Asia-Pacific Financial Forum Virtual Roundtable

Accelerating MSME Digital Transformation through Finance

18/19 May 2021

ROUNDTABLE REPORT

Digital transformation[1] has tremendous potential for enabling Micro-, Small and Medium Enterprises (MSMEs) to reduce costs, standardize and automate business processes, increase productivity, enhance competitiveness and understand consumer behavior. It promises to enable MSMEs to transform and compete on a larger scale and reach global markets by doing business online, at a time when the COVID-19 pandemic is accelerating this transformation by forcing billions of people and enterprises around the world to shift their transactions to digital platforms.

Financial services play a critical role in the digital transformation of MSMEs, given the central role of finance in their operations and relations with customers and suppliers. The financial sector itself is being transformed by digitalization. Technology has converted mobile phones into financial tools and provided new platforms for peer-to-peer lending, crowdfunding and online marketplaces. Banks are investing in developing, integrating and acquiring new technologies, while technology firms are leveraging digital platforms to provide financial services.

This Roundtable was convened to assist the APEC Business Advisory Council (ABAC) in developing its recommendations to APEC Leaders and Finance Ministers on how regional cooperation can help create the digital infrastructure and ecosystem for financial services to accelerate MSMEs' digital transformation. It examined critical success factors for the provision of digital financial services to MSMEs, the development of digital identity as a critical underlying building block of digital finance and the digital economy, the legal and regulatory frameworks and measures to strengthen MSMEs' trust in the digital economy. It also identified initiatives that APEC can undertake to achieve concrete results in key areas.

The Role of Finance in MSMEs' Digital Transformation

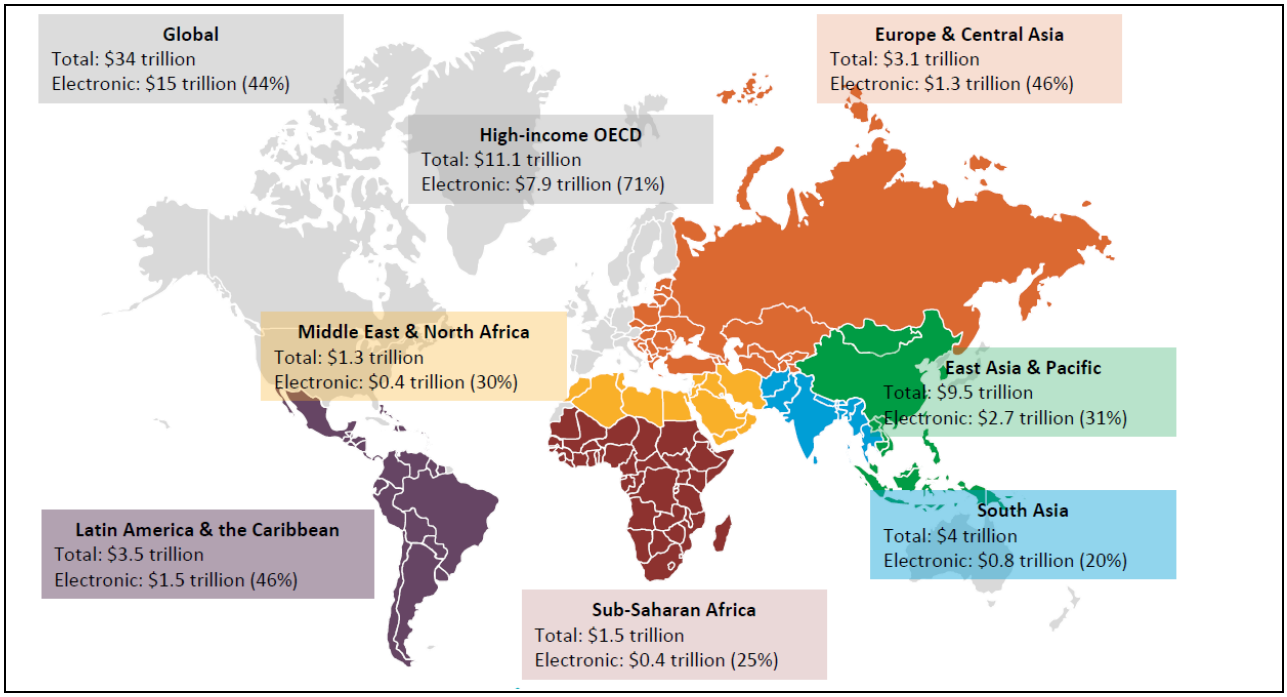
One of the most important challenges that MSMEs face today is taking the first step in transforming their businesses from analog to digital. A key driving force behind digital transformation of businesses has been the growing demand of consumers for convenience and speed, including access to more and faster payment and delivery options using digital technology. The COVID-19 pandemic has added tremendous pressure to this demand for contactless commerce.

However, more than half of all transactions by small retailers globally are still in cash, and for Pacific Asia that portion is more than two-thirds [see Figure 1]. This remains a big challenge as data continue to be largely underutilized and as many MSMEs remain daunted by security risks and unable to clearly see the potential benefits for their businesses. While this is a big challenge, it is also an opportunity, where the financial sector can play an important role in catalyzing and accelerating MSMEs' digital transformation

[1] Digital transformation has been defined as "the process of using digital technologies to create new — or modify existing — business processes, culture, and customer experiences to meet changing business and market requirements." https://www.salesforce.com/products/platform/what-is-digital-transformation/

by encouraging and facilitating their migration from cash to digital payments and leveraging digital invoicing and bookkeeping as a core around which enterprises' digital infrastructure could be expanded.

Figure 1: Cash Transactions by Small Retailers



Source: SME Finance Forum

The critical role of finance in MSMEs' digital transformation was highlighted by the case study of Investree, a fintech lending pioneer in Indonesia that successfully evolved from a peer-to-peer lending marketplace to a high-impact platform that offers digital business solution to MSMEs. Starting out as an online lending platform connecting investors (mostly retail investors) with borrowers (mostly MSME suppliers of reputable buyers such as multinational and government firms) with invoice financing as a the core business, Investree expanded its business by establishing partnerships with vendors, suppliers, resellers and merchants and investing in an API interconnecting the entire supply chain ecosystem to drive loan origination and enhance verification. This enabled access to large amounts of data and generated more data such as alternative credit scores that lowered the costs of onboarding and lending and helped banks expand their services to MSMEs.

Investree started to build new business verticals on top of its lending solutions and to provide non-lending business solutions for its clients, including e-procurement, digital invoices and MSME credit scoring. This is helping many of its MSME clients digitally transform, starting with access to working capital and markets, then on to digitalizing the invoicing process and bookkeeping. This process has accelerated further after the outbreak of the COVID-19 pandemic. An important factor that has helped Investree expand its reach is its expertise in sharia-compliant products, which is key to penetrating MSME markets in the smaller cities and villages in Indonesia, the world's largest Muslim economy. By creating the digital market infrastructure around supply chains, the company was able to digitally connect MSMEs looking for financing and markets to the wider B2B ecosystem. This process is spurring many MSMEs to digitally transform their operations, starting with the core areas of invoicing, bookkeeping and procurement.

Building the Digital Economy's Market Infrastructure and Ecosystem

For the financial sector to be able to play this catalytic role for MSMEs' digital transformation on a wider scale, the development of the digital infrastructure for financial services and the ecosystem around it needs to be accelerated. In the context of APEC, where enabling MSMEs' wider participation in regional cross-border business is a priority, this also needs to be undertaken with a view to future inter-operability across economies. The Roundtable discussed two studies on the digital infrastructure and ecosystem – one by the Monetary Authority of Singapore[2] and another by the Asian Institute of International Financial Law at the University of Hong Kong.[3] There is strong convergence between the views presented in the two studies, the elements of which have been consolidated and synthesized for purposes of this report.

For the digital economy infrastructure to support MSMEs' digital transformation, it needs to be supported by key pillars.

- The first is a ***trusted digital ID*** that gives confidence to participants that the party they are dealing with is who they say they are. This requires mechanisms for authentication and validation of identity that are also secure and meet the requirements for privacy.
- The second is a ***data sharing mechanism*** that enables consumers and entrepreneurs to authorize and consent to the sharing and use of their data for their benefit, while also enabling these data to be used to generate information that will benefit the whole ecosystem. This mechanism should allow individuals to gain an understanding of how their data are being collected, used and shared and enable them to own, manage and control their own personal data.
- The third is the ***financial market infrastructure*** for digitalized transactions and operations. This includes securities clearing and settlement, credit information and secured transactions systems; and an electronic payment system that is efficient and inter-operable within and eventually across jurisdictions, among others.

[2] The MAS report identified four pillars of a digital infrastructure as follows: (a) digital identity; (b) authorization and consent; (c) payments inter-operability; and (d) data exchange. Monetary Authority of Singapore, *Foundational Digital Infrastructures for Inclusive Digital Economies*, https://www.mas.gov.sg/-/media/MAS/Fintech/FDI/Foundational%20Digital%20Infrastructures%20for%20Inclusive%20Digital%20Economies.pdf

[3] Douglas Arner from the Asian Institute of International Financial Law at the University of Hong Kong described the digital infrastructure of finance as founded on digital access (mobile and internet access) with four pillars, as follows: (a) digital identification and e-KYC systems; (b) digital payment infrastructure and open electronic payments systems; (c) promotion of account opening and access with the electronic provision of government services, particularly for public transfers and payments; and (d) design of digital financial markets and systems, underpinning use cases including securities trading, clearing and settlement, among others. Douglas W. Arner, Ross P. Buckley, Dirk A. Zetzsche, Ghiyaz Muhammed, *Fintech for Financial Inclusion: A Framework for Digital Financial* Transformation (September 4, 2018). UNSW Law Research Paper No. 18-87, University of Hong Kong Faculty of Law Research Paper No. 2019/001, University of Luxembourg Law Working Paper No. 004-2019, Available at SSRN: https://ssrn.com/abstract=3245287 or http://dx.doi.org/10.2139/ssrn.3245287. For this foundational infrastructure to work best it needs an ecosystem characterized by balanced and proportional regulatory approaches to innovation, digital finance and fintech, which includes an efficient legal system, human capital development, support for research and development, access to information, availability of financing and the ability of regulators and supervisors to harness technology through regulatory and supervisory technology (regtech and suptech). Douglas Arner, Ross Buckley, Dirk Zetzsche, Eriks Selga, Ghiyazuddin Mohammad, Jaheed Parvez, Roberta Consiglio, *AFI Innovative Regulatory Approaches Toolkit* (April 2021). University of Hong Kong Faculty of Law Research Paper No. 2021/012, Available at SSRN: https://ssrn.com/abstract=3827568 or http://dx.doi.org/10.2139/ssrn.3827568

The healthy development and effectiveness of the digital infrastructure require an enabling ecosystem that includes the following:

- ***Legal foundations***, particularly around key areas such as digital documents, digital signatures and data privacy, that are adapted to the new requirements of the digital age.
- ***Standards*** that are essential for scale, efficiency and inter-operability.
- An ***enabling regulatory framework***, which requires central banks and financial regulators to expand their role beyond the traditional areas of monetary policy, financial stability and consumer protection to new areas such as the development of digital market infrastructure and the promotion of innovation through balanced and proportionate regulation and testing of new products and services.
- ***Strong government support***, such as through the digitalization of entry points for government services[4] and the digital transformation of payments by the government, which is the largest source of transactions in the economy.
- ***Building trust in the ecosystem*** to address the growing risks (e.g., significant increase in cybercrime), the challenges many MSMEs face in transacting digitally (lack of capacity and sophistication, lack of user-friendly tools and lack of support from platforms and government agencies) and their consequences (uncertainty, cybercrime victimization and opportunity costs). Building this ecosystem requires effective and coordinated regulatory approaches to personal data protection, cybersecurity, standards and data flows; international alignment to reduce barriers, harmonize standards and build platforms for cooperation and dialogue; and capacity building.

Achieving Progress through Concrete Initiatives in APEC

While there is a wide range of things to be done to build the infrastructure and the ecosystem, APEC can help accelerate this process by providing a platform to help economies put in place key foundational components of the digital infrastructure. Achieving concrete progress will significantly impact the ability of financial institutions to promote the digital transformation of MSMEs.

Development of Inter-Operable Digital ID Systems based on Open Standards.

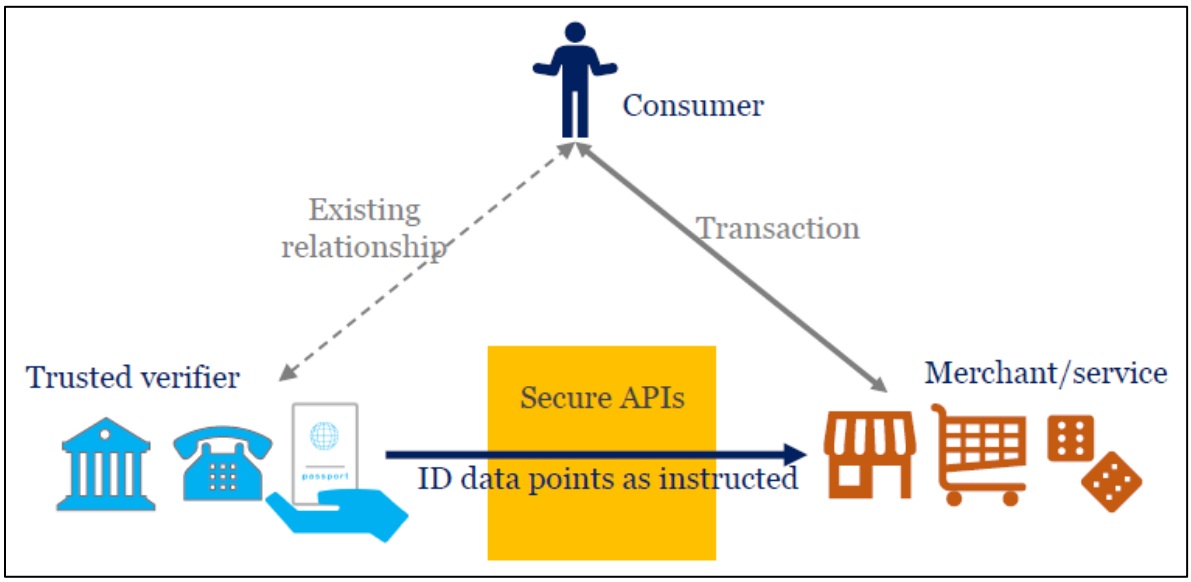
A well-developed digital ID system enables digital transformation by allowing end-users to control their data, digital money and in practical terms their digital life, and enabling relying parties to know who the end-users are and to verify their access to goods and services on offer. It includes a trusted third party whose role is to vouch for both relying parties and end-users, facilitating trust in digital transactions [see Figure 2]. An effective digital ID system facilitates digital access to a wide variety of services within the economy.[5] It establishes trust in digital transactions and the network (for example by enabling merchants and buyers who may not have a prior relationship to trust the exchange in online e-commerce across devices). This stands to hugely reduce transaction risks and costs, which in turn will encourage more MSMEs to shift to digital transactions.[6]

[4] The effectiveness of government support is illustrated by the success of Norway's BankID scheme, which achieved a market penetration rate of 99 percent for the 20- to 59-year old age brackets when it was decided to make it the entry point for government services.

[5] These include financial services (e.g., online onboarding process to open a bank account or loan, authentication of payments), education (e.g., online applications to schools, registration for examinations, tuition payments), health services (e.g., sharing of medical records, medical prescriptions to access medicine), authentication for online shopping, age verification to access age-restricted digital services, and government services (e.g., payments of taxes and fines, issuance of official identity documents), among many others.

[6] Monetary Authority of Singapore, Foundational Digital Infrastructures for Inclusive Digital Economies.

Figure 2: Diagram of a Digital ID System



Source: Institute of International Finance

In helping member economies accelerate efforts to develop inter-operable digital ID systems, APEC can consider leveraging work that is already ongoing. One such undertaking is the Open Digital Trust Initiative, a collaboration of the global financial industry through the IIF and the Open ID Foundation. This initiative aims to develop secure APIs to facilitate the transfer of personal data points when instructed by a consumer or business owner, which is critical to accessing services without having to go through multiple verification processes. The initiative focuses on two tracks:

- The "rule set" dealing with governance, policy and liability. This track involves the development of guiding principles related to such issues as balancing the protection of individual rights with broader societal interests; creating a market-based mechanism to address liability and develop legal frameworks of reference; exploring frameworks across jurisdictions and "concordance mapping" across platforms to develop pathways to inter-operability; and the role that governments and academia can play in advancing the goal.
- The "tool set" dealing with technical standards. There are two high-priority standards: (a) One is the Financial-grade API (FAPI), which is an important infrastructure to secure the transmission of data. It is an industry-led specification of data, security and privacy protocols to address fraud and identity theft, and to comply with regulations with respect to commercial and investment banking accounts, insurance accounts and credit card accounts. This security standard is already being adopted in several jurisdictions including the UK, Brazil, the USA and Canada, and which would benefit the broader Asia-Pacific region if adopted by more economies. (b) The second standard is a new approach to e-KYC, which extends the current technical standard to who the customer is acting on behalf of. In Japan, the Ministry of Economy, Trade and Industry is already testing this standard, while in the USA, it is already being required by regulators for Medicaid and Medicare.

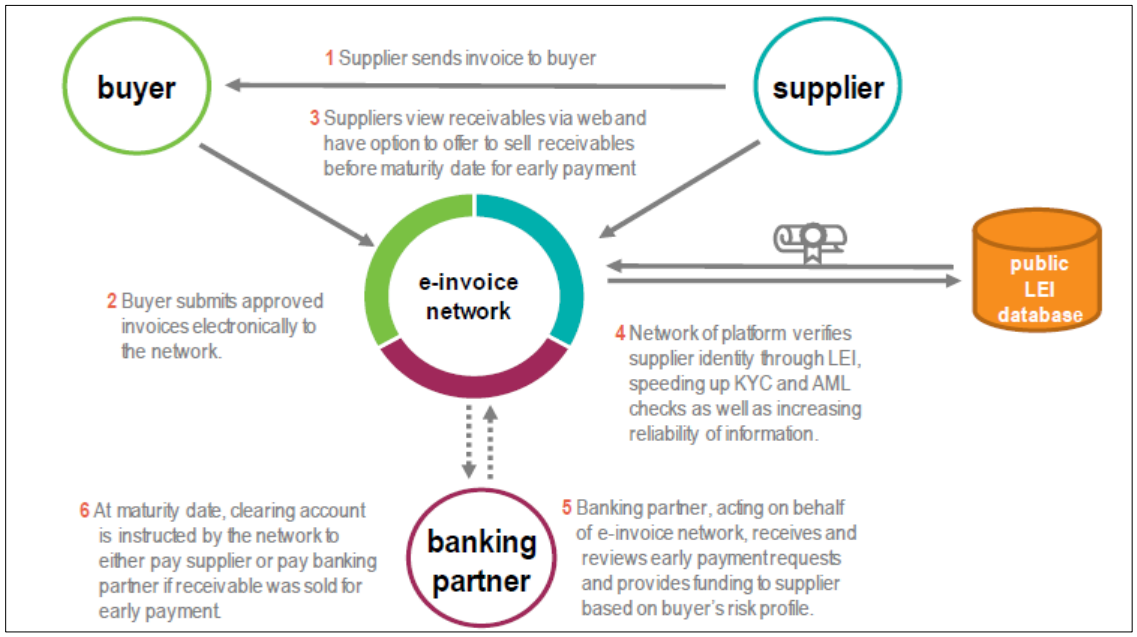
It is critical that more economies adopt such open standards that are inter-operable, and APEC could provide a platform for advancing this to benefit member economies, especially MSMEs in the region's developing economies. Public-private collaboration, which has been key to the success of digital trust framework initiatives in economies such as Norway, Sweden and Canada, will be important for the success of an APEC initiative as well.

Wider Adoption of the Legal Entity Identifier

The second initiative is around the Legal Entity Identifier (LEI), which is a standardized 20-character code used to accurately identify companies, their ownership and other key information. It is being promoted by the Global LEI Foundation (GLEIF), a non-profit that was established by the Financial Stability Board with the support of the G20. The LEI is already being used by government and regulatory agencies in key economies, including the USA, the EU and India.[7] The new version of the LEI, the cryptographically verifiable LEI, which is entirely digitized and could enable instant, global and automated identity verification, is now being discussed for adoption by more economies.

Wider adoption of the LEI is of particular importance for expanding MSMEs' participation in the digital economy. As knowing the identity of a business entity becomes ever more important for the various players in the digital ecosystem, which include vendors, suppliers, shareholders, banks, regulators, customs and tax authorities, government and civil society among others, MSMEs that do not have the visibility of larger companies are facing greater challenges in accessing markets and financing. The LEI, which plays a key role in providing trusted information on suppliers and buyers and their creditworthiness and risk profiles to participants in the supply chain [see Figure 3], will be important in facilitating transactions for MSMEs in the formal economy.

Figure 4: The Role of the Legal Entity Identifier in the Supply Chain Financing Flow



Source: GLEIF, McKinsey & Company

Development of Open Data Frameworks

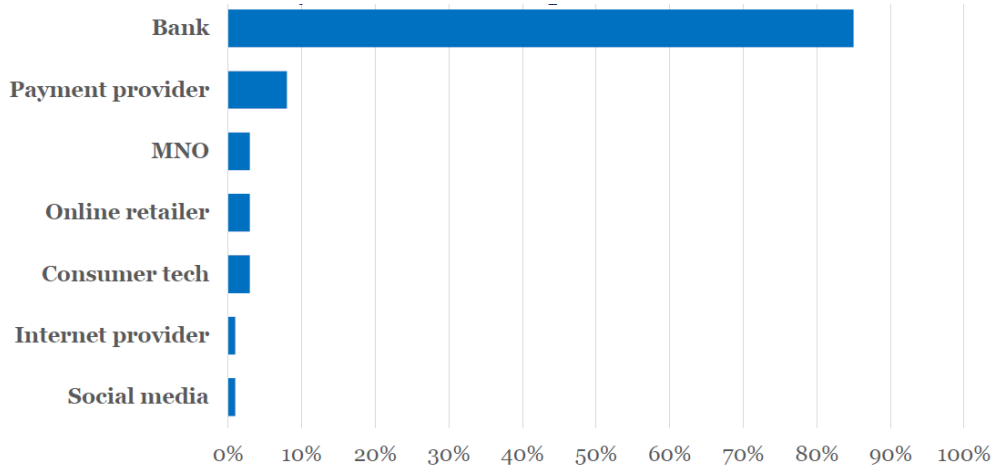
Rapid technological innovation is pushing banking systems (which hold the rich data of what consumers and businesses lend, spend and borrow) ever deeper into the center of economic activities. As described in a recent paper by the Institute of International Finance (IIF), the blurring of traditional sectoral boundaries and emergence of new business models, particularly in the context of open banking policies

[7] The LEI is already being used by the US Customs and Border Protection. The European Systemic Risk Board has recommended that all legal entities established in the EU involved in financial transactions obtain and maintain an LEI. The Reserve Bank of India has introduced an LEI requirement for large-value payments.

introduced in key markets,[8] are increasingly linking personal data held by banks with data sets from other sectors providing services to consumers and businesses. These include telecommunications, health, travel, utilities and social media, among others. The growing use of digital services is creating more data that enables customization of service delivery and is further deepening the digitalization of the economy.[9]

This trend toward digitally enabled transactions, further amplified by the outbreak of COVID-19, has placed data squarely at the center of the digital economy, where the ability to combine various types of data about an individual customer to create a risk profile and customized solutions to meet that customer's needs is becoming the key to competitiveness. It also underscores the importance of wider customer-permissioned data sharing across the economy that can enable goods and service providers to acquire a comprehensive view of their customers and to more effectively serve their needs. As the most trusted custodians of customers' data, banks are expected to play a central role in this process [see Figure 4].

Figure 4: Types of Companies Trusted Most to Securely Manage Customers' Data (% of respondents)



Source: *Bank of England Future of Finance Report*, June 2019

As described in the IIF paper, open banking refers to the use of open APIs that enable third-party developers to build applications and services around financial institutions. This lets bank customers give their consent to third parties to access their data held by banks to gain direct and convenient access to a wide range of choices for services offered by third parties. Seen from this perspective, open banking is not really about banking, but about data and how data are transformed and protected. Most current models of open banking in use, (such as the EU's PSD2 and the UK Open Banking Standard) involve one-directional data flows that allow technology firms to access bank data but not the other way around.

However, there are now moves in some jurisdictions to allow two-directional data flows, including between banks and technology firms. This makes more sense because bringing together financial data

[8] A prime example is the EU's Second Payment Services Directive (PSD2), which forced banks to share customer data online in a secure standardized form with authorized third parties if the account holder gives explicit consent to any exchange.

[9] This has led to the emergence of new entrants in the market for financial services such as big technology firms leveraging their service ecosystems across electronic commerce, search engines and social media containing data of millions of users to originate and distribute loans through new platforms, as well as the proactive efforts of banks to build their own open platforms and form new partnerships with third parties, including other banks. Brad Carr, *From Open Banking to Open Data and Beyond*, Institute of International Finance (edited extract which will appear as a chapter in Linda Jeng (Ed.), Open Banking, to be published by Oxford University Press).

and digital footprints from big tech data can enable a more powerful way to serve customers, prevent fraud and ID theft, comply with regulatory requirements for customer due diligence, and ensure equal market access for all participants. Examples of initiatives to move toward this model are Australia's Consumer Data Right (CDR) Initiative, Singapore's Personal Data Protection Act and sector-specific precedents in the USA like the Massachusetts automotive Right to Repair law. [10]

Recognition of consumers' right to data portability in the EU's General Data Protection Regulation (GDPR) and the California Consumer Privacy Act have created legislative pathways for future cross-sectoral open data regimes. These are initiatives that, together with data rights frameworks for customer financial data that are being developed by the banking industry and regulatory community, APEC economies need to look at to help them adopt open data models that fit the requirements of their particular markets.

Conclusions

While many aspects of life today have been transformed by digital technology, the reality is that most MSMEs, especially in developing economies, are still far behind on the path to digital transformation and continue to conduct their business mainly in cash. This Roundtable examined how this can be addressed, and in particular what role financial services can play in catalyzing and accelerating the digital transformation of MSMEs.

For many MSMEs, efficient access to financial services and supply chains are the most important factors for survival and growth. Innovative financial service providers are stepping in with digital solutions to enable MSMEs to meet these needs, and thus to take the first step in digital transformation. The case study illustrated how one innovative company was able to provide an entry point to the digital world for many MSMEs in a developing economy by bringing various participants in the supply chain together to create a digital B2B ecosystem that is facilitating access to credit and markets. As the company evolved from a peer-to-peer lending marketplace to a high-impact platform that offers digital business solutions to MSMEs, its clients have started to digitally transform their operations, starting with the core areas of invoicing, bookkeeping and procurement.

Replicating and scaling up such a process across the region, however, would require the development of the digital infrastructure and the supporting ecosystem. To build the digital infrastructure, efforts are needed to build the key pillars - a trusted digital ID system, an effective data sharing mechanism and the financial market infrastructure for digital transactions and operations. Facilitating healthy development and effectiveness of the digital infrastructure and inter-operability within and across jurisdictions require an enabling ecosystem that includes the legal foundations, standards, enabling regulatory frameworks, strong government support and building trust in the ecosystem.

While there is a wide range of tasks that need to be done, APEC can help accelerate this process by providing a platform to help economies put in place key foundational components of the digital infrastructure. These include the development of inter-operable digital ID systems based on open standards, wider adoption of the Legal Entity Identifier (LEI) and development of open data frameworks allowing consumers and businesses to leverage their data held by various entities including banks,

[10] The Farrell Report (Australian Government, *Open Banking: customers, choice, convenience, confidence*, December 2017), which gave rise to the Australian Consumer Data Right (CDR) initiative, notes that an open banking system "in which all eligible entities participate fully – both as data holders and data recipients – is likely to be more vibrant and dynamic than one in which non-[Authorized Deposit-taking Institutions or ADI] participants are solely receivers of data and ADIs are largely only transmitters of data." Singapore's Personal Data Protection Act requires all organizations to transmit raw personal data to another entity as directed by the data subject (with exception of data that have been processed by a firm in the course of its business, which are protected intellectual property).

technology companies and other service providers within a secure environment to gain access to the goods and services they need. Bringing ongoing initiatives, including private sector initiatives, in these areas to the APEC platform in order to help economies individually and collectively pursue concrete deliverables can help accelerate the development of the digital infrastructure and ecosystem that can facilitate the digital transformation of MSMEs in the region.

In the context of the post-COVID world, in addition to the above-mentioned steps, APEC also needs to support the reconstruction of supply chains that have been disrupted by the pandemic, since these supply chains provide the platform for MSMEs to gain entry to the digital world through financial services. While there will be analog elements that will remain relevant in the provision of financial services, it is important for the region's financial institutions to accelerate their own digital transformation and harness digital technology to obtain the data and the tools to expand services to MSMEs and develop the capability to serve their needs even in difficult times. Finally, regulators will need to pay close attention to new sources of financial instability that could arise in a digitalized environment, where systemic crises may look very different from those the world has faced in the past.

ANNEX: ROUNDTABLE AGENDA (*Times displayed are Japan Standard Time*)

1000-1010	**OPENING SESSION** **Welcome and Opening Remarks** Mr. Hiroshi Nakaso, Chair, Advisory Group on APEC Financial System Capacity Building/Asia-Pacific Financial Forum; and Chairman, Daiwa Institute of Research
1010-1050	**SESSION 1** **The Role of Finance in MSMEs' Digital Transformation** Moderator: Dr. Matthew Gamser, CEO, SME Finance Forum; and Chief Operations Officer, International Finance Corporation
1010-1025	**Introduction and Presentation** by Moderator
1025-1035	**Critical Success Factors for Digital Financial Services for MSMEs** Mr. Adrian Gunadi, Co-Founder and CEO, Investree
1035-1050	**Open Discussion**
1050-1155	**SESSION 2** **Digital Identity: Enabling the Transition from Open Banking to Open Data** Moderator: Mr. Brad Carr, Managing Director, Digital Finance, Institute of International Finance
1050-1105	**Introduction and Presentation** by Moderator
1105-1115	**The Open Digital Trust Initiative: Building the Foundations of Digital Identity** Mr. Don Thibeau, Project Lead, International Institute of Finance Open Digital Trust Initiative; and Director, OpenID Foundation
1115-1125	**Foundational Digital Infrastructures for Inclusive Digital Economies: Their Role in MSME Digital Transformation** Mr. Alan Lim, Head, Fintech Infrastructure Office, Monetary Authority of Singapore
1125-1135	**The Legal Entity Identifier (LEI) and its Potential Transformative Role for MSMEs** Mr. Jean-Remi Lopez, Director of Government Relations, Asia-Pacific, The Depository Trust & Clearing Corporation (DTCC)
1135-1155	**Open Discussion**
1155-1240	**SESSION 3** **Creating the Enabling Ecosystems for Digital Financing of MSMEs** Moderator: Mr. Bob Trojan, Senior Advisor, Kozolchyk National Law Center; and President & CEO, Token Insight
1155-1200	**Introduction** by Moderator
1200-1210	**Transitioning to the Digital Economy: Legal and Regulatory Reforms to Facilitate Digital Financing of MSMEs** Prof. Douglas Arner, Kerry Holdings Professor in Law, The University of Hong Kong
1210-1220	**Building MSMEs' Trust in the Digital Economy** Mr. Logan Finucan, Senior Policy Manager, Access Partnership

1220-1240	**Open Discussion**
1240-1245	**CLOSING SESSION** **Concluding Remarks** Mr. Hiroshi Nakaso, Chair, Advisory Group on APEC Financial System Capacity Building; and Chairman, Daiwa Institute of Research
	Master of Ceremonies: Dr. Julius Caesar Parreñas, APFF Coordinator and Senior Advisor, Daiwa Institute of Research