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2020 Asia-Pacific Financial Inclusion Forum

Recommendations for policymakers and regulators

Enabling shared prosperity through inclusive finance: leaving no one behind in an age of disruption

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Executive summary

The Asia-Pacific Financial Inclusion Forum (APFIF) was established in 2010 as a policy initiative of the APEC Finance Ministers' Process. The main objective of the initiative, which is led by the Foundation for Development Cooperation (FDC), is to identify concrete actions that financial policymakers can take to expand the reach of financial services to the underserved.

The Covid-19 pandemic has increased the urgency for governments and practitioners to accelerate the use of technology for financial services. This is creating new opportunities to advance financial inclusion, but a major factor of success will be the ability of stakeholders to cooperate and collaborate effectively. In response, FDC and the partners of APFIF have developed a series of recommendations for policymakers and regulators to support their financial inclusion efforts during this extraordinary time. Nine recommendations, framed within three topics aligned with the priorities of Asia-Pacific Economic Cooperation (APEC), have been developed, including examples of specific actions which governments can take to achieve success and case studies that provide practical insights into how some governments are addressing these issues.

The role of microfinance in enhancing opportunity and resilience in response to Covid-19

The economic and financial effects flowing from lockdowns to curb the spread of Covid-19 have been severe in most economies of the Asia-Pacific, with substantial declines in the incomes of people at the base of the economy, many of whom rely on microfinance to manage the cash flows of their household or microenterprise.

Like everyone else, people and enterprises at the base of the economy rely on financial products and services for basic needs such as savings deposits, receiving and sending payments, loans etc. However, in developing and emerging economies such services are often only available from microfinance providers such as microfinance institutions, cooperatives, non-government organisation (NGOs), savings associations and self-help groups. In many economies the ability of these institutions to continue providing financial services has been disrupted by the pandemic, putting the poor and the financial service providers they rely on in a precarious position.

Even though the crisis is still evolving across the region, emerging lessons from the experiences of many economies can provide important guidance for governments in preparing for future extraordinary events by building the resilience of microfinance providers and their clients. The Covid-19 crisis also gives governments an opportunity to consider how, as part of the recovery process, microfinance providers can become more effective in supporting financial inclusion at the base of the economy and broader economic development.

Recommendation 1. Enable microfinance providers to keep providing services that support the resilience of clients during times of crisis by:

- Recognising microfinance providers as frontline suppliers of essential services so they can stay open and keep serving clients.
- Increasing access to liquidity for microfinance providers, including collaboration with specialist finance and development agencies to provide blended finance facilities.
- Enacting concessions or moratoriums proportionately and consistently throughout the financial system to ensure stability.

Recommendation 2. Enact reforms that accelerate recovery and lead to more sustainable and effective microfinance providers serving the base of the economy by:

- Facilitating digital transformation by advancing digital financial infrastructure, open banking and digital identification, and by promoting digital literacy as a core skill.
- Ensuring reforms targeting microfinance providers recognise the value of “high-touch” operating models critical for client relationships, building financial literacy and capacity and establishing trust in the financial system.
- Prioritising digital identity initiatives that enable governments to provide direct fiscal assistance and microfinance providers to serve their clients more effectively and at lower cost.

- Giving microfinance providers incentives and assistance to invest in digital transformation, and in programs of education and awareness that build trust and demand for digital services among their customers.
- Ensuring that appropriate client protection measures are standardised and adopted by microfinance providers, followed by pragmatic supervision.
- Promoting partnerships between communities, healthcare systems, local governments and frontline finance providers that support communities at the base of the economy to build resilience for the future.
- Maintaining stability, including for microfinance providers facing insolvency, by enabling recapitalisations, mergers and other collaborative restructuring and temporary regulatory forbearance, based on asset quality standards.

Making digital financial services work for the base of the economy

The digital revolution and its potential to transform access to and use of financial products and services by the unserved and underserved is currently a focus for financial markets, the development sector and governments. A multitude of fintech (financial technology) companies continues to emerge, all actively developing a wide range of technology-driven financial products and services in the retail finance sector. Much of this activity is being driven by significant recent advances in technology, including the rapid growth in mobile phone ownership and internet connections, which provide new channels through which to reach the underbanked.

However, while an increasing number of fintechs enter the market and the availability of digital financial services (DFS) continues to grow, the expansion and adoption of DFS among those at the base of the economy remain slow, raising important questions about the viability of DFS providers servicing the poor and about recognition by the unbanked of DFS as a service that could meet their needs.

For DFS to be more successful in driving financial inclusion at the base of the economy, stakeholders must communicate the utility of DFS to the poor, convey the value proposition or business case to providers, and plan the necessary enabling public infrastructure and supervision.

Recommendation 3. Support the development of a DFS ecosystem that offers greater utility to the unbanked and the base of the economy by:

- De-risking digital finance products and platforms extended to the poor through stakeholder coordination and developing strategies in areas such as privacy and data security, fraud, digital know your customer (KYC) etc., emphasising protection of the poor and vulnerable.
- Enhancing literacy, including functional numeracy and financial and digital literacy, as well as general awareness of the benefits of digital financial products and services, especially for women and young people.

- Promoting interoperability and encouraging financial service providers to share data and connect their platforms, enabling providers to design appropriate products and services that meet the unique needs of those at the base of the economy.
- Modernising Government-to-person payment systems, beyond digitising transfers, to let recipients choose where they open their accounts and enable competition between DFS service providers.
- Encouraging effective partnerships by incentivising DFS providers to work with non-bank financial institutions (NBFIs), which often have more experience and more direct relationships with the poor.

Recommendation 4. Support the business case of DFS providers that target and serve the base of the economy by:

- Supporting increased levels of interoperability in the DFS payments infrastructure to foster greater economies of scale and scope, and competition between providers.
- Providing financial incentives such as concessional loans, subsidies, guarantees or pricing guidelines to support the improvement of agent profitability for DFS providers.
- Supporting the development of digital identification schemes to let customers who lack formal identification satisfy KYC requirements more efficiently and access digitally enabled financial products and services.
- Collaborating with the private sector and donor institutions to crowd in and test viable DFS solutions via regulatory sandboxes, innovation hubs or accelerators.

Recommendation 5. Prioritise the development of public infrastructure and supervision frameworks to enhance DFS benefits to the base of the economy by:

- Evaluating current infrastructure and prioritising investments in core information and communication technology (ICT) systems including the internet, and in rural and remote communities.
- Providing clear guidance on which institutions and government agencies are responsible for protecting the poor from digital risk.
- Ensuring that local policies, strategies and regulations for the development of the digital economy recognise relevant gender issues, and pursuing reforms that reduce gender bias or inequality.
- Establishing guidelines or requirements and incentives for DFS providers to establish cash-in cash-out services in rural areas, including regulations to encourage the expansion of agent networks, e.g. minimum rural coverage requirements.
- Supporting interoperability by developing clear rules and governance structures for operators and ensuring that these systems are not only technologically functional, but also safe and reliable, with appropriate regulation and supervision.

Enabling financial inclusion through e-commerce

E-commerce is a growing feature of local retail goods and services ecosystems throughout the Asia-Pacific region. Supported by new, convenient and affordable transaction options enabled by internet-based platforms and mobile money, e-commerce is a significant driver of the use of digital financial products and services.

While e-commerce across the region continues to develop, its success in generating demand for digital financial products and services for microenterprises and those at the base of the economy has not been great. There is an opportunity for policymakers and regulators to create an enabling environment for innovative e-commerce solutions that promote access to and use of DFS among the poor and in e-commerce markets.

Promoting the use of DFS for the base of the economy through e-commerce could lead to significant gains for financial inclusion. Providing compelling reasons and opportunities to use digital wallets and payment mechanisms will introduce new opportunities for the poor to access other digitally enabled services appropriate for their needs, such as credit, savings, insurance and pensions.

Recommendation 6. Support the establishment and development of e-commerce models that align with the needs of microenterprises at the base of the economy by:

- Improving connectivity by extending physical digital communication infrastructure beyond urban centres into rural and remote areas. Government can lead in building this infrastructure, including private-sector partners to enhance sustainability.
- Ensuring that adequate regulations for e-commerce are in place (potentially as an extension of trade practices legislation) that specifically recognise the needs of the poor and offer appropriate protections, including redress or penalties for fraud.
- Encouraging local government in rural areas to facilitate and coordinate the growth of e-commerce, including development of key infrastructure (e.g. internet connectivity, logistics networks etc.) and concessions, and reduced administration.
- Leveraging existing public and private infrastructure in regional and remote areas, such as bank branches, post office branches, consumer service centres, market trader stores, and cooperatives, to facilitate e-commerce transactions and logistics.
- Prioritising development of or access to sources of finance to support e-commerce platforms or models designed to reach poor and rural populations and help microentrepreneurs reach economies of scale.
- Establishing programs to promote consumer protections that cover the poor, including financial and digital literacy.
- Developing economy-wide e-commerce strategies to close gaps in digital access, adoption and use, including measures to enhance affordability and increase online safety, as well as targets for extending networks and digital access to rural and remote areas.

- Commissioning an update of the 2017 APEC Internet and Digital Economy Roadmap, specifically focusing on point 10, "Enhancing inclusiveness of Internet and Digital Economy," to include consumers and microenterprises in poor and vulnerable communities.

Recommendation 7. Support the transition from cash towards digital mechanisms for e-commerce platforms by:

- Working with the private sector to explore and develop opportunities to support the digitisation of microenterprise value chains.
- Raising awareness of the risks of fraud and developing mitigation strategies for microenterprises, especially for the poor and most vulnerable, to build confidence in the digital financial system.

Recommendation 8. Drive demand and support the onboarding of micro-merchants onto formal e-commerce platforms by:

- Studying the various types of e-commerce used locally, including formal and informal models, to better understand how it contributes to the economy, livelihoods, financial inclusion and gender equality.
- Working with e-commerce market players to promote technology solutions that cater to the poor and enable online business opportunities, through technology incubators and accelerators, training and development of start-up tools.
- Establishing pragmatic regulatory requirements to provide suitable pathways, including appropriate incentives (e.g. simple registration, lower tax thresholds), for microentrepreneurs engaged in e-commerce to formalise their businesses.
- Working towards creating a trustworthy environment for e-commerce, including the establishment of a framework for complaints and dispute resolution to discourage fraud, support better customer service and improve online sales.

Recommendation 9. Support the empowerment of women through e-commerce by:

- Ensuring that women can enjoy a safe internet experience by advancing policies that provide and enforce women's digital rights, including enhanced information security and protection of intellectual property.
- Increasing opportunities for women's digital connectivity by prioritising investments and providing incentives that lead to greater access to smartphones and internet connectivity for women entrepreneurs in rural areas, and mechanisms for offline transactions.
- Providing digital and business skills training programs that are tailored to strengthen women's agency, capabilities and understanding and use of technology in an enterprise context.

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List of acronyms

ABAC – APEC Business Advisory Council

ABAC CWG – APEC Business Advisory Council Connectivity Working Group

ADB – Asian Development Bank

ADBI – Asian Development Bank Institute

APEC – Asia-Pacific Economic Cooperation

APFIF – Asia-Pacific Financial Inclusion Forum

API – Application programming interface

ASEAN – The Association of Southeast Asian Nations

A2i – Access to Information

BOT – Bank of Thailand

BPNG – Bank of Papua New Guinea

BPNT – Bantuan Pangan Non Tunai

BPP – Business Partnership Platform

BPS – Banking Prudential Standard

BSP - Bangko Sentral ng Pilipinas

BWTP – Banking with the Poor Network

B2B – Business-to-business

B2B2C – Business-to-business-to-customer

B2C – Business-to-customer

B2P – Business-to-person

CCCS – Competition and Consumer Commission of Singapore

CGAP – Consultative Group to Assist the Poor

CICO – Cash-in cash-out

DFS – Digital financial services

DIBL – Digital Identification Bureau Ltd.

ECSG – APEC Electronic Commerce Steering Group

ESCAP – United Nations Economic and Social Commission for Asia and the Pacific

FDC – The Foundation for Development Cooperation

FIST – Financial Institutions Strategic Transfer Act

FISTC – Financial Institutions Strategic Transfer Corporations

FMP – Finance Ministers' Process

G2P – Government-to-person

ICT – Information and communication technology

ILO – International Labour Organization

IMF – International Monetary Fund

KUR – Indonesia's Micro Credit program

KYC – Know your customer

MDEC – Malaysia Digital Economy Corporation

MFI – Microfinance institution

MSME – Micro, small and medium enterprise

NBFI – Non-bank financial institution

NBMFC – Non-bank microfinance company

NGO—Non-government organisation

NPA – Non-performing asset

OECD – The Organisation for Economic Co-operation and Development

OJK – Otoritas Jasa Keuangan

PeDAS – Perkhidmatan eDagang Setempat

PI – Pusat Internet

PID – Pusat Internet Desa

PKD – Pusat Komuniti Desa

PMIC – The Pakistan Microfinance Investment Company

P2G – Person-to-government

QRIS – Quick Response Indonesia Standard

SBP – State Bank of Pakistan

SECP – Securities and Exchange Commission of Pakistan

SMS – Short message service

UMi – Indonesia's Ultra Micro Financing Program

UNCDF – United Nations Capital Development Fund

UNCTAD – United Nations Conference on Trade and Development

VBSP – Vietnam Bank for Social Policies

1.

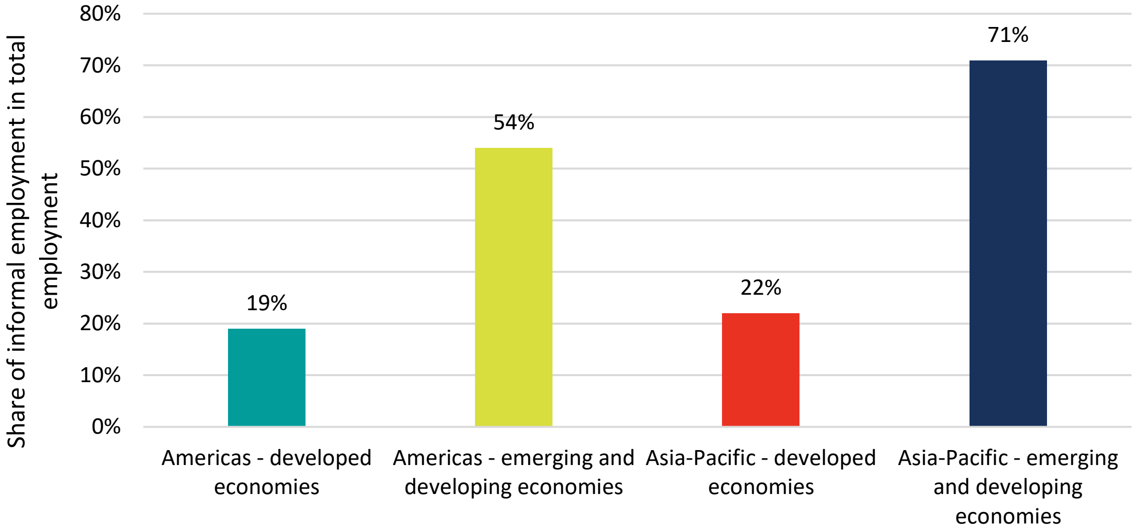
Introduction

The Asia-Pacific Financial Inclusion Forum (APFIF) was established in 2010 as part of a multilateral policy initiative of the APEC Finance Ministers' Process (FMP) housed in the APEC Business Advisory Council (ABAC). One of many programs run over the APEC calendar year, its focus is to deliver the objectives of the FMP related to financial inclusion in alignment with the specific priorities of the APEC Host Economy. The forum achieves this by facilitating the identification and development of concrete actions that policymakers and regulators can take to extend the reach and value of financial services to everyone, including those at the base of the economy who are most in need.[1]

[1] The base of the economy refers to the poorest socio-economic segment, including individuals, households and the microenterprises they operate.

This emphasis on the base of the economy is significant because most of the world's employed[2] people earn their livelihoods in the informal economy. This is especially true of the APEC region (see Figure 1).

Figure 1: Share of informal employment in total employment



Source: ILO 2018a

Leadership and coordination of the APFIF initiative have been entrusted to the Foundation for Development Cooperation (FDC) because of its history and experience in promoting financial inclusion across Asia and the Pacific. Since 2010, FDC and its close partner the Asian Development Bank Institute (ADBI) have worked with senior APEC officials, industry leaders and development experts to implement the Finance Ministers' initiative.

APFIF is also supported by leading development institutions that play an active role in promoting innovative solutions for financial inclusion and creating policy and regulatory environments that support the needs of the poor more effectively. Partners of APFIF include the Asian Development Bank (ADB), the Asian Development Bank Institute (ADBI), the Banking with the Poor Network (BWTP), the Consultative Group to Assist the Poor (CGAP), MicroSave, the United Nations Capital Development Fund (UNCDF), the World Bank and central bank partner the Bank of Papua New Guinea.

A key feature of the APFIF initiative is its focus on promoting financial inclusion at the base of the economy and the positive effect this can have on the poor, including increased resilience and opportunities. While the definitions and objectives of financial inclusion often differ between stakeholders, the APFIF initiative focuses on what financial inclusion means for the unserved and most vulnerable segments of the population, including women, youth, the elderly and the disabled.

[2] The "employed' in the informal economy includes small unincorporated enterprises as well as workers who are outside taxation and social protection systems.

In the words of the pledge by members of the UN 2030 Agenda for Sustainable Development, the initiative is about "reaching the furthest behind, first" (United Nations 2015).

This approach to financial inclusion aligns well with the agenda for APEC established by its 2020 host economy, Malaysia. With the theme "Optimising Human Potential Towards a Future of Shared Prosperity", Malaysia has set the stage for APEC member economies to rise to the challenge of achieving inclusive and sustainable development of the Asia-Pacific region.

Malaysia has identified three priority areas to be progressed during the year:

- improving the narrative about trade and investment
- inclusive economic participation through technology and the digital economy
- driving innovative sustainability

As technology continues to create new opportunities to advance financial inclusion within these areas, a major factor in success will be the ability of stakeholders to cooperate and collaborate. This includes regional cooperation between governments to develop and share knowledge on a wide range of important issues such as managing technological innovation to promote greater financial inclusion, developing the digital ecosystem, identifying priority areas of development finance and investment need, providing the soft and hard infrastructure and policies needed to promote digital technology, enhancing data privacy, protecting consumers, promoting financial literacy, and tracking fraud and other illegal activities that are increasingly transnational.

Several key principles and opportunities for regional cooperation to progress financial inclusion were summarised in the *APEC Financial Inclusion Capacity Building Package – Synthesis Report*[3] published in 2019.

In response, FDC and the partners of APFIF have developed a series of recommendations for policymakers and regulators to support the priorities established by APEC Malaysia, as well as the *APEC Financial Inclusion Capacity Building Package – Synthesis Report*. These recommendations are framed within the following topics:

- the role of microfinance in enhancing opportunity and resilience in response to Covid-19
- making DFS work for the base of the economy
- enabling financial inclusion through e-commerce

[3] The *Synthesis Report* is available from the APEC website at: https://www.apec.org/Publications/2019/10/APEC-Financial-Inclusion-Capacity-Building-Package---Synthesis-Report#:~:text=This%20synthesis%20report%20provides%20a,financial%20inclusion%20and%20consumer%20protection

This report provides an overview of each of these topics and proposes specific recommendations to support policymakers and regulators in their efforts to extend access to appropriate and affordable financial services to enterprises and households at the base of the economy. The recommendations outlined in this report are not intended to cover every major issue associated with these topics, but rather they have been formulated to align with the priorities established by APEC Malaysia and their perceived level of impact on the poorest and most vulnerable populations.

2.

The role of microfinance in enhancing opportunity and resilience in response to Covid-19

The Covid-19 pandemic has affected everyone. In most economies, declines in employment and incomes have meant many people are finding it difficult to get by. In response, governments have made various policy and budgetary interventions to help cushion the blow, including for low-income households. While many such responses have been viewed as effective, particularly in developed economies, many emerging economies in the Asia-Pacific region have not been so fortunate.

The full extent of the impact of the crisis on economies, individual households and enterprises will not be known for some time, but its immediate effect on the microfinance industry is clear. Microfinance providers are suffering from the inability to collect repayments and a lack of access to capital and liquidity from creditors (Malik et al. 2020). Which actions are taken to ensure the survival of the industry will significantly affect the ability of microfinance providers to continue offering vital financial services to those at the base of the economy and to contribute to the eventual recovery of the broader economy. As the various stakeholder responses continue to unfold, several important lessons are emerging that can provide valuable guidance to governments and other stakeholders on recovery efforts and better preparation for future crises. Importantly, as part of the recovery effort, governments should actively seek opportunities to rebuild the microfinance sector in ways that enhance its effectiveness in serving the base of the economy.

2.1 Impact of the Covid-19 crisis on financial services for the poor

The economic and financial effects of lockdowns to curb the spread of Covid-19 have been severe in most Asia-Pacific economies. Substantial declines have occurred in the incomes of people at the base of the economy, many of whom rely on microfinance to manage their household or microenterprise cash flows. Rapid assessments of microfinance institutions and their clients have found that the crisis has caused declines in average levels of income among microenterprises of as much as 80–90% in Pakistan (Malik et al. 2020), 69–80% in Bangladesh (BRAC 2020) and 64–76% in India (Sa-Dhan 2020). Migrant workers have also been severely affected, stifling the remittance flows that many low-income households rely upon (Gravesteijn et al. 2020). The World Bank (2020a) predicts that the economic crisis associated with the Covid-19 pandemic will result in the sharpest decline in remittances in recent history, with a loss of nearly 20% ($445 billion) to low- and middle-income economies.

A survey of a coalition of microfinance providers across 11 Asian economies, facilitated by FDC in April 2020, revealed that most (90%) households and microenterprises have asked their microfinance provider for a grace period or extension on their loan repayments, while few have asked for partial or full debt cancellation. Furthermore, most (78%) microfinance clients rely mainly on cash because they don't have access to digital or mobile money payments or deposits, or hesitate to use them. In lockdowns, people reliant on cash cannot always access an ATM or money agent, and when they do, they can risk compromising social distancing measures in queues (FDC 2020).

Like everyone else, people and enterprises at the base of the economy rely on financial products and services for basic needs such as saving, receiving and sending payments, borrowing etc. However, in developing and emerging economies such services are often only available from microfinance providers like microfinance institutions, cooperatives, NGOs, savings associations and self-help groups. In many economies, the ability of these institutions to continue providing financial services has been disrupted by the pandemic, putting the poor and the financial service providers they rely on in a precarious position.

Unlike previous natural disasters and financial crises, Covid-19 lockdowns have resulted in shocks to both supply and demand. People have been unable to go to work and supply or produce goods and services, and at the same time households and businesses have been unable to buy goods and services for extended periods. In turn, this prevents microfinance providers from receiving repayments, making loans, and accessing capital and liquidity from their funders. As a result, grassroots commerce and the entire financial system, not just the regulated segment, have been severely compromised.

Stable and sustainable microfinance providers are essential to the hundreds of millions of households and enterprises at the base of the economy who rely on microfinance services to make savings deposits, access loans and make or receive payments.

Examples of how the Covid-19 crisis has affected the stability of the financial system serving the base of the economy include:

- The limited effect of short-term monetary policy relief in the form of interest rate reductions or extensions of repayment terms where prolonged lockdowns limit the ability to earn income and make repayments during the relief period.
- Inconsistent policy measures creating confusion and financial distress in the early stages of the crisis (March and April). In some economies, not all microfinance providers had been designated as essential services (Bangladesh), moratoriums on repayments had not been mandated consistently across the financial system (India) or individual provincial governments were free to set their own essential services policy (Pakistan).
- The prospect of widespread microfinance provider insolvencies, with several providers across the region experiencing significant negative effects on key financial measures such as current and debt-to-equity ratios, operating margins and percentage of portfolio at risk.

2.2 The road to recovery and the future of financial inclusion for the base of the economy

Even though the crisis is still developing across the region, several key lessons are emerging from the experiences of many economies. These lessons provide important guidance for governments in preparing for future extraordinary events by building the resilience of microfinance providers and their clients. The Covid-19 crisis also gives governments an opportunity to consider how, as part of the recovery process, microfinance providers can more effectively support financial inclusion at the base of the economy and broader economic development. These lessons are outlined below and categorised as either applying to preparation for future crises (resilience) or providing guidance for accelerating recovery and improving the microfinance sector (opportunity).

Resilience: Lessons for preparing for future extraordinary events

- Government responses to the Covid-19 crisis have tended to prioritise support for the formal sector (Lieberman and DiLeo 2020). Most people at the base of the economy work or run microenterprises in the informal economy, which constitutes between 70–90% of total employment and unincorporated businesses in most Asian developing economies (ILO 2018a). These people generally have less access to social security and similar safety nets like insurance, and mostly belong to poor households and/or microenterprises not covered by general stimulus packages, subsidies or other relief measures introduced during crises.

- Significant value can be found in the extensive networks of microfinance providers that provide services to some of the most vulnerable and unserved communities in rural and remote areas. In several economies this value was demonstrated through their ability to distribute Covid-19 awareness messaging and prevention guidelines, along with food and health supplies and other necessary provisions, to the poor and other disadvantaged groups.
- The systemic catastrophe caused by Covid-19 has significantly eroded the resilience of those at the base of the economy in preparing for and coping with shocks, leaving them even more vulnerable (McGuinness 2020). The customary means of achieving resilience are often different for the poor than those with higher income and wealth. For example, they may rely less on savings or insurance and more on friends and family. However, financial service providers, particularly microfinance providers, often play a crucial role in the resilience of the poor. The Covid-19 crisis has highlighted that governments and other stakeholders need to recognise how the poor build and maintain resilience and how financial products and services can support them more effectively.

Opportunity: Lessons to aid in accelerating recovery and improving the microfinance sector

- Promoting contactless financial transactions and lessening reliance on cash has become more important. The crisis has sparked a renewed push for enhanced digital economic connectivity. Key challenges include sourcing capital for microfinance providers to invest in digital technology, ensuring the adequacy of supporting infrastructure, and consumer and staff education.
- Recognition has grown of the key intangible asset underpinning successful microfinance: organisational capital, the knowledge and infrastructure developed by microfinance providers to successfully support households and enterprises at the base of the economy. This can potentially drive improvements within the sector like building awareness of and trust in the formal financial system and digital products and services.
- Covid-19 has shown that inequality in digital access and connectivity makes the Asia-Pacific the most digitally divided region. It has also highlighted the vulnerability of people at the base of the economy, who have the least access to vital information, notably on pandemic preparedness and mitigation (ESCAP 2020), and the least ability to receive quick and reliable government-to-person (G2P) payments. This issue is compounded by the lack of easily obtainable and formally recognised individual client identification in many economies.
- Despite the significant focus in recent years by industry stakeholders on the potential for DFS and mobile money to drive financial inclusion, the Covid-19 crisis has exposed that there is still far to go before DFS can become a major part of the operations of the microfinance industry. Many providers are still wary of using DFS with their customers (Malik et al. 2020). A substantial share of clients from the base of the economy mainly use and rely on cash, because they do not have access to digital or mobile money payments or deposits, or are hesitant to use them. The crisis has led to an increased interest in top-down policies, such as the disbursement of emergency relief packages

through digital wallets, that could provide significant incentives for the use of mobile money.

As these lessons are further examined and others emerge in the continuing evolution of the Covid-19 crisis, governments have the chance to examine current policy and regulation to determine areas where reforms could benefit microfinance service providers and their ability to support those at the base of the economy.

2.3 Principles for regulatory response

While fiscal relief measures are an important aspect of supporting microfinance providers and their customers, the conditions that enable fiscal responses to be effective to the base of the economy must first be established through appropriate regulation and supervision. To help governments with this, CGAP has developed a series of principles as guidance for developing regulatory responses that consider the unique characteristics of microfinance and the diversity of institutions providing financial services to the poor. These principles, summarised in Table 1, aim to help governments balance the need to pursue relief objectives and immediate damage reduction against medium and long-term goals for the microfinance sector.

Table 1: Principles for regulatory response

PRINCIPLE	ACTIONS
Principle 1: Pro-poor Ensuring that regulatory responses are inclusive and enable poor households and microenterprises to benefit from effective relief and continued access to services.	• Reach low-income households and microenterprises directly or through the microfinance providers that serve them. • Tailor relief measures to address the distinct challenges of those at the base of the economy, especially women. Consider options such as the ability for customers to opt-out of moratoriums (as in India, Pakistan and Uganda), moratoriums with no accrual or interest capitalisation, inclusion of delinquent borrowers, and management of the post-moratorium burden. • Protect poor customers against risks arising from or heightened by the pandemic and the measures taken to address it.
Principle 2: Clear and predictable To avoid confusion, establish response measures that have a clear timeline, scope of application and exit strategy.	• Unambiguous measures with scope and rules of application clearly defined.[4] • Clear timeframe (e.g. cut-off date to determine loan status and eligibility) and sunset clause (e.g. short renewable term or longer term with fixed sunset). • Clear rules for re-establishing pre-crisis status (i.e. prudential ratios and loan classification rules).
Principle 3: Broad coverage Maintain a level playing field by ensuring that response measures to Covid-19 should cover all regulated microfinance providers on equal terms and to the greatest extent possible.	• Inclusion of all regulated microfinance providers on equal terms (to the extent possible). • Some customisation for microfinance providers is needed (e.g. giving providers the flexibility to set crisis-period business hours that differ across regions or prioritising certain providers for liquidity support allocation according to factors such as systemic relevance, scope of activity etc.). • Supervisory monitoring and resolution should be adjusted to risk profiles.
Principle 4: Preserve the safety and soundness of microfinance providers Response measures need to balance the benefits and risks of regulatory changes.	• Strike a balance between urgent relief and long-term goals. • Monitor portfolios under moratoria and require microfinance providers to assess borrower recovery prospects. • Temporary flexibility in applying prudential standards (liquidity, reserves, capital buffers etc.) balanced with strict limitations on discretionary payments (i.e. dividends and bonuses). • International guidance is not customised to microfinance. Hence, not all microfinance response measures align with the guidance.[5] • Relief to and protection of microfinance provider customers are a priority of special, temporary prudential adjustments, but with prudential and transparency standards upheld (i.e. no change in the definition of non-performing loans, clarity for re-establishing the standard rules, clear rules for public disclosures), credibility of credit information systems is protected.
Principle 5: Adjust supervision Adjust supervision. Response measures should aim to reduce supervisory burdens while enhancing risk-based monitoring.	• Reduce or defer non-essential supervision activities to reduce the burden for authorities and microfinance providers. • Tighten monitoring with enhanced scrutiny in key areas (i.e. credit risk, liquidity, solvency and consumer protection). • Prepare for and ensure orderly resolution to minimise the impact on customers. • Orderly resolution of microfinance providers to protect small depositors and ensure service continuity.

Source: CGAP 2020a

[4] For example, in India, conflicting decisions at central, state and local government levels have created confusion about which types of institutions can operate during lockdown. Many microfinance providers in India have also been unclear on whether they can charge fees or require extra collateral for restructuring.

[5] For example, the World Bank's guidance to assess a borrower's payment history before granting a moratorium, and to only cover current loans, may not always be the best approach in microfinance.

2.4 Recommendations for policymakers and regulators

Recommendation 1: Enable microfinance providers to continue providing services that support the resilience of clients during times of crisis

While the short- and long-term effects of Covid-19 are still not fully understood, it is certain that this crisis will not be the last extraordinary event that severely disrupts the microfinance sector and the vulnerable clients it serves. However, some critical lessons have already emerged from the current crisis, which can aid governments in mitigating the negative effects of such situations in the future. Some examples of specific actions governments could take include:

- **Essential services.** Recognise microfinance providers as frontline suppliers of essential services, so that they can remain open and continue serving clients. Continuing to access financial services such as savings or loans when normal income may be disrupted is vital to the ability of many at the base of the economy to weather the shock of a crisis. However, steps must be taken to ensure that the continued operations of microfinance providers are conducted appropriately. For example, in a pandemic, operating hours may be reduced and social distancing rules put in place to protect staff and clients alike.
- **Liquidity.** Take steps to increase access to liquidity for microfinance providers. As the Covid-19 lockdowns have demonstrated, the inability of clients to repay their loans while microfinance providers still need to pay their own staff and creditors quickly creates a liquidity crisis in the microfinance sector. Governments can address this through various fiscal measures, implemented temporarily and aimed at both providers and clients, such as credit easing, tax concessions and cash payment stimulus. Central banks should also consider their ability to become lenders of last resort to microfinance providers, especially those that take deposits (Lieberman and DiLeo 2020). The experience of prior financial crises indicates that governments can collaborate with multilateral and specialist finance and development agencies to provide regional financial support and blended finance facilities for providers that serve the base of the economy. Facilities providing additional liquidity should consider their potential to contribute to over-indebtedness. Finally, to complement credit-related liquidity measures, there should be a strong policy emphasis on savings as a longer-term recovery means to augment resilience.
- **Policy consistency.** Enact concessions or moratoriums proportionately and consistently throughout the financial system. For example, a moratorium on loan repayments by clients of microfinance providers should be matched by a moratorium on microfinance providers' repayments to their creditors. Doing this will help ensure stability across the entire financial system.

Refer to Case Study 1: *Pakistan – Supporting the MFI sector during the Covid-19 crisis*

Recommendation 2: Enact reforms that accelerate recovery and lead to more sustainable and effective microfinance providers serving the base of the economy

The extent to which stakeholder responses to the Covid-19 crisis support microfinance providers will significantly affect the lives of millions of poor and vulnerable people who rely on them for many basic financial needs. Actions that speed the recovery should be prioritised to ensure that the crisis does not cause even greater inequality. Furthermore, with the likelihood of a prolonged recovery, government-led strategies should also include reforms that will lead to a more productive, efficient and reliable industry capable of driving and sustaining economic growth at the base of the economy. Based on a current assessment of the Covid-19 crisis, there are several specific actions that governments could prioritise:

- **Facilitate digital transformation**. Many economies had already begun transforming conventional processes to digital ones. Covid-19 showed the benefits of digital payments in social distancing, the efficient delivery of cash payments and access to social benefits. The central bank of the Philippines, Bangko Sentral ng Pilipinas (BSP), is taking the opportunity to develop a Digital Payments Transformation Roadmap, which aims to shift at least 50% of retail payments to digital, and to have at least 70% of adult Filipinos owning and using a bank account or e-wallet by 2023 (Bangko Sentral ng Pilipinas 2020a). One of the pillars of the roadmap is building digital financial infrastructure, including open banking and digital identification. The BSP sees digital literacy as a core skill financial consumers need to fully benefit from the digital finance ecosystem. Complementing the BSP initiative is the Philippine E-Commerce Roadmap developed by the Department of Trade and Industry to increase the capacity of small business to engage in e-commerce, with BSP providing support for digital payments.
- **High-touch approach.** Ensure that reforms targeting microfinance providers do not diminish their ability to serve those at the base of the economy. Efforts to "rescue" the microfinance sector cannot sacrifice outreach and support to the most vulnerable populations. As the industry recovers, there is a risk that the push for increased financial performance, or for greater use of digital solutions, may lead many microfinance providers to abandon traditional "high-touch" operating models, which are critical for client relationships, building financial literacy and capacity, and establishing trust in the financial system. Doing so could potentially lead to the exclusion of lower density rural populations and smaller-ticket women borrowers (Lieberman and DiLeo 2020).
- **Digital identity.** Prioritise the introduction of digital identity and supporting infrastructure. Like past crises, Covid-19 has highlighted the important role digital identities can have in enabling governments to provide direct fiscal assistance. By emphasising digital identity verification and authentication, and by strengthening digital identity infrastructure, the risk of fraud and identity theft can be significantly reduced (Arner et al. 2020). Safe and reliable digital identification systems will also let microfinance providers serve their clients more effectively and at lower cost.
- **Recovery investments.** Investment proposals for digital systems, both directly and through incentive schemes for private-sector investment, should demonstrate the

business case and ease of adoption for microfinance providers and their clients. This should also include regulatory reforms to support key enablers such as allowing digital signatures and loan disbursements on the basis of biometric identification, or temporarily easing limits on mobile transactions and related KYC requirements (Bull and Ogden 2020). Because of the Covid-19 crisis, most microfinance providers will likely become limited by a lack of financial and human capital, significantly hindering their ability to directly invest in digital transformation (Malik et al. 2020).

Strategies to develop digital infrastructure will need to be coupled with staff and customer education, and with awareness-building programs to foster trust in and demand for digital services among those at the base of the economy.

- **Consumer protection.** Governments should consider making key voluntary consumer protection principles mandatory. As a result of the Covid-19 crisis, many microfinance providers will struggle to survive, and the behaviour of field staff, including their treatment of customers, may take a negative turn. This risks undermining the high levels of trust that microfinance providers have developed with their clients over many years, and could further destabilise the microfinance sector (Malik et al. 2020). Governments could take this opportunity to ensure that appropriate client protection measures are standardised and adopted by microfinance providers, followed by pragmatic supervision.
- **Partnerships.** To build economic resilience for the future, extend partnerships between communities, healthcare systems, local governments and frontline finance providers supporting communities at the base of the economy, based on the recent success of such partnerships in both slowing the spread and impact of Covid-19 and enabling efficient distribution of social protection or stimulus payments to vulnerable or less accessible communities. Government could support community-driven local economic development programs such as the World Bank's community-driven development approach (World Bank 2020b), including support for market-oriented investment and value-chain opportunities, as well as increasing community-level access to finance.
- **Maintaining stability.** Prioritise approaches other than liquidation for microfinance providers facing insolvency due to the Covid-19 crisis, since the underlying reason is more likely related to short-term liquidity than to systemic business failure. A key consideration should be the stability of the livelihoods of clients of microfinance providers facing insolvency. The design and implementation – including technical assistance from multilateral and specialist finance and development agencies – of a process to maintain stability of services to the base of the economy, which is outside the regulated or formal financial system, should focus on first recapitalising failing finance providers to provide liquidity and continuity through mergers or other collaborative restructuring, including alliances with banks, fintechs, and mobile money and remittance providers. This could include temporary regulatory forbearance, based on asset quality standards, to help sustain microfinance providers that were healthy before Covid-19. A related approach is the creation of an entity to separate and manage distressed assets

affected by Covid-19, such as that proposed in a bill before the Philippines Congress – the Financial Institutions Strategic Transfer Bill.

Refer to Case Study 2: *Philippines – Proposed Financial Institutions Strategic Transfer Act*

Case Study 1: Pakistan – Supporting the MFI sector during the Covid-19 crisis

Following Pakistan's first confirmed case of Covid-19 in February 2020, an economy-wide lockdown began in March. Provincial governments implemented restrictions to varying degrees. Due to the severe and disproportionate effect that lockdowns have on the poor, Pakistan's government has generally tried to avoid lockdown measures, and it began easing restrictions in early May. By July, over 250,000 cases and nearly 6,000 deaths had been recorded, but the rate of infection had also begun to decline sharply, leading the prime minister to declare publicly that the pandemic was largely under control (Gul 2020).

Despite apparent success in controlling the spread of the virus, the economic fallout from the pandemic is expected to result in millions becoming unemployed. Poverty levels are also expected to rise from 24.3% to as high as 33.5% (CGAP 2020b). Much of this negative forecasting can be tied to the effect the pandemic is having on Pakistan's microfinance sector, which is the largest contributor to financial inclusion at the base of the economy and a major engine of employment and poverty reduction.

Pakistan's microfinance sector is one of the largest in the world, with MFIs holding USD 1.6 billion in savings for over 47 million clients and providing USD 1.9 billion in loans to 7.2 million clients. Due to lockdown measures, the household income of microfinance clients fell by as much as 90%, and between February and April 2020 the loan repayment rate fell from 98% to just 34%, creating significant challenges for many MFIs (Malik et al. 2020).

Government support for the microfinance sector

As the crisis unfolded, the government of Pakistan acted to ensure the uninterrupted availability of financial services and provide relief to clients. Some of the crucial elements of the government response in relation to the microfinance sector included:

- **Recognising microfinance providers as essential services.** Millions of microfinance clients rely on MFIs for basic financial services, including access to savings. During the lockdown period, licensed microfinance banks were designated as essential services and allowed to continue operating, albeit with social distancing measures and reduced staffing. However, for the non-bank microfinance companies (NBMFCs), whose clients account for 51% of active microfinance borrowers, the decision to allow them to operate during the lockdown was left up to provincial governments. Except for those in the province of Punjab, all NBMFC branches had to close until lockdown restrictions eased.
- **Liquidity for microfinance providers.** Liquidity has been recognised as one of the most critical challenges facing the microfinance sector due to the pandemic. Not only do MFIs need access to liquidity to cover operational costs, but refinancing facilities for micro and small enterprises are also needed. To address this, Pakistan's regulators monitored the liquidity and risk profiles of microfinance providers and formed a stakeholder committee to discuss potential responses, including making an SME risk participation facility available to the entire microfinance industry, easing prudential standards for deposit-taking microfinance providers, and offering additional liquidity support from multilateral organisations and the State Bank of Pakistan (SBP). The Securities and Exchange Commission of Pakistan (SECP) is also considering options for

providing support to the industry in accessing capital markets. NBMFCs have been allowed by the regulator to raise more tier-two capital and increase ceilings on subordinated loans issued by investors.

- **Moratorium on debt repayments.** At the end of March 2020, SBP and SECP announced regulatory relief for all microfinance institutions. This included allowing flexibility in internal financial reporting standards and encouraging MFIs to defer borrower obligations to repay their loan principal by one year (Malik et al. 2020). To support stability throughout the sector, the SBP has actively encouraged commercial banks to consider rescheduling their loans to NBMFCs and has stated that it will investigate refusals to ensure they are justified.

  The Pakistan Microfinance Investment Company (PMIC), an economy-wide apex institution for microfinance providers, has also entertained requests from all its borrowers for deferral of principal and mark-up payments based on rigorous cash-flow analysis.

- **Relief for low-income households.** Recognising that the lockdown would have a significant financial effect on those at the base of the economy who lack savings and other safety nets, the Pakistani government moved quickly to implement a relief package. The PKR 1.2 trillion relief package was announced on 24 March and included cash transfers to 6.2 million daily wage earners (PKR 75 billion) and more than 12 million low-income families (PKR 150 billion) (IMF 2020). Provincial governments also implemented cash grants and ration distribution programs to give additional support to low-income households. The distribution of these benefits has been supported by many MFIs, which have used their extensive networks to distribute food, health supplies and health information to clients in remote, poor and other vulnerable communities.

- **Easing of prudential regulations.** Measures eased by SBP include increasing maximum MFI loan sizes, relaxing borrower eligibility criteria for various microloans, allowing lending against gold for consumption, and an increased portfolio ceiling for lending against gold.

- **Ensuring the continuity of financial services.** SBP conducts periodic impact analyses to assess consequences for MFI business operations in key risk areas, including credit, capital market and foreign exchange exposures.

- **Mitigating the spread of Covid-19.** MFIs have been encouraged by SBP to modify operational guidelines by reverting to the government database and Verisys system instead of using biometric verification, removing fees on digital transfers to minimise the use of currency notes, minimising branch visits and mandatory social distancing.

Impact of the government's response

Designating licensed microfinance companies as essential services enabled millions of poor citizens to continue accessing important financial services during the lockdown period, especially savings. This was critically important because the lockdown significantly reduced or eliminated income streams for many at the base of the economy.

The rescheduling of loans, especially by the PMIC for NBMCs, stable deposit making by licensed microfinance providers, and SBP's refinance scheme for the payment of wages and salaries, has largely addressed the immediate liquidity crisis. While it is apparent that moratoriums has helped to ease liquidity, it remains to be seen if this will also address longer-term capital impairment after moratoriums are lifted. This will also be a factor in the availability of refinancing lines, increasing the importance of continued support from governments and multilaterals in the near term.

Case Study 2: Philippines – Proposed Financial Institutions Strategic Transfer Act

The proposed Financial Institutions Strategic Transfer (FIST) Act is a bill currently before the Philippines Congress.[6] It responds to the growing adverse impact of Covid-19 on the operations of financial institutions from clients facing difficulties in servicing debt obligations due to reduced cash flow from pandemic-induced trading restrictions (Bangko Sentral ng Pilipinas 2020b).

There is a limit to how much risk financial institutions, including microfinance providers, can bear. The FIST Act gives distressed financial institutions a mechanism for strengthening their balance sheet, mainly through selling their non-performing assets (NPAs). In doing so:

- Banks will not have to incur costs related to the management and administration of NPAs – activities that are best left to asset management companies.
- Liquidity within the banking system will increase since it will no longer be tied up in NPAs.
- Bank capital will be freed up, increasing the system's risk-bearing capacity and ability to expand investment and lending activities.

The bill would allow for incentives to be provided to banks and financial institutions to sell NPAs affected by the pandemic to asset management companies or financial institutions strategic transfer corporations (FISTCs) that specialise in the resolution of distressed assets.

The FIST Act aims to encourage the private sector, government financial institutions, and corporations owned or controlled by government, to help in the rehabilitation of distressed businesses and contribute to sustained economic growth.

FISTCs that specialise in the resolution of distressed assets would be incentivised with exemptions from paying documentary stamp tax, capital gains tax, creditable withholding income taxes imposed on the transfer of buildings, and value-added tax.

The act would enable FISTCs to, among other things, invest in or acquire the NPAs of financial institutions, engage third parties to manage NPAs, restructure debt and engage in related activities, buy or transfer shares or issue equity for the purpose of business reorganisation, and borrow money and issue guarantees.

[6] Note that until the FIST Act has been approved by the Philippines Congress and signed into law that it is subject to change. The draft bill is available here: http://legacy.senate.gov.ph/lisdata/3302229869!.pdf

3.

Making DFS work for the base of the economy

The digital revolution and its potential to transform access to financial products and services for the unserved and underserved is a focus for financial markets, the development sector and governments. A multitude of fintech companies continues to emerge in the retail finance sector, all actively developing a wide range of technology-driven financial products and services.

The Covid-19 pandemic has shone a spotlight on DFS and their potential to support communities during times of crisis. Examples include digitising payments to health workers to help ensure that their services can continue uninterrupted, getting government income-support payments to households quickly, and the use of digital transfers to reduce physical contact or close proximity between people (Goodwin-Groen 2020).[7] The pandemic has also drawn attention to inequality and financial exclusion, which disproportionately affects those at the base of the economy. As the global economy faces disruption by Covid-19, there is

[7] In response to the Covid-19 pandemic, the Central Bank of Kenya has taken steps to facilitate the increased use of mobile money transactions, including reducing fees and increasing transaction and wallet limits (Central Bank of Kenya 2020).

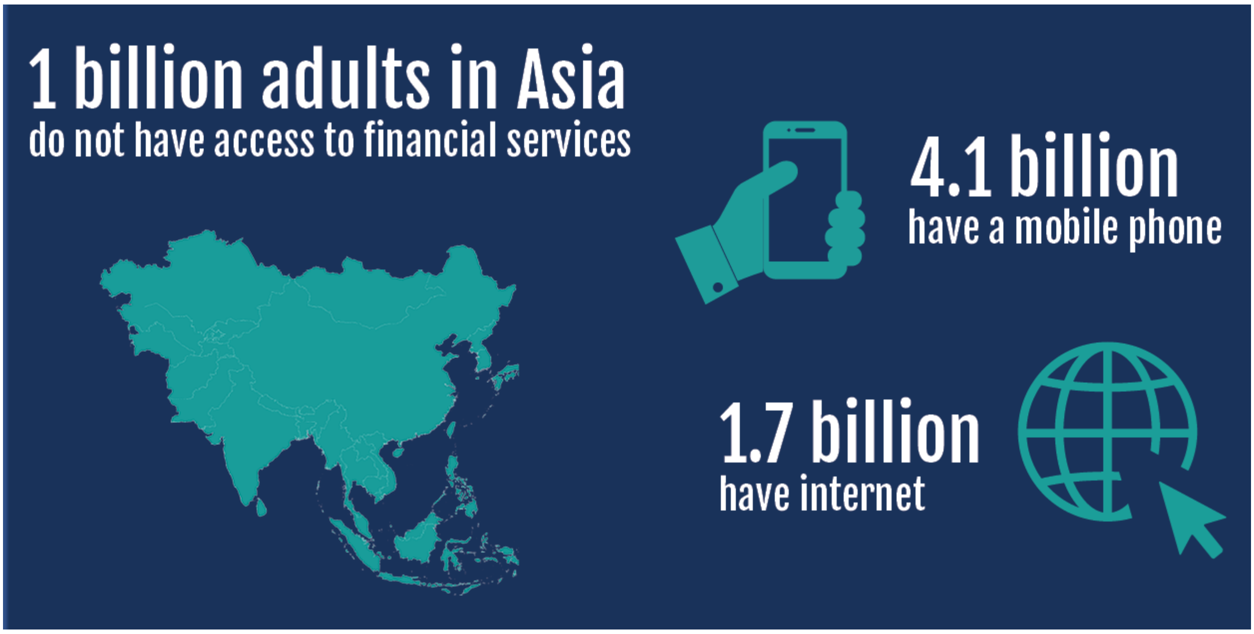
potential for DFS to play a major role in stabilising financial markets and creating more resilience and opportunity in vulnerable populations.

Box 1: Defining digital finance

There is no standard definition for digital finance. Generally, it refers to any product, service, technology or infrastructure which enables individuals or firms to access payment, savings, credit or insurance over mobile phone networks or the internet, without the need to visit a financial institution branch or deal with a financial service provider directly.

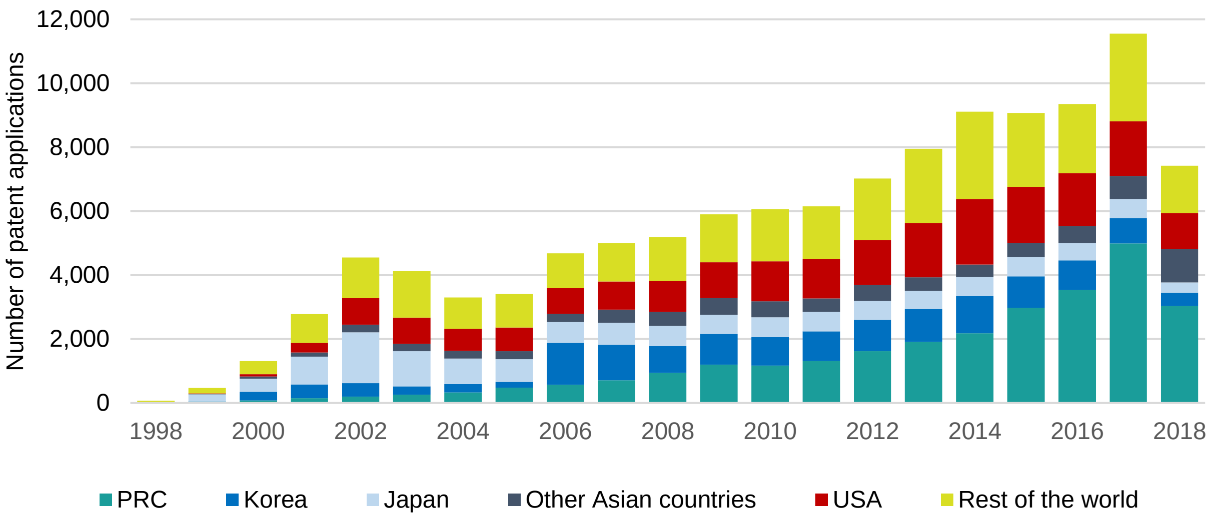
The opportunity for DFS to drive financial inclusion is particularly evident in Asia because its fast-growing uptake of mobile phones and internet connections provides new channels to reach the region's estimated 1 billion unbanked (see Box 2). Asia is also the world's fastest-growing region for fintech, which has led to dramatic increases in recent years of innovative financial products and services delivered digitally (see Figure 2). This combination of greater access to the digital economy and availability of more innovative products and services could potentially enable those at the base of the economy to engage in the formal financial system without needing access to traditional bank accounts or conventional financial infrastructure.

Box 2: The opportunity for digital finance in Asia



Sources: ADB 2018a and FutureFive 2020

Figure 2: Fintech patent applications by jurisdiction (January 1998–August 2018)



Source: ADB 2018a

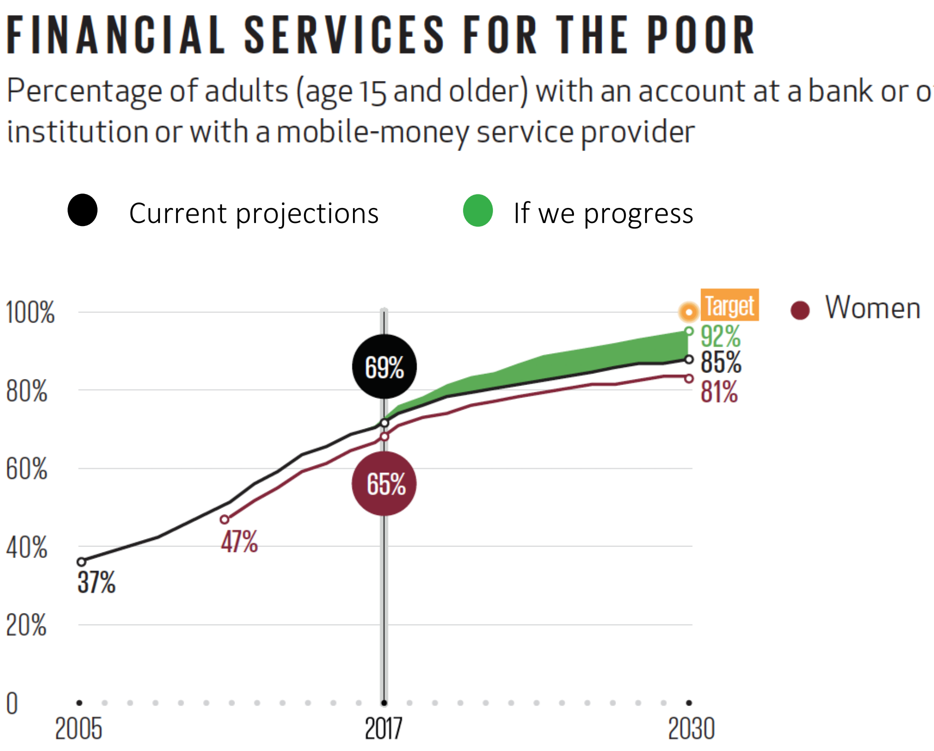
3.1 Reaching the base of the economy: Promise v reality

There is a significant amount of digital disruption taking place in the retail finance sector because of the many fintech start-ups entering the market, a plethora of new application programming interfaces (APIs), changing business models, the entry of global technology and social media firms, and the emergence of new technology-driven financial ecosystems. Much fintech activity is focused on using innovative technology such as distributed ledgers, virtual and augmented reality, cloud computing, artificial intelligence and the internet of things. This surge of new market players and technology is driving the development of financial sectors that are more connected to the digital economy. It is also enabling new opportunities for customers to access a broader range of financial products and services that are more affordable, secure, efficient and tailored to their specific needs.

Governments, practitioners and development agencies have actively promoted DFS as one of the most, if not the most, important innovations for achieving financial inclusion by expanding access to appropriate financial products and services by the poor or unbanked. The excitement around DFS has no doubt played a major role in innovations in products and services and the rapid growth of fintechs and other digital financial service providers.

However, while an increasing number of fintechs are entering the market and the availability of DFS continues to grow, the growth rate of financial inclusion appears to be declining (see Figure 3). The conclusion here must be that, while fintechs and DFS appear effective at serving the *under*banked, they are less successful in engaging the *un*banked. In other words, digital finance may not yet offer an appealing solution for people at the base of the economy, or be viable for those that will provide it to them.

Figure 3: Growth in financial inclusion (2005-2030)



* Target refers to the Sustainable Development Goals target to strengthen the capacity of domestic financial institutions to encourage and expand access to banking, insurance and financial services for all.

Source: Bill and Melinda Gates Foundation 2019 (based on data and projections from the World Bank, International Monetary Fund and McKinsey & Company).

3.2 Obstacles to digital financial inclusion at the base of the economy

Despite the growth and investment in fintechs and other providers, the adoption and expansion of DFS among those at the base of the economy remains slow. Several factors may explain this, which fall into three broad categories: the utility of DFS to the poor; the value proposition or business case for providers; and the necessary public infrastructure[8] and supervision. By understanding each of these factors and the specific issues they represent, stakeholders can develop a clearer understanding of the challenges associated with making DFS a viable solution for those at the base of the economy, promoting their progressive inclusion in the formal financial system.

[8] Public infrastructure refers to both hard infrastructure (physical assets) and soft infrastructure (regulations that govern infrastructure systems).

Utility to the poor

Just like anyone else, the poor will not use a product or service if there is no compelling reason to do so. According to the most recent Global Findex research, the most common reason that the poor stay unbanked is that they simply lack enough money (Demirgüç-Kunt et al. 2018). However, poverty is not the only barrier to people opening a bank account. Other obstacles include reliance on cash and the need for DFS solutions to include cash-in cash-out (CICO) mechanisms (Bull 2019), the need to own or have access to appropriate technology (mobile phones or computers), lack of the basic literacy and numeracy needed to navigate digital applications (Matthews 2019), lack of formal identification that meets KYC requirements (Kipkemboi et al. 2019) and distances to services.

The potential for DFS to reduce costs and increase convenience are often cited as primary reasons why digital solutions can provide greater benefits to the poor. However, efforts must also be made to build awareness and understanding among people at the base of the economy about the variety of products and services that are available through DFS, and how they can be used effectively to enhance incomes and broader financial health, e.g. by providing more affordable credit, interest-generating savings accounts, microinsurance etc.

It is also important to acknowledge that participating in DFS exposes users to new risks such as privacy breaches, fraud, transaction errors and service disruptions. While these risks are present for everyone, the poor are less equipped to mitigate or transfer risk and therefore more likely to suffer greater consequences (Ozili 2020). For example, the poor are more likely to encounter service interruptions due to unreliable internet connections or power failures in rural areas. Inability to access agents, or agent liquidity, for mobile wallet cash-outs could also disproportionately affect the poor, who generally rely more on cash for their daily needs. Risks like these highlight that DFS systems, if they are not developed carefully, may inadvertently increase inequalities and create even greater disadvantages for those at the base of the economy.

The business case for providers

Enabling the provision of high-quality and affordable products and services tailored to meet the unique needs of the poor can empower those at the base of the economy to achieve greater financial security. However, for a sustainable solution, there needs to be a viable business case for service providers, including fintechs, to target low-income markets. DFS providers are mainly profit-seeking enterprises and thus they generally prioritise high- and middle-income customers, from whom they can derive higher returns (Ozili 2018). To make targeting the base of the economy a viable business opportunity, service providers must be able to achieve economies of scale.

Impediments such as lack of interoperability, KYC requirements (especially for the poor, who often struggle to secure formal identification), consumer protection obligations and the greater investments required to serve rural or remote communities are common issues that make serving the poor less attractive commercially.

Public infrastructure and supervision

Lack of infrastructure readiness is one of the most crucial barriers to digital financial inclusion. The ability of governments to invest in the development and maintenance of key elements like broadband access, digital identity, communications networks, energy systems and digital payment infrastructure plays a major role in making the DFS value chain economically viable. Additionally, appropriate regulatory frameworks and the supervisory capability to ensure compliance with requirements like KYC and data security are important considerations when developing and maintaining a safe and functional digital ecosystem. Governments also have an important role in improving consumer protection through awareness-raising or capacity-building programs that support the ability of clients to use financial products and services effectively and also enhance the value proposition for service providers targeting the poor.

The relevance and severity of constraints hindering DFS uptake by the poor, such as those summarised above, vary between economies because of local factors like cultural norms, levels of public–private cooperation and the availability of formal identification. Governments can work with relevant stakeholders to identify which constraints most affect their communities and prioritise how they should be addressed. Table 2 summarises the key constraints commonly discussed in relation to digital financial inclusion, and gives examples of how they are relevant to the three factors highlighted above: utility, the business case and infrastructure.

Table 2: Summary of key barriers to providing DFS for those at the base of the economy

COMMON CONSTRAINTS	UTILITY TO THE POOR	BUSINESS CASE FOR PROVIDERS	PUBLIC INFRASTRUCTURE AND SUPERVISION
Inadequate or unreliable hard and soft digital infrastructure (telecom/internet access, data centres, software etc.)	Lack of access to DFS, service interruptions, access to technology (phones and computers). Pricing of smartphones and data packages excludes the poor.	Affordability of accessing infrastructure. Capital investment in client-facing and back-office hardware and software and development of new procedures. Service interruptions.	Limited funds for investment and high cost (relative to the population) to reach rural and remote communities.
Onerous KYC regulations	Client onboarding and inability to secure formal identification.	Inability to verify identification or conduct due diligence. Barriers to entry (regulatory and licensing requirements).	Complications with tiered KYC approaches. Constant changes needed in risk-proportionate financial services regulation.
Necessity of cash	Preference for conducting transactions in cash (high reliance on agents for CICO services).	Lack of CICO services. Challenges with agent liquidity and incentives.	Capacity gaps in properly monitoring agent banking. Digitisation of G2P payments can drive digital inclusion.
Lack of trust in formal financial system or digital technology	Limited understanding of DFS and associated risks. Cultural or societal reliance on high-touch financial services. Data privacy concerns.	Cost of maintaining security and integrity of client and operational data. High cost of compliance with international data protection and privacy standards.	Keeping pace with proprietary innovations and new technology, systems and business models. Ensuring data security and privacy provisions and protection against cybercrime. Adequate redress and complaints channels.
Literacy and capability	Poor basic literacy and numeracy skills, limited financial literacy, limited digital capability. Women clients are especially excluded. Many DFS interfaces are not in the local vernacular.	Cost of development and delivery, staff training for delivery. Technical capacity of staff and general digital readiness of providers. Products and services often not designed for clients with limited literacy and capability and/or their financial needs.	Investment gaps in digital and financial literacy programs, especially for women.
Lack of awareness of the digital alternatives and benefits	Not aware of available opportunities and the potential advantages of DFS.	Marketing strategies do not prioritise low-income customers (less profit).	Investments in infrastructure and digital awareness-building often do not target rural and remote communities.
Geography	Rural and remote communities with weak supporting infrastructure are more likely to experience service interruptions or have services dropped. Travel constraints to reach agents.	Reduced focus on serving high-cost rural areas and communities with weaker supporting infrastructure. Marginal return on digital investment in serving small and remote communities.	Marginal cost/benefit of providing reliable infrastructure to small rural and remote communities. Monopoly power of mobile, internet and digital services providers. Harmonisation of cross border policies and regulations.
Lack of interoperability	Confusing proliferation of e-money products. DFS options are segmented, lowering value proposition.	Unable to achieve economies of scale. Existing investment in legacy systems. Upstream and downstream connectivity with proprietary technologies and systems. Significant policy and procedural change needed to accommodate vendor system.	Lack of interoperability leads to market and service inefficiencies. Fostering competition among proprietary systems. Enabling innovation and new entrants to markets. Frictionless digital payments infrastructure.
Value proposition	Difficulty comparing the cost and service scope among competing providers. Upfront, subscription or per-transaction costs.	Return on many small-value transactions inadequate to justify digital capital investment and coverage of digital systems maintenance.	Cost of supervision and enforcing compliance in a constantly evolving and increasingly complex digital marketplace, with clients whose degree of financial and digital literacy varies.

Source: FDC

3.3 DFS and women

Compared to men, women at the base of the economy face additional challenges associated with financial access, many of which are relevant to or exacerbated by DFS. Some examples are the lack of digital products or services designed specifically to meet the needs of women, legal restrictions or discriminatory laws, less familiarity with technical financial terminology, greater difficulties in proving identity, lower literacy (including financial literacy) rates and limited access to the formal economy (Salman and Nowacka 2020). While part of the potential of DFS includes benefits specifically empowering women, such as greater and more convenient control of finances or enabling women to more effectively balance their household responsibilities with entrepreneurial endeavours, there are many aspects of DFS that can create additional challenges in addressing women's financial inclusion. As stated earlier, the extent to which these issues create constraints for women will differ between economies. However, where constraints do exist, they often affect women more than men and create inequality. Examples of how prominent DFS constraints may affect women more than men are given in Table 3.

Table 3: Summary of key barriers to women using DFS

CONSTRAINTS	CONSIDERATIONS FOR WOMEN
Inadequate or unreliable hard and soft digital infrastructure (telecom/ internet access, data centres, software etc.)	Women's adoption of DFS is further constrained in economies where connectivity and DFS services are costly.
Onerous KYC regulations	Women in many economies face more constraints (i.e. additional documentation) to satisfy KYC requirements (Salman and Nowacka 2020). This is exacerbated by laws and customs limiting women's ownership and custodial rights.
Necessity of cash	Mobile phone and SIM ownership are lower among women. Women prefer to transact with women agents (UNCDF 2016).
Lack of trust in formal financial system or digital technology	Women's engagement with financial services is less consistent due to interruptions to their economic lives and earning capacity (marriage, pregnancy, child rearing etc.) resulting in less opportunities to build relationships of trust with financial services providers.
Literacy and capability	More women than men are illiterate (Wadhwa 2019).
Lack of awareness of the digital alternatives and benefits	Worldwide, women are less educated than men (Jakiela and Hares 2019).
Geography	Women are less mobile than men (UNCDF 2016).
Lack of interoperability	Women-targeted social transfers using DFS are restricted.
Value proposition	Women's earnings are typically lower than men's, leading to transactions that are more frequent but lower-value (UNCDF 2016). The financial industry lacks understanding of women and DFS services and products are often not designed with women in mind.

Source: FDC

3.4 Important enablers for achieving greater financial inclusion through DFS

Addressing the many constraints affecting the ability of DFS to significantly drive financial inclusion is a significant challenge. To achieve inclusive economic growth, government policies need to prioritise households and enterprises at the base of the economy, so that the benefits of digital financial inclusion, such as increased opportunity, income generation and resilience will flow to those most in need. While each government will need to establish its own priorities within its local context and capabilities, some crucial factors could be considered important enablers of the growth and viability of DFS for the base of the economy.[9]

Interoperability

While technology gives the unbanked new opportunities to access a broader range of financial products and services, the digital networks this technology resides in are often fragmented, with many services only bilaterally connected. Interoperability refers to "the ability for different systems to connect with one another" (Arabehety et al. 2016, 1), where value is enhanced for users by greater ease of making or receiving payments through multiple DFS providers. Service providers can also benefit from the potential for higher transaction volumes and the greater sustainability of DFS.

Access to CICO points

CICO points are defined as any place where individuals can convert e-money to cash or vice versa. Access to CICO points such as ATMs, bank branches and agents is critical for DFS to be an effective driver of financial inclusion and for its role in supporting the transition from cash-based to fully digital financial systems. Research conducted by the Boston Consulting Group and the Bill & Melinda Gates Foundation across six economies[10] found that there are still significant gaps in CICO coverage, with millions of people lacking access to CICO points (Unnikrishnan 2019). The research also highlighted that filling this gap is no easy task, since the traditional business models used by DFS providers to set up agent networks are unlikely to be viable in most rural or remote areas.

In their study of agent network models used by DFS providers, CGAP has found that a key success factor in expanding coverage to rural areas is the ability to aggregate multiple valued services at CICO points and enable more transactions per client (Hernandez 2019). Advances in digital technology are making it easier for DFS providers to share their agent

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[9] The report *People's Money: Harnessing Digitalization to Finance A Sustainable Future*, prepared by the United Nations Secretary-General's Task Force on Digital Financing of the Sustainable Development Goals, provides additional insights for policymakers and regulators on the opportunity for digitisation to accelerate financing of the UN Sustainable Development Goals.

[10] Bangladesh, Indonesia, Pakistan, Kenya, Nigeria and Tanzania.

networks with other providers of financial and non-financial services through a single electronic platform, making such models easier to implement. The development of viable agent network models for CICO points is crucial to enabling the poor, who remain largely reliant on cash, to participate in DFS.

Government-to-person (G2P) payments

Digitising social transfers lets governments make electronic payments directly into citizens' accounts. Effective G2P systems can have a significant effect on the provision of financial services for the poor if they are part of the formal economy and registered for such services. Benefits include reduced costs and increased efficiency and transparency. Regarding financial inclusion, such systems can also play an important role in helping recipients become familiar with digital payments and in introducing them to other digitally enabled products and services like savings, credit, insurance, remittances etc.

Many economies have begun digitising G2P payments, with 39% of G2P recipients in low-income economies receiving payments electronically in 2017 (Demirgüç-Kunt et al. 2018). However, further advances in G2P systems could make them more effective drivers of digital financial inclusion. Extending G2P to people not yet registered for social transfers, and facilitating digital systems for other categories of payments, like person-to-government (P2G: micropensions, taxes etc.) and business-to-person (B2P: digital wages for workers), represent important opportunities to move a large number of people at the base of the economy into the formal economy.

Identification

Lack of adequate identification is still a major challenge for financial inclusion. Financial institutions, including DFS providers, generally must comply with know-your-customer (KYC) laws. As many as 1 billion people globally, mostly women and children, struggle to formally identify themselves and are thus significantly limited in their ability to access and use financial services (ADB 2018a). The establishment of digital identification systems, including economy-wide digital identification, is a crucial component of an economy's DFS ecosystem that can be integrated across a wide range of systems and services to enable greater inclusion.

As an example, India's biometric identification system, Aadhaar, has been linked to digital payment systems, providing cheaper and more convenient ways to make social and financial transfers. The Aadhaar program is often credited as one of the key drivers behind a significant increase in the number of Indian adults with a bank account, from 40% in 2011 to nearly 80% in 2018 (Iyer 2019). The ability to prove the unique identities of citizens is a foundational element of the implementation of digital payment systems and of financial inclusion more broadly.

Touch v tech

A basic disadvantage that many fintechs and DFS providers face is their inability to provide the essential "human touch" required to comprehensively engage with clients at the base of the economy. This "high-touch" approach has been fundamental to the modern microfinance movement since the 1970s. It continues to be important and is frequently acknowledged by financial inclusion leaders.[11] Large or "top-tier" organisations in Asia, such as BRAC, ASA and the Grameen Bank, manage this marriage of high tech and high touch effectively, but smaller or "lower-tier" organisations and non-bank financial institutions (NBFIs) like cooperatives, savings groups, credit unions, microbanks, non-government organisations, microfinance institutions etc., may not have sufficient financial, technical or other resources to buy a proprietary fintech solution, or the critical mass or scale to warrant investment in development of their own DFS system.

> "One of microfinance's comparative advantages is precisely that it is not an algorithm. MFIs are close to their customers and know their needs, and this potentially gives them a longer-term advantage over new digital rivals."
> *Greta Bull, CEO, Consultative Group to Assist the Poor (Bull 2018)*

While the financial inclusion activities of fintechs and other DFS providers are frequently promoted through the media and development institutions, less is known about the activities, innovations and outcomes of NBFIs and socially-driven organisations that provide services to those at the base of the economy. NBFIs often provide what limited financial services may be available to the base of the economy. However, as digital technology continues to disrupt the financial sector, little is known about how these institutions are adapting and bridging the digital divide that excludes the poor.

This situation presents a chance to harness the comparative advantages that the respective participants offer regarding financial and economic inclusion. High tech and high touch are not mutually exclusive. Together they can promote interoperability and innovation, open up access to a wider ecosystem of partners, and provide the flexibility to adapt to an economy's particular industry structure and regulations with products and services aligned to local social and cultural contexts. The respective advantages of NBFIs, fintechs and DFS providers, and the outcomes they could achieve through effective collaboration, are illustrated in Figure 4.

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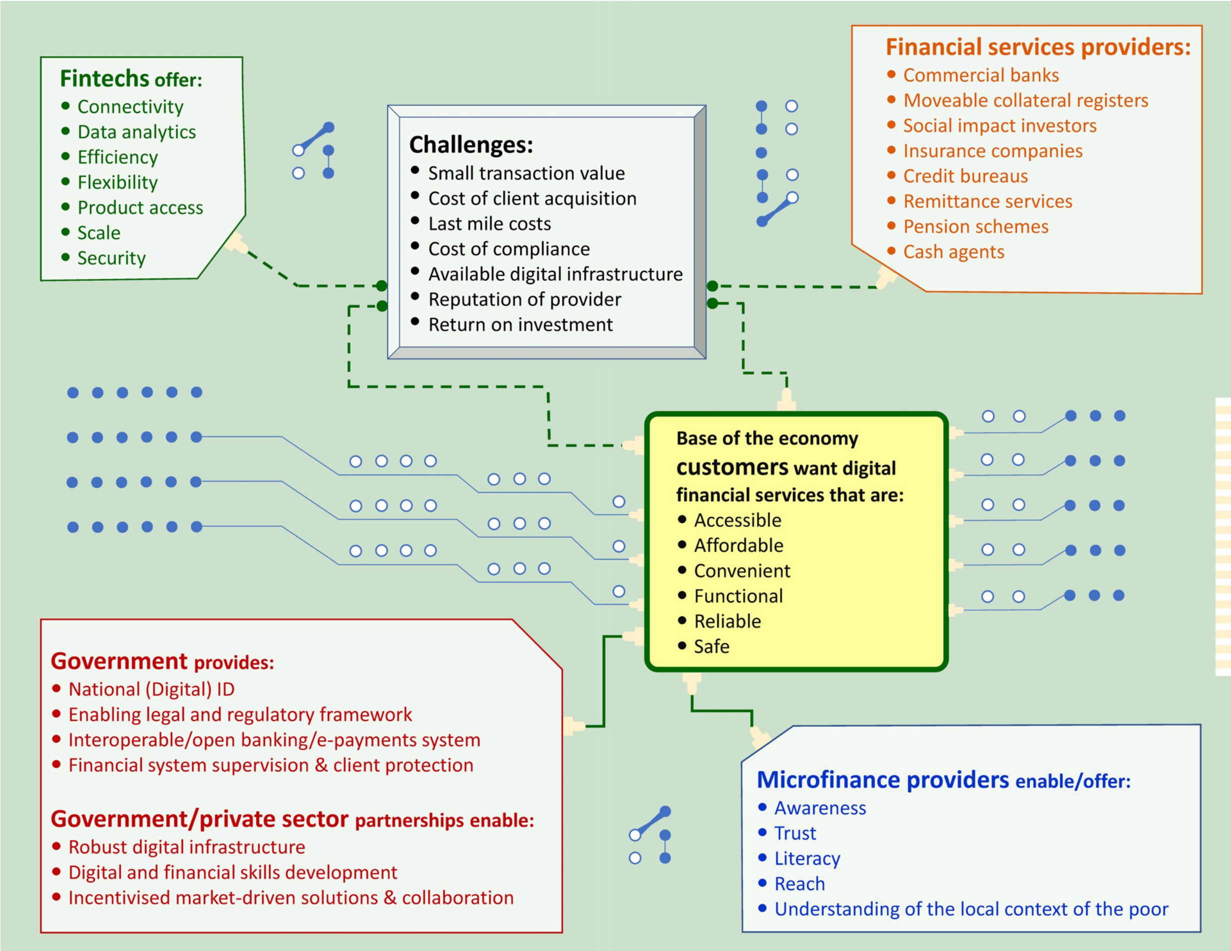
[11] Including KPMG, *Stanford Social Innovation Review*, The Center for Financial Inclusion, UNCDF, World Bank, CGAP, ACCION etc.

Figure 4: A collaborative DFS ecosystem



Source: FDC

3.5 Recommendations for policymakers and regulators

Recommendation 3: Support the development of a DFS ecosystem that offers greater utility for the unbanked and the base of the economy

A major reason for the slow uptake of DFS among the poor is lack of awareness of the value it could provide them and an apprehension that the perceived or real risks outweigh any added value. For DFS to have a meaningful effect on the lives of the poor and underserved, the unique needs and perspectives of low-income markets need to be understood so that products, services, systems and processes can be designed in ways that will provide greater utility to the base of the economy. To achieve this, specific reforms or government initiatives might focus on the following actions:

- **De-risking.** Encourage DFS providers and other technology stakeholders to de-risk digital finance products and platforms that are extended to the poor. While the risks associated with DFS are generally the same for all users, the poor have less ability to mitigate or transfer those risks and therefore are more likely to suffer greater consequences (Ozili 2020). If the risks of using DFS are perceived as too great, customers will avoid or withdraw from them. To increase the appeal of DFS to the poor, governments should seek opportunities to coordinate with relevant stakeholders and develop policies or strategies that can address the various risks (around privacy and data security, fraud, digital KYC etc.), but with a particular emphasis on protecting the poor and vulnerable.

- **Enhanced literacy.** As part of government efforts to de-risk DFS for the poor, strategies and plans that effectively promote various forms of literacy, including functional numeracy and financial and digital literacy, as well as general awareness of the benefits of digital financial products and services, can serve as enablers of usage and opportunities to de-risk DFS by enhancing the capabilities of individuals, especially women and young people. While many economies have already integrated financial literacy into their economy-wide education curricula, these programs may need to be updated to include digital literacy and keep up with the rise of DFS.
- **Interoperability.** Seek to develop an adequate level of interoperability in the digital ecosystem to enable and encourage financial service providers to share data and connect their platforms. DFS providers rely on customer data to fuel innovation, and without it they are less capable of developing or delivering enhanced services for their customers (Adrian 2019). Being able to share and safely store data within the DFS network is therefore crucial in enabling providers to design appropriate products and services that meet the unique needs of those at the base of the economy.
- **G2P payments.** Take steps to modernise G2P payment systems, going beyond merely digitising transfers to allow recipients to choose where they open their accounts rather than having their government decide this for them. Research has found that enabling greater recipient control has important benefits, including increasing recipients' ability to manage their money effectively and encouraging greater use of DFS as recipients gradually build trust in their service providers and convenient accessibility improves (Baur-Yazbeck et al. 2019). Giving recipients greater control also encourages competition between DFS service providers, which can lead to a higher quality of service provision.
- **Effective partnerships.** Incentivise DFS providers to work with NBFIs, which often have more experience and more direct relationships with the poor. If properly leveraged, such partnerships could play a major role in the design and delivery of appropriate DFS, as well as enhancing awareness and capacity-building among those at the base of the economy.

Refer to Case Studies
3: *Bangladesh – Modernising G2P Payments*
4: *Indonesia – AgriFin Mobile Program*
5: *Viet Nam – Preparing the Poor for Digital Transformation*

Recommendation 4: Support the business case of DFS providers that target and serve the base of the economy

Targeting the poor is a challenge for many DFS providers, particularly those that rely on traditional business models and are seeking rapid and high returns. Even those that do specifically target low-income markets often struggle to achieve sustainability due to issues such as lack of interoperability in the digital ecosystem, onerous KYC requirements, predominance of low-value and marginal transactions, or the logistical complications of providing services to rural or remote communities. Issues like these often make serving poor clients less efficient and more costly. While serving the poor will always carry its unique challenges, there are several interventions that governments could prioritise to enhance the viability of serving the base of the economy for DFS providers.

- **Interoperability.** Support increased levels of interoperability in the DFS payments infrastructure to foster greater economies of scale and scope for providers. While greater interoperability will likely increase competition between providers, which is beneficial to customers, it also supports the ability of providers to achieve economies of scale due to larger numbers of transactions. This will in turn lead to lower costs for systems and providers (Resendiz 2017).
- **CICO services.** Give financial incentives such as concessional loans, subsidies, guarantees or pricing guidelines to support the improvement of agent profitability for DFS providers. For example, governments could offer income guarantees for providers if their remote and rural agents fail to break even, or offer time-bound subsidies to support agents during their start-up phase (Blackburn 2019).
- **Digital identification.** Support the development of digital identification schemes, which can enable customers who lack formal identification to satisfy KYC requirements more efficiently and access digitally enabled financial products and services. Secure and effective digital identity systems are becoming increasingly important as economies continue to digitise. Achieving universal digital identity and authentication mechanisms should be a domestic priority for all economies, with due consideration for privacy and data security.
- **Innovation.** Collaborate with the private sector and donor institutions to crowd in and test viable DFS solutions. To facilitate this, governments should consider options such as establishing regulatory sandboxes, innovation hubs or accelerators to enable DFS providers to test their innovations in real markets and receive informal assistance to navigate regulations. Such initiatives can also help governments navigate the trade-offs between maintaining a dynamic and enabling market environment and ensuring regulatory oversight and consumer protection.

Refer to Case Study 6: *Papua New Guinea – The YuTru Digital Trust Framework*

Recommendation 5: Prioritise the development of public infrastructure and supervision frameworks to enhance DFS benefits to the base of the economy

Despite the excitement surrounding the potential of digital technology to drive growth in financial inclusion, much of this technology is still not readily available to the poor. Governments need to consider the public infrastructure needed to bring DFS to rural communities, including appropriate regulation and supervision, as well as the capacity-building methods that could support consumers at the base of the economy to use digital financial products effectively. Some examples of areas where governments could focus their efforts include:

- **ICT infrastructure.** Evaluate current infrastructure and prioritise investments in core ICT systems including the internet. Increased internet penetration has a positive effect on GDP (Minges 2015) and supports a variety of development needs including health, education and economic opportunity. Providing access to basic digital infrastructure is crucial for enabling affordable and safe mobile internet that can enable low-cost financial services to the base of the economy, including rural and remote communities.
- **Risk accountability.** Provide clear guidance on who is responsible for protecting the poor from digital risk. The DFS ecosystem is complex and involves many institutions, including banks, financial institutions, telcos, governments, third-party providers, regulators etc., but often which institutions or set of institutions should take responsibility for protecting the poor is not clearly defined (Ozili 2020).
- **Gender equality.** Ensure that local strategies for the development of the digital economy include recognition of relevant gender issues that could hinder the ability of DFS to positively empower women. This should include an assessment of current policies and regulations with a view to pursuing reforms that reduce gender bias or inequality.
- **CICO services.** Establish guidelines or requirements, and incentives, for DFS providers to establish CICO services in rural areas, including regulations to encourage the expansion of agent networks, such as minimum rural coverage requirements. For example, in Malaysia providers are only allowed to open new agencies in areas that do not already have CICO agents and have a population of less than 2,000, whereas in Tanzania the government has established proximity targets so that the average household is less than 0.5 km from an agent in urban areas or 12 km in rural areas (Blackburn 2019).
- **Interoperability.** Support the effectiveness of interoperability by developing clear rules and governance structures for operators. Every government will need to determine its own path towards interoperability based on its own local context. However, priority should be given to ensuring that these systems are not only technologically functional, but also safe and reliable, with appropriate regulation and supervision.

Refer to Case Study 7: *Thailand – Thailand 4.0 and PromptPay*

Case Study 3: Bangladesh – Modernising G2P payments

Government-to-person (G2P) payments, including social transfers and wage or pension payments, are common in most economies. By directing payments to specific financial institutions, G2P payments are often leveraged by governments to drive use of formal bank accounts by those at the base of the economy. In more recent years, several governments have begun digitising G2P payments to improve efficiency, reduce leakage and promote greater acceptance and use of digital financial products and services among the poor. Recent studies have highlighted that the opportunity for G2P payments to be a significant driver of financial inclusion and to enhance the welfare of the poor can be expanded by giving recipients greater control over how they receive and withdraw payments.

Government response

As part of its economy-wide strategy to digitise, the government of Bangladesh has been actively taking steps to use digital channels for its payments. A 2016 review of the government's highest-volume G2P payment schemes found that payments were mainly made in cash, which is vulnerable to leakage and inefficiency, and distributed using closed-loop solutions that offered little or no choice to recipients (Baur-Yazbeck and Roest 2019). Access to Information (A2i), a cross-government agency tasked with advancing digital technology-led solutions for government services, has played a prominent role in efforts to digitise government payment flows and has led to the development of a new integrated payments structure.

A crucial part of A2i's vision is that giving citizens the freedom to choose how and where they make and receive payments from the government could reinforce broader goals such as interoperability, competition among providers and more inclusive open systems. To achieve this, in 2016 A2i and its partners undertook a detailed systems design process that used the existing payments infrastructure. They began building a new centralised architecture capable of servicing multiple G2P payment programs. By 2019 A2i had begun piloting aspects of its new payments system, which was designed to enable customers to choose between seven different providers (Baur-Yazbeck and Roest 2019).

Program impact

Several benefits flow from enabling customers to choose providers that best serve their needs. As highlighted by Baur-Yazbeck et al. (2019), these include customers not needing to open multiple accounts, customers being able to select providers least likely to charge unofficial fees, and women being able to choose providers that they feel most comfortable dealing with. Importantly, by enabling choice, governments can shift provider incentives towards winning customer loyalty, leading to overall better service and competition in the market. Governments could also reap benefits from this model, including reduced costs, because it enables the use of existing infrastructure from many providers rather than a single proprietary network, and it minimises the need to procure the services of individual providers.

While the full results of the A2i pilot programs in Bangladesh are still emerging, some early lessons from their experience that other governments might consider include:

- A customer-centric approach is crucial for success. Identify the shortcomings of current G2P payment services from the perspective of citizens and find solutions to enhance their experience.
- Distribution is key to enhancing value. Consider how easy is it for customers to access their benefits, e.g. distances to access points etc.
- The need for more effective G2P payment services has never been more clear. The Covid-19 crisis has seen governments everywhere scrambling to find ways of pumping liquidity into institutions to keep economies afloat. By establishing a central architecture, governments can then easily integrate

new programs to enhance services and distribute rapid payments more effectively during times of crisis.

- A central architecture creates an important "on-ramp" for providers to take part in the digital economy. Governments will need to consider which institutions are allowed to operate in the system, including state-owned banks, commercial banks, fintechs and other providers.
- Governments need to consider the structure of incentives for private providers to become part of the network. One trade-off of expanding choice is that participation by profit-seeking providers may potentially increase costs to either governments or customers. It is expected that governments will address this in different ways and establish models suited to their local contexts.

Case Study 4: Indonesia – AgriFin Mobile program

Lack of access to information, markets, technology and finance are some of the significant challenges facing the more than 500 million smallholder farmers around the world in producing and selling their crops. To address this, in 2012 Mercy Corps launched the AgriFin Mobile program in Indonesia to help the private sector develop affordable, demand-driven digital products and services that would significantly increase farming yields and incomes. Building on their experience and relationships with smallholders in remote communities, Mercy Corps partnered with formal financial institutions (a commercial bank, rural bank and insurance company), an agricultural input company and local traders to enable farmers to access new forms of credit bundled with agricultural services. This was achieved through a combination of human contact and digital channels via smartphones.

The AgriFin Mobile program begins by helping smallholders conduct a market assessment before bringing together the necessary partners to develop financial products and services that best meet their needs. These products and services are bundled with a range of value-adding components like e-learning platforms on best practices in farming, market assessments to assist with pricing and digital literacy training to support farmers' use of technology.

As a result of these interventions, participating farmers have experienced up to an 11% increase in farm yield and as much as a 17% increase in income each year (Mercy Corps, 2019). Some of the program's key success factors include researching the needs of farmers and helping them develop initial market assessments, maintaining a strong human interface in new products and using Mercy Corps' existing networks to expand public–private partnership opportunities that benefit smallholders.

Government support for the AgriFin Mobile program

The development and success of the AgriFin Mobile program have also been greatly helped by the support and involvement of Indonesia's central and district governments. For example:

- To support the participation of formal financial institutions such as commercial banks, rural banks and insurance companies, Indonesia's financial services authority, Otoritas Jasa Keuangan (OJK), helped to review and provide input to memoranda of understanding between financial institutions and input suppliers, including local traders.
- The government has been actively involved in the program's e-learning platforms, with government workers deployed as trainers in the field where rural banks are unable to provide trainers themselves.

- Several district governments have replicated AgriFin Mobile financial literacy methods to provide extra financial literacy training to female farmer groups.
- The central government, including OJK, has publicly acknowledged the success of the AgriFin Mobile program, which has helped Mercy Corps to continue building effective partnerships with the private sector, especially with formal financial institutions and agricultural input companies.
- District governments have been active promoters of the program in rural communities, helping it expand to reach new customers.

Case Study 5: Viet Nam – Preparing the poor for digital transformation

Viet Nam has emerged as one of the most digitised economies in the ASEAN group. Recent data shows that nearly 67% of the population has access to the internet and that there are over 140 million mobile phone subscribers, representing more than 70% of the adult population (Asia Foundation 2020). However, despite Viet Nam's good internet coverage, use of technology to conduct financial transactions remains low[12] and most people rely on cash for payments and banking. To remain competitive in an increasingly digital marketplace, local financial service providers are accelerating their efforts to develop digital financial products and services for their clients. This includes Viet Nam's largest microfinance provider, the state-owned Vietnam Bank for Social Policies (VBSP), which mainly serves poor and marginalised groups. VBSP views digital transformation as a way to increase its operational efficiency while enabling greater economic opportunities for those at the base of the economy, especially women and other marginalised groups.

Government response

Much of Viet Nam's success in developing its digital economy stems from government efforts to promote and enable digital transformation. Following the government strategy, which includes a dedicated scheme to progress non-cash payments,[13] in 2017 VBSP launched the program Mobile Banking – Financial Inclusion and Economic Empowerment for the Low-Income Population and Women in Viet Nam. This initiative aims to support the digitisation of VBSP and its capability to provide a full range of digitally enabled financial products and services to clients, especially women running microenterprises, who lack access to traditional banking services.

To achieve success, VBSP must overcome the unique challenges faced by its clients, such as low literacy levels and lack of experience with digital technology. VBSP's approach focuses on gradually building client capability and demand for digital finance by first establishing basic connections between digital technology and clients' banking experiences. For Phase 1 (2016–2018), the project piloted an SMS

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[12] According to the World Bank Global Findex database, in 2017 approximately 31% of adults in Viet Nam had a bank account, but only 25% of those had used a mobile phone or the internet to access a financial institution account in the past year. Furthermore, while a large number of adults (4 million) in Viet Nam were unbanked, 72% of those had a mobile phone.

[13] Refer to Decision No. 2545/QD-TTg approving the scheme for developing non-cash payment in Viet Nam, 2016–2020.

notification service to enhance communication with clients. Initially, notifications were limited to basic information such as reminders about payment of principal, changes to loan accounts, overdue debt rescheduling etc. Importantly, these SMS notifications have represented the first time many of VBSP's clients have ever experienced any connection between digital technology and banking. This is viewed by VBSP and its partners as an important first step in raising awareness among clients and building trust and confidence in the use of mobile phones for banking.

As part of Phase 2 (2019–2021), the SMS service has been improved to include more features, such as issuing e-receipts for loan interest collection, and customer support via SMS. A dedicated financial literacy application for smartphone users has also been developed to drive greater understanding of financial products and services and financial management, encourage savings etc. Each of these actions are important steps that VBSP and its partners have taken to prepare the client base and develop demand for DFS, including digital payments and deposits, which will become available when VBSP launches a full mobile banking platform during the final stage of the project.

Program impact

To date, VBSP has reached over 5 million clients (51% being women) with SMS notifications (BPP 2020). These notifications have helped clients by enhancing transparency in loan management, improving planning for debt payment and encouraging saving. They have also been instrumental in raising awareness of the potential of mobile phones and other technology for accessing financial products and services. By building this foundation, VBSP expects that clients will be better prepared to accept digital finance products and services that will become available when additional mobile banking services are launched, and to use them effectively.

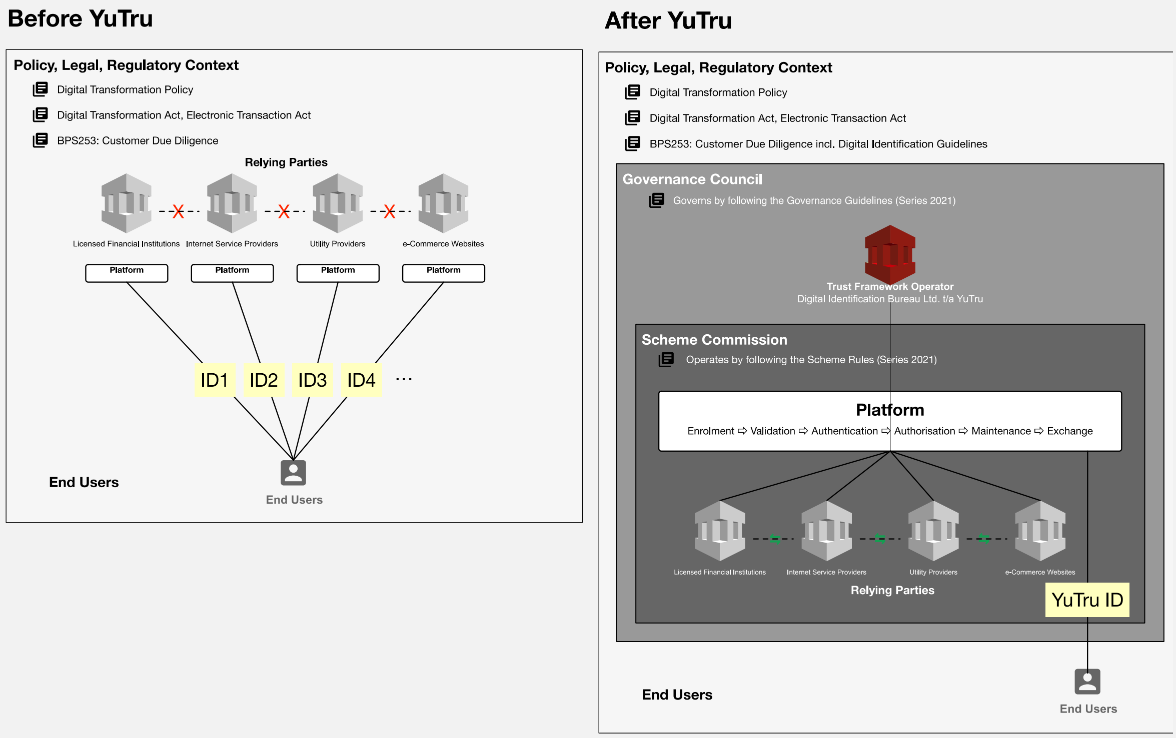
Case Study 6: Papua New Guinea – The YuTru digital trust framework

A provable unique identity is essential for individuals to open a bank account and is the single greatest need for a customer to access financial services generally, both domestic and international. This is now even more important with the digitisation of the global economy and increasing volumes of online transactions.

Because most Papua New Guineans do not have a government-issued identification card and the cost of face-to-face transactions is high due to long distances from remote communities over limited road infrastructure, the central bank, the Bank of Papua New Guinea (BPNG), proposed a private-sector-led digital identification scheme to expand financial inclusion throughout the economy.

In response, the Digital Identification Bureau Ltd (DIBL) was established in 2018 by the PNG Digital Commerce Association to design and operate a digital trust framework known as "YuTru", in cooperation with leading licensed financial institutions, and set standards related to distributed ledger technology, biometrics and KYC.

Using up-to-date standards and technologies, including biometrics, this private-sector-led initiative lets people digitally identify themselves in a way that is trustworthy, quick and easy to adopt, convenient and secure. The YuTru trust framework sets out the binding business, technical, legal and operational rules that govern how firms joining the scheme can digitally identify, validate, register, verify, authenticate and authorise their customers – YuTru end users. The framework also includes a technology platform to implement these rules for member institutions.



Government Support for YuTru

BPNG has played a key role in enabling the development of YuTru but has not been offered a shareholding in the scheme, so that it can regulate it without a conflict of interest.

Having encouraged the creation of a digital identification scheme, BPNG continues to work alongside DIBL to monitor YuTru consistency through:

- universal KYC and anti-money-laundering standards, including Financial Action Task Force digital identification guidelines
- PNG's National Identity Program and other identity initiatives
- legislation such as the Banks and Financial Institutions Act and BPNG's Banking Prudential Standard (BPS) 253 on Customer Due Diligence.

Expected outcomes

The initiative has sought to be financially self-sustaining. YuTru raised PGK 5 million in domestic seed capital to fund its first two years of operation. The concept and business case, as well as initial socialisation activities, were delivered through donor-funded technical assistance. Vendors will be secured by the end of 2020 to supply an economy-wide technology platform for the scheme, train staff and supervise development of the scheme rules.

Widespread adoption of the scheme is expected to have a significant effect on PNG's development and economy. Some of the expected outcomes include:

- enhanced overall efficiency across the private sector by enabling subscribing organisations to rely on the DIBL to establish trust with end users
- more efficient compliance with KYC regulations
- enhanced due diligence and creditworthiness assessment, and improved speed, value and volume of transaction flows, achieved more effectively at a lower cost

- more effective identification of customers using biometric profiles, regardless of social or cultural labels, enabling "deduplication" and risk of fraud from "ghosts" or "synthetic identities"
- time savings for customers in a digitised process and harmonisation of onboarding, letting customers to use their digital identity for multiple purposes
- cost savings for subscribing organisations, flowing from having a widely recognised system instead of a business-specific system.

Case Study 7: Thailand – Thailand 4.0 and PromptPay

Thailand 4.0 was launched in 2016 as an ambitious economy-wide strategy to increase economic growth over the next 20 years. With its focus on high-tech industries and innovation, developing the digital economy and digitally transforming the finance sector have been identified as crucial aspects of achieving Thailand 4.0.

An early outcome of the Thailand 4.0 strategy was the launch of the National E-Payment Master Plan. One of the major initiatives of the Master Plan was the PromptPay project to establish an economy-wide service enabling individuals and businesses to receive and transfer funds electronically. Responsibility for implementing the PromptPay project was given to the central bank, the Bank of Thailand, in partnership with the Thai Bankers' Association and many private-sector participants.

PromptPay is a fully interoperable electronic transfer system that lets users send or receive bank account funds using "digital wallets". Key advantages of this service for the poor include:

- **Convenience.** The service is highly accessible and only requires a form of formal identification[14], mobile phone number or email address. There is no need for users to share bank account details or other personal information.
- **Security.** The system has been designed to international standards and is closely supervised by the Bank of Thailand.
- **Affordability.** Transfers are unlimited and free if under THB 5,000 (~USD 160).
- **Enhancement of G2P payments.** Government welfare payments, including disaster relief payments, can be made much faster and more cheaply, without leakage.
- **Real-time payments for microenterprises.** Business operators can accept instant payments via their mobile phones and no longer need to spend time travelling to their nearest bank branch to deposit cash.
- **Connection of the unbanked.** By using established personal identifiers as proxies for a person's account or digital wallet, it is easier for the unbanked to register for the service.

The viability and success of PromptPay are supported by complementary initiatives being developed and implemented by various government agencies and partners under the Thailand 4.0 strategy. Examples of initiatives relevant to PromptPay include:

[14] Government-issued identification cards are compulsory in Thailand, which is a major advantage in developing an economy-wide payments system such as PromptPay.

- Development of core ICT infrastructure, including in rural and remote areas.
- Development of an economy-wide digital identity to increase the viability of digital transactions and reduce the risk of fraud in online payment systems.
- Enhancing cybersecurity, including enforcement of the Cybersecurity Act, which came into effect in 2019.
- Increasing capacity for data collection and analysis to enhance development efficiencies.

A high level of collaboration between the public and private sectors has been critical to the success of PromptPay. With leadership provided by the government, effective coordination between the various government agencies and other stakeholders made it possible to ensure that the design and launch of PromptPay aligned with complementary initiatives of the broader Thailand 4.0 strategy.

Impact of PromptPay

As a result of the National E-Payments Master Plan and the implementation of PromptPay, the use of digital payment mechanisms in Thailand has increased significantly in recent years, with mobile phone payments growing at an average of 116% per year since 2017 (BOT 2020). By 2019 PromptPay had been adopted by all major Thai banks and had reached 43 million subscribers (Stoddart 2019). As smartphone penetration continues to rise alongside crucial infrastructure development, PromptPay's popularity is expected to increase and result in significant reductions in the use of cash.

4.

Enabling financial inclusion through e-commerce

The APEC Electronic Commerce Steering Group (ECSG) recently reported eMarketer data projected that global retail e-commerce sales would rise by 20.7% to USD 3.535 trillion in 2019, and to USD 5 trillion by 2021. The Asia-Pacific region is estimated to be the fastest-growing e-commerce market in the world (APEC ECSG 2020). The ECSG also noted that in the large and fast-growing e-commerce markets of APEC economies, there was a "digital divide" in the infrastructure landscape, with the potential to create a "new underclass" of the disconnected. This divide, which affects women disproportionately, arises from unequal opportunity to access, adapt and create knowledge via information and communication technologies. Without the advantages of infrastructure, human resources, capital investment and an enabling policy environment, developing economies are in danger of being left behind if their governments do not take appropriate action to promote growth, innovation and inclusion.

The economic and social benefits of financial inclusion are well established, and in recent years governments around the world have increased their efforts to develop and implement strategies to create more inclusive financial sectors. Many of these strategies and interventions focus on solving supply-side issues, despite many studies concluding that demand-side factors are just as critical for achieving financial inclusion (Ramakrishna and

Trivedi 2018). Providing the excluded, especially the poor, with compelling reasons to use formal financial products and services is an important part of achieving full financial inclusion. The rise of electronic commerce (e-commerce) is one opportunity to enhance the demand for and use of DFS among the poor and in turn boost their financial health.[15]

> "We acknowledge that the digital economy has the potential to help close gaps and can make substantial contributions to understanding of consumers' behavior and designing financial products that can significantly improve financial inclusion, stability and health."
> *Joint Ministerial Statement, APEC Finance Ministers' Meeting,*
> *15 October 2019, Santiago, Chile*

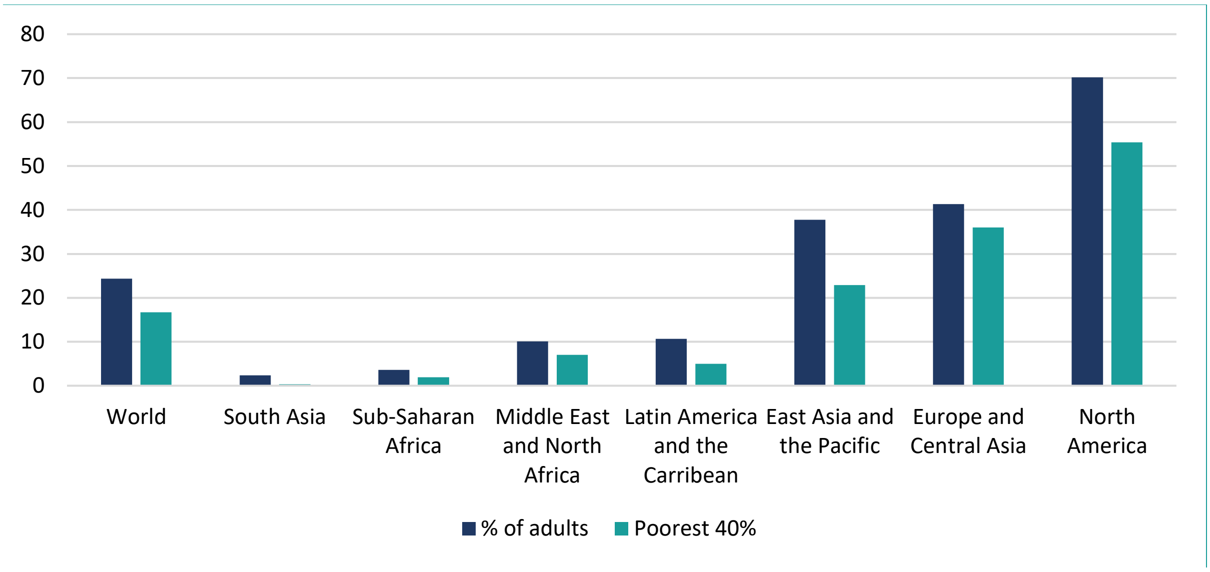
As a result of the 2020 Covid-19 pandemic, the importance of e-commerce from the perspective of governments has increased dramatically. In many economies, e-commerce is being viewed as a critical factor in the fight to control the spread of the virus by enabling many parts of the economy to continue operating during lockdown conditions and by limiting person-to-person contact. As the crisis evolves, the push to digitise micro, small and medium enterprises (MSMEs) is expected to result in greater use of e-commerce platforms and formal financial services such as digital payments. But to achieve inclusion at all levels and ensure that responses to the crisis support all aspects of the economy, the chance to successfully adopt e-commerce models must also be available to the region's microenterprises, including informal enterprises operated by the poorest and most vulnerable people.

4.1 The growth and impact of e-commerce in the Asia-Pacific region

Even before the Covid-19 crisis, e-commerce had been a growing feature of local retail ecosystems throughout the Asia-Pacific. It has been particularly prevalent in the region relative to others: the Asia-Pacific accounted for as much as 64% of total worldwide e-commerce sales in 2019 (Rakuten 2019). While much of this growth comes from China, home to industry giants like Alibaba and JD.com, digital transformation in the region has also been a major factor in the strong e-commerce growth trends of several other economies. For example, in 2014 the e-commerce market in Bangladesh was estimated at USD 25 million, but it is expected to reach USD 1 billion by the end of 2021 (CGAP 2019). Similarly, Indonesia's e-commerce market is projected to increase from USD 8 billion in 2017 to over USD 50 billion by 2022 (Das et al. 2018). As highlighted in Figures 5 and 6, online purchases are not only made by higher-income people, and a significant number of those with low incomes are also buying online.

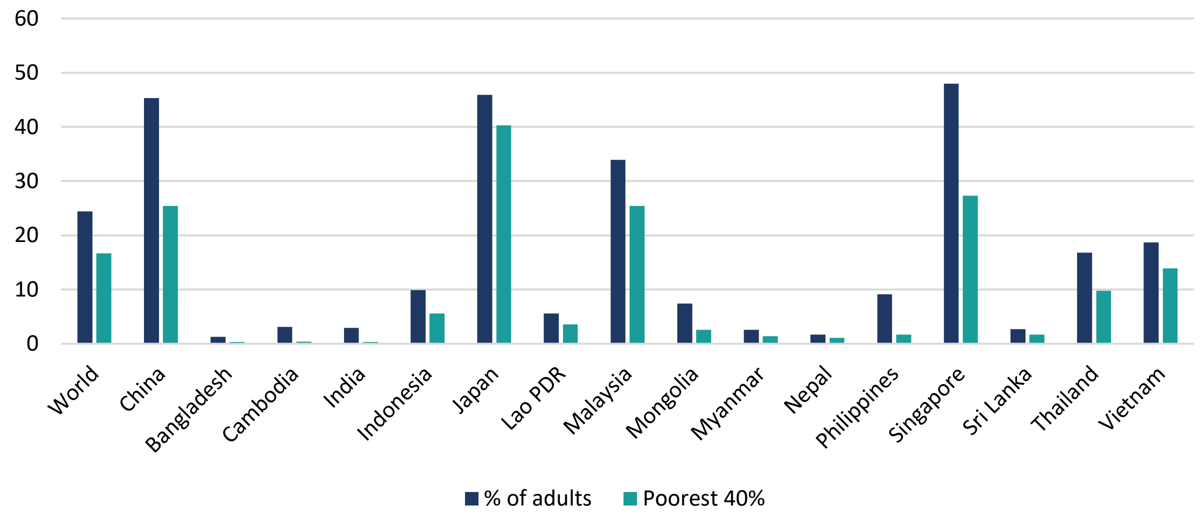
[15] Financial health refers to the state of a person's financial affairs, including factors such as amount of savings, level and stability of income, expense fluctuations, returns on investments etc.

Figure 5: Percentage of adults who have used the internet for online purchases in 2017 (by region)



Source: Global Findex Database 2017

Figure 6: Percentage of adults who have used the internet for online purchases in 2017 (selected Asian economies)



Source: Global Findex Database 2017

As the digital economy continues to develop, including global increases in smartphone ownership and internet connectivity, the trend of growing e-commerce markets is expected to continue and even accelerate due to Covid-19. This is creating new opportunities for entrepreneurs in developing economies to expand their businesses by adopting digital platforms that can open new markets, reduce costs and increase convenience. For buyers, e-commerce can provide greater convenience, as well as access to a broader and more affordable range of products. While the positive economic effects of e-commerce in developing economies are increasingly evident, including job creation, improved economic efficiency and narrowing of the rural–urban divide (ADB 2018b), less is known about the opportunities e-commerce can create for microentrepreneurs and those at the base of the economy. These include the potential for e-commerce to offer pathways for informal microenterprises to move into the formal economy, and how e-commerce might drive the demand for and adoption of formal financial products and services to enhance financial inclusion. As the industry continues to develop, it will be important for stakeholders to consider how e-commerce is defined (see Box 3) and what sort of data can measure its effect on financial inclusion and broader economic development.

Box 3: Defining e-commerce

The Organisation for Economic Co-operation and Development (OECD) defines e-commerce as "the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations" (OECD 2011, 71).

McKinsey & Company uses a much simpler definition and refers to e-commerce, or online commerce, as "consumers buying and selling physical goods online" (Das et al. 2018, 11).

These examples highlight some of the difficulties with how e-commerce is currently understood and measured. Aspects of the definition, such as whether the electronic platform need be designed specifically for e-commerce, as per the OECD definition, and whether it sells both products and services or is limited to physical goods, following McKinsey & Company, highlight some of the complexities currently associated with research into the sector. Examples of additional characteristics often used to establish the parameters of e-commerce include payment methods used, platform types (internet or mobile networks), hardware (computers, mobile phones or both), business models (B2B, B2C etc.) and formal versus informal operations.

This report does not seek to establish a new or standard definition of e-commerce. Instead, it aims to increase understanding of its diversity as an emerging sector and highlight how digital transformation is creating new opportunities for inclusive economic development.

4.2 The use of e-commerce in developing economies

According to the United Nations Conference on Trade and Development (UNCTAD), developing economies are at a disadvantage when it comes to engaging in and benefiting from e-commerce because of the limitations of their digital economies (UNCTAD 2019). The common challenges that entrepreneurs in developing economies face when enhancing their businesses through e-commerce platforms include insufficient access to logistics networks, ICT infrastructure, cybersecurity protection, and consumer and other legal protections.

Other issues more prevalent for the poor include complex registration processes, lack of formal identification, limited digital literacy skills and lack of trust in digital platforms.[16] While these challenges may hinder the increase in the number of microenterprises that use e-commerce platforms, there is increasing evidence that many of the region's poor, especially women, are instead adopting various other forms of technology available to them to engage in unique, more casual forms of online business that are more suited to their needs and enable them to overcome many common obstacles.

Recent research on e-commerce markets in Asia has found that the poor, especially women, frequently use common social media platforms like Facebook, Instagram or WhatsApp and repurpose them to buy and sell goods (Islam and Roest 2020; Women's World Banking 2019). This method of conducting business online, sometimes referred to as "social commerce", can be considered a variant of traditional e-commerce and is particularly popular with informal microenterprises because it provides a simple way for the poor to engage with their immediate and extended connections to showcase their products and place orders.[17] Furthermore, these models of e-commerce do not require access to computers or specialised software, only a smartphone and the use of social media platforms that the buyer and seller are already comfortable with.

> "CGAP's research on the e-commerce markets of Bangladesh, Pakistan and Myanmar has resulted in estimates that the majority of online commerce happens outside of dedicated e-commerce platforms (i.e. informally) and most of it is being done by women."
> *Joep Roest, Senior Financial Sector Specialist, CGAP*

To help distinguish this variant of e-commerce, which is commonly used by the poor, CGAP has developed a list of characteristics (see Table 4). CGAP has adopted the term "formal e-commerce" to describe models that use technology platforms specifically designed for e-commerce and support transactions from start to finish, including supply and demand matching, payment facilitation and order completion. In contrast, "informal e-commerce" has been identified by CGAP as based on social media platforms, with certain steps like payment or delivery service sometimes done offline, depending on the circumstances (Islam and Roest 2020). It is important to point out that, in this context, the terms formal and informal do not denote whether sellers or platforms are regulated (formal) or unregulated (informal) by governments. Unregulated enterprises commonly use both traditional formal e-commerce models and social or informal e-commerce models.

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[16] Cyber-security concerns in e-commerce are common across the region, causing a lack of trust among consumers when they are asked to provide banking details online. Consequently, many consumers still prefer shopping in bricks-and-mortar stores (CCCS 2017).

[17] In emerging markets, social commerce can improve livelihoods for a large part of the population, particularly in the informal sector where most people make their living (Naghavi 2019).

Table 4: Characterising e-commerce models

CHARACTERISTIC	FORMAL E-COMMERCE (END-TO-END)	INFORMAL E-COMMERCE (FRAGMENTED AND HIGHLY SITUATIONAL)
Payment method	Allows digital payments (but cash on delivery is still the most used payment method)	Little or no digital payment (nearly all cash on delivery)
Business model	Primarily a business-to-business-to-customer (B2B2C) marketplace business model	Business-to-customer (B2C) business model
Products	Large selection of products but limited value addition; high gross merchandise volume	Small selection of products but with value added; low gross merchandise volume
Customer interaction	Commoditised communications, including chatbots	Highly personalised communications
Marketing	Platform-driven	Self-driven, often starting with personal networks
Delivery	Platform-driven	Self-initiated, handled by seller or a third-party service provider

Source: Islam and Roest 2020

The distinctions between informal and formal e-commerce models identified by CGAP are useful to help stakeholders understand how this market is evolving for those at the base of the economy.[18] With increasing numbers of microenterprises of the poor adopting "informal" e-commerce models, these distinctions highlight several of the disadvantages the poor face when engaging in e-commerce. Understanding these limitations is important for advancing financial inclusion, as it can help governments and practitioners develop more effective ways to expand opportunities for the poor to improve their businesses and increase demand for formal financial products and services.

As highlighted in CGAP's research, microenterprises of the poor are still largely excluded from digital payments infrastructure, so they make most of their financial transactions in cash. The adoption of e-commerce models by the poor represents a valuable stepping stone

[18] An extension to this taxonomy of markets and platforms used by buyers and sellers outside of "mainstream" e-commerce might be termed "expedient" e-commerce markets and platforms: those used because they are the only or most accessible option due to the availability of infrastructure and/or the capacity of sellers and buyers to access it, or those designed for a specific market or customer/seller circumstance.

towards building trust and capacity in the use of digital technology and potentially increasing demand for DFS-like digital payments to facilitate transactions more efficiently.

Building on CGAP's framework, Table 5 gives additional insights into why informal or social media e-commerce, as opposed to dedicated e-commerce platforms, are particularly relevant to the poorest segments of the population by highlighting common characteristics of poor microentrepreneurs. As the table shows, several factors stemming from common behaviours of the poor, their social structures or their general operating environments reinforce constraints such as reliance on cash or the importance of personal relationships in business. Issues like these, coupled with more widely recognised challenges such as lack of knowledge[19] or digital infrastructure, have given rise to the adoption of informal or social e-commerce models by the poor to suit their needs, as opposed to using more sophisticated or feature-rich platforms that might offer them greater development advantages.

[19] Experience of using services increases consumer trust and appreciation of the benefits of online shopping, such as convenience and choice. Consumer readiness and, by extension, familiarity with e-commerce services are low across many developing economies. This could affect the adoption of e-commerce in those markets (Joiner and Okeleke 2019).

Table 5: Relevance of informal (or social) e-commerce to the poor

	Informal e-Commerce	Significance to the poor
Payment method	Little or no digital payment (nearly all cash on delivery)	The poor are more reliant on cash-based economies due to lack of trust in digital finance and their transactions being mainly small and informal (Shinozaki 2017), or due to limited access to reliable and affordable electronic communications infrastructure.
Business model	Business-to-customer (B2C) business model	Poor microentrepreneurs generally support themselves, operate outside of government regulation and rarely interact with formal institutions in the private sector (ACCESS Advisory 2020).
Products	Small selection of products but with value added; low gross merchandise volume	Poor entrepreneurs are generally small scale, lack competitive advantage and serve markets that are also too poor to support products and services sold at a premium (ACCESS Advisory 2020).
Customer interaction	Highly personalised communications	A major characteristic of subsistence[20] marketplaces operated by the poor is the importance of personal relationships between buyers and sellers (Viswanathan 2007). Not only do these relationships help to ensure repeat sales, they also provide the basis of social networks, which are important assets of the poor (ACCESS Advisory 2020).
Marketing	Self-driven, often starting with personal networks	Operating with limited skills and small sums of capital, the target customers of microentrepreneurs are people who, like the sellers themselves, are at the base of the income pyramid (ACCESS Advisory 2020).
Delivery	Self-initiated, handled by seller or a third-party service provider	(See “Customer interaction”.)

Source: FDC

[20] Subsistence entrepreneurship is defined as “entrepreneurial actions undertaken by individuals living in poverty” (Viswanathan et al. 2014, 213).

4.3 Opportunities for women and e-commerce

The prospect of e-commerce enabling new opportunities for poor microentrepreneurs to develop their businesses further and enhance their incomes is particularly important for women. According to the International Labour Organization (2018), women in developing economies are more exposed to informal employment and are more often in the most vulnerable situations. Many studies have highlighted the barriers to engaging in economic activity faced by poor women in developing economies, such as cultural constraints, inadequate finance, gender discrimination, limited networks, family duties, low education and skills, and lack of access to markets (Panda 2018; ILO 2018b; Agrawal 2018). Many of these common disadvantages can be addressed by e-commerce models. As highlighted by Phan et al. (2020), some examples include:

- Less resources are required to start, maintain and develop an online business.
- Technology enables women's greater control of their business, including more efficient and affordable marketing.
- Greater flexibility to work from home makes it easier to manage other responsibilities.
- Greater opportunities for women entrepreneurs to grow as a community and share knowledge and resources through technology.

However, microentrepreneurs face several unique challenges in e-commerce, which affect both men and women. According to Dinh (2020), examples include:

- **Lack of trust in digital technology.** For successful transactions, buyers and sellers who may not know each other need mutual trust on matters such as payment and product quality.
- **Security risks.** Digital information theft, hacking and scams are still significant threats to e-commerce users. The poor, who are less digitally literate, are particularly vulnerable.
- **Dual nature of social networks.** Negative reviews, including on social media, can result in buyers boycotting businesses entirely. This can also be exploited to damage the reputation of competitors.
- **Motivational factors.** Unavailability of support to navigate legal systems and government policies or secure financial aid.
- **Limited business capacity.** Lack of opportunities for microentrepreneurs to learn and develop the skills needed to operate in the digital economy, including digital literacy.

Recent research from CGAP and Women's World Banking has found that more and more women are bypassing the systemic challenges associated with e-commerce, as both buyers and sellers, by adopting informal or social models (Islam and Roest 2020; Women's World Banking 2019). As e-commerce continues to grow in popularity, opportunities for financial and economic inclusion will also expand via the introduction of digital payment methods.

4.4 Advancing financial inclusion through e-commerce

These digital opportunities will be more prevalent for microentrepreneurs who want to expand their businesses and have the means to adopt designated e-commerce platforms that can give them access to broader markets as well as additional services, including formal finance. Studies on the financial behaviours of poor microentrepreneurs, including those working in the informal economy, have found that they rarely invest in the expansion or reform of their businesses (Rutherford 2019) and that in most cases they view their microenterprise as a way to "get by" rather than "get ahead" (ACCESS Advisory 2020). Efforts to develop opportunities for the poor to adopt purpose-built e-commerce platforms (e.g. Taobao [China], Flipkart [India] or Go-Jek [Indonesia]), including the development of necessary infrastructure and promotion of potential benefits like increased income, may help to create more demand among the poor for financial and economic inclusion as opportunities to "get ahead" become more apparent.

By understanding the factors driving the growth in demand for e-commerce among the poor, including those stemming from the Covid-19 crisis, governments and development practitioners can identify appropriate interventions to support poor microentrepreneurs in benefiting from e-commerce models. Support for the use of e-commerce platforms by the poor, coupled with programs spurring the development of platforms that meet their needs most effectively, could lead to higher incomes and greater demand for digital financial products and services. The convenience and affordability of the transaction options enabled by mobile money could provide important benefits to the poor who want to expand their businesses and generate higher incomes. Offering a compelling reason and opportunity to use digital wallets and payment mechanisms may also encourage the poor and financially excluded to seek a broader range of digitally accessible services appropriate to their needs, such as credit, savings, insurance and pensions, which could strengthen their financial health.

4.5 Recommendations for policymakers and regulators

Recommendation 6: Support the establishment and development of e-commerce models that align with the needs of microenterprises at the base of the economy

Like many aspects of the formal financial system, traditional e-commerce models and platforms are not often designed with the poor in mind. By working with microfinance institutions and other NGOs that serve the poor and understand their needs, important insights can be gained into the circumstances and environments in which the poor operate and how they create barriers for engaging in e-commerce as buyers and sellers. To achieve success, e-commerce models aligned more effectively with the needs of the poor need to be developed and deployed.[21] This would include addressing the current preferences for cash transactions, greater personalisation and social engagement and the ability to buy and sell at a small scale. Specific actions that governments can take include:

- **Connectivity.** Improve connectivity by extending physical digital communication infrastructure beyond urban centres into rural and remote areas.[22] Government can lead in building this infrastructure, with private-sector involvement or partnership to enhance sustainability.
- **Regulation.** Ensure that adequate regulations for e-commerce are in place that specifically recognise the needs of the poor and offer appropriate protections, including redress or penalties for fraud.[23] If e-commerce regulation does not already exist, it could be enacted as an extension of trade practices legislation.
- **Facilitate growth.** Encourage local government in rural areas to facilitate and coordinate the growth of e-commerce. This might include prioritising development of key infrastructure (e.g. internet connectivity and logistics networks), establishing industrial parks or service centres for e-commerce, providing low-interest loans, offering tax concessions for microenterprises expanding into e-commerce, reducing administrative burdens and liaising with local educational institutions to facilitate training.
- **Infrastructure.** Use existing public and private infrastructure in regional and remote areas, such as bank branches, post office branches,[24] regional multi-line consumer service centres, rural village or urban market trader stores, and smallholder/farmer cooperatives, to facilitate e-commerce transactions and logistics.
- **Financial investments.** Prioritise developing sources of finance to support e-commerce platforms or models designed to reach poor and rural populations and help microentrepreneurs reach economies of scale. This might include government financing mechanisms such as grants, matching funds or tax incentives that stimulate the

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[21] "Unofficial" entrepreneurs are even less likely to secure support from banks and should not be locked out of financial support. There is a need for a diversified mix of financing possibilities, perhaps requiring a softening of relevant regulation, to support such entrepreneurship, particularly in rural and remote areas (RMIT University Australia and RMIT University Viet Nam 2017).

[22] Viet Nam has identified reliable, ubiquitous and secure ICT infrastructure and the energy to power it as the number one priority of its digital economy roadmap and is investing in the development of broadband infrastructure economy-wide, with priority for remote and isolated areas, disadvantaged areas, border areas and islands.

[23] Out of the 21 APEC economies, 20 (with Papua New Guinea the exception) have adopted legislation, based on the UNCITRAL 1996 Model Law on Electronic Commerce and 2001 Model Law on Electronic Signatures, which focuses largely on ensuring that electronic forms of exchange are legally equivalent to written forms (APEC ECSG, 2020).

[24] The Financial Inclusion Technical Assistance Facility established by the Universal Postal Union gives technical and financial assistance to postal operators around the world to help meet the e-commerce needs of unbanked people and micro and small enterprises, for example, by linking e-wallets to prepaid cards to facilitate domestic and international payments and transfers (Corredera 2020).

economy and generate public benefit or support for private-sector engagement via supply-chain financing, factoring, unsecured loans, crowdfunding etc.

- **Consumer protection.** Establish programs to promote consumer protections that cover the poor, along with financial and digital literacy. As digital economies develop, it is important that governments take a lead role in closing the growing digital divide, which risks leaving the poor, especially women, behind. Greater digital literacy will enable poor microentrepreneurs to develop their businesses more effectively via e-commerce while also mitigating fraud and costly technical errors.
- **Economy-wide strategy.** Develop economy-wide e-commerce strategies that actively aim at closing gaps in digital access, adoption and use. These strategies should also include measures to enhance the affordability of digital technologies and increase online safety, as well as specific targets (both numbers and dates) for extending ICT and logistics networks and digital access to rural and remote areas.[25]
- **APEC cooperation.** Commission an update of the 2017 *APEC Internet and Digital Economy Roadmap*, specifically focusing on point 10, "Enhancing inclusiveness of Internet and Digital Economy," to produce a guidance document that assists member economies with the development of domestic e-commerce policies and regulations that include consideration of consumers and microenterprises operating, or aspiring to operate, in poor and vulnerable communities.

Refer to Case Study 8: *China – Alibaba's Rural Taobao program*

Recommendation 7: Support the transition from cash to the digital mechanisms of e-commerce platforms

Studies have found that digital finance, including mobile wallets and digital payments and lending, can dramatically increase economic activity and e-commerce among merchants and consumers (Kapron and Meertens 2017). Digital finance could be particularly beneficial to small enterprises in developing economies, including informal microenterprises, as a solution to many of the common disadvantages associated with using cash, such as increased theft risk, higher cost, inconvenience, inefficiency and weaker transparency. Linking digital financial products and services to e-commerce platforms via computers or mobile phones can support the growth and development of these enterprises significantly.

[25] Lack of finance and insufficient information were found to be the main barriers at the enterprise level to further digitisation of Viet Nam's manufacturing and agriculture sectors. In particular, unclear economic benefits, uncertain effects of technology adoption and prohibitively high investments are the most important challenges for digitisation in Viet Nam, especially for small and medium enterprises (Cameron et al. 2019).

Access to digital finance has increased significantly in recent years because of the rapid growth and development of key enablers such as internet access and mobile phone ownership. However, despite the potential benefits for merchants and customers, adoption of DFS by microenterprises in developing economies has been slow. This is especially so in the informal economy, where most microenterprises continue to rely on cash to transact with customers and suppliers. It is generally expected that the demand for digital finance, particularly digital payments, will increase as a result of the Covid-19 pandemic, so there is now an even greater opportunity for policymakers and regulators to take action supporting the transition from cash to digital. However, despite an increase in demand, stakeholders should expect this transition to be slow, as supply-side constraints such as financial infrastructure development need to be addressed and viable e-commerce business models appropriate for the poor established. Some priority areas where policymakers and regulators should consider supporting the availability and adoption of digital payment[26] options for microenterprises include:

- **Digital value chains.** Working with the private sector, explore opportunities to support the digitisation of microenterprise value chains. Microenterprises are significant economic contributors and these businesses are increasingly adopting various e-commerce platforms to expand their markets. Despite an increased rate of e-commerce adoption, including formal and informal models, cash transactions with suppliers and customers still dominate for many microenterprises, especially in developing economies. The slow adoption of digital payments often stems from common issues such as inadequate infrastructure, low digital literacy and lack of trust in digital services. Governments can support the use of digital payments in microenterprise value chains by introducing measures such as supporting a simplified e-KYC system, promoting interoperability and backing training programs that help to onboard microenterprises to digital finance platforms.
- **Trust.** Address fraud, privacy risks and other consumer protection issues that affect trust in digital financial products and services. Lack of trust is commonly cited as a major reason for microenterprises resisting digital transactions. With the Covid-19 pandemic now driving greater adoption of digital payments, consumer concerns about fraud are also increasing (Ahaskar 2020). To continue driving the use of digital payments and to sustain progress, governments should identify ways to raise awareness of fraud and relevant mitigation strategies for microenterprises, especially for the poorest and most vulnerable, to build confidence in the digital financial system.

[26] Secure and reliable e-payment systems will increase financial inclusiveness and make digitisation more beneficial to middle- and low-income households (Chen and Kimura 2020).

This should include helping to develop a clear understanding of where microentrepreneurs using e-commerce platforms can get technical assistance and what their options are for handling complaints and disputes.

Refer to Case Study 9: *Indonesia – Digitising Microenterprise Value Chains*

Recommendation 8: Drive demand and support the onboarding of micro-merchants onto formal e-commerce platforms

Doing business online can create many advantages and opportunities for microenterprises to grow and develop. It boosts ease of entry, expands reach to new markets, saves on costs and increases cash flow through automation, and grants easier access to information to analyse customer needs. While many microentrepreneurs at the base of the economy, especially women, are using social media platforms to engage in e-commerce, their growth potential remains constrained because their customer base is often limited to their personal network in their own community. By adopting e-commerce platforms designed specifically for buying and selling goods on a local or even international scale, ambitious microentrepreneurs (those with a desire to "get ahead" rather than just "get by") can find greater opportunities to expand their businesses. Purpose-built e-commerce platforms could also give microentrepreneurs important benefits such as greater protections for buyers and sellers, technical assistance, redress systems and access to formal financial products and services. To ensure that poor microentrepreneurs understand the benefits of using e-commerce platforms and have equal access to them, governments should consider the following:

- **Research.** Study the types of e-commerce used locally, including formal and informal models. These studies should aim to develop a better understanding and appreciation of the contribution e-commerce makes to the economy, livelihoods, financial inclusion and gender equality.
- **Technology solutions.** Work with e-commerce market players to promote technology solutions that cater to the poor and enable online business opportunities. This could include public–private partnerships to establish technology incubators and accelerators focused on improving the financial health of the poor, and the provision of training to help microentrepreneurs understand and use tools that are available to them to develop an online business, such as market analysis, branding and digital storefront design. Governments should also play a lead role in supporting the delivery of basic digital literacy education as well as the use of digital payments.
- **Enterprise formalisation.** Establish innovative regulatory requirements that provide suitable pathways, including appropriate incentives, for microentrepreneurs engaged in e-commerce to formalise their businesses. Many microentrepreneurs are not capable of completing lengthy registration applications, or do not adequately understand the requirements to achieve formalisation. Simplifying the registration and monitoring requirements for microentrepreneurs, as well as setting appropriate tax thresholds, can

be an important step in creating pathways towards formalisation. However, perhaps more importantly, governments need to consider why enterprises would want to seek formalisation and create awareness of the benefits. The advantages of formalisation will differ between economies and might include aspects such as easier and more affordable access to finance (including investments), legal protections or increased access to markets.

Supporting microenterprises to pursue pathways towards formalisation and becoming active participants in the formal economy can result in significant development gains such as local economic growth, employment, wealth creation and increased government revenue.

- **Complaints and dispute resolution.** Work towards creating a trustworthy environment for e-commerce, including the establishment of a framework for complaints and dispute resolution to discourage fraud, support better customer service and improve online sales. Lack of consumer trust is a crucial barrier to realising the potential of e-commerce, encompassing inability to judge the quality of the product online, payment fraud, privacy breaches, identity theft and access to complaints or recourse systems.

Refer to Case Study 10: *Malaysia – Driving E-commerce Adoption through the eUsahawan Program*

Recommendation 9: Support the empowerment of women through e-commerce

Women are often more vulnerable and disadvantaged than men, particularly in developing economies, for reasons including negative cultural expectations, fewer legal rights, political underrepresentation and lack of access to financial services. The potential benefits for poor women entrepreneurs who successfully engage in e-commerce are significant and include greater income generation, more flexibility to balance work and personal responsibilities, greater control of their businesses, and access to financial products and services to support their financial health. There are a number of policies or government interventions that can support the empowerment of women through e-commerce, such as:

- **Digital rights.** Ensure that women can enjoy a safe internet experience by advancing policies that provide and enforce women's digital rights, including enhanced information security and protection of intellectual property.
- **Digital access.** Increase opportunities for women's digital connectivity by prioritising investments and providing incentives that lead to greater access to smartphones and internet connectivity for women entrepreneurs in rural areas, e.g. by creating more affordable internet data plans. Alternatively, where connection remains impractical, governments can support the development of models that enable trade and payments to be made offline and then transacted online by agents later when they return to places with wi-fi or mobile coverage.

- **Strengthening capabilities.** Recognise the driving force that women represent for growth and invest accordingly in their capabilities. Digital and business skills training programs that are tailored to women are an effective way to increase their understanding and use of technology in an enterprise context.

  Training programs that encourage women to develop and apply their entrepreneurial mindset are also important, including gender-specific content on topics like personal initiative, socio-emotional skills, self-esteem, entrepreneurship, creativity, risk-propensity and resilience (World Bank 2019). By taking a lead role in fostering self-starting, future-oriented and persistent behaviours among women, governments can support the success and impact of women-led microenterprises within the local economy.

- **Gender inequality.** Break down gender stereotypes by establishing awards and prizes or supporting women-centric technology development firms that enhance the visibility of women in e-commerce, together with awareness campaigns tackling socio-cultural norms, biases and stereotypes that exacerbate gender inequality (OECD 2018).

Refer to Case Study 11: *Bangladesh – Creating Women Entrepreneurs at the Base of the Economy*

Case Study 8: China – Alibaba's Rural Taobao program

China's rapid expansion of e-commerce to rural villages has played an important role in creating new opportunities for the poor to generate higher incomes, enjoy greater convenience and access a broader range of products and services (Luo 2018). To support rural communities, the Alibaba Group launched the Rural Taobao program in 2014 in collaboration with the government. The program aims to enable rural residents to take part in e-commerce and connect with wider markets as buyers and sellers. As e-commerce takes root within rural communities, "Taobao Villages" emerge – clusters of 100 or more active e-tailers that collectively generate more than CNY 10 million. By 2018, more than 3,000 Taobao Villages had emerged across China, and what started out as a grassroots development program based on public–private partnerships has since grown into a potential poverty alleviation tool (Luo 2020).

Facilitating participation of the poor in e-commerce

Recognising that the rural market for e-commerce faced unique constraints, Taobao established local Service Stations to make engagement with e-commerce comfortable and rewarding for villagers who may be unfamiliar with it. These local agents are particularly beneficial to the poor. Examples of what the Service Stations offer include:

- **Cash transactions.** With many rural poor unable to access or unfamiliar with digital finance options, the Service Stations let them transact in cash when buying or selling through the Taobao platform.
- **Technical know-how.** The poor generally have less technical capacity to take full advantage of digitally enabled products and services. Service Station agents can support them as they learn to use the technology, and can organise formal training.
- **Value-added services.** Service Stations can help customers access a broader range of online services, which can save time or cost. Examples include financial services, buying train tickets, paying bills, video-calling family members in other cities and registering for government services.
- **Greater value and affordability**. Service Station agents can help the poor buy goods online that offer greater value and are more affordable.

Importance of public–private partnerships

A successful rural e-commerce ecosystem that facilitates the participation of the poor requires more than just enabling access to the technology. It must also include the development of other key elements including infrastructure, logistics and entrepreneurship skills. From China's experience, some specific examples of the role of government in achieving this include:

- Identifying suitable rural areas where e-commerce could be most effective, e.g. those with access to main roadways, the ability to serve as many customers as possible and projected supply levels of goods sufficient to sell into other markets (Rui and Xie 2018).
- Enabling fast-tracking of approval processes to support the viability and sustainability of e-commerce (Rui and Xie 2018).
- Organising training programs for local farmers and small businesses to introduce them to the concept of online shopping and trading (Rui and Xie 2018).
- Supporting the development of necessary infrastructure, e.g. roads, internet access etc. (Luo 2020).
- Giving incentives and subsidies to encourage the establishment of specialised e-commerce service providers and to help develop a robust ecosystem of e-platform companies (Luo 2020).
- Developing tailored support to help villagers with the development and branding of local products suitable for e-commerce (Luo 2020).

While further research is needed to clearly understand the relationship between e-commerce participation and poverty alleviation, China's effort to bring e-commerce to rural communities shows the great effect that public–private partnerships can have by encouraging the use of digital technology and e-commerce to support economic development and greater inclusion.

Case Study 9: Indonesia – Digitising microenterprise value chains

Indonesia's food services sector is changing rapidly with the emergence of internet delivery platforms. These are creating new opportunities for restaurants and other food services to expand their businesses. As highlighted by research undertaken by Women's World Banking (2020), the digitisation of these value chains has the potential to significantly affect small food kiosks, known as *warungs*. There are over 4 million of these microenterprises in Indonesia, about half of which are registered, and they are often limited in their ability to take advantage of the growing digital economy due to constraints such as lack of suitable infrastructure and digital literacy or low trust in digital services.

Warung enterprises frequently transact with both buyers and suppliers, usually in cash, which is preferred because supplies are often bought from local wet markets, which also rely heavily on cash. While many *warungs* have begun using digital food delivery platforms (e.g. Go-Food and GrabFood), which let customers pay digitally, most still prefer to take payments from delivery drivers in cash.

Government initiatives supporting digitisation

In recent years, the Indonesian government has established programs that support the digitisation of microenterprise value chains. Some of the more prominent examples include:

- Through the Bantuan Pangan Non Tunai (BPNT) program, several *warungs* have been equipped and trained to accept payments via government-issued cards used by the poor to access subsidised staple food items (World Bank 2017).
- The Ministry of Finance has enhanced its Ultra Micro (UMi) financing and Micro Credit Program (KUR), giving affordable loan assistance to micro and small businesses and supporting the development of cashless business transactions and the creation of a digital marketplace for microenterprises (Ministry of Finance 2018).
- Bank Indonesia, the central bank, has launched a Quick Response Indonesia Standard (QRIS) code system to universalise cashless payments. The QRIS system and use of QR codes lets users transfer funds between rival payment services through the central bank's ecosystem (Harsono 2019). *Warungs* and other microenterprises are primary targets for adopting QRIS transactions, with the government speeding adoption by deploying officers to conduct door-to-door QRIS education and eliminating transaction fees for MSMEs.
- As part of Indonesia's Covid-19 recovery efforts, the government has announced that some of its IDR 641.17 trillion economic recovery stimulus will be used to help MSMEs. This includes supporting 10 million MSMEs to adopt digital technologies, such as e-commerce and digital payments, by the end of 2020 (Eloksari 2020).

As the government continues to support the evolution of the digital economy, microentrepreneurs and other stakeholders in the value chain will become more familiar with, and understand the value of, digital payment channels.

Potential impact

Research by Women's World Banking (2020) has highlighted several examples of how digitising *warung* value chains would help stakeholders. For B2B suppliers (e.g. Warung Pintar or Wayhoo) and service platforms (e.g. Go-Food or GrabFood), this includes greater potential for innovation, increased revenue and reduced liquidity challenges. Payment partners could also benefit from an increased user base, opportunities to cross-sell, or lower credit risks because of access to transaction data. Some payment providers, such as GoPay and OVO, have already used increased digitisation to build a marketplace for merchants to access credit.

The Covid-19 pandemic has made stakeholders pay greater attention to the importance of digitisation, particularly as many businesses are increasingly relying on digital platforms to sustain themselves through the crisis. According to research by MicroSave on the effect of the pandemic on MSMEs in Indonesia, technology solutions can play an important role in enabling microenterprises, including *warungs*, to continue operating during a crisis and in assisting economic recovery efforts. For example, the digital databases of e-commerce providers or QRIS merchants could be used to help the government identify informal microenterprises and target response measures to them more effectively. The use of biometric-based e-KYC in conjunction with an economy-wide identification database could also be used to facilitate non-face-to-face verification of microentrepreneurs (Pelupessy et al. 2020).

Success factors

Women's World Banking (2020) has identified several critical factors for the successful digitisation of Indonesia's *warung* value chains, which are also relevant for any economy and should be considered by governments:

- **Simplicity and security.** Payment systems need to be secure and easy for microenterprise owners to use.
- **Access and training.** A systematic approach is needed to onboard and train microenterprises to use digital technology and platforms. Increasing smartphone penetration is also critical.
- **Integration.** Digital platforms and payment wallets must be integrated into the apps of value-chain partners through APIs.
- **Funds transmission.** A payment gateway is needed for e-wallet transfer of funds within apps.
- **Interoperability.** Payments must be accepted from multiple platforms.
- **Regulation.** Regulation must be balanced. For example, if e-wallet transaction limits are too low, this may diminish the value of DFS for customers.

A simplified digital KYC system that helps service providers register merchants quickly and efficiently should also be considered as a key factor for success. The absence of such systems can make it considerably more difficult for e-commerce and payment service providers to expand and deepen their solutions.

Case Study 10: Malaysia – Driving e-commerce adoption through the eUsahawan program

Malaysia's microentrepreneurs are major drivers of the economy, contributing as much as 37% of GDP (MyGovernment 2019). With the increasing importance of the digital economy as a major driver of economic growth, the Malaysian government is seeking to accelerate the digital development of micro, small and medium enterprises, including those of marginalised entrepreneurs in rural areas, young people and the poor, i.e. at the bottom 40% of income levels.

The eUsahawan program

To drive Malaysia's digital economy, the Malaysia Digital Economy Corporation (MDEC) was established in 1996 and is now an agency under the Ministry of Communications and Multimedia. Since its establishment, MDEC has developed and implemented several initiatives to enhance the digital capabilities of individuals and businesses. The eUsahawan program was launched in 2015 to help micro, rural and youth entrepreneurs develop and apply digital entrepreneurship knowledge and support greater income generation opportunities.

Participants in the program receive training and coaching support on a wide range of issues including business and financial management, digital marketing and using e-commerce platforms. The training modules and coaching are delivered face to face in organised workshops or integrated into formal education curricula. A major part of the eUsahawan program is the Go-eCommerce website tool, which acts as the main resource portal for program participants. Through this portal, participants can access virtual training modules and extra resources to help them learn about and connect with organisations that can support their enterprises, including e-commerce platforms, logistics companies and financial services.

As part of the eUsahawan program, in 2019 an initiative known as Perkhidmatan eDagang Setempat (PeDAS), or "One-Stop eCommerce Service Centre", was launched to help rural microentrepreneurs transform their businesses from offline-only to include an online component. This support is accessible through PeDAS centres established economy-wide, which function as learning hubs and access points for e-commerce services such as digital marketing and marketplace onboarding classes, business profiling and product documentation, coaching and mentoring, and providing locally accessible support for entrepreneurs to venture into online business.

PeDAS centres are set up in existing government-supported local community centres (Pusat Komuniti Desa [PKD]) and internet centres (Pusat Internet Desa [PID] or Pusat Internet (PI)). MDEC and the ministries or agencies responsible for these centres work together to select and activate suitable locations as PeDAS centres, based on the facilities provided, accessibility and operational capabilities.

Program impact

As of July 2020, over 370,000 micro, rural and youth entrepreneurs had received training through the program, of whom nearly 130,000 had successfully increased their sales. Thirty-two internet centres in rural areas have also been upgraded to expand the reach of the PeDAS initiative and give added support to the most vulnerable populations. Since 2019, more than 2,500 rural microentrepreneurs have been trained through PeDAS, with over 1,000 successfully onboarded to e-commerce platforms.

Case Study 11: Bangladesh – Supporting women microentrepreneurs

Those at the base of the economy, especially in rural or remote areas, often have limited opportunities to access basic goods and services. Basic needs such as staple foods and other household goods, receiving medical advice and accessing financial services often require travelling long distances and incurring additional costs. This problem is often exacerbated for women by common constraints like lower skill or literacy levels, the need to manage household responsibilities and being uncomfortable dealing with male agents.

iSocial's Kallyani model

Building on a model developed in 2009 by Bangladesh-based NGO Dnet, iSocial was established in 2016 as a for-profit social enterprise that supports the lives and well-being of women at the base of the economy by empowering them economically and socially. iSocial's innovative model features young women who are recruited as agents known as "Kallyani". Travelling by bicycle or setting up their own "K-Shop", these microentrepreneurs provide a range of critical services to women, children and adolescent girls in rural communities. Each Kallyani is supported by regional iSocial Hub offices that give them formal training, including business and digital skills, and necessary technology (i.e. a smartphone or tablet) to enable them to resell a range of fee-based services and low-cost products. Some examples of the services made available to the poor by iSocial's Kallyani include:

- **E-commerce.** iSocial creates earning opportunities for young women through its retailers' e-commerce platform, where a Kallyani can enrol, buy products and pay via their digital wallet, which is integrated with the platform. Each Kallyani is also a registered sales agent of an economy-wide e-commerce platform known as "Ekshop". Using their own Kallyani identification, they can use both platforms to sell products to women in remote villages who do not have their own mobile phone or internet access, enabling them to become part of the digital economy. Kallyanis earn commission income on product sales and deliveries.
- **Finance.** Each Kallyani is given a mobile wallet account used for transactions on the e-commerce platforms. They can also help clients with creating their own mobile wallet accounts. For clients who create mobile wallet accounts, the Kallyani provide cash-in cash-out services. Kallyanis can also provide a cash-out service for beneficiaries of the government's social protection program, who receive their payment through a mobile banking account and then cash it out with a Kallyani.
- **Health.** Provision of basic health services, including blood testing, pregnancy tests and advice on nutrition, hygiene, mental health etc.
- **Information.** Collecting individual, household or market-level data for public and private use. Kallyani are also used in public campaigns to raise awareness on issues affecting local communities.
- **Agriculture.** Using technology to provide insights or advice to farmers on agriculture, horticulture and livestock issues, and services like animal vaccination and fish cultivation.

Following an extensive pilot phase supported by the UNCDF, iSocial has created nearly 1,000 Kallyani microentrepreneurs, of whom about 200 have set up their own physical "K-shop". The Kallyani are supported by six iSocial HUB offices spread across Bangladesh. Through this network, iSocial has been able to reach nearly 130,000 households and provide services to about 200,000 women and children (iSocial 2020). A unique element of the iSocial e-commerce model is that it brings not only products, but also critical services, to citizens at the base of the economy.

While the initial phase of the program has had a top-down structure that enables women in remote communities to access goods and services, iSocial intends to expand the program to develop bottom-up components, including enabling these women to expand their markets and sell their own products on the Kallyani e-commerce platform. iSocial is also working to expand its network with a new open-for-all platform named shujog.xyz, which recently won the top prize in a government-hosted hackathon responding to the economic effects of Covid-19.

The role and impact of government support

Much of the success of the Kallyani model has been enabled by the actions of the government of Bangladesh. The central bank, Bangladesh Bank, formulated a regulation on agent banking and digital wallets that was critical to enabling women microentrepreneurs to make and receive digital payments and order products for their customers online, through an integrated digital-wallet-based payment system supported by a prominent commercial bank, Bank Asia, and a state-owned digital financial service provider, Nagad.

The ICT division of the Bangladesh Ministry of Post, Telecommunications and ICT plays a crucial role in promoting women's entrepreneurship in the digital economy and has been a major supporter of iSocial and the Kallyani program. To support the sustainability of the business model, in 2017 the ICT ministry provided a small grant to subsidise some costs of the Kallyani program, such as buying smartphones and supplying working capital to buy products for resale. Subsidisation of the early phase of the program was crucial to reducing entry barriers and achieving economies of scale. Each Kallyani is also given an identification badge that includes the ICT ministry logo, which helps to establish trust in them in their villages.

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Annex: Asia-Pacific Financial Inclusion Forum partners

The Foundation for Development Cooperation

The Foundation for Development Cooperation (FDC) is an independent Australian foundation established in 1990. FDC is committed to building prosperity and inclusion across developing economies in the Asia-Pacific region by pursuing initiatives that reduce poverty and promote inclusive growth. It achieves this by researching, piloting and promoting development initiatives that are market-based and innovative. A key feature of FDC's work is its focus on enhancing levels of stakeholder collaboration. Drawing upon its extensive networks from across the public, private, NGO and academic sectors, FDC assembles the collective skills, knowledge and resources of relevant organisations to strengthen the sustainability and impact of development initiatives. www.fdc.org.au

The Asian Development Bank Institute

The Asian Development Bank Institute (ADBI) is the Tokyo-based think tank of the Asian Development Bank, a multilateral development bank for Asia and the Pacific. ADBI conducts evidence-based policy research and capacity building and training programs for eliminating poverty and promoting sustainable, inclusive, and resilient growth across the region. www.adbi.org

The APEC Business Advisory Council

The Asia-Pacific Economic Cooperation (APEC) Business Advisory Council (ABAC) was created by the APEC leaders in 1995 to advise APEC on the implementation of its agenda and to provide the business perspective on specific areas of cooperation. ABAC is comprised of up to three members from each of APEC's 21 member economies, representing a range of business sectors. ABAC holds an annual dialogue with the APEC leaders and engages in regular discussions with APEC ministers in charge of trade, finance and other economic matters. www.abaconline.org

Strategic partners of the APEC Asia-Pacific Financial Inclusion Forum

Additional support for APFIF is provided by prominent institutions actively supporting more enabling policy environments for financial inclusion. The partners work to ensure consistent alignment of the APFIF focus areas with regional trends and priorities. They also play an important role in progressing the APFIF initiatives by supporting the various activities and assisting with the formation of recommendations for policymakers and regulators.