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APEC Workshop on Facilitating Digital Transformation for SMEs in Logistics and Transport Industries in the Post COVID-19 Pandemic

Ha Noi, Viet Nam | 7-8 September 2023

APEC Digital Economy Steering Group

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Table of contents

Contents

APEC WORKSHOP ON FACILITATING DIGITAL TRANSFORMATION FOR SMES IN LOGISTICS AND TRANSPORT INDUSTRIES IN THE POST COVID-19 PANDEMIC

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Workshop Summary Report

I. Introduction

On 7-8 September 2023, the ***"APEC Workshop on Facilitating Digital Transformation for SMEs in Logistics and Transport Industries in the Post COVID-19 Pandemic"*** was held in the hybrid format. The project was led by Viet Nam and co-sponsored by Chile; Malaysia; and Mexico. Speakers and participants came from the private sector, business associations, international organizations, research institutions, and APEC economies' relevant Ministries and government agencies.

The objectives of the "APEC Workshop on Facilitating Digital Transformation for SMEs in Logistics and Transport Industries in the Post COVID-19 Pandemic" are to provide capacity building for APEC member economies, especially developing ones with a focus on government's policy approach to address challenges that SMEs in logistics and transport encounter in digital transformation, bearing in mind that they are most negatively affected due to lockdowns and physical disruption in the pandemic, and they are also one of the most important forces to help facilitate economies' resilience and recovery in the post pandemic.

II. Background

SMEs have increasingly recognized the importance of digital transformation to their business growth and development, especially in the rise of COVID-19 when business surveys worldwide show that up to 70% of SME have intensified their use of digital technologies due lockdowns and disruptions in supply chain. With their business operation digitized, it helps SMEs expand their online

presence, which is especially significant when facing lockdowns and disruption in supply chain. However, SMEs still face a great deal of challenges in digital transformation such as inadequate access to infrastructure; low interoperability of systems; internal skills gaps; financing gaps for covering high costs to transform; uncertainty about liabilities and responsibilities when engaging in new digital activities; risks of reputation damage, etc. [1] The digital transformation of SMEs, with consideration for women-owned SMEs could be facilitated if governments play more active roles in policy formulation and intervention (including through public-private partnership) such as promoting training and technology assistance, access to finance, development of SME-tailored digital solutions; data centres, experimentation platforms and networking programs; regulatory reforms; e-government and one-stop-shops; and so on[2].

The project will address SMEs' challenges, including women-owned SMEs through focusing on how policies could be adapted to SMEs to promote digital transformation in response to increasing competition and hardship in the context of post COVID-19 pandemic. This project will particularly have a look at transport and logistics industries performed by SMEs in the pandemic in general, with relations to digital transformation in particular. Through the sharing from member economies, the economies' participants will have a more in-depth understanding of governments' policies and support currently in place, learn the strengths and drawbacks in policies with views of addressing the gaps, supporting SMEs overcome challenges and promoting the recovery and growth in the post pandemic.

It will be beneficial to all APEC member economies since APEC gives high priorities to SMEs, digitalization, and innovation. Also, women-owned SMEs will be targeted given their significant contribution to the equitable growth in the regional economy.

[1] Digital Transformation of SMEs. OECD. From https://www.oecd-ilibrary.org/sites/71cb507b-en/index.html?itemId=/content/component/71cb507b-en
[2] Digital Transformation of SMEs. OECD. From https://www.oecd-ilibrary.org/sites/71cb507b-en/index.html?itemId=/content/component/71cb507b-en

III. Key Issues

1. Overview of digital transformation for SMEs in logistics and transport industries in APEC member economies

Mr Nguyen Anh Duong, Director, Department for General Economic Issues and Integration Studies, Central Institute for Economic Management (CIEM), Viet Nam: Following the COVID-19 pandemic, the world economy has witnessed the intertwined and complexity between recovery and downturn, cooperation and conflicts. While instability remains, supply chain disruptions affect, commodity price continues to hike, and risks of economic recession are still looming, there still remain efforts towards sustainable development and climate change adaptation for the long term growth and development. This trend, in one hand, can promote long term sustainability, growth and development; on the other hand, provoke challenges for some economies if they become mandatory standards and regulations. International cooperation in trade and investment has made some significant progress with the conclusion of the Ministerial Meeting 12 (MC12), Regional Comprehensive Economic Partnership (RCEP) and the launch of the Indo-Pacific Economic Framework (IPEF), and so on. Free trade agreements (FTAs) continue to shape the global value chains (GVCs) in the APEC region. The outbreak of the COVID-19 pandemic has induced efforts towards digitalization along all stages of the GVCs due to the sudden lockdowns and supply chain disruptions. All stakeholders including enterprises have to accelerate their efforts to maintain competitive and promptly respond to new demands and circumstances in the pandemic. In this period, APEC has also proposed new initiatives to foster digitalization such as the APEC Collaborative Framework for Online Dispute Resolution of Cross-border B2B Disputes; Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific, etc. In logistics and transport, digital transformation has taken place well before the COVID-19 but became more progressive during the COVID-19 pandemic, however, the pace is not uniform across sectors. According to the S&P Global Market Intelligence's Supply Chain Digital Transformation Survey 2023, shippers, logistics service providers, and carriers are three among those who undertake digital transformation seriously. According to a survey by Reuters Events and Cargowise, digital transformation might be various in

different sub-sectors in logistics and transport. For example, 64% of company respondents have invested into supply chain management systems, 48% into digital documentation, 38% into warehouse automation, 35% for data analysis for inventory management, 23% into cybersecurity, 23% into vehicle tracking systems, 17% into automated order fulfilment, 13% for artificial intelligence for route optimization, 2% for augmented reality for maintenance and repairs, and 2% into blockchain. Also, according to the S&P Global Market Intelligence's Supply Chain Digital Transformation Survey 2023, digital transformation contributed to reducing delays to 50% for rail, ocean and air carriers, reducing fuel costs up to 69% for truckload and parcel carriers.

On the other hand, while digital transformation is necessary and inevitable, SMEs in general, and those in logistics and transport will need adequate support including raising awareness, financial support, technical assistance, etc., to support their development not only in the COVID-19 pandemic but in the long term. Digital transformation in combination with digital manufacturing is expected to synergize strengths to offer opportunities for enterprises to survive and develop in the current harsh competition. On the way, structural reform is expected to facilitate digital transformation, paving the way for more concrete achievements in the field. SMEs might also need more support in building capacity in specific issues such as cybersecurity, data privacy, and so on.

2. Identifying and addressing challenges that SMEs in logistics and transport encounter in the post COVID-19 pandemic

Professor Hikari Ishido, Chiba University, Japan: Logistics and transport cover a wide network of various stakeholders and complicated procedures and systems such as shipping companies, land transport companies, freight forwarders, consignors, governments, customs brokers, international trade associations, with systems of port, customs, transportation management, etc., which create an overload of paperwork with high costs and make it possible to be delayed or become a bottleneck at the time of emergency. The introduction of blockchain has contributed to address the problems through drastically reducing costs and lead time for international trade with high transparency and trust. Blockchain is a method that connects chaining blocks (batches) of transactions.

Blockchain is a distributed, decentralized ledger that duplicates and distributes transactions across the network of computers participating in the blockchain, which makes it impossible or difficult for the system to be changed, hacked, or manipulated since every transaction in this ledger is stored based on actual purchases, authorized and authenticated, making it highly secure. People can see the data but they cannot corrupt it.

From another angle, the speaker stressed that removal of service trade restrictiveness for SMEs and women entrepreneurs in particular is crucial for promoting trade in goods and services, including in logistics and transport. Service trade restrictiveness is regarded as a “fixed cost” that could impede SMEs to participate in the industry. The reduction of this is believed to lead to inclusion of more SMEs, thereby contributing to an increase of cumulative service outputs/trade. Free trade agreements (FTAs) could also help further reduce trade restrictiveness through forming a sound mechanism of global value chains (GVCs).

Ms Cao Cam Linh, Department of Technology and Innovation, Viet Nam Logistics Association: In Viet Nam, logistics industry is believed to have a lot of room for development. The driving force for growth of this industry is the boom of e-commerce and growth of goods exports. Viet Nam’s e-commerce market is ranked as the forth in the Southeast Asia (following Indonesia; Thailand; and Malaysia) in terms of commodity trade volume, and is forecasted to continue to grow 1.8 times higher than the average growth rate of the whole Southeast Asia region in coming years. Lazada Viet Nam's 2021 E-Commerce Industry Overview Report forecasts that Viet Nam's retail e-commerce market will grow by 300%, from nearly USD14 billion in 2021 to USD39 billion in 2025, which also means that logistics business is required to develop in a more professional and efficient manner to meet the markets’ demand.

Although being a potential industry, in reality, Viet Nam's logistics industry is of small scale, limited in capital, technology as well as operating capacity. In 2021, Viet Nam had more than 43,000 logistics service businesses. Among that, 89% are Vietnamese SMEs, 10% are joint ventures and 1% are 100% foreign owned enterprises, providing transnational logistics services with big names in the list of

the 50 largest logistics companies in the world such as: Kuehne & Nagel, DHL Supply Chain & Global Forwarding, DSV, DB Schenker, etc. The number of SMEs accounts for the majority and up to 90% of registered enterprises have capital of less than VND 10 billion. Despite its potential, Viet Nam's logistic industry is not yet efficient enough with the logistics costs recorded as one among highest in the world.

In Viet Nam, although businesses are aware of the importance of digital transformation, 99% of SMEs have difficulty in investing in digital transformation. According to a survey by the Enterprise Development Department of the Ministry of Planning and Investment (MPI), businesses believe that the lack of capital is one of the biggest difficulties they encounter in the digital transformation process. Due to lack of capital, digital transformation is believed to be a game for large businesses only. Also according to the survey, less than 40% of businesses have a budget for digital transformation.

Another challenge is lack of skilled labour to adapt to digital transformation. According to the World Economic Forum (WEF) 2018 Report on readiness for future manufacturing, among ASEAN economies, Viet Nam ranks last in terms of highly skilled labour. Only about 30% of newly graduated engineers and bachelors meet the actual requirements of the job. On the other hand, only 40% of enterprises have enough capacity for IT and communication skills to maintain and exploit digital technology systems. It is forecasted that by 2023, the whole industry will have a shortage of about 1 million workers.

Regarding level of digital transformation, most businesses have only reached at a basic level, that is, transferring operational data to electronic storage. According to a survey by the VALOMA Research Department (2023), over 80% of enterprises have had internet connection and computerization (word, excel, etc.,), however, just about 40% use simple softwares or programs, about 33% use more complicated softwares and programs, only about 13% undertake automation, 13% have software systems widely used for customers and suppliers, and so on.

To sum up, Vietnamese logistics enterprises are aware of opportunities and importance of digital transformation but not yet able to seize the opportunities due

to lack of resources. They don't know where to start, how and with whom, and hence, require more concrete support to realize digital transformation.

Dr Sitanon Jesdapipat, Associate Professor, Rangsit University, Thailand: The COVID-19 was apparently a traumas and disaster, which has also dramatically transformed and reshaped the global economy. The lockdowns and supply chain disruptions have contributed to slowing down resources depletion as well as reminding us the value of good health and sanitation, creating new business opportunities. It has significantly contributed to speeding up digital transformation, online activities and transactions during and post the pandemic. According to JP Morgan, cross-border transactions grew from JPY29 trillion in 2019 to around JPY39 trillion by 2022 thanks to broad trends like global trade improvements, borderless e-commerce, cross-border B2C payments and web-centered businesses.

Thailand has the advantage of being the 2nd largest economy in ASEAN, with the majority of population to be able to access internet. Being the largest B2C in ASEAN, e-commerce revenue rose from USD 35billion in 2017 to USD50 billion in 2020. Thailand also strongly promotes the development of logistics and transport industries, being the 4th largest contributor to Thailand's GDP (5%) at USD12.2 billion in 2021 although declined 22% during the first half of 2021 due to the pandemic. In August 2020, according to Thailand Trade Policy and Strategy Office, Thailand had 20,200 logistics companies including 10,500 in road & rail; 7,900 warehouses; 800 maritime shipping and delivery companies; 200 air transport ones.

Thailand SMEs in logistics and transport also face fierce competition when there are many big players joining in the game such as Thailand Post, Kerry Express, Flash Express, Lazada, Shoppee, J & T, etc. However, there is still ample room for expansion in last mile delivery, online transactions, international presence and local partnership for SMEs thanks to low capital requirement in franchising as well as their competitiveness capacity in pursuing low/reasonable cost, speed, reliability, quality, and responsibilities.

3. Digital transformation in logistics and transport with a focus on policy promulgation and implementation

Dr Cai Yao, Director, Department of Policy Research, Ministry of Transport, China: China has developed a comprehensive system of relevant policies and regulations to promote digital transformation; and SMEs' development and digitalization. At the 19th Congress of the Communist Party of China (CPC) (2017), the Party proposed to further integrate the Internet, big data, and AI with the real economy, and to build a digital China and a smart society. At the Fifth Plenary Session of the 19th CPC Central Committee (2020), the Party proposed to develop a digital economy, to industrialize digital systems and digitalize industry, to achieve full integration between the digital and real economies, and to build internationally competitive digital industry clusters. At the 20th Congress of the CPC (2022), the Party proposed to move faster to boost China's strength in cyberspace and digital development. In February 2023, the Central Committee of the CPC and the State Council issued the "Plan for the Overall Layout of Building a Digital China", which is laid out in accordance with the overall framework of "2522": using the "Two Foundations" of digital infrastructure and data resource systems; promoting the deep fusion of the "Five Integrations" of digital technology with the economy, politics, culture, society, and ecological civilization; strengthening the "Two Capacities" of digital technology innovation system and digital security shield; and optimizing the "Two Environments" of domestic and international digital development.

With regards to SMEs, in December 2021, 19 ministries jointly issued the 14th Five-Year Plan for Promoting the Development of SMEs, aiming at in-depth implementing the Law on the Promotion of SMEs and promoting high-quality development of SMEs in China. The plan focuses on enhancing the innovation capacity and specialization level of SMEs through alleviating difficulties in financing; and strengthening the protection of the legitimate rights and interests in three areas namely: policy system, service system, and development environment.

China attaches great importance to the digital transformation of SMEs, and has formulated and issued a range of policies such as "Special Action Plan for Digital

Empowerment of SMEs" and "Guidelines for Digital Transformation of SMEs", with aims of enhancing the transformation capabilities for SMEs, improving transformation services, and increasing the policy support for transformation. For example, to enhance capacities for Chinese SMEs, measures are strengthened such as applying Subscription-based Product Services to promote digitalization of business links; applying digital products such as Cloud Manufacturing Execution System (MES) and Advanced Planning and Scheduling (APS) to optimize the allocation of manufacturing resources; applying solutions such as Warehouse Management System (WMS), Order Management System (OMS) and Transportation Management System (TMS) to promote the digitization of the warehousing and logistics chain, etc. They also promote guidance such as implementing the digital transformation promotion project of SMEs, carry out the "hand-in-hand action" of large, medium and small enterprises; strengthening the convergence of policies related to the digital transformation of SMEs, implementing pilot projects on the digital transformation of SMEs; or increase financial support through lowering the threshold of digital transformation of SMEs, encouraging platforms to reduce and exempt the expenditure on common needs of transformation, encouraging financial institutions to develop special products and services for the digital transformation of SMEs, set up special loans for the digital transformation of SMEs, and broaden financing channels for SMEs' digital transformation.

Mr Jorge Vasquez, SUBREI, Chile: The pandemic adversely affected economic growth and MSMEs, however, it also helped facilitate digital transformation. On 11 November 2019, Chile issued the Law 21,180 on the Digital Transformation of the State. The new Law sets up electronic support and processing in administrative procedures and document management in the public administration. The Law aims to digitize, simplify, and eliminate certain procedures within the public administration that people must currently perform in person. It also creates Chile's Digital Archive, which is in charge of registering public services information more efficiently.

The plan set out in the Law will become effective 180 days after its publication in the Official Gazette. The implementation will be done gradually within five years

of the Law's publication, because the mandatory use of electronic platforms will require some time to become operative.

The initiative intends to reduce long lines and time spent at government offices, and paper-based processing of public administrative documents, making it possible to access such documents mainly through a cellular phone.

The Law is part of the Strategy of Digital Transformation of the State, presented by President Piñera, which seeks to put Chile at the forefront of the digital world by 2022. The strategy is based on three objectives: improve public services for citizens and businesses; improve public policies; and make consolidation of the digital transformation the paramount public policy.

Besides, Chile has pioneered the signing of a Digital Economy Partnership Agreement with Singapore and New Zealand to help exporters and SMEs take advantage of opportunities from digital trade. Based on this experience, Chile has a great potential to use and exploit digital transformation to boost productivity and well-being.

Dr Sitanon Jesdapipat, Associate Professor, Rangsit University, Thailand: In response to an unprecedented crisis like the COVID-19 pandemic, Thailand's government launched prompt new policies and measure to handle with the situation such as developing policies to promote infrastructure and digital infrastructure, launching public debts and stimulus packages to promote e-commerce growth, dealing with issues related to online transactions, e-commerce such as fraud, digital currency, black list application, and so on. Also, they launched an economic stimulus initiative using mobile payments (m-payments) during the pandemic. The simplicity, dependability, and contact-free nature of m-payments have led to its widespread adoption in Thailand, which encouraged many Thai individuals to use it even though they have never used m-payment method before.

4. Case studies of SMEs in logistics and transport with a focus on digital transformation

Dr Nguyen Minh Duc, Director of Japan - Mekong Regional Logistics Training Center in Viet Nam, Vice Chairman of Hai Phong Logistics Association (HPLA): Haiphong Logistics Association (HLA) was established in 24 August 2021; being a member of Viet Nam Logistics Association (VLA) and had more than 100 members in August 2023. About 70% of the members are SMEs who are providing freight forwarding services, trucking services, custom brokerage, etc. Digital transformation in SMEs in logistics and transport encounter a number of challenges such as company leaders' mindset, employees with lack of skills and inadequate training, non-standard operating procedures, lack of financial resources, lack of connection with trustworthy technical partners and few technical platforms and systems applied by trustworthy organizations.

Viet Nam's universities start to take advantages of some digital platforms used in logistics and supply chain management to provide training and education such as Cargo Wise, Any Logistics, Atalink, Smartlog, etc. For example, Cargo Wise is a single platform software solution, designed to integrate all processes in supply chain; Atalink is a digital platform for managing purchasing, sales, inventory and B2B transaction; Smartlog provides comprehensive operational management on the digital ecosystem - transportation, warehousing, containers, distribution, etc.

To conclude, digital transformation is compulsory to the success of logistics enterprises. However, logistics SMEs are still facing with many challenges to effectively transform. Effective cooperation between universities, training centers and enterprises could help fasten the progress although logistics education & training has only been started in Vietnamese universities for a short time and still face shortage of experienced lecturers, academic courses on digital transformation as well as lack financial resources to invest in updating and upgrading programs, training facilities.

Mr Suzuki Jun, Director, International Logistics Office, Policy Bureau, Ministry of Land, Infrastructure, Transport and Tourism (MLIT)/ and Mr Aikawa Takahiro, Deputy Director, Logistics Policy Division, Policy Bureau, MLIT/ and Mr Kato Taiga, Official, MLIT, Japan: The total number of logistics companies in Japan is about 75,000 and most of them are private SMEs (with less than 100 employees and total of investment less than USD330,000). Most SMEs still prefer analog (telephone, fax, paper, etc.,) and digitalization is increasingly an important issue in Japanese business community. The Japanese Government has headed to a “Society 5.0” with human-centered society, which can solve social problems while keeping economic development by using cyberspace (virtual space) and physical space. However, in practice, Japanese SMEs are still far away from “Society 5.0” but in “Society 3.0” with analog instead.

The Government has developed policies for digitalization in logistics with the Comprehensive Physical Distribution Policy 2021 – 2025, the Cabinet decision in 2021 with aims to improve logistics labour productivity by about 20% from 2018 to 2025.

Japan MLIT has conducted a project to investigate and promote digital transformation for logistics SMEs and highlighted the importance and necessity of “collecting and analyzing data”. The survey focuses on identifying demand for digitization at logistics companies, providing case studies, effects and required conditions for introducing useful digitization tools.

The survey aims to collecting data and analyzing data through five (05) steps including: (i) understanding the logistics operation process; (ii) definition of digital/analog; (iii) web survey; (iv) collecting good practices; and (v) promoting public relations and share by expanding survey results, delivering training and seminars for relevant beneficiaries. It is concluded from the survey that companies’ intention to digitalize is visible but the digitization pace was different among the tasks and cooperation required remain not high enough to conduct an efficient and effective transformation.

Mr Pham Nam Long, Founder & CEO, Abivin, Viet Nam: From the perspective of a company providing digital transformation services in logistics and transport industries, the speaker stresses five (05) key factors to conduct digital

transformation, namely: (i) reviewing needs (identifying problems and issues that need to be addressed urgently); (ii) assessing readiness (assessing the readiness to conduct digital transformation based on factors such as human resources and data); (iii) reviewing process/procedures; (iv) finding solutions (developing a system based on available procedures or finding a service supplier); and (v) nurturing commitments (developing business culture highlighting respect, innovation and learning spirit). During the transformation, procedures, human resources, and system are key factors to secure a successful and efficient transformation. In particular, a smart system with automation capability, adaptation with enterprises' procedures, stability, seamless connectivity, support with customer services, high security, etc., will be essential and important to the transformation. There are some lessons learnt from ABIVIN providing digital transformation to enterprises. During the transformation, with regards to developing the procedures, there should be permanent representatives from both sides to maintain contact and stability as well as set specific targets and training plans for each period. With regards to human resources, leaders will play important roles in maintaining determination and directions for employees to implement. The system needs to be tested to ensure the adaptation between new software and current ones used by customers to avoid any disorder or troubles.

5. Sharing experiences from experts and APEC participants

Mr Kim Hee Chun, Director for International Cooperation and Trade, Ministry of Land, Infrastructure and Transport (MOLIT), Korea: In the aftermath of the COVID-19 and in line with the Fourth Industrial Revolution, logistics and transport industries are leading innovation more than in any other field since demand for non-face-to-face services has surged, making the delivery of diverse products in large quantities in short period of time become more urgent. It is also notable that the last-mile logistics industry is growing dramatically. With the rise of a contactless society, last-mile logistics represented by parcel and food delivery have become increasingly common.

In response to the new circumstances, Korea realizes that logistics facilities need to be expanded to handle the surging volume despite difficulties such as high land prices, complaints from residents, and a lack of investment. In addition, digital transformation for SMEs has been stalled, so private investment is needed

to accelerate it. The logistics industry also needs to be more sustainable with eco-friendly methods and more people-centered considerations given the large quantities of greenhouse gases and fine dust generated in freight transport.

Korea has delivered a 10-year plan called the 'Korea Logistics Basic Plan' announced by the MOLIT in 2020 with the vision to become a global logistics powerhouse by promoting smart, digital innovation and creating a win-win ecosystem. The plan sets out six major goals, namely: (i) introducing cutting-edge technologies and digitalization; (ii) creating people-centered, quality jobs; (iii) building shared, converged infrastructure; (iv) enhancing sustainability; (v) achieving readiness for future challenges; and (vi) global competitiveness. The plan is based on strategies, namely: (i) building shared and converged infrastructure and networks for seamless connection. For example: establishing "shared smart logistics centers" on public idle land to allow SMEs to use them at low costs for a long time; building e-commerce complexes at three transport hubs in the capital area where last-mile logistics are in high demand; (ii) establishing systems based on smart technologies. For example: building logistics cities in connection with related urban and transport plans that pursue public value, convergence and integration; implementing a certification system for smart logistics centers to develop outdated logistics facilities by inducing investment from the private sector; pushing for large-scale R&D to secure cutting-edge technologies in logistics; (iii) developing people centered logistics jobs - law were enacted to foster the industry, ensure the workers' safety, and protect the rights and interests of workers; (iv) building a sustainable environment across the industry. For example: for the realization of carbon neutrality in logistics, the government and the private sector are working closely to convert internal combustion freight vehicles into hydrogen-powered ones; selecting major logistics hubs, building large-scale hydrogen charging stations for trucks, easing costs burden for hydrogen truck drivers; (v) strengthening competitiveness and improve fundamentals; and (vi) supporting the entry of oversea markets by domestic logistics players.

Korea has been operating Korea Logistics Information Center (NLIC) since 2009 to establish an integrated logistics information system in accordance with the Framework Act on Logistics Policy. Before that, statistical information on roads,

railways, aviation, maritime were operated in separate systems, but through NLIC, logistics information can now be provided in an integrated manner.

The government also operates a certification system that promotes the development of new technologies in the logistics field and improves technological competitiveness. The government certifies SMEs with technological superiority in areas such as transport, storage, unloading, packaging, digitalization, standardization, security, and safety.

For certified companies, they are supported by recommending government purchases, granting additional points for bidding, and providing government funding.

Mr George Royeca, Co-founder, Angkas, the Philippines: Angkas was founded in 2016, being the Philippines' first app-based motorcycle ride-hailing platform, providing logistics support to small businesses and a sustainable livelihood to partner drivers.

Due to the COVID-19, motorcycle taxi operations were halted, and Angkas collaborated with the Red Cross to deliver test kits and even transport samples to labs. Angkas also provided free transport to healthcare workers. Angkas co-led the highly regarded private-sector consumer campaign "Ingat Angat Tayong Lahat" during the pandemic. As part of their ecosystem at the time, Angkas focuses on delivery services such as Angkas Padala and Angkas Pabili. They were able to keep their partner riders afloat while also assisting the community in remaining safe by assisting with their needs while they remained indoors.

The COVID-19 related guidelines, including the prohibition on passengers' helmet sharing, were lifted, allowing motorcycle taxis to operate under pre-pandemic guidelines. Angkas prioritizes safety, resulting in a 99.99% safety rating audited by experts. They make certain that their biker partners are committed to road safety, have received training in motorcycle use and equipment, and are knowledgeable about traffic laws. Their training program is the foundation for TESDA's Basic Motorcycle Program, which aims to professionalize biker training and benefit the economy's 18 million motorcycle owners. To sum up, Angkas has been successful by focusing on addressing the

issue of traffic congestion and unemployment, localizing the needs of local citizens, and applying technology advances and digital transformation.

IV. Discussion, Recommendations and Conclusions

Through the active sharing of information and experiences at the Workshop, speakers and participants exchanged views on how to promote SMEs' digital transformation in logistics and transport in the post pandemic. Recommendations are summarized as below:

1. Recommendations for business

- SMEs themselves should raise the awareness as well as make preparation to keep up with the current landscape such as developing their own roadmaps, well preparing for human resources, or exploring potential systems to run on, etc.

2. Recommendations for APEC member economies/governments

- Raise awareness about the necessity and urgency of digital transformation in society, especially in the field of logistics.
- Complete the legal framework for logistics services and digital transformation.
- Simplify and enhance regulatory transparency in customs procedures, measures related to intellectual property rights, technical regulations, sanitary and phytosanitary (SPS) measures, investment and business related registration, regulations on employment and taxation, etc., to support SMEs' participation in trade in services.
- Increase policy support for digital transformation such as strengthening transformation guidance, increasing financial support, support for loans and preferential interest rates for digital transformation enterprises and startups in digital technology solutions, promoting pilot applications, etc.
- Develop digital infrastructure, ready to meet the explosive demand for connection and data processing.
- Promoting the development of multimodal logistics network.
- Develop logistics systems based on smart technologies;

- Collect, analyze data and promote R&D, PPP and efficient cooperation and collaboration among relevant stakeholders such as international organizations, universities, training centers, research institutes, and enterprises, and so on.
- Enable women entrepreneurs to develop and expand their business through enhancing training and financial opportunities. For example: assessment of entrepreneurial risks as well as promotion and utilization of special lending programs for women entrepreneurs could be tailor made for women entrepreneurs in the APEC region.
- Remove regulatory barriers that prevent entry into markets of women entrepreneurs.
- FTAs commitments should include regulations, which support the operation of women-owned enterprises, as well as the entry of women enterpreneurs into foreign markets.

3. Recommendations for APEC

- APEC could promote member economies' efforts in simplifying customs procedures, measures related to intellectual property rights, technical regulations, sanitary and phytosanitary (SPS) measures, investment and business related registration, regulations on employment and taxation, etc., to support SMEs' participation in trade in services.
- Promote mutual recognition arrangements of related licenses among APEC member economies.
- Promote innovation and create partnership that fuel economic growth and development through promoting diversity and participation of women entrepreneurs in trade in services through nurturing appropriate skills and knowledge, adaptation to new innovation and technology.
- Encourage MSMEs to utilize ABAC's Cybersecurity Self-Assessment Toolkit for MSMEs, or to work with cybersecurity vendors to better understand cyber risk.
- Strengthen the risk management system at the regional level with the objective of verifying and recognizing express shipments through the

use of available technologies, such as the use of data analysis and non-intrusive inspections, increasing inter-agency and international cooperation and requiring the presentation of advance information by courier and parcel companies.

- Generate a process for measuring flows, times and costs associated with cross-border electronic commerce operations, for example, developing a Study of Dispatch Times.
- Seek to advance women's participation in STEM education and careers, based on detailed analysis of the barriers to such participation, and well-designed programs to address these.
- Analyze the possibility of harmonizing the legislation on express shipments and postal shipments, for example, standardizing de minimis, defining a use of generic classification at the subheading level for Courier shipments or standardizing an efficient policy on package abandonment.

Hereinabove are some recommendations from the workshop's participants and speakers that require further thoughts and discussions at the upcoming DESG meetings to transform into more concrete and practical activities.