

# Investing in The Future of Digital Inclusion for Developing Countries

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# Introduction

Collaboration between nations and financial institutions play a pivotal role in driving innovation and addressing the pressing lack of digital inclusion, especially in developing countries. A roundtable held at the 2024 edition of the Insights Forum delved into strategies and best practices for forming strategic partnerships among FinTech startups, investors, government, and financial institutions to foster innovation and accelerate digital inclusion globally. Participants explored opportunities and challenges of scaling digital inclusion in developing countries, including the critical role of investment to support and accelerate innovation for a more digitally inclusive world.

The recommendations included:

## **Recommendation 1: Explore ways to improve digital as well as financial literacy**

Digital inclusion should encompass digital financial inclusion requiring some form of digital literacy.

Trusted digital infrastructures, such as national identity programs and interoperable platforms, lead to digital inclusion by enhancing transparency and reducing fraud risks. This type of digital inclusion supports financial inclusion as well. Collaborations between governments, banks, and private sector actors are vital to standardising digital trust credentials. Small and Medium Enterprises (SMEs) may utilise these trusted credentials to participate in digital transactions that could scale their businesses in the digital economy.

Digital inclusion must be fostered through education for the end user. Addressing these to improve adoption and participation in the financial system requires targeted education, affordable access to the internet, and inclusive tools.

Digital and financial literacy also support access to financial services necessary for growth and prosperity.

## **Recommendation 2: Collaborate with traditional financial institutions to design new digitally enabled products and services.**

Driving digital transformation requires a focus on inclusive innovation and infrastructure. Institutions

like the IFC can fund infrastructure and advisory services preconditioned on these principles. Intuitive UI/UX design, as seen in Africa's mobile money platforms, has simplified adoption as well as reduced reliance on slow-to-scale financial literacy efforts. Successful examples like Singapore's digital payment system, PayNow, which was developed by the Association of Banks in Singapore and has established links with other regional payment systems, demonstrate how collaboration fosters scalable, secure ecosystems for digital inclusion.

## **Recommendation 3: Work with regulators to develop necessary digital infrastructure like digital ID and electronic signatures to enable the expansion of financial services.**

Expanding financial services requires robust digital infrastructure to maximise inclusion. Outdated regulations, fragmented systems and inefficient identification processes hinder progress and inclusion efforts. Universal adoption of eKYC, open banking, and centralised credit bureaus can streamline customer validation and build trust. Examples like Singapore's QR code standardisation, or India's digital identity system, Aadhaar, and its digital payment system, United Payments Interface (UPI), showcase how foundational systems can enhance accessibility and reduce costs. Collaboration among governments, private sectors, and international organisations is essential to addressing infrastructure gaps and driving global financial inclusion.

## **Recommendation 4: Design scalable financial products and services**

Designing scalable financial products requires collaboration with vendors, distributors, and MSMEs to understand customer needs and create tailored solutions. Integrating financial services into platforms like those serving e-commerce or logistics needs can foster wider adoption. Digital tools, including online banking, AI-driven credit scoring, and cross-border payments, enhance efficiency and access. Partnerships with regulators and leveraging digital delivery channels can streamline processes, promoting sustainable, inclusive financial ecosystems.

I Explore ways to improve digital access, literacy and education to drive sustainable usage of digital tools and capabilities.

Digital inclusion allows any individual to readily and successfully access digital tools for their daily life; this enables the user to lead a more efficient life.

Sustainable usage through increasing access, literacy and education

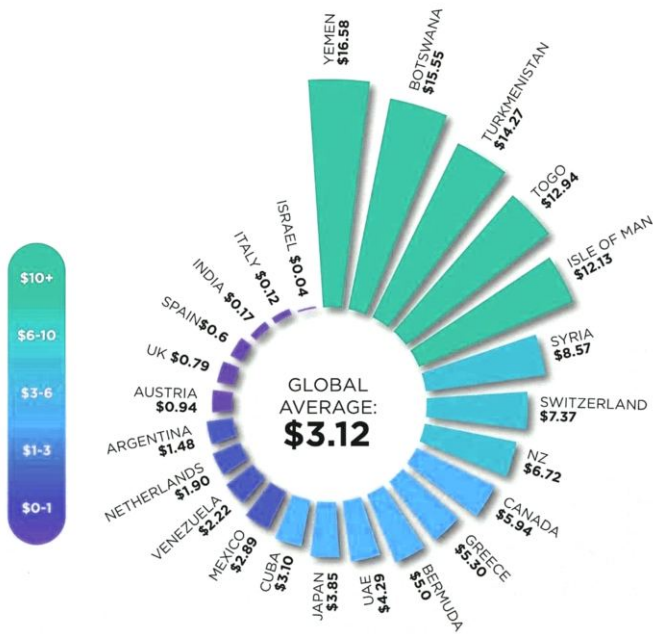
Digital literacy—the ability to locate, assess, utilise, and produce information through digital tools—has become increasingly vital.

Meaningful digital connectivity is often lacking, especially in developing countries due to low-quality or high-cost mobile phone connectivity and Internet connectivity. Timor-Leste can be taken as an example. While 71% of the population may own a smartphone, meaningful usage is inconsistent (Figure 1), impeded by the high costs of accessing data. While 29.7% of the employed population in 2023 held purchasing power parity of below \$2.15<sup>1</sup>, access to the internet can cost \$1.92 for 1GB<sup>2</sup>.

Meaningful digital connectivity is often lacking, especially in developing countries due to low quality or high-cost mobile phone connectivity, internet connectivity and beyond. In India, for example, mobile data is available at 17 cents per GB, a fraction of the cost of the average global cost of mobile data which is at \$3.12 per GB (Figure 2). Affordable mobile data connectivity drives greater digital inclusion in India. India's 2022 household digital literacy

rate is 38%, compared to Timor-Leste's 22%, though this is skewed between urban households (61%) and rural (25%)<sup>3</sup>.

Figure 2: Global Prices of 1GB Mobile Data in 2022<sup>4</sup>

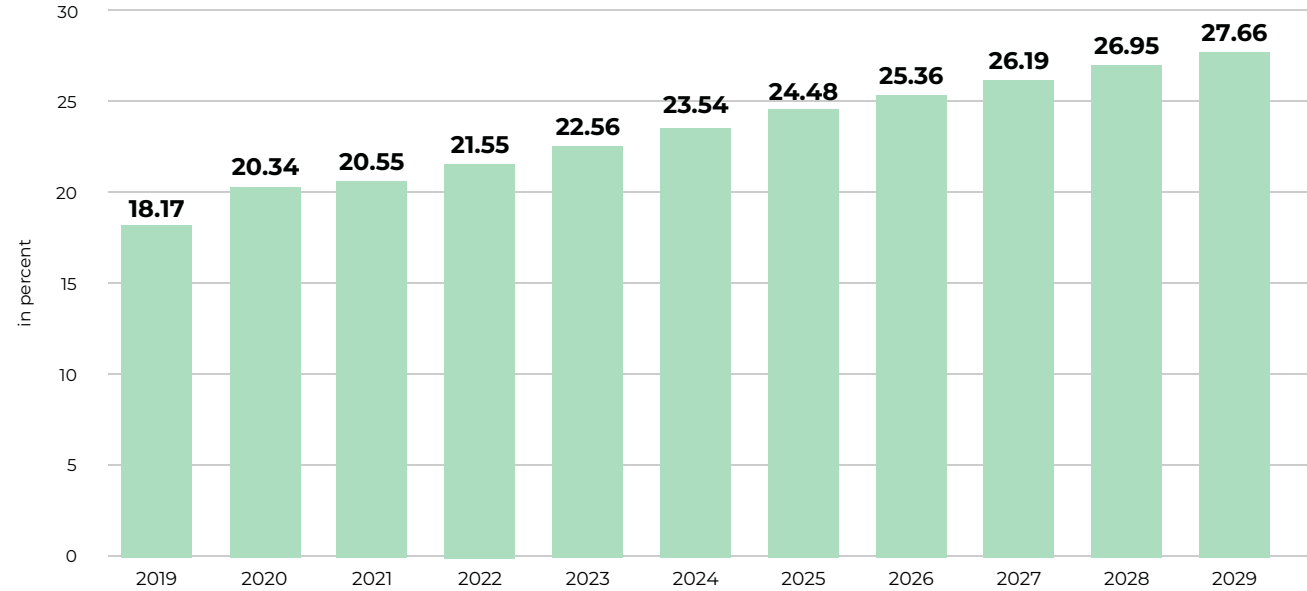


Source: What is the cost of 1 GB of Mobile Data Cost in each country? (2022, October 28). telecomHall Forum.

Strategic measures to bring about sustainable, meaningful usage

Digital literacy programs must address the needs of specific demographics, including rural populations, by training users on safely using digital tools for daily life and

Figure 1: Household Digital Literacy Rate, Timor-Leste



Most recent update: Dec 2024  
Sources: Statista Market Insights, ITU - International Telecommunication Union

financial services. Critically, reducing cost barriers is necessary to allow communities to access data affordably, enabling equitable digital participation.

The next steps in digital and financial inclusion sit with financial institutions. Standardised underwriting terms play a crucial role in fostering financial inclusion by creating a common framework that simplifies digital processes for banks, SMEs, and individuals. This enables these institutions to more readily assess and issue financial products that meet the needs of new participants.

**Identify and mitigate risks**

Adequate access and digital literacy empower communities to adopt digitalisation, and the ability to select and safely engage with digital tools is fast becoming a key element of inclusion. Fraud is a major challenge in developing countries, where limited digital literacy makes consumers more apprehensive of digital tools. By establishing comprehensive and reliable measures to safeguard against fraud, digital ecosystems can foster greater consumer confidence, encouraging wider adoption and accelerating digital inclusion in these regions.

**Educating for financial literacy**

Financial literacy is crucial to consumer confidence as it empowers individuals to make informed decisions when using digital tools and services. By increasing end-user familiarity with digital financial systems, providers can reduce scepticism and resistance to adoption of digital tools in communities, allowing them to be readily used for financing functions.

**Rebuilding confidence in digital systems**

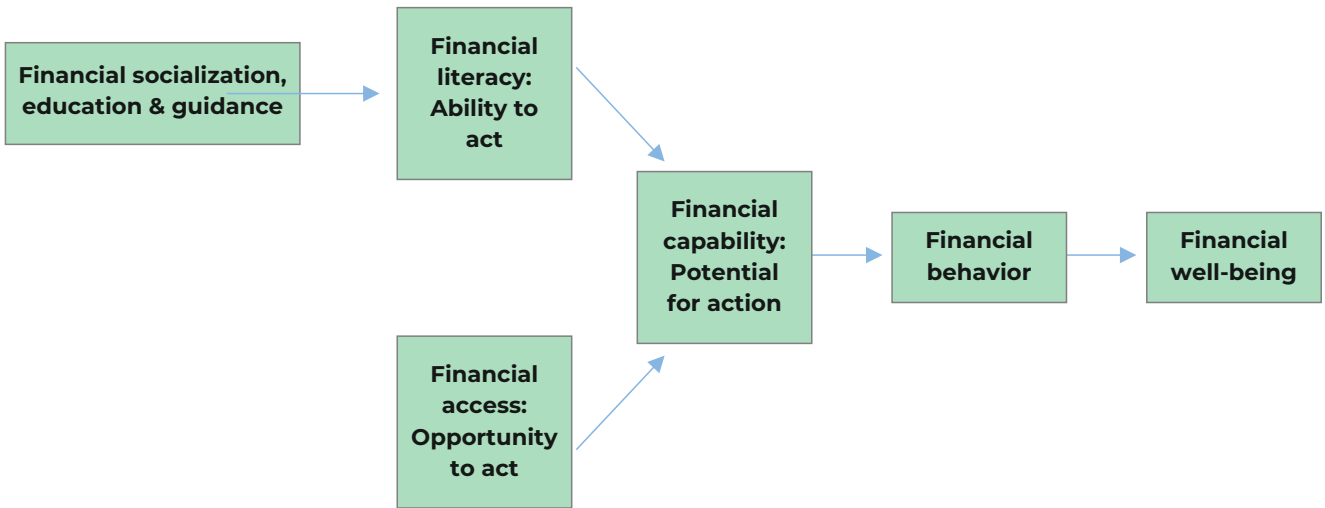
Delivering financial literacy does not have to involve expensive capacity building. Conventional approaches such as financial institutions training customers in basic financial topics are still relevant; branch networks can be leveraged in engaging rural populations to understand their needs and supporting them in digital as well as financial inclusion. The use of intuitive user interfaces (UI) and guided user engagement (UX) can also improve customer confidence and familiarity with digital tools.

**II Collaboration with traditional financial institutions and regulators to help them digitally transform and design new digitally-enabled products and services and necessary infrastructure.**

Cooperation among governments, central banks, and private companies is essential for building inclusive digital ecosystems. Initiatives like Proxtera’s collaboration in Ghana, which involves the Bank of Ghana, key financial institutions and data partners, focus on standardising digital trust credentials and supporting regional digital economies. The Ghana Integrated Financial Ecosystem (GIFE) offers a digital journey for MSMEs, beginning with a financial literacy programme and leading to the creation of trusted credentials, better access to finance, and increased trust in cross-border trade.

Governance frameworks should guarantee that developing countries are actively involved in shaping global digital standards, acknowledging the diverse needs these economies face.

**Figure 3: The importance of Financial Literacy<sup>5</sup>**



Source: Birkenmaier, J., Rothwell, D., & Agar, M. (2022). How is Consumer Financial Capability Measured? Journal of Family and Economic Issues, 43(4), 654–666.



## Bridging infrastructure and customer engagement gaps

Strong digital infrastructure, including digital ID services and electronic signatures, is essential to expand financial inclusion. Additionally, intuitive UI and UX can overcome digital and financial literacy barriers. Successful examples, like Africa's mobile money systems, demonstrate how simplicity drives adoption even among less tech-savvy populations.

Engaging customers requires time and effort to foster trust and understanding, ensuring they feel supported with larger roles played by financial institutions in their lives and that of those around them. Community engagement remains key to developing an understanding of user needs.

## Funding innovations to assist regional integration

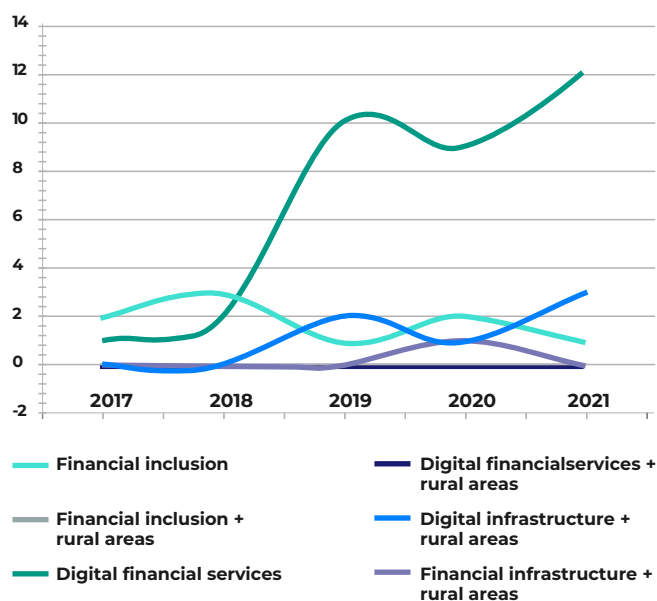
Bridging the digital divide requires significant investment, with Asia alone needing \$2.3 trillion to address gaps in digital integration, especially in ASEAN, where broadband remains costly (Figure 4). Innovative funding models, such as concessional funding and risk-sharing guarantees, can mitigate risks like geopolitical instability, and support the flow of investment resources into developing economies.

Regional collaborations, such as Singapore's PayNow and Thailand's PromptPay linkages, showcase the potential of cross-border digital economies. Ultimately, intuitive, inclusive products tailored to diverse customers—ranging from rural users to small merchants—are essential for widespread adoption and sustainable digital transformation.

## III Work with regulators to develop necessary digital infrastructure like digital ID services to enable the expansion of financial services.

### Building essential regulatory frameworks for digital inclusion

Figure 5: Trend of Financial Digital Inclusion in Rural Areas in 2022<sup>6</sup>

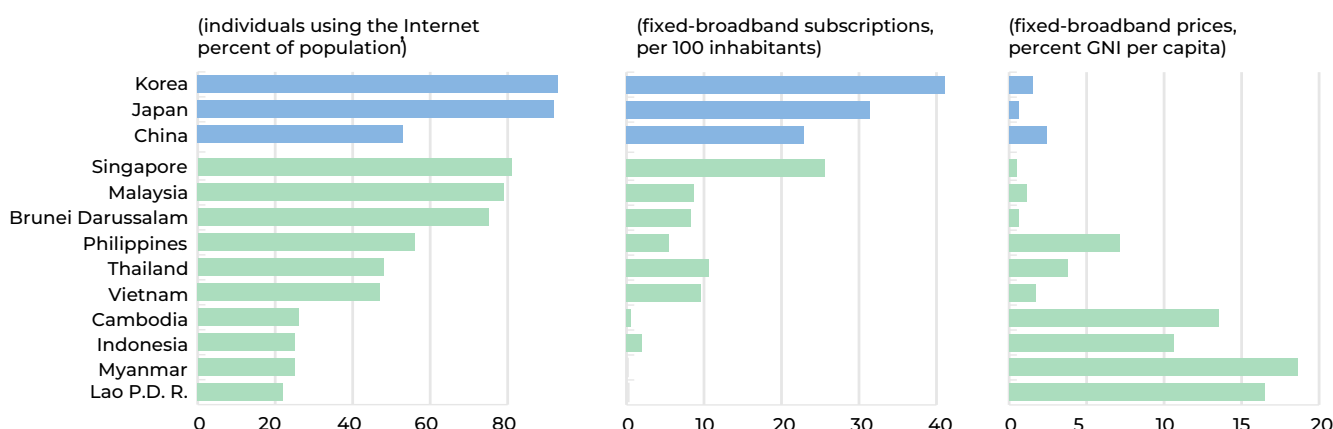


Source: Baetova, D. R., Blinov, O. A., & Zagorenko, A. A. (2022). Financial inclusion of rural areas in the conditions of digitalization: studies in Europe and Russia. In Springer proceedings in business and economics (pp. 387–396).

Effective digital financial inclusion requires foundational regulations like eKYC, open banking, and centralised credit bureaus to simplify customer validation processes. Even with the provision of digital devices, without a stable and flexible digital infrastructure, there cannot be digital financial inclusion (Figure 5). Current systems, often reliant

Figure 4: The Digital Divide in ASEAN broadband penetration<sup>7</sup>

ASEAN has a large digital divide in Internet and broadband penetration. Fixed broadband is prohibitively expensive in many countries



Source: Measuring the Information Society Report 2017, International Telecommunication Union. NOTE: GNI=gross national income.

Chart of the Week: The digital divide in Asia. (2018, September 25). IMF.

on multiple IDs, are inefficient, hindering innovation. Implementing streamlined frameworks such as eKYC enables quicker, more reliable identification, fostering financial service expansion.

Similarly, global trust credentials, inspired by frameworks like Europe’s digital identity wallet, can promote secure cross-border digital transactions. Such regulatory advancements are critical for creating efficient and scalable financial ecosystems.

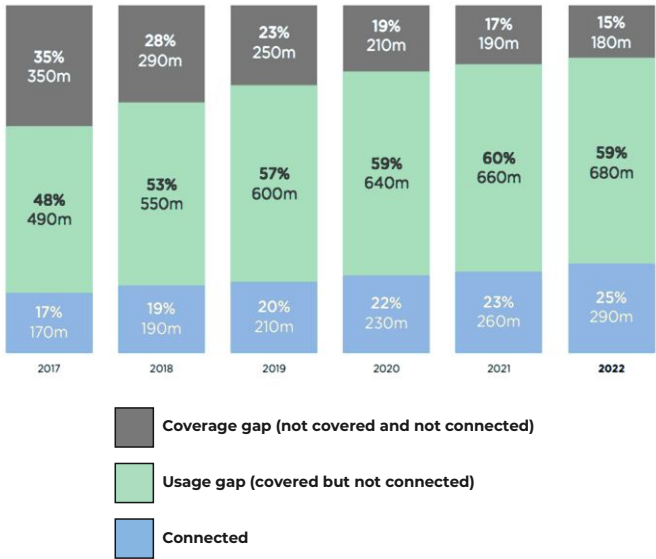
### Addressing infrastructure and affordability challenges

Infrastructure gaps, high data costs, and affordability barriers remain significant obstacles to digital inclusion, particularly in regions like Sub-Saharan Africa, where internet penetration lags at 25% in 2022, the highest in 5 years (Figure 6).

While mobile phone ownership is widespread, prohibitive data costs hinder broader adoption, as illustrated in Figure 2. Mere connectivity is not indicative of participation and inclusion in the formal financial system, and must be coupled with meaningful, safe use. For financial services to be readily offered to MSMEs, rural communities and other underserved groups, critical infrastructure must exist to enable financial institutions and service providers to serve these customers within the requirements of regulations such as global anti money laundering and counter terrorism financing and data protection.

The public sector has an important role to play in facilitating access to finance. This may be through the provision of secure, verified identity services, digital public

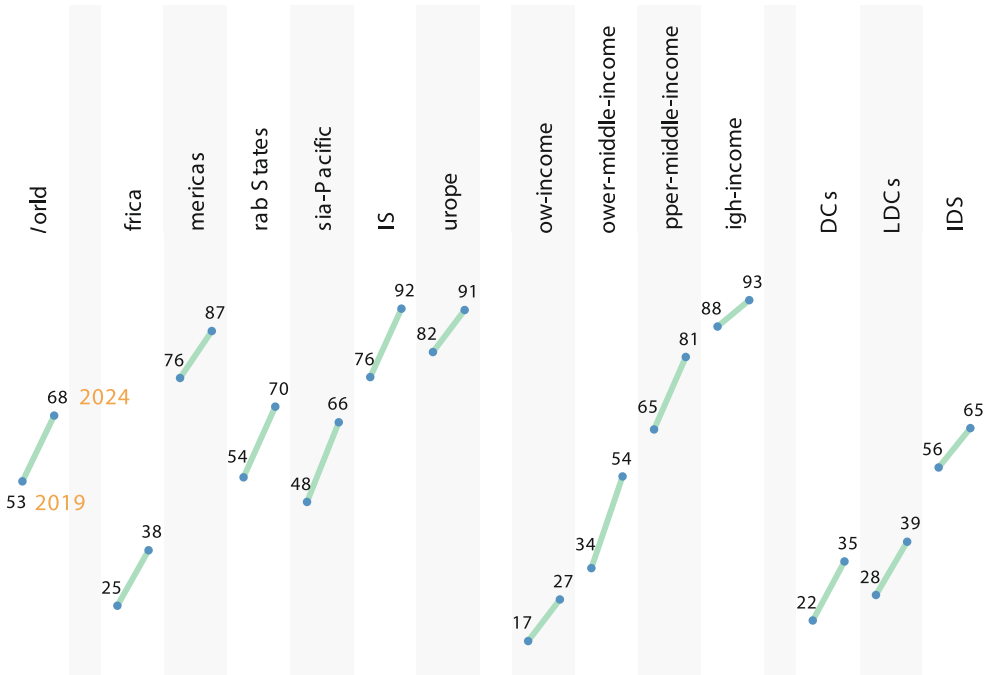
Figure 6: Evolution of mobile internet connectivity, Sub-Saharan Africa 2017-2022<sup>8</sup>



Source: Shanahan, M. (2024, April 8). Despite improvements, Sub-Saharan Africa has the widest usage and coverage gaps worldwide. GSMA.

infrastructure (DPI), and other tools. Initiatives such as Ghana’s ID card system and GhanaGov portal strengthen security, allowing for improved transparency, reduced corruption, and lowered risk premiums for banks. These factors would enable more individuals to access financial services. India’s account aggregator framework, supported by the Reserve Bank of India, similarly allows financial services providers to share data and reduce systemic and overall risk.

Figure 7: Individual Use of the Internet by Region, 2019 vs 2024<sup>9</sup>



Source: Measuring digital development: Facts and Figures 2024. (n.d.). ITU.

## Innovations and trust-building for financial inclusion

Examples of successful digital ecosystems illustrate the potential of integrated infrastructure. India's Aadhaar system, which links digital IDs, mobile numbers, and bank accounts, revolutionised financial services by enabling instant, cost-free transactions through platforms like the Unified Payments Interface (UPI). Similarly, Singapore's SingPass demonstrates how foundational digital IDs facilitate seamless digital transactions.

These innovations underscore the importance of government and private-sector collaboration in building trust and providing supportive infrastructure. Targeted investments in reliable internet connectivity and national ID systems, backed by public-private partnerships and international support, are essential to overcoming systemic challenges and fostering inclusive financial growth.

In jurisdictions without integrated infrastructure and public sector support, fintech companies can drive innovative efforts to plug the gap. In the Philippines, digital banks like Maya Bank leverage alternative credit evaluation methods using digital payment data to bridge gaps in financial access, even in the absence of comprehensive national ID systems and credit bureaus.

## IV Understand the pain points and needs of vendors, distributors, and MSMEs to design appropriate financial products and services that can be scaled up.

### Designing financial products based on MSME needs

Key barriers such as disinterest from larger buyers in vendor financing and the absence of tailored financial solutions need to be addressed to deepen financial inclusion. Early collaboration with partners, vendors, distributors, and MSMEs allows financial products to be designed around MSME-specific needs such as flexible repayment terms. This allows both supply and demand side capacity to be established before services are digitalized.

Examples of solutions that may be developed in partnership with consumer groups include scalable offerings like flexible repayment structures that eliminate penalties for early loan repayments. Integrating financial services into non-financial platforms, such as logistics solutions, can indirectly meet MSME needs, or surmount barriers to participation, while fostering demand for embedded financial services.

## Leveraging digital tools to scale financial services

Digital approaches are critical for scaling financial products and enhancing their appeal. Digital delivery, for example, offers convenience and accessibility for customers. Basic digital financial services like online banking enables smoother transactions, extending the reach of financial products to underserved markets. Platforms like Alipay Plus, which allows users to make payment in their local or preferred currency with any enabled vendor, demonstrate how digital payment solutions can help small vendors access global markets. By using data analytics and AI for credit risk assessments, Alipay Plus allows MSMEs to safely offer credit services.

By addressing logistical and operational pain points for MSMEs, digital solutions can naturally drive adoption and expand market reach.

### Building ecosystems with sustainable capabilities

Developing robust ecosystems requires integrating digital tools such as fraud detection, credit scoring, and data analysis to enhance efficiency and long-term sustainability. Partnerships with regulators are essential to ensure consumer protection expectations are met, and to build trust in digital ecosystems.

Payment systems, being a key entry point into the formal financial system, serve as gateways to further digitalisation, laying the foundation for adoption of more advanced financial services by participants. For example, cross-border payment solutions optimise operations for MSMEs and vendors by widening their customer base, facilitating their participation in global markets. Integration of digital tools into these systems would boost trust and support increased participation while lowering barriers to entry for new users.

Sustainable capabilities that support inclusion go beyond governance tools and include those that meet social and environmental needs. These include translation solutions, accessible interfaces, product scoring for environmental factors to support decision-making, and more.

By prioritising MSME needs and leveraging digital technology to improve efficiency, financial inclusion efforts can achieve broader adoption and scalability across diverse markets.



# Conclusion

The roundtable discussion highlighted some of the proven strategies and collaborative efforts that remain necessary to foster digital and financial inclusion. It emphasised the importance of addressing barriers such as low digital literacy, infrastructure deficits, and regulatory inefficiencies. Key themes include the need for sustainable education initiatives, targeted investments in foundational infrastructure like national ID systems, and scalable financial products tailored to MSMEs and underserved populations.

Collaboration between governments, traditional financial institutions, fintech companies, and international organisations is essential to drive innovation, build trust, and create inclusive digital ecosystems that allow consumers the world over to participate in the financial system. Together, these measures can ensure equitable access to digital financial services globally.



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