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Utilizing Digital Technology in the Field of Trade Facilitation under the Current COVID-19 Pandemic and Beyond: Beyond Practices Sharing Workshops

APEC Committee on Trade and Investment

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Economic Cooperation

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Workshop Series Report

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The views expressed and the conclusions reached are those of the author and not necessarily the consensus view of APEC member economies or of the individual economies addressed.

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Executive Summary

Over time, global trade has increased in scale and scope, a trend likely to continue after the COVID-19 pandemic has ended. However, the pandemic has introduced significant challenges to the system of cross-border trade and exposed shortfalls. Outdated supply chain processes have exacerbated economic and health risks and kept the globe overly dependent on in-person transactions. The use of digital technologies has accelerated since the beginning of 2020 and has proven critical to economic resiliency and recovery. Recognizing this, APEC organized a four-part workshop series on how digital technologies can help address issues facing global trade and enrich the landscape in the future.

This report summarizes the content and key findings from the workshop series. Between May and September 2021, APEC invited experts from the government, the private sector, and academia to offer their informed insights on a variety of topics relating to how digital technologies can help foster trade throughout and beyond the COVID-19 pandemic. In each workshop, the speakers first delivered presentations and then engaged in a lively panel discussion, during which they answered questions sent in by audience members, who were encouraged to participate. Attendees were also invited to complete post-event surveys where they could submit feedback on the workshops. Findings from these surveys are discussed later in the report. Links to all speaker biographies and workshop agendas are available in the annexes of this report.

The workshop series was attended by 274 unique individuals (including speakers), 122 of whom (45%) are women. The average number of attendees per workshop was 92. Attendees hailed from 19 of APEC's 21 economies, the APEC Secretariat, the APEC Business Advisory Council (ABAC), the Association of Southeast Asian Nations (ASEAN), and the Pacific Economic Cooperation Council (PECC). Most attendees were representatives of government agencies, and there were also some people from private companies and international organizations (e.g., APEC).

Throughout the series, speakers emphasized the significant benefits that digital technologies, such as trade and e-commerce platforms, can provide for businesses and economies. Key to the success of these systems is cross-border interoperability, which depends on commitments from governments and other stakeholders to pursue collaborations. Cybersecurity risks and concerns must be overcome for digital technology adoption to reach its potential in the trade sector. The same goes for factors that stand in the way of inclusivity and fair competition.

Workshop Series Summary

Focus	Date
Trade Facilitation through Trade Platforms	11 May, 2021
E-Commerce Enabling Technologies	29 June, 2021
Interoperability and Data Security for Single Windows	3 August, 2021
Empowering MSMEs to Participate in Cross-Border Trade	14 September, 2021

1 Workshop 1: Trade Facilitation through Trade Platforms

1.1 Summary

This first workshop, on Trade Facilitation through Trade Platforms, was held virtually on May 11, 2021. Trade platforms are digital solutions that can connect actors in trade transactions and enable them to conduct critical functions, such as complete documents, make payments, or track cargo. They have the potential to reduce costs, simplify logistics, and facilitate the seamless flow of information between stakeholders. The event featured distinguished representatives from some of the leading digital trade platforms currently operating across the APEC region: TradeWaltz, TradeWindow, Trade-Van, and TradeLens.

After a brief introductory session, the four speakers delivered presentations that covered the value of trade platforms to global supply chains, ongoing projects and initiatives, and critical next steps for the trade platform ecosystem. The series of presentations was followed by a robust Q&A panel during which audience members were encouraged to submit questions. The panel ran for over 45 minutes, during which the experts offered insights on several topics. These included: how to encourage trade platform adoption, ensuring security, and trade platform business models.

The workshop was attended by 101 people (including speakers) hailing from 12 APEC member economies as well as observer organizations (ASEAN and PECC). The speakers joined from Japan, New Zealand, Chinese Taipei, and the United States.

Speaker details are as follows:

- Mr Hirohisa KOJIMA
  President and CEO, TradeWaltz (Japan)

- Mr Satoru SOMEYA
  Managing Director, Head of CEO's Office, TradeWaltz (Japan)

- Mr Andrew BALGARNIE
  Chief Operating Officer, TradeWindow (New Zealand)

- Ms Alicia SAY
  Manager, International Business Center, Trade-Van (Chinese Taipei)

- Mr Tom SPROAT
  Senior Director, TradeLens (United States)

1.2 Introductory Session

1.2.1 Opening Remarks

The opening remarks were delivered by Mr Takayuki Niikura, Director of the APEC office at Japan's Ministry of Economy, Trade and Industry (METI).

Mr Niikura welcomed the audience and introduced the upcoming series of workshops, stating the importance of digital technologies in overcoming barriers caused by the pandemic. In 2020, APEC ministers acknowledged the need for a renewed focus on digital technologies in the trade environment - this workshop series is a component of APEC's response.
This first workshop focuses on digital platforms and their future role in the global trade system. The second workshop (June 2021) will center around technologies that enable e-commerce, such as artificial intelligence, blockchain, and the Internet of Things. During the third workshop (August 2021), experts will discuss trade Single Windows and their interoperability, which is critical to fully digitizing trade procedures. The fourth and final workshop (September 2021) will address how digital technologies can help micro, small and medium-sized enterprises (MSMEs) overcome barriers to participation in cross-border trade.

Mr Niikura then greeted each of the speakers and encouraged the audience to participate with questions.

1.2.2 Introductory Presentation

Global State of Trade Platforms
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_003.pdf)

The introductory presentation was delivered by Mr Chimdi Obienu, Research Analyst at Washington CORE, a consultancy supporting the workshop.

APEC economies are responsible for around half of the value of cross-border trade. However, conducting trade, even in the best-performing APEC economies, can be burdensome and expensive compared to the world leaders, especially economies in the European Union. There are numerous parties involved in trade transactions (exporters, customs authorities, etc.) and various required documents (bill of lading, certificates of origin, etc.). Files are often paper-based and exchanged manually, creating challenges in the supply chain, such as inefficiency, risk, and undue complexity.

Digital trade platforms solve these issues by digitizing workflows and helping trade parties track and manage cargo from end to end. Many existing solutions utilize blockchain technology to secure data and foster trust among users. Mr Obienu presented a table of existing trade platforms, categorized trade platforms according to primary functions, the geographic scope of operations, and interoperability with other solutions. He also noted that common functions of trade platforms include preparing documents, facilitating payments, and enabling contract-related procedures.

Finally, Mr Obienu mentioned that digital trade platforms can help address the logistical issues exposed by the pandemic and with which many APEC economies still struggle. Several organizations are cultivating an enabling environment for trade platforms, based on better interoperability, transparent standards, and robust regulatory regimes. These are all key to allowing digital trade platforms to reach their full potential.

1.3 Panel Session

1.3.1 Presentation by Mr Hirohisa Kojima

Create the Future of Trade with Blockchain
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_004.pdf)

Mr Kojima opened his presentation by noting that digital technology is increasingly popular across industries as the globe undergoes a digital transformation. TradeWaltz is a business-to-business (B2B) communication platform for parties involved in trade. The TradeWaltz platform simplifies communication between actors, eases information sharing, and secures data using blockchain.

TradeWaltz targets four critical areas: operational speed and efficiency; cost of paperwork; remote work needs due to Covid-19; and other trade issues, such as customs regulations and administrative procedures. Development of the TradeWaltz platform began in 2017 as a partnership between NTT DATA and 18 other companies. Proofs-of-concept (POC) in Japan, Singapore, and Thailand showed that TradeWaltz improved operational efficiency for cargo owners by up to 60%. Seven of the partner companies decided to invest.

TradeWaltz has three key features. First is its cross-industry nature –TradeWaltz is open to many actors, from cargo owners to banks and insurance firms. Second, it can work with all kinds of documents as editable data. Third, TradeWaltz is designed to integrate with other platforms and, ultimately, create a larger ecosystem that serves as a comprehensive database of all trade-related information.

TradeWaltz gives economies the freedom to build applications specific to their needs, and the eventual aim is to build an ecosystem that integrates Japan with the rest of Asia. TradeWaltz has already shared the importance of the solution at a side event at the World Economic Forum and is in communication with several economies about partnerships opportunities, including New Zealand, Australia, Singapore, and Thailand. Mr Kojima ended by expressing his desire to connect with the other featured organizations after the event.

1.3.2 Presentation by Mr Andrew Balgarnie

Streamlining Trade Processes through Interoperable Trade Windows
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_005.pdf)

Mr Balgarnie began by explaining that TradeWindow facilitates the creation of export documents for leading exporters in Australasia. Currently, the platform produces over one million sets of export documents per year for critical sectors of the economy, particularly agriculture. TradeWindow believes that the interoperability between modern and legacy systems ensures that the digital divide does not worsen. The company also maintains that technology must be used in conjunction with smart public policy and that public-private partnerships are critical.

While manual, paper-based processes help to establish trust, this can be achieved more elegantly using technology. TradeWindow understands that the key to creating a simpler trade future is through interoperable regional platforms that connect commercial, logistics, financial, and governmental data silos. Underlying this is a need for scalable technologies, harmonized legal frameworks, and common data standards.

The technological solutions already exist, but the challenge of connecting legacy systems persists. Legal and policy frameworks evolve slowly; many economies have followed the UNCITRAL Model Law on Electronic Commerce (MLEC) but not yet those concerning electronic signatures (MLES) or electronic transferable records (MLETR). Also, insufficient progress has been made on data standardization. Notwithstanding, organizations such as the

World Customs Organization (WCO), Digital Container Shipping Association (DCSA), International Chamber of Commerce (ICC), World Trade Organization (WTO), and Pan Asian e-Commerce Alliance (PAA) have assumed global leadership on this matter.

To conclude, Mr Balgarnie noted that the pandemic has spurred mass-market adoption of digital trade technologies and reiterated that continued progress requires partnerships between public agencies and private enterprises.

1.3.3 Presentation by Ms Alicia Say

Cross Border Blockchain for Trade - The Case of Streamlined Import Clearance during COVID-19
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_006.pdf)

Ms Say introduced the Pan Asian e-Commerce Alliance (PAA), a partnership among trade and customs service providers in 14 economies.[1] The members aim to promote and provide secure, reliable, and valuable cross-border IT infrastructure. PAA members have implemented different blockchain solutions – in Chinese Taipei, Trave-Van introduced the Cross-Border Blockchain Platform (CBBP). In New Zealand, the blockchain solution is TradeWindow Cube.

Rather than building a common PAA blockchain platform, the Trade-Van's approach is to set up cross-chain interoperability among existing platforms. An exporter from one economy can register a document on their economy's blockchain platform, while the importer could verify the same document on the platform of their economy.

The interoperable blockchain platform supports trader information updates, documents registration, downloading and verification, and shipment status updates. The documents exchanged can be regulatory (e.g., certificates of origin, phytosanitary certificates) and commercial (e.g., invoices, packing lists).

Ms Say explained an ongoing Chinese Taipei proof-of-concept project with New Zealand and Singapore regarding trade in goods covered by free trade agreements (FTAs). The project seeks to streamline the issuing and processing of trade documents, reducing preparation time and the cost spent on transmission. Trade-Van has so far shown to lower customs clearance times from half a day to 15 minutes and eliminate paperwork and Covid-19 transmission risks for border control officers. The solution also ensures trust by allowing exporters to monitor shipments of goods.

1.3.4 Presentation by Mr Tom Sproat

Using Digital Blockchain to Reduce Paperwork
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_007.pdf)

Mr Sproat began his presentation by sharing the mission of TradeLens, which is to help digitize global trade. It is a carrier-backed, blockchain-based platform formed out of an agreement between IBM and Maersk. The TradeLens platform is an ecosystem through which numerous parties (terminal operators, customs authorities, rails, feeders, barges, trucks, etc.) can share data via APIs. The overarching goal is to create a marketplace upon which organizations can build applications and solutions. Existing TradeLens users (carriers and terminals) share data (e.g., bookings, bills of lading) with relevant entities, such as rail operators and inland depots.

The COVID-19 pandemic has highlighted the need for visibility in global supply chains and the ability for parties to track cargo in real-time. It has also illuminated the value of analytical insights into items like transit times and areas of cargo bunching. Therefore, TradeLens

[1] Chinese Taipei; Singapore; The Philippines; India; Malaysia; China; Indonesia; Thailand; Japan; Hong Kong, China; Korea; France; and New Zealand; and Sweden.

ensures that parties can review data quality and consistency, guarantee reliability, and illustrate data through notifications and dashboards.

Mr Sproat showed the time savings that can be achieved through TradeLens services related to electronic bills of lading. He also acknowledged the importance of interoperability between trade platforms. The Digital Container Shipping Association (DCSA) and the International Maritime Organization (IMO) are currently leading these efforts. To end, Mr Sproat said that he expects the digitization of trade documents to increase and that trade platforms will become more interoperable with each other.

1.3.5 Q&A Session

This session featured Mr Someya, Mr Balgarnie, Ms Say, and Mr Sproat, and was moderated by Mr Obienu.

The audience first asked the speakers about existing efforts to foster platform interoperability and the best way to proceed on collective data standards. Mr Sproat said that TradeLens tries to align itself to the DCSA new product data standards. Mr Balgarnie reiterated that TradeWindow is designed to be interoperable with modern and legacy systems. Mr Someya expressed the need for standard formats for data, and a limited set of linkage types. Ms Say discussed how, during the Chinese Taipei collaborations with New Zealand and Singapore, a principal need was to analyze the different blockchain solutions used in the respective economies and then set up standards regarding communication and security that work for everyone. While this is currently done on a bilateral basis, the next step is to foster broader interoperability. She also suggested that setting up standards for how to exchange shipment status information is crucial.

The next question was on the barriers to blockchain adoption and the role of government in facilitating uptake. Ms Say noted that Chinese Taipei Customs is a strong supporter of Trade-Van. By eliminating paper documents, the customs authority has incentivized the trade community to accelerate the development of its digital capabilities. Mr Sproat added that blockchain reduces the time spent identifying actors and collecting tariff revenues, which gives authorities more time to audit unknown actors and transactions involving high-risk goods. Mr Someya contributed that governments can reduce the perceived risks for private actors adopting blockchain solutions by developing strategies through which blockchain use can become standard practice. Mr Balgarnie offered that, although TradeWindow is not blockchain-based, the company has encouraged public authorities in New Zealand to adopt the UNCITRAL model laws on digital signatures, electronic commerce, and electronic transferable records.

The speakers were also asked about how to overcome stakeholder resistance to emerging technologies. Mr Sproat expressed that early-adopter companies are those looking to develop digital strategies. For other companies, especially in difficult economic circumstances, the key is to help them realize the short- and long-term value of platform offerings. Mr Balgarnie said that interest in TradeWindow has spiked since the start of the pandemic. Mr Someya pointed out that companies tend to be biased towards incumbent solutions. However, since the pandemic started, it has been easy to communicate how trade platforms address new needs, such as working from home. Also, customers are often persuaded by concern that they could be left behind if they do not adopt new technologies. Ms Say talked about the importance of understanding the user perspective. Trade-Van, therefore, begins projects with an in-depth user analysis and updates the system along the way.

Another attendee asked about trade platform business models. According to Ms Say, users are happy to pay fees because of the time and opportunity cost savings that platforms provide. TradeWaltz uses a profit-share model - 70% of deployment savings accrue to the customer, while up to 30% go to TradeWaltz as a service fee. New value-added products may be

attached later. The TradeWindow business model combines a subscription fee and a usage fee for the shippers that use the platform. TradeLens customers pay to add their data to the platform and invite supply chain partners to use the digital bill of lading. Network members, such as ports and terminal authorities, gain permission to see data from TradeLens and, in return, their data enriches the TradeLens platform for customers. Mr Sproat described the relationship with network partners as a data "quid pro quo."

One question was about the extent to which the platforms attempt to adhere to local data privacy requirements. Mr Sproat referred to the EU General Data Protection Regulation (GDPR) as one specific requirement with which TradeLens complies. Generally, respecting local laws is an important condition of working effectively with any given economy.

The speakers were given some time to expand on anything that they did not address during the presentations. Ms Say talked about how Trade-Van is looking to interconnect with overseas e-commerce platforms, to obtain in advance shipment information for better monitoring of inbound e-commerce parcels. Mr Sproat added that the TradeLens platform currently receives around 3 million events to the platform every day. Customers are particularly interested in the opportunity to use enriched TradeLens data to perform advanced analytics. Mr Someya reiterated that, although working on new offerings, TradeWaltz is not focused on being the top luxury platform, but rather a connecting platform for others. According to Mr Balgarnie, TradeWindow shares this vision of interoperability. For example, TradeWindow leverages its membership of the SWIFT Network used by financial institutions to provide automation services regarding trade finance products.

The final question was on trade platform security. Mr Sproat explained that no carriers would join TradeLens if they thought competitors could see their data, making data security incredibly important. Ms Say described the need to educate users about how blockchain and other digital technologies guarantee security, which can be done through demonstrations.

2 Workshop 2: E-Commerce Enabling Technologies

2.1 Summary

This second workshop, on E-Commerce Enabling Technologies, was held virtually on June 29, 2021. Several solutions, such as e-signatures, e-payments, and virtual assistants, are fundamental to most successful e-commerce offerings. These are supported by underlying enabling technologies, such as AI, Blockchain, and 5G. Collectively, these technologies have the potential to expand access to global supply chains and promote inclusivity in commercial markets. The event featured speakers representing e-commerce firms, trade associations, and academic institutions.

After a brief introductory session, the speakers delivered four presentations during which they discussed the benefits of e-commerce, details behind particular solutions, and how to address barriers to adoption. The series of back-to-back presentations was followed by a robust Q&A panel during which audience members were encouraged to submit questions. The panel ran for over 45 minutes. During this time, the experts offered insights on several topics, including how to foster trust in e-commerce solutions and which emerging technologies are likely to become mainstream.

Speaker details are as follows:

- Mr John RYAN
  Director General, Emerging Payments Association Asia

- Mr Koichiro HAYASHI
  Business Development Manager, Shopify Japan

- Karin IWAMOTO
  Sales Manager, Global Growth Hack, BeeCruise Inc. (Japan)

- Dr Douglas ARNER
  Kerry Holdings Professor in Law and Director of the Asian Institute of International Financial Law, University of Hong Kong

2.2 Introductory Presentation

State of Global E-Commerce
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_002.pdf)

The introductory presentation was delivered by Mr Chimdi Obienu, Research Analyst at Washington CORE, a consultancy supporting the workshop.

The two largest categories of e-commerce transactions are those between businesses (B2B) and those between firms and end consumers (B2C). Mr Obienu presented the analysis by UN Conference on Trade and Development (UNCTAD) that shows that, while accelerated by the COVID-19 pandemic, the global economy has been trending towards e-commerce for some time. APEC economies, led by the United States and China, are responsible for most cross-border e-commerce and 12 of the world's largest 13 e-commerce companies.

Critical e-commerce solutions include e-payments, e-signatures, platforms, marketing software, and digital assistants. Leading e-commerce firms often utilize several as these as part of their offerings. Underlying these are "enabling" technologies, such as AI, Machine Learning, Big Data, the Internet of Things, Virtual & Augmented Reality, and 5G. E-commerce solutions can boost job growth, foster inclusiveness, and increase market participation to galvanize competition and efficiency. Moreover, they have proven valuable to facilitate remote interactions that may persist even after the pandemic has subsided.

There are several economic, social, and institutional barriers to e-commerce adoption. These include a lack of internet access and digital literacy, a limited understanding of solutions, outdated domestic regulations, and heterogeneity in cross-border procedures. Fortunately, there are clear steps that public and private sector actors can take to ultimately eliminate these barriers, such as enforcing laws to build trust among stakeholders and developing enforceable industry standards.

2.3 Panel Session

2.3.1 Presentation by Mr John Ryan

E-Commerce Enabling Technologies
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_003.pdf)

Mr Ryan introduced the Emerging Payments Association Asia, a Pan-Asian trade association for the payments industry focused on helping to improve lives through payment solutions. He focused on digital currency, digital identity, and Payments-as-a-Service (PaaS).

Central Bank Digital Currencies (CBDCs) could allow governments to learn more about domestic supply and use of money. Mr Ryan touched upon several factors regarding CBDCs, including the degree of anonymity, the traceability of transactions, and the operational availability. He mentioned a few regional initiatives and focused on China's implementation of its digital currency strategy.

Digital identities can help e-payment technologies achieve greater efficiencies. Emerging Payments Association Asia is interested in how these identities function across borders, and the organization plans to release a white paper on the topic shortly. Payments-as-a-Service gives consumers more access to their payments and authority over which external parties access their data. Buy Now Pay Later is an emerging model that envisions a shift away from banks being the ultimate source of the payment experience for the customer.

Mr Ryan also discussed digital wallets, another relatively recent concept. These can function well offline and integrate with QR codes (which people have become more accustomed to since 2020). Emerging Payments Association Asia has also identified that successful regulations are often replicated in other markets. For this reason, it is important them to be actively involved in the rulemaking process. As a result, the organization has an AI-enabled regulation tracker that helps them keep on top of global developments and engage effectively with regulators.

2.3.2 Presentation by Mr Koichiro Hayashi

Shopify Going Global: How Shopify went from Ottawa to the World
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_004.pdf)

Mr Hayashi offered insights on how Shopify grew and the principles that impacted this growth. He began with a short profile of one Shopify client company, Allbirds, to highlight that the Shopify platform grows when its clients do. Shopify was founded in Canada in 2006 after its creator, frustrated with e-commerce software when trying to open an online store, programmed his own. Now, over 1.7 million merchants around the world use Shopify.

Shopify is a one-stop-shop platform where partners can access features and functions to build their businesses. Features are related to several areas, including payments, shipping, and marketing tools. For marketing channels, Shopify has partnerships with major firms, including Google, Facebook, and TikTok. Mr Hayashi explained how the platform and ecosystem work, using the Apple OS and app store as an illustrative analogy. The ecosystem is comprised of developers, apps, extensions, and others building e-commerce use cases. Apps can offer functions related to cash-on-delivery, accounting, marketing, and more.

The company's goal is to facilitate commerce globally, not just grow and keep people on the platform. Research conducted by Deloitte has quantified Shopify's impact as an enabler of entrepreneurship and the success of small businesses. In 2020, Shopify merchants and partners generated $307 billion of economic activity, much of this through cross-border sales. For every $1 of Shopify revenue, the merchants generated $40, which allowed them to support local and domestic economies.

2.3.3 Presentation by Ms Karin Iwamoto

Issue of Cross border E-Commerce and Proxy service Business Model as Solution
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_005.pdf)

BeeCruise offers cross-border e-commerce services through its Buyee service. The company primarily sells Japanese products overseas - often games, electronic appliances, food/drink, and vehicle parts. Previously, Japanese firms hoping to sell abroad needed to establish subsidiaries in other economies, which comes with challenges, including finding partners and earning licenses. While e-commerce technologies allow companies to access international sales channels, there are still challenges, such as the language barrier and foreign regulatory regimes.

The proxy business model is simple but effective. Buyee operators make orders on Japanese e-commerce sites on behalf of the company's users. The products are shipped to Buyee warehouses in Japan and then forwarded to the users. Therefore, the company takes on regulatory and currency exchange risks in exchange for a small fee. The company also offers some additional services. Over the past six years, the company has received 3 million orders.

As Buyee orders products from many different e-commerce sites, its operators are required to make orders manually. However, the company has developed an internal system to manage orders and the shipment process. Buyee has four different warehouses in Japan to diversify risk and provide flexibility in the event of disasters.

Overall, the proxy service business model can help accelerate trade for both small and large companies. Buyee still encourages its clients to explore other sales channels, such as opening stores in popular marketplaces.

2.3.4 Presentation by Dr Douglas Arner

Building an Enabling Ecosystem for Digital Commerce and Finance: Digital Identification and Transactions
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_006.pdf)

Dr Arner focused on the relationship between e-commerce, e-finance and e-signatures, and digital identification. Since the financial crisis, new technologies and market entrants have been changing the intersection between trade and finance, particularly in the context of e-commerce. Platforms have contributed to this shift, and they have benefits and risks that largely depend on the process of digitization and datafication in individual economies. COVID-19 has also driven digitization, but by changing societal mindsets, not the technologies available.

Ecosystems are made up of infrastructure, regulatory approaches, the legal environment, and human capital development. Considering all of these is critical to the success of any given e-commerce solution, such as e-payments. Fundamental to the success of e-payments is interoperability - the need to get payments from one point to another as quickly as possible – especially as some platform ecosystems now cover over one billion people. Digital

identification will be the key to tying together interoperable frameworks and preserving market integrity.

Risk-based proportional regulation is the most appropriate approach to this sector. The NCAPEC [2] E-Signatures Project has discovered that people are very comfortable with digitizing documents but still uncomfortable with e-signatures, even if most economies have laws recognizing them. While there has been a push towards these solutions, there is an expanding range of issues, particularly around individual and entity-level identification and uncertainty regarding the cross-border use of data.

2.3.5 Q&A Session

First, the speakers were asked to expand upon any themes mentioned in the introductory presentation. Dr Arner followed up on digital access, noting that it was a leading issue among SMEs. He also discussed how cross-border interoperability was a fundamental barrier to transactions and how better digital identification could reduce costs and unlock new business models. Mr Ryan added that perceptions among consumers about data security and their control over permissions are critical areas to discuss.

Mr Ryan was asked about the practices of Emerging Payments Association Asia, and he responded that the organization mainly serves as a forum for payments stakeholders, including banks, merchants, and regulators, to learn and network. It is a valuable place for regulators to receive feedback and engage in dedicated discussions about topics, such as digital wallets and currencies. Mr Ryan has found that the organization is a welcome presence in the region.

On a question about tailoring e-commerce solutions to specific markets, Mr Hayashi spoke about how Shopify produced local language content for Japan. The company also tailored payment methods to account for services that are particularly popular there. Logistics can also differ across economies, and Shopify Japan targeted the three biggest domestic players to integrate with the platform. Mr Ryan asked Mr Hayashi whether Shopify customers found issues when faced with several payment channels. Mr Hayashi responded that Shopify merchants are mainly concerned with the comfort of their customers. Businesses also prefer to stick with payment methods they used on previous platforms.

Ms Iwamoto was asked about what sets Buyee apart from other proxy services. She answered that it is one of the few proxy services in Japan, as was indeed the first. Buyee distinguishes itself from competitors by charging comparatively low fees to users – around $2.70 per order. The company also uses a broader assortment of logistics methods than its competitors.

The speakers then addressed a question on environments that have hindered or enabled e-commerce. Dr Arner discussed China, as the economy has transformed the landscape for e-commerce through payments. Central to this was the economy's progress on internet access and mobile phone accessibility. China is an interesting case as it has not achieved payment interoperability but instead has two large platforms with large-scale coverage. Mr Ryan echoed sentiments on the importance of mobile phones, which have fostered inclusivity in markets unable to install heavy hardware point of sale systems. He continued that Asia is generally at the forefront of developments in payments. There are several ongoing bilateral projects, and an emerging trend is that payment companies are partnering across borders in the region.

Another question was on how to ensure that customers and businesses have faith in e-commerce solutions. Ms Iwamoto said that Buyee integrates popular payment methods with

[2] NCAPEC is an organization serving as the Secretariat for the three ABAC USA members. https://ncapec.org/

which users are already familiar and partners with well-known stores, which offers users a sense of security. Mr Hayashi offered that Shopify takes care to show partners that they are committed long-term to the domestic market. For example, in Japan, this means having a physical office. Dr Arner discussed a few key areas on this topic: licensing to provide legitimacy; legal frameworks regarding the use of data; the need to bolster cybersecurity to reduce risks to SMEs and financial institutions; and identification to verify the authenticity of interactions. Mr Ryan reiterated that stakeholder focus has been on cybersecurity. Ms Iwamoto added that users can be overly cautious about risk, and that finding a balance is sometimes challenging.

The final question was on emerging innovations in the e-commerce space. Mr Ryan discussed the rise of helicopter money schemes. He spoke about an ongoing project in Australia whereby people are allocated vouchers for certain activities through a digitally identified wallet. This case has been more effective than direct transfers to bank accounts and so may be replicated elsewhere. Dr Arner also mentioned digital wallets as a powerful tool for the economic response to COVID-19, noting that Malaysia also employed a similar approach. Finally, he added that decentralized data storage and analytics will grow increasingly important for cross-border trade. We must determine how to analyze data while meeting requirements for data to remain in individual jurisdictions.

3 Workshop 3: Interoperability and Data Security for Single Windows

3.1 Summary

This third workshop, on Interoperability & Data Security for Single Windows, was held virtually on 3 August 2021. Single Windows have vast potential to simplify processes and generate value for businesses and economies. The success of Single Window projects is highly dependent on the range of domestic and international organizations that can connect to the system, and several bilateral and regional initiatives are underway to develop the technology and foster more linkages. The workshop featured speakers actively engaged in the realization of cross-border Single Window programs.

After a brief introductory session, the speakers delivered four presentations during which they discussed the concept of Single Windows and the projects with which they are affiliated. The series of back-to-back presentations was followed by a robust Q&A session, during which audience members were encouraged to submit questions. During this time, the experts offered insights on several topics, including how to ensure data security in Single Window projects, the impacts of the COVID-19 pandemic, and future areas of development.

This workshop was attended by 83 people from 14 APEC member economies and ASEAN, including speakers joining from Chile, Singapore, and ASEAN Secretariat.

Speakers' details are as follows:

- Ms Barbara MATAMALA
  Director of the International Trade Single Window System
  Ministry of Finance, Chile

- Ms Angie TEO
  Head of International Relations, Singapore Customs

- Mr Sin Yong LOH
  Director for Trade,
  Infocomm Media Development Authority (IMDA), Singapore

- Mr Cuong Ba TRAN
  Assistant Director, Trade Facilitation Division
  ASEAN, Market Integration Directorate

3.2 Introductory Presentation

Global State of Single Windows Interoperability
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_002.pdf)

The introductory presentation was delivered by Ms Megumi Aikawa, a Research Analyst/Project Coordinator at Washington CORE, a consultancy supporting the workshop.

Single Windows are essentially facilities that enable transactions between trade stakeholders by providing one entrance for the submissions and handling of all trade-related documents. The main benefit of Single Windows is increased efficiency for stakeholders, who can save time by dealing with fewer government authorities and less manually re-entered information. According to UN Economic and Social Commission for Asia and the Pacific (UNESCAP)[3], around half of Asia-Pacific economies have implemented Single Windows, but they are less widely used than other trade facilitation measures, such as automated customs systems.

[3] https://www.unescap.org/

Cross-border Single Window interoperability will allow documents and other data to be used in multiple economies. The benefits of Single Window interoperability include improved data accuracy (by eliminating duplicates), closer cooperation between economies, better risk analysis, and better intelligence gathering. Challenges include establishing appropriate governance structures, addressing conflicts of interest, overhauling existing business practices, inadequate laws and regulations, lagging IT infrastructure, and the implementation gap between developed and developing economies.

There have also been several regional initiatives to facilitate cross-border interoperability, but full implementation remains rare. Some best practices have been identified so far, including maintaining the autonomy of participating economies while allowing interoperability, reaching consensus on the use of shared information, data harmonization and standardization, and consistent use of terminology.

3.3 Panel Session

3.3.1 Presentation by Ms Barbara Matamala

Regional Integration for the Improvement and Facilitation of Foreign Trade: Interoperability of Single Window Systems
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_003.pdf)

Ms Matamala offered insights on the development and operation of Chile's Single Window system, SICEX. Development of SICEX began around 10 years ago. SICEX is a network through which various public and private organizations can connect to each other. SICEX allows stakeholders to track both exports and imports in real time, provides a single web access point with single data entry, and facilitates online payments. Although use of the system is not mandatory, 90% of exports are conducted through SICEX, mainly because it is free and efficient.

Chile has also been part of efforts to foster cross-border interoperability. The main action has been as part of the Pacific Alliance agreement, alongside Mexico, Peru, and Colombia. This began in 2013 and established the obligation to promote Single Window interoperability between these economies. Already, the economies are exchanging electronic phytosanitary certificates, electronic certificates of origin, and completing the implementation of the exchange of customs data. The Pacific Alliance has an interoperability platform that integrates to the Single Window systems in each economy, and international standards for electronic phytosanitary certificates, certificates of origin, and customs declaration are used. In this sense, Chile is also working with APEC economies such us Singapore, Peru, Korea and New Zealand in an interoperability pilot to exchange customs data declaration, as a first step towards integration with the Asia Pacific Region.

3.3.2 Presentation by Ms Angie Teo

Single Windows Interoperability
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_004.pdf)

Ms Teo presented on the experience of Singapore developing cross-border Single Window interoperability. A typical international trade transaction may include over 25 parties, as many as 40 documents may be generated in a single supply chain, and 60-70% of the information in these files is manually re-entered at least once. To address the inefficiencies of this situation, in 2018, Singapore launched its Network Trade Platform (NTP), which gives traders a one-stop interface. The NTP aims to boost the productivity and competitiveness of domestic companies, with a view to becoming a truly global network.

NTP has two key areas of focus. One is to digitalize trade, which will allow users to store and manage documents simply and securely, save time, improve data accuracy, and collect data

across ecosystems for easier analysis. The other focus is on seamless connectivity across the global trade ecosystem, which means fostering linkages within and between economies.

For cross-border interoperability, Singapore has identified the exchange of four trade documents as potential use cases. Electronic exchange can improve the processing efficiency and accuracy of import/export trade declarations. The exchange of electronic phytosanitary certificates can reduce processing checks, lower the risk of fraudulent certificates, and allow for greater import control. Preferential certificates of origin formerly had to travel over long distances via couriers but now can be exchanged seamlessly on a near real-time basis. And, similarly, certificates of non-manipulation can now be exchanged and verified more quickly.

The Singapore government is fostering connectivity with other economies on a regional and bilateral basis, within APEC and beyond. Current efforts are underway with ASEAN, as well as many APEC economies, and even the Netherlands. Fundamentally, the role of customs has shifted away from traditional revenue collection towards fostering global interconnectivity. COVID-19 has accelerated the need for electronic measures, and Singapore wants to be a trailblazer in this field.

3.3.3 Presentation by Mr Sin Yong Loh

Trade Digitalization – TradeTrust
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_005.pdf)

TradeTrust is a solution spearheaded by the Singapore Infocomm Media Development Authority (IMDA). For all types of digital trade documents, TradeTrust can verify the authenticity and validates the source. For documents of title (e.g., bills of lading), the solution also provides legally valid performance obligation transfers. TradeTrust is built upon a set of foundational principles that mean it uses public and permissionless blockchain, stores data off-chain to preserve confidentiality, is payload agnostic, is open-source (freely available for anyone to download and use) and is compliant with UNCITRAL Model Law on Electronic Transferable Records (MLETR).

TradeTrust is not itself a platform but supports platforms and systems to achieve interoperability. Mr Loh defined the offering as a set of software components that sit between the blockchain and application layer. This is designed to allow businesses and government departments to offer applications independent of the underlying distributed ledger technology. TradeTrust currently plugs into Ethereum, a public and permissionless blockchain not under any central governance authority.

Mr Loh depicted how TradeTrust allows documents to be transferred between parties in a flexible yet safe manner. The ability to successfully foster cross-border interoperability has recently been tested in a trial between Singapore and Australia[4] using certificates of origin. Mr Loh ended by expressing that IMDA is actively inviting organizations to partner with them to explore the potential of paperless transactions.

3.3.4 Presentation by Mr Cuong Ba Tran

ASEAN Single Window
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_006.pdf)

Mr Tran presented on the ASEAN Single Window (ASW), a secured regional environment to connect the National Single Windows (NSW) of 10 ASEAN member economies. ASEAN has

[4] Trial between Singapore and Australia – https://www.imda.gov.sg/news-and-events/Media-Room/Media-Releases/2021/Australia-and-Singapores-blockchain-trial-shows-promising-results-for-reducing-transaction-costs

established a legal framework to support the exchange of e-documents under a common data format and process flow, using the agreed protocol.

The system was started in 2003. All 10 ASEAN economies have exchanged the ASEAN Trade in Goods Agreement electronic Certificate of Origin (ATIGA e-Form D) through the ASEAN Single Window. Besides ATIGA e-Form D, 5 ASEAN economies have also exchanged the ASEAN Customs Declaration Document (ACDD) through the Single Window[5]. The remaining five economies aim to go live with the operation of this document by the end of 2021. There have also been discussions about expanding the ASEAN Single Window to include other economies, such as Japan, Korea, and the United States. Based on rough calculations so far, it can save traders around $122 million per year.[6]

The ASEAN Single Window benefits business, governments, and the general economy through expedited processes and reduced costs. However, the private sector and governments may sometimes encounter technical issues during the implementation process.

3.3.5 Q&A Session

The first question was about how to ensure data security and the challenges faced when developing secure Single Window systems. Ms Matamala answered that strong organizational leadership is key and that sufficient funding to adopt expensive technologies, such as blockchain. Plus, training is required to ensure that solutions are implemented correctly. Ms Teo offered that channel encryption is critical to secure cross-border government-to-government (G2G) connections. For all transactions, getting permission from all parties to forward their data overseas is also important.

For Ms Teo, the greatest challenge has been fostering agreement between economies, and success is dependent on commitments on behalf of the economies to work together. Mr Loh added that summarizing the main issues into concise problem statements helps devise means of solving them. He also mentioned that, while there are trending technologies, such as blockchain, the most important thing is choosing the correct technologies to solve the specific problem.

Responding to the same question, Mr Tran noted that the private sector is increasingly interested in transmitting more trade-related documents via Single Windows and encouraged other speakers to share their views on this matter. Ms Teo said that, if the private sector can bring value to a given network, there is no reason to oppose further integration. The Singapore platform already involves several private entities, including banks and logistics providers.

Mr Tran explained that there are differences between G2G and B2B documents that make harmonization difficult. However, despite the potential cost of the required adjustments, integration into a single system could reduce the cost of doing business, provide more favorable business conditions, and attract investment into ASEAN. On this point, Mr Loh added that Single Windows currently primarily serve as regulatory tools but. However, as private sector involvement grows, Single Windows will need to be framed as tools for trade facilitation.

The audience then asked about the extent to which the COVID-19 pandemic has affected the development of Single Window projects. According to Ms Matamala, the pandemic accelerated the shift towards Single Windows because paper-based exchanges were considered risky. Mr Tran responded that the pandemic slowed down the implementation of the ASEAN Single Window in Myanmar due to less availability of funds and expertise.

[5] Cambodia, Myanmar, Singapore, Malaysia, and Thailand.
[6] Data is based on rough 2019 calculations.

However, the opposite occurred in other ASEAN economies, which have increased trade digitalization to minimize in-person contact.

Finally, an attendee asked the speakers what they expected to be areas of future development for cross-border Single Window systems. Mr Tran suggested that the ASEAN Single Window could be connected with the Single Windows of non-ASEAN economies and other digitalized customs systems, such as the ASEAN Customs Transit System (ACTS).[7] For Ms Matamala, the big next step is to extend Single Windows to payment processing, due to the rapid growth of e-commerce. Currently, Single Windows are more advanced in dealing with documentary processes. Ms Teo encouraged private actors to agree, whenever asked, to test solutions on behalf of their economies.

Mr Loh ended with an observation that, at present, Single Window systems are built-in individual economies without interoperability in mind – it is somewhat of an afterthought. As a result, when regions ultimately want to foster interoperability, it is more difficult because several systems are using different technologies. In the long term, Mr Loh expects that Single Windows to be built with interoperability in mind, which should allow them to interact with each other more naturally.

[7] ACTS is a single electronic Customs transit goods declaration from departure through transit to the destination.

4 Workshop 4: Empowering MSMEs to Participate in Cross-Border Trade

4.1 Summary

This fourth and final workshop, on Empowering MSMEs to Participate in Cross-Border Trade, was held virtually on 15 September 2021. Small businesses are the backbone of many APEC economies, yet they are underrepresented in cross-border trade, disproportionately face barriers to success, and were unduly impacted by the COVID-19 pandemic. Digital technologies, such as trade and e-commerce platforms, social media, and the internet in general, provide opportunities for micro, small and medium-sized enterprises (MSMEs) to overcome some restrictive challenges and bridge gaps to larger companies. This workshop featured speakers engaged in projects relating to how the public and private sectors can better support MSME engagement in global trade.

After a brief introductory session, the speakers delivered four presentations during which they discussed their own solutions and research. The series of back-to-back presentations was followed by a robust Q&A session, during which audience members were encouraged to submit questions. During this time, the experts offered insights on several topics, including examples of successful public-private partnerships to support MSME involvement in global trade, how to ensure affordability of e-commerce solutions for MSMEs, and how to empower businesses in developing economies, in particular.

This workshop was attended by 76 people from 16 APEC member economies and observer organizations (ABAC and PECC), including speakers joining from the APEC PSU, Japan, the Philippines, and the United States. The details of the speakers are as follows:

- Mr Andre WIRJO
  Analyst, APEC Policy Support Unit (PSU)

- Mr Satoru SOMEYA
  Managing Director, Head of CEO's Office and
  Head of Global & Alliance Business Department, TradeWaltz (Japan)

- Mr Raffy VICENTE
  Managing Director of ShippingCart, QuadX (The Philippines)

- Ms Shamarukh MOHIUDDIN
  Principal Associate, Nathan Associates (The United States)

4.2 Introductory Presentation

Global State of Micro, Small and Medium Enterprise Participation in Trade
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_002.pdf)

The introductory presentation was delivered by Ms Megumi Aikawa, Research Analyst/Project Coordinator at Washington CORE, a consultancy supporting the workshop.

Ms Aikawa began by introducing the key role of MSMEs in the global economy and the challenges that these businesses face. MSMEs account for over 90% of all enterprises in most economies, 70% of global employment, and are more likely to employ young, elderly, and lower-skilled people.

However, MSMEs are underrepresented in global cross-border trade, especially in developing economies. This is down to several barriers, including limited access to information about global distribution channels, burdensome customs and bureaucratic procedures, lack of access to financing and payment mechanisms, and inability to exploit economies of scale.

Digital technologies play a critical role in addressing these issues by helping MSMEs reach overseas customers, simplifying logistics and legal procedures, and increasing the accessibility of financial services.

Governments recognize that economies benefit from a healthy environment for MSMEs, which helps drive growth, innovation, and competition. While supporting the market-based expansion of technologies, the public sector must also be proactive in fostering greater access to digital tools, building necessary infrastructure (e.g., internet access), bolstering domestic cybersecurity, and tackling market power abuses. Governments can also implement targeted programs that address some of the bottlenecks of MSME participation, such as data costs and digital literacy. Moreover, intergovernmental bodies such as APEC are important for developing frameworks and tools, setting standards, and promoting best practices to enable competition, security, and continued entry to markets for new participants.

4.3 Panel Session

4.3.1 Presentation by Mr Andre Wirjo

Supporting MSMEs' Digitalization amid COVID-19
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_003.pdf)

Mr Wirjo's presentation was based around two APEC Policy Support Unity (PSU) briefs relating to MSMEs and focused on the importance of digital technologies during the pandemic and beyond.[8] [9] He began by noting that, while APEC economies have performed better than most under the pandemic, the regional economy still declined by 1.8% in 2020, leading to high rates of unemployment. The extent of the expected recovery will depend on the successful management of the pandemic (e.g., vaccine rollouts). MSMEs are particularly vulnerable to economic shocks for several reasons (e.g., lower cash reserves, lower productivity). As they make up the majority of businesses in most APEC economies, support for MSMEs must be a fundamental element of economic recovery.

Many economies are promoting the use of digital solutions – something APEC has acknowledged since endorsing the Boracay Action Agenda in 2015.[10] E-commerce platforms, for example, can simplify the process of digitalization for MSMEs. Technologies facilitating contactless transactions and the utilization of cloud-based logistics have also proven valuable during the pandemic. Moreover, supply chain finance platforms have helped MSMEs address cash flow issues, and social media and video-conferencing platforms have allowed MSMEs to engage more effectively with customers.

However, the rise of digital technologies means a greater risk of cybercrime and other problems. MSMEs are less likely to have the necessary resources to defend against cyberattacks. They may also be subject to the spread of misinformation on social media channels, with false reviews and negative publicity potentially leading to lost transactions. Large digital players can (intentionally or not) use their market power to drive out MSMEs, and e-commerce platform algorithms may put some MSMEs at a disadvantage. Limited internet

[8] Supporting MSMEs' Digitalization Amid COVID-19. APEC Policy Support Unit, 2020. https://www.apec.org/Publications/2020/07/Supporting-MSMEs-Digitalization-Amid-COVID-19

[9] Globalization, Inclusion, and E-Commerce: APEC Agenda for SMEs. APEC Policy Support Unit, 2018. https://www.apec.org/Publications/2018/02/Globalization-Inclusion-and-E-Commerce---APEC-Agenda-for-SMEs

[10] Boracay Action Agenda to Globalize MSMEs. APEC. 2015. https://www.apec.org/meeting-papers/sectoral-ministerial-meetings/trade/2015_trade/2015_mrt_standalone.aspx

access and digital literacy, on behalf of both businesses and consumers, also impact the ability of MSMEs to exploit digital technologies. Finally, there are legal and administrative challenges associated with cross-border transactions that MSMEs may not have the capacity to address adequately.

Governments must first help citizens and businesses to overcome the digital divide and begin using digital services. They must also reduce the cost of using the internet and promote digital literacy to ensure that citizens can access all available online services. Policymakers should work to protect MSMEs and customers from internet security issues, ensure fair market competition, invest in the necessary underlying infrastructure, and enhance public-private partnerships in this sphere.

4.3.2 Presentation by Mr Satoru Someya

Digital Trade Infrastructure "TradeWaltz": Encouraging SMEs to Access Global Trade (http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_004.pdf)

Mr Someya's presentation focused on TradeWaltz, a digital trade platform from Japan, and how it can encourage MSMEs to engage in cross-border trade. As most documents used for international trade are still paper- or PDF-based, much time is spent manually re-entering data, which increases import and export times. Vast amounts of paperwork also mean companies spend a lot of money renting office spaces and obtaining specialist knowledge regarding trade procedures. TradeWaltz is a B2B[11] communication platform, built on blockchain, that solves these issues by serving as a one-stop shop for trade.

SMEs and other trade-related parties (e.g., banks, carriers, insurers) can connect to TradeWaltz and share documents and data. Unlike most other trade platforms, TradeWaltz can connect all trade players (as opposed to just one category) and handles a range of documents (e.g., certificates of origin, bills of lading) rather than just one type. Information is exchanged as structured data, not PDFs, meaning information does not need to be re-entered. Ultimately, TradeWaltz wants to create an ecosystem in cooperation with other trade platforms.

The idea for TradeWaltz began in 2017 out of the cross-industrial consortium in Japan for trade digitalization, which included banks, cargo owners, insurers, and logistics companies. A TradeWaltz proof-of-concept (PoC) was carried out in 2017-2019 in Japan, Singapore, and Thailand. It showed that the platform could help users achieve efficiency gains of 44-60%. Since then, TradeWaltz has also supported the launch of trade consortiums in Thailand (2018) and Viet Nam (2021).

TradeWaltz is also fostering linkages between economies. In May 2021, a system linkage plan between TradeWaltz and the trade platforms from four other APEC economies (Australia, New Zealand, Singapore, and Thailand) was announced. The project should be completed in 2022. In addition, TradeWaltz has begun focusing on MSMEs - a PoC concerning Japanese MSMEs exporting to Chinese Taipei using TradeWaltz began in September.

Mr Someya then played a video[12] showing how the TradeWaltz platform can help domestic companies sell their products abroad by reducing the time spent preparing documentation. The video also introduced the TradeWaltz IoT[13] Tracker, which can track the location of products in real-time, allowing stakeholders to know where products are, which can also reduce lead-time, costs, and uncertainty. To end, Mr Someya noted a plan for TradeWaltz to prepare easy ways for MSMEs to use the platform, including a fee program, application support, and an acceleration program.

[11] Business-to-Business
[12] https://youtu.be/Yi8KdYpqWtk
[13] Internet of Things

4.3.3 Presentation by Mr Raffy Vicente

Hacking Growth with Digital Solutions for Cross Border Trade: Philippines MSME Experiences
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_005.pdf)

Mr Vicente's presentation focused on ShippingCart, the cross-border delivery service of QuadX, and the experience of working with MSMEs in recent years. He began by introducing QuadX and its three primary products: GOGO Xpress, a domestic delivery service; XPAY, a financial wallet and e-commerce disbursement solution that works with GOGO Xpress; and ShippingCart. Mr Vicente also highlighted the QuadX Ka-GGX Partner program, the largest courier pool in the Philippines with over 6,000 riders, all of whom are registered as business owners. QuadX aims to support the domestic economy by helping to improve the wages and lifestyles of these workers.

Mr Vicente reported on the results of a survey conducted among ShippingCart's MSME clients. Around 50% of these businesses engage in cross-border trade. Most of those engaged in cross-border activities are importers of raw materials used to make their products. Only around 4% serve overseas customers, so there is a significant imbalance between imports and exports.

MSMEs have been able to grow their businesses by using financial service platforms (e.g., PayPal, TransferWise[14]) as affordable alternatives to traditional banking. They have also used communication tools (e.g., Zoom, WhatsApp, Viber) to communicate with vendors, customers, and suppliers. Other platforms (mainly Amazon and Alibaba) have been useful for logistics and sourcing goods, and advertising (mainly using Facebook) has been valuable, too.

The main difficulties the surveyed MSMEs have faced relate to customs, taxes, shipping delays, and clearance delays. These areas are those in which MSMEs would appreciate the support of government agencies and business associations. While there are guidelines in place, many of these procedures can still be erratic and uncertain.

Exports from domestic MSMEs should increase as platforms develop and costs decrease. MSMEs now have to work out how to build brands and focus on value-added products, as they cannot prosper on an international scale if offering only generic products. A key determinant of success for many MSMEs is the ability to offer unique products with many benefits for customers.

4.3.4 Presentation by Ms Shamarukh Mohiuddin

Reaching Women's Potential in Cross Border E-Commerce
(http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_006.pdf)

Ms Mohiuddin presented on the US Support for Economic Growth in Asia (US-SEGA) project. For this work, Nathan Associates has been leading APEC research[15] on how MSMEs can leverage e-commerce. In particular, she focused on the barriers faced by women-owned businesses and how economies can help them. Women-owned businesses tend to be smaller than those owned by men and disproportionately face the challenges discussed in previous presentations (e.g., trade finance, regulatory hurdles).

[14] The company changed its name to Wise in February 2021. https://wise.com/gb/blog/world-meet-wise
[15] "Advancing Cross-Border E-Commerce for Women Entrepreneurs (SME 09 2019S)" https://aimp2.apec.org/sites/PDB/Lists/Proposals/DispForm.aspx?ID=2492

The research involved consultation with a variety of stakeholders, including women entrepreneurs, large companies (e.g., Google, Mastercard), government stakeholders (e.g., several ministries responsible for trade), e-commerce platforms (e.g., eBay, Etsy), organizations that support women-owned businesses, and global organizations (e.g., United Nations).

The findings revealed several disadvantages for women-owned businesses. 80% of women-owned businesses with credit needs are either underserved or unserved, and they face a $1.7 trillion financing gap. Women can access fewer markets than men – only 1% of global sourcing by corporations is from women-owned businesses. There are further legal and social barriers. For example, in 12 APEC economies, the law does not prohibit gender-based discrimination in financial services. This can affect the ability of women-owned businesses to access credit, loans, etc. Also, in many APEC economies, as men control household finances, women are disadvantaged when setting up a company (e.g., when acquiring loans). Ms Mohiuddin then presented data from Malaysia, the Philippines, and Thailand showing that women are less likely to interact with trade associations. Other research showed that women-owned businesses export to fewer markets than male-owned ones.

In the digital economy specifically, women-owned businesses in e-commerce are more likely to be denied trade finance and less likely to have strong banking relationships or sophisticated financial documentation. Women also tend to have lower levels of digital literacy and less access to the internet. Due to the home care burden, women often face additional time constraints that hamper their ability to gather all necessary information about cross-border trade (e.g., tax and trade agreements implications). In the logistics sphere, women-owned businesses tend to use postal services rather than private, international providers, which be a disadvantage. Online, many women also face harassment, cyberbullying, and gender discrimination. For example, in some cases, women receive lower bids than men when selling the same products.

Ms Mohiuddin then moved on to potential solutions. She discussed a few examples of companies supporting women-owned businesses and then presented the diagnostic toolkit[16] that the research team created based on their findings. Different sections deal with barriers, such as finance, customs, and logistics. The toolkit is to be used as a questionnaire to help uncover the areas where an economy can offer more support to MSMEs and women-owned businesses. The toolkit is currently being piloted in Viet Nam.

4.3.5 Q&A Session

First, Mr Wirjo was asked to speak about APEC's recent work focused on women or minority-owned MSMEs. Mr Wirjo pointed to some efforts of the APEC Policy Partnership on Women and the Economy (PPWE), which aims to minimize gaps between women and men. Within APEC, there is also a broader focus on inclusivity, which involves women and other populations, such as the youth and elderly.

The speakers were then asked about how to empower MSMEs in developing economies to access global trade channels. Ms Mohiuddin mentioned the GOGO digital program in Viet Nam as a success story. The one-stop-shop allows the government to make information more easily digestible and accessible for MSMEs. There are also efforts in other developing economies, such as the Philippines, and several impressive private-sector efforts. Mr Wirjo talked about the presentation of goods (e.g., packaging) as a major challenge facing exporting MSMEs. He highlighted the importance of high-quality pictures, videos, and multi-lingual

[16] "Women-Owned Business in Cross-Border E-Commerce: A Diagnostic Toolkit (October 2020)" https://www.apec.org/Publications/2020/10/Women-Owned-Business-in-Cross-Border-E-Commerce; https://www.nathaninc.com/apec-webinar/

product information. MSMEs also need to focus on the unique value propositions of their products, as mentioned by Mr Vicente earlier. Using intermediary firms to carry out trade processes can allow MSMEs to focus more on their production activities.

On the same question, Mr Vicente added that many MSME owners are first-time business owners. This makes efforts by e-commerce platforms to educate users extremely valuable (e.g., on how to get access to insurance). ShippingCart works with mainly women-owned MSMEs are women-owned, and they appreciate that the expansion of logistics companies increasingly allows entrepreneurs to sell out of their homes. Finally, Mr Someya spoke about how, although there are great opportunities available for MSMEs when they use trade platforms, they are often hesitant to do so.

One audience member asked about what measures could improve the affordability of digital technologies used by MSMEs. Mr Vicente suggested that digital solutions have already contributed to declining costs. Also, online communities allow people to share solutions that are affordable, practical, and accessible. Mr Wirjo said that some economies are using subsidies to help MSMEs join e-commerce platforms. But it is vital to note the differences between platforms (e.g., levels of popularity with different age groups) and that MSMEs must be savvy about understanding these distinctions. Also, while platforms allow access to larger markets, they can impose challenging requirements on MSMEs (e.g., strict delivery timelines, returns policies). MSMEs must be aware of these facts to ensure that they have grown sufficiently to supply products in compliance with such requirements.

Finally, the panelists were asked to share examples of successful collaborations between the public and private sectors. Ms Mohiuddin spoke about how many large companies and platforms provide training in partnership with multilateral organizations such as the International Trade Centre (ITC). Governments also seek collaboration with companies when looking for best practices. There are opportunities for more collaborations related to how women-owned businesses and MSMEs organize (e.g., through WhatsApp groups rather than trade associations). Governments may be able to tap into these locations to help MSMEs get access to correct information.

On the same question, Mr Vicente mentioned how the Philippines is currently developing an e-commerce roadmap, which has involved consultations with MSMEs, platforms, and logistics companies. Mr Someya mentioned that TradeWaltz is an example of a public-private partnership in Japan. He added that MSMEs utilizing e-commerce and trade platforms can help accelerate economy-wide shifts away from old trade procedures. To end, Mr Wirjo discussed how there are opportunities for more collaboration in customs procedures. Some economies have programs to expedite clearances, but some issues, such as non-standard classifications codes, still cause issues among logistics companies. Economies should also explore cross-border collaborations that help facilitate better product returns, an integral part of e-commerce business strategies.

4.4 Closing Remarks

The closing remarks were delivered by Mr Takayuki Niikura, Director of the APEC office at Japan's Ministry of Economy, Trade, and Industry (METI).

Mr Niikura thanked the panelists and briefly summarized the contents of the previous events in the series. Throughout the series, the importance of developing forward-looking interoperable systems and harmonizing data standards, in particular, have been highlighted.

Next year, APEC will host a similar set of workshops that may focus on border processes and technologies, such as pre-arrival processing of electronic declarations; electronification of documents, certification, and payments; expedited shipments; and border agency cooperation.

Finally, Mr Niikura thanked the audience members for their continued interest in fostering enhanced collaboration within APEC.

5 Observations & Analysis

5.1 Survey Responses

After each event, attendees were invited to complete a post-workshop survey to provide feedback on the event, along with some personal and demographic information. The surveys help APEC understand the successes and pitfalls of each workshop and to make improvements going forwards. The issues were rectified before the remaining events. Each survey had a multiple-choice (required) and free-form(optional) section. The results from the multiple-choice section suggest that attendees of all events were satisfied with the outcomes. Responses to the free-form prompts are also summarized below.

Survey Response Summary

	Responses	Rate
Workshop 1: Trade Platforms*	9	9%
Workshop 2: Enabling Technologies	33	30%
Workshop 3: Single Windows	27	33%
Workshop 4: Empowering MSMEs	25	33%

*Due to logistical challenges, the first workshop survey received too few responses to draw useful conclusions.

Survey Prompt: Workshop helped deepen my understanding of the topic

	Strongly Agree	Agree	Disagree	Strongly Disagree
Workshop 1	67%	33%	0%	0%
Workshop 2	53%	47%	0%	0%
Workshop 3	67%	33%	0%	0%
Workshop 4	76%	24%	0%	0%

Survey Prompt: Using technologies discussed will be useful for my economy

	Strongly Agree	Agree	Disagree	Strongly Disagree
Workshop 1	56%	44%	0%	0%
Workshop 2	58%	42%	0%	0%
Workshop 3	44%	56%	0%	0%
Workshop 4	92%	8%	0%	0%

Survey Prompt: Best practices discussed could be useful for my economy and/or organization

	Strongly Agree	Agree	Disagree	Strongly Disagree
Workshop 1	67%	33%	0%	0%
Workshop 2	30%	67%	3%	0%
Workshop 3	48%	52%	0%	0%
Workshop 4	68%	32%	0%	0%

Survey Prompt: Workshops helped me understand relevant challenges

	Strongly Agree	Agree	Disagree	Strongly Disagree

Workshop 1	44%	56%	0%	0%
Workshop 2	36%	64%	0%	0%
Workshop 3	44%	56%	0%	0%
Workshop 4	68%	32%	0%	0%

Survey Prompt: Presentations provided valuable insights on how challenges can be addressed

	Strongly Agree	Agree	Disagree	Strongly Disagree
Workshop 1	44%	56%	0%	0%
Workshop 2	42%	58%	0%	0%
Workshop 3	41%	59%	0%	0%
Workshop 4	64%	36%	0%	0%

In the free-form sections, audience members were first invited to comment on what they found to be the most valuable insights they had gained from the event. A popular answer was that attendees had learned about the advantages offered by digital technologies to economies and businesses, especially MSMEs and women-owned firms. Also important were discussions surrounding specific business models (e.g., proxy services) and conversations that helped attendees envision critical next steps for their own economies.

When asked about what topics APEC might cover in related events in the future, several attendees suggested a specific focus on security and data privacy would be valuable. For example, one respondent recommended a workshop focusing on data privacy agreements between APEC economies and the implications for cross-border e-commerce. Another favored topic was how governments enforce new laws relating to digital technologies used in cross-border trade. Also, audience members would appreciate more case studies from the perspective of MSMEs on their experiences adopting new technologies and receiving government support for digital transformation.

The surveys also invited comments on potential next steps for APEC. Some suggested that additional stakeholder categories (e.g., regulatory bodies and small business representatives) could be involved in future discussions. Others encouraged the organization to focus on Single Window development in smaller and developing economies specifically and proposed that APEC publish further guidelines or best practices for Single Windows. Finally, APEC may consider hosting events focused on successful e-commerce initiatives that arose during the pandemic.

5.2 Key Workshop Takeaways

This successful workshop series was filled with insightful presentations on various trade-related issues, digital solutions, and business models. The virtual audiences were constantly engaged and asked questions that facilitated some exciting back-and-forth discussions between the speakers. The workshops are summarized in detail above, where links to all presentation slides can also be found. This section recaps the key takeaways from the expert presentations and discussions across the event.

Communicating Value

Discussions throughout the series made clear that digital technologies offer several benefits to businesses, consumers, and economies, including greater efficiencies, reduced costs, and access to a broader range of goods and services. However, barriers to take-up remain, including startup costs, security concerns, and a lack of digital literacy. While each challenge has its solutions, a common antidote is proper communication of how users can gain from new technologies. Sufficient information must be provided for consumers to weigh benefits against risks accurately. With stakeholders armed with adequate communication, the benefits will triumph more frequently.

Developing Trust

The invited experts regularly noted the importance of fostering trust in digital solutions among businesses and the wider population. Real and perceived risks, primarily related to cybersecurity and the soundness of financial transactions, are barriers to technologies that could transform trade across the APEC region. Moreover, business owners can be wary of investing in technological capacity if the solution providers (e.g., e-commerce platforms) are not committed to the local market long-term. Adopting recognized technical standards and legal frameworks (e.g., UNCITRAL Model Laws) is critical to building confidence among stakeholders. In addition, offering products tailored to the local market and, when possible, establishing a local presence, can encourage clients to make long-term investments to facilitate the use of technologies.

Fostering Interoperability

Truly interoperable digital systems must be a fundamental component to the realization of seamless trade within APEC. Platforms and applications must be able to facilitate cross-border exchanges of data between public and private entities, including customs authorities, shippers, banks, and more. The speakers emphasized that interoperability requires a commitment to collaboration on behalf of stakeholders across sectors and economies. Such commitments should emphasize the establishment of systems designed with interoperability in mind, far more efficient than retroactively altering siloed legacy systems. Therefore, economies and businesses should seek communication and consultation with other stakeholders before starting projects that could benefit from interoperability. Already, this series has succeeded in sparking conversations regarding collaboration among several speakers.

Importance of Government

Government agencies have a leading role in reducing risks and lowering barriers to entry (e.g., via subsidies or education) for adopters of digital technologies. Public officials are major players in securing international agreements, ensuring adherence to cross-border standards, and promoting trials that allow new solutions to scale up. Furthermore, governments are responsible for providing the requisite physical, regulatory, and social infrastructure for new digital technologies to be successfully adopted by all. Their role includes confronting barriers that impede inclusivity along the lines of identity (e.g., gender inequality in digital literacy) and that prevent MSMEs from competing fairly with larger firms (e.g., market power abuses).

Annex A: Workshop Agendas

All documents can be accessed through the APEC Meeting Document Database at the following links:

- **Workshop 1:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_001.pdf
- **Workshop 2:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_001.pdf
- **Workshop 3:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_001.pdf
- **Workshop 4:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_001.pdf

Annex B: Speaker Biographies

All documents can be accessed through the APEC Meeting Document Database at the following links:

- **Workshop 1:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP1/21_cti_tf_wksp1_002.pdf
- **Workshop 2:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP2/21_cti_tf_wksp2_007.pdf
- **Workshop 3:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP3/21_cti_tf_wksp3_007.pdf
- **Workshop 4:** http://mddb.apec.org/Documents/2021/CTI/TF-WKSP4/21_cti_tf_wksp4_001a.pdf

Annex C: Presentation Materials

- **Workshop 1:**
http://mddb.apec.org/Pages/search.aspx?setting=ListMeeting&DateRange=2021/05/01%2C2021/05/end&Name=Utilizing%20Digital%20Technology%20in%20the%20Field%20of%20Trade%20Facilitation%20Under%20the%20Current%20COVID-19%20Pandemic%20and%20Beyond%3A%20Best-Practices%20Sharing%20Workshop%20-%20Trade%20Facilitation%20Through%20Trade%20Platforms%202021

- **Workshop 2:**
http://mddb.apec.org/Pages/search.aspx?setting=ListMeetingGroup&DateRange=2021/06/01%2C2021/06/end&Name=Utilizing%20Digital%20Technology%20in%20the%20Field%20of%20Trade%20Facilitation%20Under%20the%20Current%20COVID-19%20Pandemic%20and%20Beyond%3A%20Best-Practices%20Sharing%20Workshop%20%u2013%20E-Commerce-Enabling%20Technologies%202021&APECGroup=%22Committee%20on%20Trade%20and%20Investment%20%28CTI%29%22

- **Workshop 3:**
http://mddb.apec.org/Pages/search.aspx?setting=ListMeetingGroup&DateRange=2021/08/01%2C2021/08/end&Name=Utilizing%20Digital%20Technology%20in%20the%20Field%20of%20Trade%20Facilitation%20Under%20the%20Current%20COVID-19%20Pandemic%20and%20Beyond%3A%20Best-Practices%20Sharing%20Workshop%20-%20Interoperability%20and%20Data%20Security%20for%20Single%20Windows%202021&APECGroup=%22Committee%20on%20Trade%20and%20Investment%20%28CTI%29%22

- **Workshop 4:**
http://mddb.apec.org/Pages/search.aspx?setting=ListMeetingGroup&DateRange=2021/09/01%2C2021/09/end&Name=Utilizing%20Digital%20Technology%20in%20the%20Field%20of%20Trade%20Facilitation%20Under%20the%20Current%20COVID-19%20Pandemic%20and%20Beyond%3A%20Best-Practices%20Sharing%20Workshop%20-%20Empowering%20Micro%2C%20Small%20and%20Medium%20Enterprises%20to%20Participate%20in%20Cross-Border%20Trade%202021&APECGroup=%22Committee%20on%20Trade%20and%20Investment%20%28CTI%29%22

Annex D: Workshop Survey Sheets

Workshop 1

Information learned from the workshop

Instructions: Please indicate your level of agreement with the statements listed in the table below by circling the number that applies. Please leave comments if any.

The workshop was helpful for deepening my understanding on trade platforms and their benefits to trade facilitation.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Facilitating trade through trade platforms will be beneficial for my economy.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The best practices and recommendations discussed during the workshop could be effective for my economy and/or organization.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations helped me understand challenges in expanding the use of trade platforms.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations provided valuable insights on how these challenges can be addressed.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Findings and suggestions

What were the most useful insights that you learned from today's workshop?

Are there any additional topics that were not covered in this workshop that you would like to be addressed in future workshops planned in this series and beyond?

What further steps should APEC take to address member economy concerns on this subject?

Participant information

(Same for all four surveys. Please see page 38)

Workshop 2

Information learned from the workshop
Instructions: Please indicate your level of agreement with the statements listed in the table below by circling the number that applies. Please leave comments if any.

The workshop was helpful for deepening my understanding of e-commerce enabling technologies and their benefits to trade facilitation.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Using e-commerce enabling technologies to facilitate trade will be beneficial for my economy.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The best practices and recommendations discussed during the workshop could be effective for my economy and/or organization.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations helped me understand the challenges in expanding the use e-commerce enabling technologies.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations provided valuable insights on how these challenges can be addressed.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Findings and suggestions
What were the most useful insights that you learned from today's workshop?

Are there any additional topics that were not covered in this workshop that you would like to be addressed in future workshops planned in this series and beyond?

What further steps should APEC take to address member economy concerns on this subject?

Participant information
(Same for all four surveys. Please see page 38)

Workshop 3

Information learned from the workshop

Instructions: Please indicate your level of agreement with the statements listed in the table below by circling the number that applies. Please leave comments if any.

The workshop was helpful for deepening my understanding of interoperability and data security for Single Windows and their benefits to trade facilitation.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Fostering interoperability and data security for Single Windows to facilitate trade will be beneficial for my economy.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The best practices and recommendations discussed during the workshop could be effective for my economy and/or organization.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations helped me understand the challenges in fostering interoperability and data security for Single Windows.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations provided valuable insights on how these challenges can be addressed.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Findings and suggestions

What were the most useful insights that you learned from today's workshop?

Are there any additional topics that were not covered in this workshop that you would like to be addressed in future workshops planned in this series and beyond?

What further steps should APEC take to address member economy concerns on this subject?

Participant information

(Same for all four surveys. Please see page 38)

Workshop 4

Information learned from the workshop

Instructions: Please indicate your level of agreement with the statements listed in the table below by circling the number that applies. Please leave comments if any.

The workshop helped deepen my understanding of how digitalization can help MSMEs engage in cross-border trade.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Using digitalization to empower MSMEs to engage in cross-border trade will be beneficial for my economy.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The best practices and recommendations discussed during the workshop could be effective for my economy and/or organization.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations helped me understand the challenges to using digitalization to empower MSMEs to engage in cross-border trade.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

The presentations provided valuable insights on how these challenges can be addressed.

1. Strongly Disagree 2. Disagree 3. Agree 4. Strongly Agree

Comment:

Findings and suggestions

What were the most useful insights that you learned from today's workshop?

Are there any additional topics that were not covered in this workshop that you would like to be addressed in future workshops planned in this series and beyond?

What further steps should APEC take to address member economy concerns on this subject?

Participant information

(Same for all four surveys. Please see page 38)

Section that is the same for all four surveys

Participant information

Economy: _____

Organization type: (Please select one that applies from below)

Government agency	International organization (APEC, etc.)	Private company or industry organization	Educational / Research institution	Others
☐	☐	☐	☐	☐

If “Others”, please specify.

_____

The following information is optional.

Name/position: _____

Organization name: _____

Email: _____

Gender: Male / Female / Other

Annex E: Key Acronyms

Acronym	Name
ABAC	APEC Business Advisory Council
APEC	Asia-Pacific Economic Cooperation
ASEAN	Association of Southeast Asian Nations
ASW	ASEAN Single Window
B2B	business-to-business
COVID-19	Coronavirus Disease 2019
CTI	Committee on Trade and Investment (APEC)
DCSA	Digital Container Shipping Association
IMDA	Infocomm Media Development Authority (Singapore)
METI	Ministry of Economy, Trade and Industry (Japan)
MSMEs	micro, small and medium-sized enterprises
NTP	Network Trade Platform (Singapore)
PAA	Pan Asian e-Commerce Alliance
PECC	Pacific Economic Cooperation Council
PSU	Policy Support Unit (APEC)
SICEX	Sistema Integrado de Comercio Exterior (Chile)
UN	United Nations
UNCITRAL	UN Commission on International Trade Law
WTO	World Trade Organization