vol. 303, pp. 33–34.

Prina, S. (2015). Banking the poor via savings accounts: Evidence from a field experiment. *Journal of Development Economics*, vol. 115, pp. 16–31. Available at https://doi.org/10.1016/j.jdeveco.2015.01.004.

Saxena, R., and R.M. Punekar (2020). Designing pro-poor mobile financial services: Learning from the financial diaries of urban poor in India. World Development Perspectives, 20(C).

Stuart, G. (2016). Government to Person Transfers: On-Ramp to Financial Inclusion? Centre for Financial Inclusion.

Suri, T. (2017). Mobile money. *Annual Review of Economics*, vol. 9, pp. 497–520.

Swamy, V. (2014). Financial inclusion, gender dimension, and economic impact on poor households. *World Development,* vol. 56, pp. 1–15.

United Nations Capital Development Fund (UNCDF) (2021). *Inclusive Digital Economies for the Sustainable Development Goals*.

United Nations Secretary-General (2020). People's Money: Harnessing Digitalization to Finance a Sustainable Future. Taskforce on Digital Financing of the Sustainable Development Goals.

World Bank (2017). The Global Findex database 2017. Available at https://globalfindex.worldbank.org/.

Van Dijk, J., and K. Hacker (2003). The digital divide as a complex and dynamic phenomenon. *The information society*, vol. 19, No. 4, pp. 315–326.

Zaratti, G., and K. Miles (2020). An assessment of policy and regulatory constraints and enablers to women's financial inclusion in Myanmar. Discussion Paper, United Nations Capital Development Fund. Available at www.uncdf.org/article/6053/an-assessment-of-policy-and-regulatory-constraints-and-enablers-to-womens-financial-inclusion-in-myanmar.

Zimmerman, J.M., and S. Baur (2016). Understanding how consumer risks in digital social payments can erode their financial inclusion potential. Available at https://openknowledge.worldbank.org/bitstream/handle/10986/24568/Understanding000inclusion0potential.pdf?sequence=1.