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Towards greater regulatory co-operation in the Asia-Pacific for boosting e-commerce trade

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TOWARDS GREATER REGULATORY CO-OPERATION IN THE ASIA- PACIFIC FOR BOOSTING E-COMMERCE TRADE

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Abstract

The Asia-Pacific (APAC) region, which accounts for over 50 per cent of the world's population and over 35 per cent of the world's gross domestic product (GDP), is one of the fastest growing regions in the world. The region is growing at higher than the global growth rate and is expected to continue on a high growth trajectory. With high economic growth, the APAC region has become the largest e-commerce market in the world. The e-commerce sector in APAC was valued at US\$2.9 trillion in 2022 and is projected to reach at value of US\$6.146 trillion by 2030, accounting for a share of more than half the global retail e-commerce market. Rapid urbanisation, along with rise in incomes and technological developments (such as 4IR technologies), have led to the growth of e-commerce in the region. A policy push towards digitalisation by key countries and the coronavirus (COVID-19) pandemic has further facilitated the growth of e-commerce in this region with consumers and micro, small and medium enterprises (MSMEs) increasingly using e-commerce platforms. Producers and exporters are now using e-commerce platforms to enhance their global reach. In many countries, governments have come up with initiatives to support the use of e-commerce platforms by MSMEs for exports.

The sudden growth of e-commerce disrupted traditional supply chains in the APAC region and created the need for a robust and predictable regulatory environment to facilitate the ease of doing business, both domestic and cross-border, while simultaneously addressing issues like consumer safety and privacy. Therefore, e-commerce is now a key component of all new age trade agreements. However, there is neither a framework nor strategy for regulatory co-operation, policy dialogue, initiatives and sharing of best practices at the APAC level to facilitate more cross-border trade.

Given this background, the objective of this paper is to (a) examine the growth of e-commerce in the Asia-Pacific region, (b) identify the growth drivers and the contribution of the sector to MSMEs, women entrepreneurs, and allied sectors like express delivery services, (c) examine the policy landscape and how it is evolving in APAC countries with a focus on learning from each other's best practices (d) identify the policy and other challenges such as those related to cross-border data sharing, consumer privacy, cross-border payments, gaps in paperless trade, etc., that may impact the current and/or future growth of the e-commerce sector and its users and (e) make recommendations to facilitate cross border e-commerce trade and help users of e-commerce platforms like MSMEs and women entrepreneurs enhance their global reach.

Keywords: *Asia-Pacific, E-commerce, Trade, Policy, MSMEs.*

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List of Abbreviations

ACCC	Australian Competition and Consumer Commission	DHL	Deutsche Post
ACL	Australian Consumer Law	DITP	Department of International Trade Promotion
ACMA	Australian Communications and Media Authority	DTI	Department of Trade and Industry
ADB	Asian Development Bank	EDI	Electronic Data Interchange
AEO	Authorised Economic Operator	EDS	Express Delivery Services
AI	Artificial Intelligence	EIF	European Investment Fund / Enhanced Integrated Framework
APAC	Asia-Pacific	EIT	Electronic Information and Transactions
ASEAN	Association of Southeast Asian Nations	Enterprise SG	Enterprise Singapore
ATC	Asian Trade Centre	ERIA	Economic Research Institute for ASEAN and East Asia
B2B	Business to Business	ESCAP	Economic and Social Commission for Asia and the Pacific
B2C	Business to Consumer	EU	European Union
BFTI	Bangladesh Foreign Trade Institute	e-WTP	electronic World Trade Programme
BIS	Bureau of Indian Standards	FedEx	Federal Express
BRIN	Badan Riset dan Inovasi Nasional (National Research and Innovation Agency)	FTA	Free Trade Agreement
C2C	Consumer to Consumer	G20	Group of Twenty
CAGR	Compounded Annual Growth Rate	G2B	Government to Business
CBPR	Cross-Border Privacy Rules	G2C	Government to Consumer
CCPA	California Consumer Privacy Act	G2G	Government to Government
CEP	Courier, Express and Parcel	GDP	Gross Domestic Product
COVID-19	Coronavirus	GDPR	General Data Protection Regulation
CPTA	Cross-border Paperless Trade in Asia and the Pacific	GPAI	Global Partnership on AI
CPTPP	Comprehensive and Progressive Agreement for Trans-Pacific Partnership	GSMA	Global System for Mobile Communications
CSL	Cyber Security Law	ICRIER	Indian Council for Research on International Economic Relations
CSP	Certification Service Provider	ICT	Information and Communication Technology
CSTI	Council for Science, Technology and Innovation	IH	Innovative Hub
DEA	Digital Economy Agreement	IMDA	Infocomm Media Development Authority
DEFA	Digital Economy Framework Agreement	IMF	International Monetary Fund
DEPA	Digital Economy Partnership Agreement	IOSR-JEF	International Organization of Scientific Research- Journal of Economics and Finance
DFTZ	Digital Free Trade Zone	IPR	Intellectual Property Rights
DGFT	Directorate General of Foreign Trade		

IRG	Immediate Release Guidelines	PPP	Public-Private Partnerships
IT	Information Technology	PRICE	People Research on India's Consumer Economy
ITU	International Telecommunication Union	PTA	Preferential Trade Agreement
JSI	Joint Statement Initiative	RCEP	Regional Comprehensive Economic Partnership
KISDI	Korea Information Society Development Institute	RDTII	Regional Digital Trade Regulatory Integration Index
LDC	Least Developed Country	RTA	Regional Trade Agreement
MATRADE	Malaysia External Trade Development Corporation	S.O.S	Smart online SMEs
MC14	Ministerial Conference 14	SAARC	South Asian Association for Regional Co-operation
MCI	Ministry of Communications and Information	SDG	Sustainable Development Goals
MIC	Ministry of Internal Affairs and Communications	SEWA	Self-Employed Women's Association
MeitY	Ministry of Electronics and Information Technology	SIDE	State of India's Digital Economy
MLEC	Model Law on Electronic Commerce	TAPED	Trade Agreement Provisions on E-commerce and Data
MLES	Model Law on Electronic Signature	TCA	Trade and Co-operation Agreement
MLETR	Model Law on Electronic Transferable Records	TFA	Trade Facilitation Agreement
MoCI	Ministry of Commerce and Industry	UK	United Kingdom
MoIT	Ministry of Industry and Trade	UNCITRAL	United Nations Commission on International Trade Law
MoT	Ministry of Telecommunication	UNCTAD	United Nations Conference on Trade and Development
MoU	Memorandum of Understanding	UNDP	United Nations Development Programme
MRA	Mutual Recognition Agreement	UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
MSIT	Ministry of Science and ICT	UPI	Unified Payments Interface
MSME	Micro, Small and Medium Enterprise	UPS	United Parcel Service
NAIS	National AI Strategy	USA	United States of America
NATCCO	National Confederation of Co-operatives	USAID	United States Agency for International Development
NGO	Non-Government Organisation	USMCA	USA, Mexico and Canada Agreement
NSAI	National Strategy on Artificial Intelligence	VCCA	Viet Nam Competition and Consumer Authority
OECD	Organisation for Economic Co-operation and Development	WCO	World Customs Organization
ONDC	Open Network for Digital Commerce	WEF	World Economic Forum
OTT	Over the Top	WPEC	Work Programme on Electronic Commerce
PII	Personally Identifiable Information	WTO	World Trade Organization
PIPA	Personal Information Protection Act		
POS	Point-of-Sale		

Towards Greater Regulatory Co-operation in the Asia-Pacific for Boosting E-Commerce Trade

Arpita Mukherjee¹, Ketaki Gaikwad², Aahana Srishti³

1. Introduction

The Asia-Pacific (APAC) region (comprising more than 50 countries⁴) covers a wide geographical area with diverse landscapes, climates, societies, cultures, religions and economies. Several countries have been experiencing rapid changes in economic development, population growth and urbanisation, social transformation and technological development.⁵ The region accounted for 52 per cent of the world's population in 2023⁶ and around 30 per cent of the world's land area.⁷ Some of the world's most populous countries (for example, India) are in this region. In 2024, the APAC region accounted for 46.05 per cent of the world's gross domestic product (GDP), compared to 18.76 per cent by North America and 20.63 per cent by Europe.⁸ Among these countries, Japan was the fourth largest global economy, after the United States of America (USA), China and Germany, with India being at the fifth position in 2023.⁹

The APAC region is expected to continue a high growth trajectory. In late 2023, the annual economic growth was 5.0 per cent, outperforming its earlier expectation of 4.6 per cent (IMF 2024a). This growth rate was more than 1.5 times the global growth rate of 3 per cent (IMF, 2023). Among APAC countries, India registered the highest growth rate of 6.7 per cent in the world in 2023, more than double the global annual growth rate. It is projected that India will continue to grow at a higher rate of 7.0 per cent in the world in 2025 (more than double the global

growth rate). Countries like Bangladesh (6 per cent), Philippines (5.3 per cent) and Indonesia (5 per cent) also registered high growth in 2023. These countries are projected to grow annually at higher rates in the year 2025 (Bangladesh – 6.6 per cent, Philippines – 6.2 per cent and Indonesia – 5.1 per cent in 2025) [IMF, 2024b)].

With high economic growth, the APAC region has become the largest e-commerce market in the world. The e-commerce sector of the region was valued at US\$2.9 trillion in 2022 and is projected to reach a value of US\$6.146 trillion by 2030 (Data Bridge Market Research, 2023). In 2022, the region accounted for a share of around 58 per cent in the global retail e-commerce market. Rapid urbanisation, a rising middle-class population, increase in internet penetration, an increase in mobile subscriptions, increased usage of different devices (such as smartphones, laptops, tablets, etc.), rise in digital wallets and technological developments (such as 4IR technologies) have led to the growth of e-commerce in the region. The coronavirus (COVID-19) pandemic has further facilitated the growth of e-commerce in this region with consumers and micro, small and medium enterprises (MSMEs) increasingly using e-commerce platforms. For example, in India, there was an increase of 101 million new online consumers between 2020 and 2022¹⁰ and a five-fold increase in the number of online registered MSMEs from 5.1 million in 2021 to 25.77 million in 2024 (under the Udyam Registration Portal as on May 8, 2024).¹¹ In Indonesia, 20.5 million MSMEs entered the digital

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4 For the list of countries in the Asia-Pacific, please refer to https://www.unescap.org/sites/default/files/Annex4_List_of_countries_Asia-Pacific_SDG_Progress_Report2019.pdf (last accessed on February 18, 2024).

5 For details, see https://www.iges.or.jp/en/publication_documents/pub/policyreport/en/154/3_overview.pdf (last accessed on February 18, 2024).

6 The percentage share is calculated from the Global Data on World Population in 2023, United Nations Population Fund (UNFPA), available at <https://www.unfpa.org/data/world-population-dashboard> (last accessed on February 18, 2024).

7 For details, see <https://education.nationalgeographic.org/resource/asia/> (last accessed on February 18, 2024).

8 The percentage share is calculated from 'All Country Data on GDP', IMF Data, available at <https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD> (last accessed on February 18, 2024).

9 The ranking is based on IMF data on GDP, available at <https://www.imf.org/external/datamapper/NGDPD@WEO/OEMDC/ADVEC/WEOWORLD> (last accessed on February 18, 2024).

10 The details are available at <https://in.apparelresources.com/business-news/retail/india-records-100-million-new-online-shoppers-2020-2022/#:~:text=Between%202020%20and%202022%2C%20India%20saw%20an%20increase,almost%2036%20per%20cent%20of%20all%20Internet%20users> (last accessed on February 20, 2024).

11 Source: <https://udyamregistration.gov.in/Government-India/Ministry-MSME-registration.htm> (last accessed on May 8, 2024)

ecosystem using marketplaces or digital platforms in 2022.¹² e-commerce has expanded the global market reach and distribution networks of producers and exporters in the APAC region, and lowered operating costs for businesses, especially MSMEs.

The sudden growth of e-commerce disrupted traditional supply chains and created the need for a robust and predictable regulatory environment that could facilitate the ease of doing business, both domestic and cross-border, and simultaneously address issues like consumer safety and privacy. Given its importance in international trade, e-commerce is now a key component of trade negotiations. APAC countries are enacting various domestic regulations on e-commerce, covering data protection and privacy, consumer protection, and artificial intelligence (AI). However, the enactment of these regulations is not uniform [Asian Development Bank (ADB), 2023], and existing studies show that there are gaps and issues with respect to regulations [United Nations Conference on Trade and Development (UNCTAD), 2016]. There is a lack of regulatory co-operation, dialogue, initiatives and engagement at the regional level (ADB, 2023). Studies also found a lack of co-ordination among different stakeholders such as government, domestic and international companies/firms, and MSMEs in regional dialogues and consultations among the APAC countries. There is also a lack of regional platforms for regular discussions on the development of e-commerce policies in APAC countries.¹³

To address these issues, the Indian Council for Research on International Economic Relations (ICRIER) and the United Nations Economic and Social Commission for Asia and the Pacific: Sub-regional Office for South and South-West Asia (ESCAP-SSWA) jointly organised the First Asia-Pacific E-Commerce Policy Summit, held on March 14, 2024. The key objectives of the summit were to (i) encourage collaboration among different stakeholders such as policymakers, academicians, industry, government, etc., in the APAC region by advocating a consultative approach in policy formulation, (ii) establish a thought leadership platform in the APAC region for meaningful discussions on e-commerce policies and (iii) connect with relevant stakeholders across the

APAC region delivering key recommendations. The summit focused on specific themes that are under discussion in the APAC region, including cross-border e-commerce, data protection, consumer protection and the impact of social media on policy communication. This paper is a summarisation of key findings of the Summit.

1.1 Objectives

The objective of the paper is to (a) examine the growth of e-commerce in the Asia-Pacific region, (b) identify the growth drivers and the contribution of the sector to MSMEs, women entrepreneurs and allied sectors such as express delivery services, (c) examine the policy landscape and how it is evolving in APAC countries with a focus on learning from each other's best practices (d) identify the policy and other challenges such as those related to cross-border data sharing, consumer privacy, cross-border payments, gaps in paperless trade, etc., that may impact the current and/or future growth of the e-commerce sector and its users, and (e) make recommendations to facilitate cross border e-commerce trade and help users like MSMEs and women entrepreneurs enhance their global reach.

1.2 Selection of APAC Countries for Data and Policy Mapping

In this paper, we have chosen selected APAC countries for data and policy mapping, covering a combination of developed, emerging and least developed countries in the region. The selected countries include the following:

- Association of Southeast Asian Nations (ASEAN) member countries such as Cambodia, Indonesia, Philippines, Singapore, Thailand and Viet Nam
- South Asian Association for Regional Co-operation (SAARC) member countries such as Bangladesh, India and Sri Lanka
- Developed countries such as Australia, Japan and the Republic of Korea

We have selected the United States of America (USA) and the United Kingdom (UK) as comparator countries.

12 Source: <https://en.vietnamplus.vn/indonesia-205-million-msmes-join-digital-ecosystem-post243348.vnp> (last accessed on May 8, 2024)

13 Source: <https://www.cigionline.org/articles/e-commerce-governance-back-to-geneva/> (last accessed on May 28, 2024)

1.3 Layout of the Working Paper

The next section, Section 2, presents the definition and classification of e-commerce. Section 3 provides a brief overview of the e-commerce sector in the APAC region, recent trends and developments, and key growth drivers. Section 4 examines selected policies/regulations impacting e-commerce trade in APAC countries and some of the best practices. Section 5 identifies policy and other challenges in APAC countries, including evolving regulations and lack of policy harmonisation, procedural complexities, gaps in paperless trade, cross-border payments issues, etc. Section 6 presents some key recommendations to facilitate cross-border e-commerce trade in APAC to benefit users like consumers, MSMEs and women

entrepreneurs, and to ensure greater investment, jobs and inclusive growth.

2. Definition and Classification of E-Commerce

E-commerce broadly refers to commercial transactions that are conducted electronically through the internet (see Box 2.1 for definition). It is not limited to the purchase of a product, but also includes email and other communication platforms, and all information or services that a company may offer to its customers over the internet, from pre-purchase information to after-sale services and support (Mukherjee and Kapoor, 2018).

Box 2.1: Definition of E-Commerce

The Organisation for Economic Co-operation and Development (OECD) defines e-commerce as follows:

“An e-commerce transaction is the sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or placing of orders. The goods or services are ordered by those methods, but the payment and the ultimate delivery of the goods or services do not have to be conducted online. An e-commerce transaction can be between enterprises, households, individuals, governments, and other public or private organisations.”

However, a distinction must be made between “digitally ordered” and “digitally delivered” goods as given by the Handbook of Measuring Digital Trade. It defines digitally ordered goods and services as “the international sale or purchase of a good or service, conducted over computer networks by methods specifically designed for the purpose of receiving or placing orders”. It defines digitally delivered trade as “all international trade transactions that are delivered remotely over computer networks”.

Source: Extracted from pp. 72, OECD, 2011 and IMF, OECD, UNCTAD and WTO, 2023.

E-commerce takes place through a range of different commercial relationships, involving different types of possible pairing of consumers (C), businesses (B) or governments (G) (see Box 2.2 on different models of e-commerce). Among these models, the business-to-consumer (B2C) model accounts for most transactions in terms of numbers, while the business-to-business (B2B) model is the largest model based on revenue (Mukherjee, Sangneria and Goswami, 2023). Consumer to consumer (C2C) is also a fast-growing component of the global e-commerce platform that offers various benefits to the seller, such as a global reach, minimal transaction costs, higher profit margins, direct communication between the parties involved and quick delivery of goods and services (Mukherjee, Sangneria and Goswami, 2023). The coronavirus (COVID-19)

pandemic accelerated the growth of all models, especially government-to-government (G2G), government-to-business (G2B) and government-to-consumer (G2C) models. However, these new models account for only a small share of the overall e-commerce market as compared to B2B and B2C models.

As of date, the definition, scope and coverage of e-commerce are discussed in multiple forums like World Trade Organization (WTO) Work Programme on Electronic Commerce (WPEC) and WTO Joint Statement Initiative (JSI) on E-commerce and they also vary across different trade agreements.

Box 2.2: Different Models of E-commerce

- **Business-to-Business (B2B)** is the exchange of services or information between two businesses. In this model, sales happen between wholesalers, retailers, manufacturers, etc. Some examples are Alibaba (China), IndiaMART (India), GlobalSource (Republic of Korea), etc.
- **Business-to-Consumer (B2C)** includes financial transactions or online sales between a business and consumers. Under this model, firms sell goods directly to consumers. Some examples are Amazon (USA), Flipkart (India), etc.
- **Consumer-to-Business (C2B)** refers to the model in which consumers sell goods, products or services directly to businesses. The model enables businesses to tap into the power of the crowd. Some examples are Fiverr (Israel), Amazon Mechanical Turk (USA), Upwork (USA), etc.
- **Consumer-to-Consumer (C2C)** is the exchange of services or products between two consumers without the involvement of an organisation. Some examples are Bukalapak (Indonesia), 3D Hubs (Netherlands), Vestiaire Collective (France), Quikr (India), etc.
- **Government-to-Government (G2G)** is a type of e-commerce model between governments, both within a country and across countries. For example, Khajane (Karnataka, India), G2G Corp (Indonesia), etc.
- **Government-to-Business (G2B)** is a type of model under which government agencies offer services to businesses, or government agencies buy products or services from businesses. Digital government portals are used to carry out this model. This can be done through procurement, contracting or grants. For example, GoBusiness Singapore (Singapore), etc.
- **Government-to-Citizens (G2C)** refers to the activities performed between government and citizens. This includes paying taxes, payment of online bills (electricity, water, telephone, etc.), registration of vehicles through online services, e-government portal. etc. For example, National Government Services Portal (<https://services.india.gov.in/>), India, Thailand Electronic Visa (Thailand), etc.

Source: See Mukherjee and Kapoor (2018), Nagaraja (2016), <https://medium.com/@eSamurai/what-are-the-b2c-b2b-b2g-c2c-c2b-g2b-g2c-b2g-c2g-business-types-of-e-commerce-d8fa28718c21> (last accessed on February 10, 2024); <https://www.practicalecommerce.com/6-leading-ecommerce-business-models-explained> (last accessed on February 10, 2024), <https://www.eworldtrade.com/blog/top-10-c2b-e-commerce-platforms/> (last accessed on February 10, 2024); <https://www.eyerys.com/articles/types-e-commerce-models> (last accessed on February 10, 2024); <https://testbook.com/ias-preparation/government-to-government> (last accessed on February 10, 2024).

3. Overview of E-Commerce Sector in APAC

The growth of e-commerce in the APAC region is presented in Section 3.1 and the key growth drivers are presented in Section 3.2.

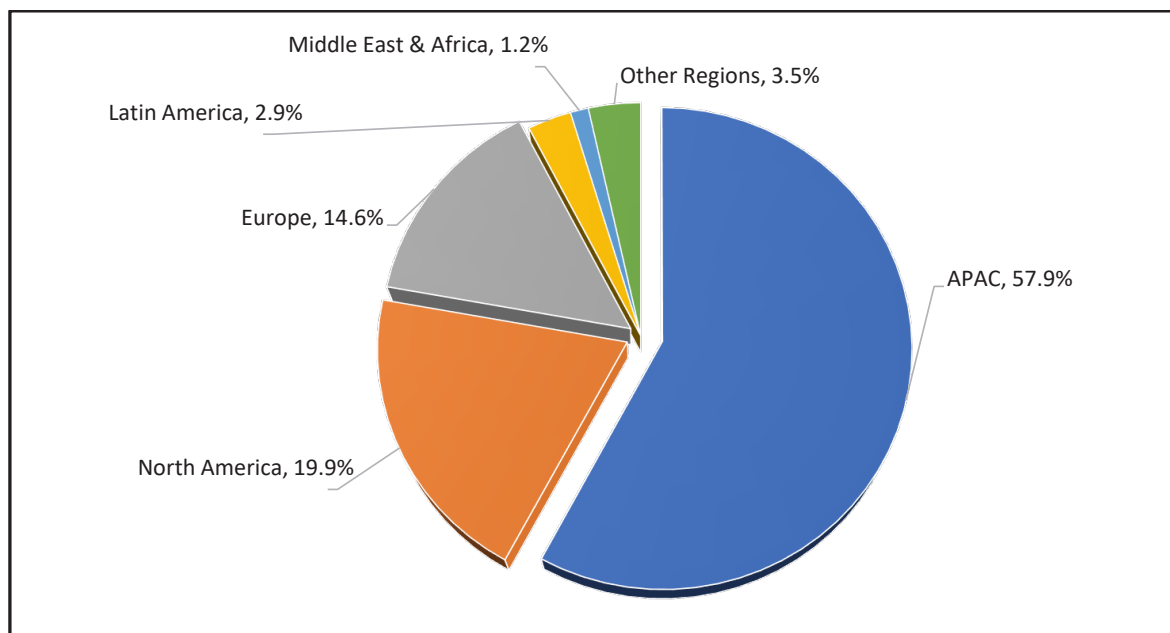
3.1 Growth of E-Commerce in APAC

In 2022, the e-commerce sector of the APAC region grew at a rate of 11 per cent as compared to 6.5

per cent growth in the global e-commerce sector.¹⁴ It is expected to increase from US\$2.9 trillion in 2022 to US\$6.146 trillion by 2030 at a compounded annual growth rate (CAGR) of 19.20 per cent (Data Bridge Market Research, 2023). In 2022, the region contributed a share of around 58 per cent to the global retail e-commerce market, followed by North America (19.9 per cent) and Europe (14.6 per cent) (see Figure 3.1).

¹⁴ The percentage share of the APAC region is calculated from Data Bridge Market Research, 2023, and the share of the global market is extracted from Oberlo Database, available at <https://www.oberlo.com/statistics/global-ecommerce-sales-growth> (last accessed on February 18, 2024).

Figure 3.1: A Comparison of the Percentage Share of APAC and Other Regions in Global Retail E-commerce Market, 2022



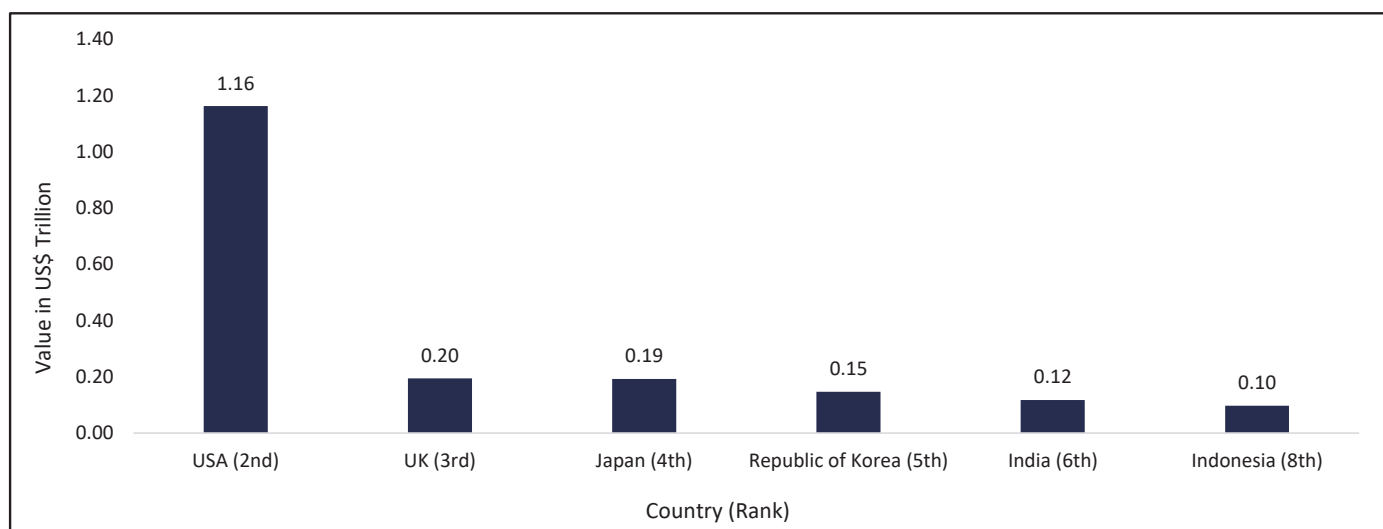
Source: Calculated from Statista, available at <https://www.statista.com/statistics/311357/sales-of-e-commerce-worldwide-by-region/> (last accessed on February 2, 2024).

Among APAC countries, Japan, the Republic of Korea, India and Indonesia are the largest e-commerce markets in the world (see Figure 3.2); in 2023, their share in global e-commerce revenue was 62.4 per cent.

Four countries namely Philippines, India, Indonesia and Thailand in the APAC had the highest e-commerce

growth rates in 2023 (see Figure 3.3). For example, in India, there was an increase of 101 million new online consumers between 2020 and 2022.¹⁵ Indonesia's online spending accounted for 64 per cent of the country's total consumer spending in 2022, followed by India (62 per cent), Thailand (60 per cent) and Australia (55 per cent).¹⁶

Figure 3.2: Ranking and Value of Selected Countries in Top Ten Largest E-Commerce Markets in the World, 2023



Source: Compiled from Oberlo Statistics, available at <https://www.oberlo.com/statistics/ecommerce-sales-by-country> (last accessed on February 4, 2024)

¹⁵ The details are available at <https://in.apparelresources.com/business-news/retail/india-records-100-million-new-online-shoppers-2020-2022/#:~:text=Between%202020%20and%202022%2C%20India%20saw%20an%20increase,almost%2036%20per%20cent%20of%20all%20Internet%20users> (last accessed on February 20, 2024).

¹⁶ The details are available at <https://ecommercedb.com/insights/ecommerce-in-indonesia-fueled-by-young-tech-savvy-consumers/4573> (last accessed on February 20, 2024).

Figure 3.3: Ranking and Growth Rates of Selected Countries in Top Ten Fastest Growing E-commerce Markets in the World, 2023



Source: Compiled from Oberlo Statistics, available at <https://www.oberlo.com/statistics/fastest-growing-ecommerce-markets> (last accessed on February 4, 2024) and <https://www.oberlo.com/statistics/global-ecommerce-sales-growth> (last accessed on February 4, 2024).

The growth of e-commerce in the APAC region is linked to several factors including an increase in technology adaptation, on-boarding of MSMEs and women onto e-commerce platforms, development in logistics, and APAC countries embracing paperless trade and WTO Trade Facilitation Agreements. The focus of government and industry stakeholders to on-board MSMEs on e-commerce platforms has helped both MSMEs and e-commerce platforms to grow. The increasing focus of governments on e-commerce and paperless trade has facilitated the growth of the express delivery sector, which is closely linked to the growth of e-commerce. The growing use of social media is getting highly integrated with e-commerce in this region, where the sale and purchase of goods and services directly take place on social media platforms known as 'social commerce'. Social commerce is on the rise and is facilitating e-commerce in this region. Some of these are discussed below.

3.1.1 Growth of MSMEs Exports through E-commerce

MSMEs account for around 80 per cent of international trade in this region (UNCTAD, 2013). E-commerce platforms help MSMEs reach global markets by reducing entry barriers and operating costs (Goyal et al., 2022), besides enhancing productivity and scalability, and access to information (ERIA 2018). For

example, in Singapore,¹⁷ only around 24 per cent of MSMEs were engaged in B2C e-commerce in 2017, with nearly 90 per cent utilising it for export purposes. A study found that accelerating the adoption of e-commerce could increase Singapore's export revenues from US\$1.7 billion in 2022 to US\$3.9 billion by 2027 (Access Partnership, 2022). In Viet Nam,¹⁸ over 200,000 businesses, most of which were MSMEs, were using e-commerce by 2017. Thus, even before the pandemic, MSMEs were using e-commerce platforms for growth and exports, but during the pandemic, the on-boarding into the e-commerce platform accelerated with governments in the region supporting such on-boarding. For example, in Malaysia,¹⁹ the number of MSMEs adopting e-commerce had reached 890,000 by 2021, with the country setting a target to reach 1,148,000 by 2025. In Indonesia,²⁰ 21 million MSMEs were registered with e-commerce by 2022. In India,²¹ 70 per cent of the 85 million MSMEs had on-boarded onto e-commerce platforms in 2023 and this is expected to rise to 80 per cent by 2027.

E-commerce platforms have also taken initiatives to on-board MSMEs, which has been mutually beneficial. For example, in India, Amazon Global Selling programme, had on-boarded 125,000 MSME exporters as of 2023.²² The Alibaba Group e-commerce platform in the Singapore Innovative Hub (IH),²³ established in 2016, has supported the on-boarding of over 1,000 local SMEs

17 Source: <https://www.pymnts.com/news/ecommerce/2021/amazon-report-singapores-msmes-generate-45-pct-b2c-ecommerce-exports/> (last accessed on April 06, 2024)

18 Source: <https://vietnamnews.vn/sunday/416140/e-commerce-the-ticket-to-msme-success.html#:~:text=L%E1%BA%A1%20Vi%E1%BB%87t%20Anh%2C%20deputy%20head%20of%20the%20Ministry,use%20e-commerce%20and%20most%20of%20them%20are%20MSMEs.%E2%80%9D> (last accessed on April 06, 2024)

19 Source: <https://theedgemalaysia.com/article/ecommerce-digital-heart-malysias-economy> (last accessed on April 06, 2024)

20 Source: <https://en.antaranews.com/news/250093/some-21-million-indonesian-msmes-registered-in-e-commerce-uno> (last accessed on April 06, 2024)

21 Source: <https://redseer.com/insights> (last accessed on April 06, 2024)

22 Source: <https://sell.amazon.in/grow-your-business/amazon-global-selling/blogs/e-commerce-exports-can-make-indian-msmes-a-formidable-force> (last accessed on April 09, 2024)

23 Source: <https://innovativehub.com.sg/> (last accessed on April 04, 2024)

onto e-commerce platforms. As can be seen in Section 4.4, policymakers in APAC countries have partnered with e-commerce companies and other stakeholders to facilitate MSME exports through e-commerce.

3.1.2 Growing focus on Women Entrepreneurs in E-commerce in APAC

There is consensus among policymakers and experts in APAC that the on-boarding of women entrepreneurs onto e-commerce platforms will lead to inclusive growth and help meet the United Nation's Sustainable Development Goals by 2023, including sustainable trade, which is now a dedicated chapter in many trade agreements in the APAC region. According to the McKinsey Global Institute Report 2018, increasing the participation of women is projected to contribute an additional US\$12 trillion to annual global output and \$3.8 trillion to the total regional GDP in the Asia Pacific by 2025.²⁴ Multiple initiatives have been launched across the APAC region by international organisations and companies to empower women and

help them realise their economic potential through e-commerce (see Box 3.1 for one such example). APAC countries have also taken initiatives to on-board MSMEs onto e-commerce platforms. For example, in 2023, approximately 17.5 million women-owned MSMEs were on-boarded on e-commerce platforms in Indonesia.²⁵ In India, Ubuntu Consortium, a non-government organisation (NGO), brought together 45 women entrepreneurs' associations from ten states and provided them skill development programmes, training, workshops and educational resources. It has successfully trained 10,000 women entrepreneurs in digital marketing and plans to expand its reach to train 8760 women entrepreneurs. Amazon Saheli is another programme launched in 2017, a joint effort by Amazon India, the Self-Employed Women's Association (SEWA) and other NGOs that empower Indian women entrepreneurs by offering training, marketing support and financing options. It has digitized 1.7 million businesses and helped 80,000 women artisans with SEWA.

Box 3.1: ESCAP Project Titled: E-Commerce Capacity Building for Women-led SMEs in South Asia, 2019-2023

This project was a partnership between European Investment Fund (EIF) and ESCAP – SSWA to boost women entrepreneurs' access to e-commerce in the least developed countries (LDCs) of South Asia including Afghanistan, Bangladesh, Bhutan and Nepal, and was later extended to all ten countries of the sub-region. It aimed to support a minimum of 100 women entrepreneurs in registering and uploading their company and product profiles onto e-commerce platforms, facilitating the growth of their businesses.

Objective: To enhance the knowledge and capacity of women-led MSMEs in using e-commerce platforms to expand their business exports and increase their participation in domestic and global supply chains.

Support: The project received funding of US\$498,300 from the EIF and US\$200,000 (in kind) from ESCAP.

Key Highlights:

- A web portal called <https://www.unescap.wesellonline.org/> has been launched to support e-commerce capacity building for women-led MSMEs in South Asia. It offers e-learning courses, manuals, and an experimental e-commerce platform called [wesellonline.org](https://www.unescap.wesellonline.org/). It generates inquiries for potential sellers and promotes networking among women entrepreneurs.
- The project significantly exceeded the target, enhancing the digital capacity of over 2000 SME women entrepreneurs from 27 countries in offline and online training.
- The successful engagement of women entrepreneurs in ESCAP's e-commerce training has led to two governments – Bhutan and Nepal – requesting ESCAP to provide inputs for their draft e-commerce policy.

Source: Zaveri, S. & ESCAP (2023), <https://icrier.org/pdf/RajanSudeshRatna-mar-14-2024.pdf>; <https://repository.unescap.org/bitstream/handle/20.500.12870/3017/ESCAP-2020-RP-Empowering-Women.pdf?sequence=1> (last accessed on April 11, 2024) (last accessed on May 29, 2024)

²⁴ Source: <https://www.mckinsey.com/~media/McKinsey/Featured%20Insights/Gender%20Equality/The%20power%20of%20parity%20Advancing%20womens%20equality%20in%20Asia%20Pacific/MGI-The-power-of-parity-Advancing-womens-equality-in-Asia-pacific-Executive-summary.pdf> (last accessed on July 4, 2024)

²⁵ Source: <https://www.womensworldbanking.org/insights/report-building-digital-finance-solutions-for-women-e-commerce-entrepreneurs-a-demand-side-exploration-in-indonesia/> (last accessed on April 9, 2024)

3.1.3 Increasing use of social media for E-commerce

Social media users have increased across the globe, with around 4.62 billion users – equivalent to 58.4 per cent of the total world's population – as of January 2022, an increase of over 10 per cent from 2021.²⁶ This is connected to the growing number of internet users across the world, which has more than doubled from 2.18 billion in 2012 to 4.95 billion in

2022.²⁷ Internet penetration and social media users in APAC countries have also risen, with Australia having the highest percentage of social media users and the Republic of Korea having the highest internet penetration (see Table 3.1 for details). Facebook, YouTube, WhatsApp, and Instagram were the world's most used social media platforms as of January 2022.²⁸

Table 3.1: Internet Penetration and Social Media Usage in select APAC countries till February 2024

Country	Social Media Users (in millions and percentage terms)	Internet Penetration (in percentage terms)
Australia	20.80 (94.9%)	94.9
Bangladesh	52.90 (30.4%)	44.5
Cambodia	11.65 (68.4%)	56.7
India	462.0 (32.2%)	52.4
Indonesia	139.0 (49.9%)	66.5
Japan	96.0 (78.1%)	84.9
Philippines	86.75 (73.4%)	73.6
Republic of Korea	48.34 (93.4%)	97.2
Singapore	5.13 (85%)	96.0
Sri Lanka	7.50 (34.2%)	56.3
Thailand	49.10 (68.3%)	88.0
Viet Nam	72.70 (73.3%)	79.1

Source: Compiled from <https://datareportal.com/reports/digital-2024-vietnam>; <https://datareportal.com/reports/digital-2024-thailand>; <https://datareportal.com/reports/digital-2024-sri-lanka>; <https://datareportal.com/reports/digital-2024-south-korea>; <https://datareportal.com/reports/digital-2024-cambodia>; <https://datareportal.com/reports/digital-2024-bangladesh>; <https://datareportal.com/reports/digital-2024-singapore>; <https://datareportal.com/reports/digital-2024-philippines>; <https://datareportal.com/reports/digital-2024-indonesia>; <https://datareportal.com/reports/digital-2024-india>; <https://datareportal.com/reports/digital-2024-japan>; <https://datareportal.com/reports/digital-2024-australia> (last accessed date May 30, 2024)

Social media platforms are being widely used by sellers in APAC (including MSMEs and women entrepreneurs) for selling products directly to consumers, known as social commerce.²⁹ Sellers use social media to promote brands, connect to customers and foster new business partnerships. The four primary functions of social media are to monitor, respond, amplify and lead consumer behaviour.³⁰

Research shows that consumers around the world spend significant time on social media platforms researching products and brands, elevating the

With the rise in internet penetration, social commerce in APAC is witnessing fast, double-digit growth, helping MSMEs and women entrepreneurs to market their products and gain brand visibility. Growth of e-commerce and social media in the region is interconnected with one supporting the growth of the other.

importance of e-commerce through social media channels. Globally, small retailers are pioneering cross-border, direct-to-consumer sales using diverse social formats, from chat platforms to video-led

26 Source: Digital 2022: Global Overview Report — DataReportal — Global Digital Insights (last accessed on April 1, 2024)

27 Source: https://kepios.com/?utm_campaign=Digital_2022&utm_medium=Article&utm_source=Global_Digital_Report_s (last accessed on April 4, 2024)

28 Source: Digital 2022: Global Overview Report — DataReportal — Global Digital Insights (last accessed on April 4, 2024). Note: The data for social media for APAC as a region is not available but data and information are available for member countries.

29 Source: How social commerce is helping India move from interaction to transaction (ey.com) (last accessed on April 4, 2024)

30 Source: What is social media? | McKinsey (last accessed date April 4, 2024)

commerce, fostering interactive, entertaining, and non-promotional experiences. Studies have identified social media as a potential e-commerce tool, which has revolutionised business, particularly for women, by providing them greater market reach (for example see, Khalaf et al., 2023; Brahma & Dutta, 2020). The use of social media for selling goods and services varies by countries in APAC. For example, in Indonesia, approximately 58 per cent of women-owned MSMEs use social media platforms to market their products (UNCTAD, 2023a). In Bangladesh, nearly 150,000 female entrepreneurs are operating businesses via social media. Thus, social commerce is becoming increasingly important as a tool to do business and connect to partners and consumers in the APAC region.

3.1.4 Express Delivery System and E-commerce

A well-established logistics operations and delivery infrastructure is fundamental to ensure maximum gains from e-commerce (ADB, 2023). Express delivery services (EDS) have emerged as a critical asset for the flourishing e-commerce sector in recent years. As the e-commerce industry continues to develop, it has increasingly leaned on EDS to expedite its operations. E-commerce brands, retailers, MSMEs, and online businesses transitioning to e-commerce platforms are leveraging the efficiency of express delivery services for fast-track, just-in-time, door-to-door delivery. MSMEs and entities within the trading sector, stand out as prominent beneficiaries of EDS. The integration of EDS into e-commerce platforms not only fuels their own expansion but also propels the growth trajectory of the entire express delivery domain. Its key growth drivers include the growth of e-commerce, a growing middle-class population and government support for digitalisation and start-ups.

E-commerce companies partner with EDS delivery to enhance customer services with seamless door-to-door deliveries. This connectivity is especially crucial for fostering linkages among enterprises, particularly MSMEs, within global value chains.

Major players in the e-commerce arena, including Amazon.com, Flipkart Global, and Alibaba Group, have partnered with express delivery companies such as Deutsche Post (DHL) Express, United Parcel

Service (UPS), Federal Express (FedEx), Aramex, SF Express and YTO Express Group as well as with start-ups like Xpressbees and Dunzo in India to streamline last-mile deliveries and ensure faster and more efficient order fulfilment.

3.2 Key Growth Drivers of E-Commerce Sector in APAC

Some of the key factors that have been the driving force of e-commerce services leading to the overall growth of the sector in the APAC region are detailed below.

3.2.1 Increase in Disposable Income and the Number of Middle-class Consumers

An expanding middle class is a significant driver of e-commerce growth in the APAC region. Rising disposable incomes lead to increased consumer spending as this demographic seeks better lifestyles and convenience. There has been a substantial increase in the middle-class population in the emerging economies of APAC, such as China, India, Singapore, Thailand and Viet Nam. In India, the middle-class population, spending over US\$12 per day, accounted for 31 per cent of the population in 2021 and is expected to increase to 38 per cent by 2031 and 60 per cent by 2047 (People Research on India's Consumer Economy, 2023). In 2024, one study predicted that the country will add more people to its consumer group (around 30 per cent) than Europe, the Americas, and Africa combined (Beyond Borders, 2024). Consumer expenditure in India increased by 17 per cent from 2017 to 2021 and continues to rise.³¹

3.2.2 Increasing Internet Penetration, Surge in Demand for Digital Devices and Technological Developments

Growing internet penetration and other technological developments in the APAC region have significantly impacted the growth of the e-commerce sector. In 2023, the region accounted for 75 per cent of the internet penetration rate in the world (ITU, 2023). There has been a significant increase in internet users in the region in the last decade, from 1.2 billion users in 2013 to 2.9 billion internet users in 2023.³² (See Table 3.1 in section 3.1.3 for internet penetration

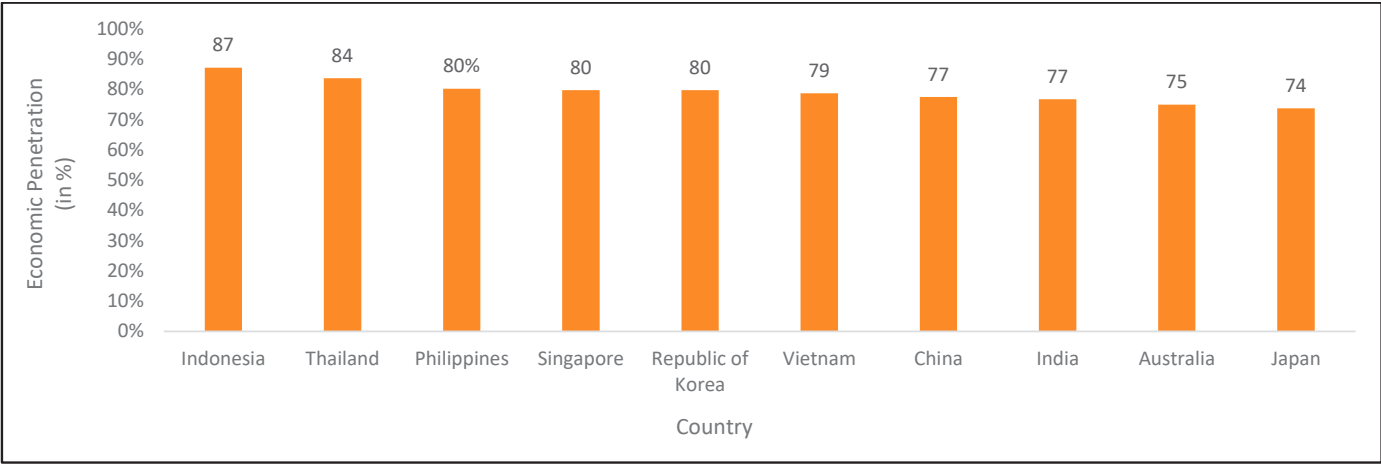
³¹ Source: <https://www.ebanx.com/en/beyond-borders-2024/digital-revolution-in-india/> (last accessed April 10, 2024)

³² The figures are extracted from ITU Regional Global Key ICT Indicators, November 2023, available at <https://www.itu.int/en/ITU-D/Statistics/Pages/stat/default.aspx> (last accessed on February 26, 2024)

in selected APAC countries). There has also been an increase in active e-commerce penetration, which refers to active internet users shopping online in

APAC. The highest e-commerce penetration in APAC in 2021 was in Indonesia, followed by Thailand and Malaysia. (See Figure 3.4 for details)

Figure 3.4: Active E-Commerce Penetration in the Asia Pacific Region (as of January 2021)

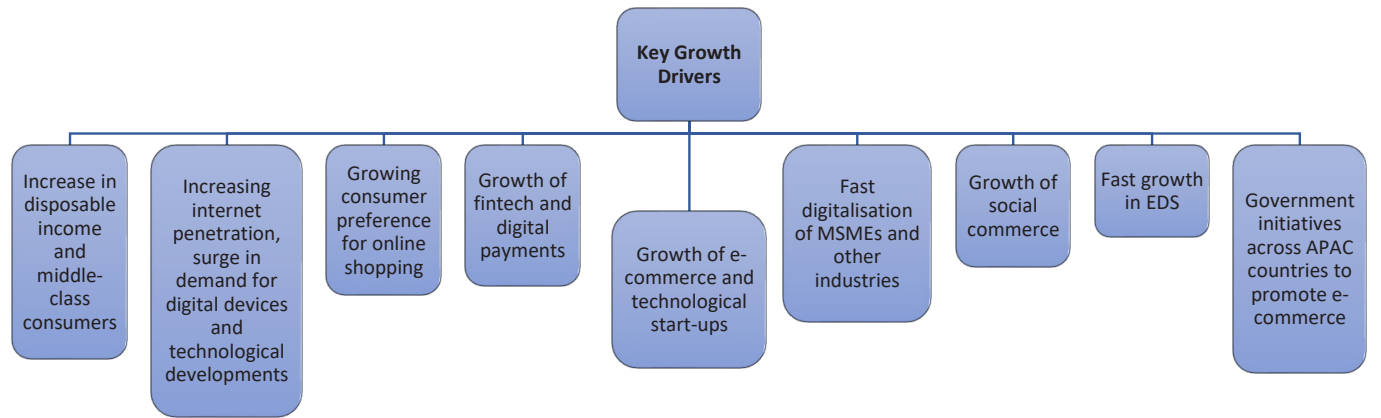


Source: Compiled from Statista, available at <https://www.statista.com/study/82406/e-commerce-in-asia-pacific/> (last accessed on May 22, 2024) (last accessed on May 29, 2024)

The 5G network coverage in the APAC region has expanded from 0.695 billion people in 2021 to 1.825 billion in 2023, with 42 per cent of the population now having 5G-capable devices (ITU, 2023). Notably, India’s proportion of users with 5G-capable devices using the network surged 55 times, from 0.1 per cent in September 2022 to 5.5 per cent in January 2023, marking the fastest 5G deployment globally (Mishra et al., 2024). Additionally, technological advancements have greatly accelerated e-commerce

growth in the APAC region. Technologies such as blockchain, AI, big data, IoT, voice recognition, and 5G have enhanced the e-commerce experience for consumers. The region serves as a testing ground for emerging technology, an example of which is Singapore’s GenAI Sandbox for SMEs that offers AI tools to improve productivity, drive innovation, and enhance customer experience. It is expected to benefit 300 SMEs across sectors like retail, food and beverages (F&B), education and hospitality.³³

Figure 3.5: Key Drivers of Growth of E-Commerce in the APAC Region



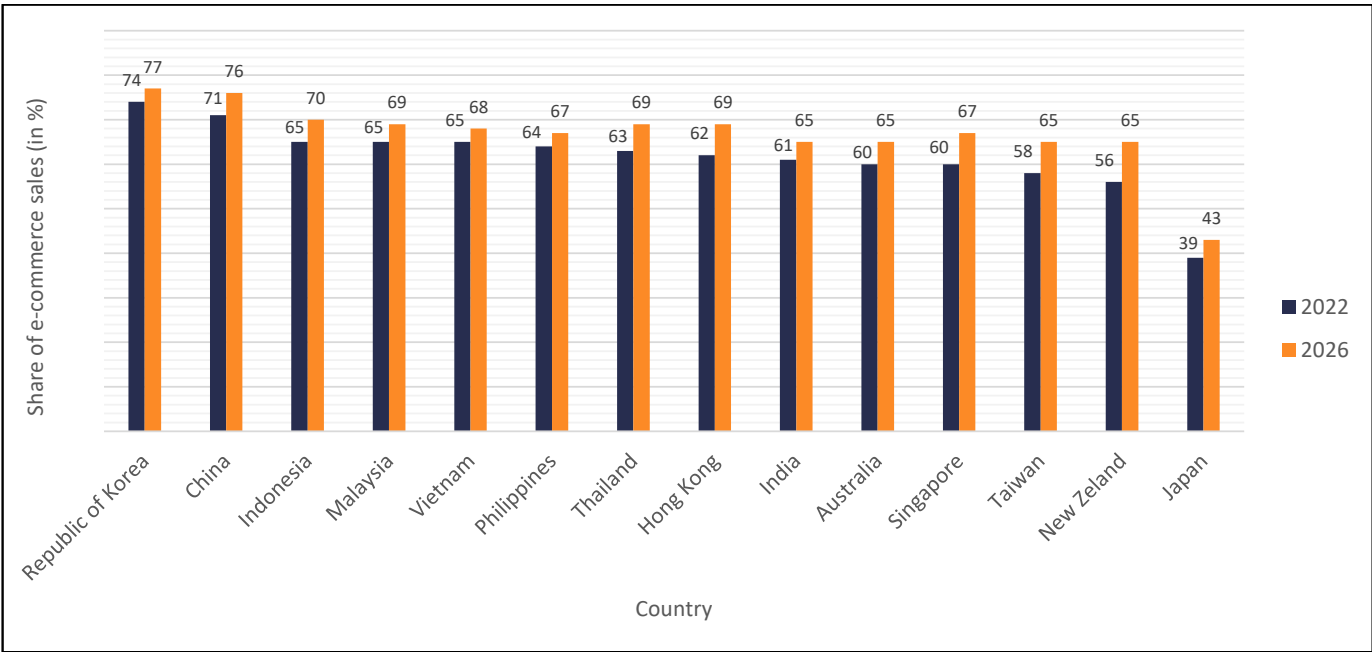
Source: Compiled from different sources including Mukherjee, Sanganerla and Goswami (2023), ADB (2023), Data Bridge Market Research (2023), ITU (2023) and ICRIER (2024)

33 Source: <https://services2.imda.gov.sg/CTOaaS/Article/42/generative-artificial-intelligence-sandbox-for-smes> (last accessed on April 11, 2024)

The APAC region has also witnessed a surge in smartphone and digital device ownership. By 2023, the region represented 55.5 per cent of the global mobile subscriber base, with the number of subscribers growing from 3.5 billion in 2013 to 5 billion in 2023. APAC had around 3 million smartphone users in 2022 (GSMA, 2023). India became the world's second-largest mobile market with 1.14 billion users, followed by the USA with 372 million subscribers. Other APAC countries such as Indonesia, Japan, the Philippines, Viet Nam, and Thailand also ranked high in mobile market size.³⁴ Mobile commerce (m-commerce), which refers to

shopping from various apps and platforms using mobile devices like smartphones and tablets, has thus increased and emerged as a critical channel for e-commerce in the APAC region. In 2022, m-commerce sales amounted to more than 50 per cent of the total e-commerce in most Asia-Pacific countries, such as Republic of Korea, China, Indonesia, Viet Nam, Thailand, etc.; the exception was Japan, where it was 39 per cent. The highest projection for m-commerce sales estimates that it will reach 77 per cent of e-commerce sales in Republic of Korea by 2026³⁵ (see Figure 3.6).

Figure 3.6: Mobile Commerce Sales as a Share of E-Commerce in the Asia-Pacific in 2022 and forecast for 2026



Source: Compiled from Statista, available at <https://www.statista.com/study/82406/e-commerce-in-asia-pacific/> (last accessed on May 29, 2024)

3.2.3 Growing Consumer Preference for Online Shopping

Consumers in APAC have displayed a growing preference for online shopping as it helps them to compare a wide range of products and prices, widening their choices and options (Data Bridge Market Research, 2023). Shoppers now benefit from a seamless shopping experience that includes product ratings, prices, purchases and advanced online payment methods, available through various

platforms like websites, social media, TV home shopping, and over-the-top (OTT) media services. According to a 2023 survey among consumers in the Asia-Pacific region, 64 per cent of consumer spending in China was online. In comparison, the share of online spending in Japan was only 49 per cent in 2023.³⁶ India has become the world's second-largest online market, experiencing a rapid growth in digital buyers since 2017, with a projected increase to over 400 million buyers by 2027.³⁷

³⁴ Compiled from Statista, available at <https://www.statista.com/statistics/1252962/apac-number-of-mobile-connections-by-country/> (last accessed on February 26, 2024).

³⁵ Source: <https://www.statista.com/statistics/1298171/apac-m-commerce-as-a-share-of-e-commerce-by-country/#:~:text=In%202022%2C%20mobile%20commerce%20sales,in%20South%20Korea%20by%202026> (last accessed on April 11, 2024)

³⁶ Source: <https://www.statista.com/statistics/1332912/apac-share-of-online-spending-by-country/#:~:text=According%20to%20a%202023%20survey,was%2049%20percent%20in%202023> (last accessed on May 24, 2024)

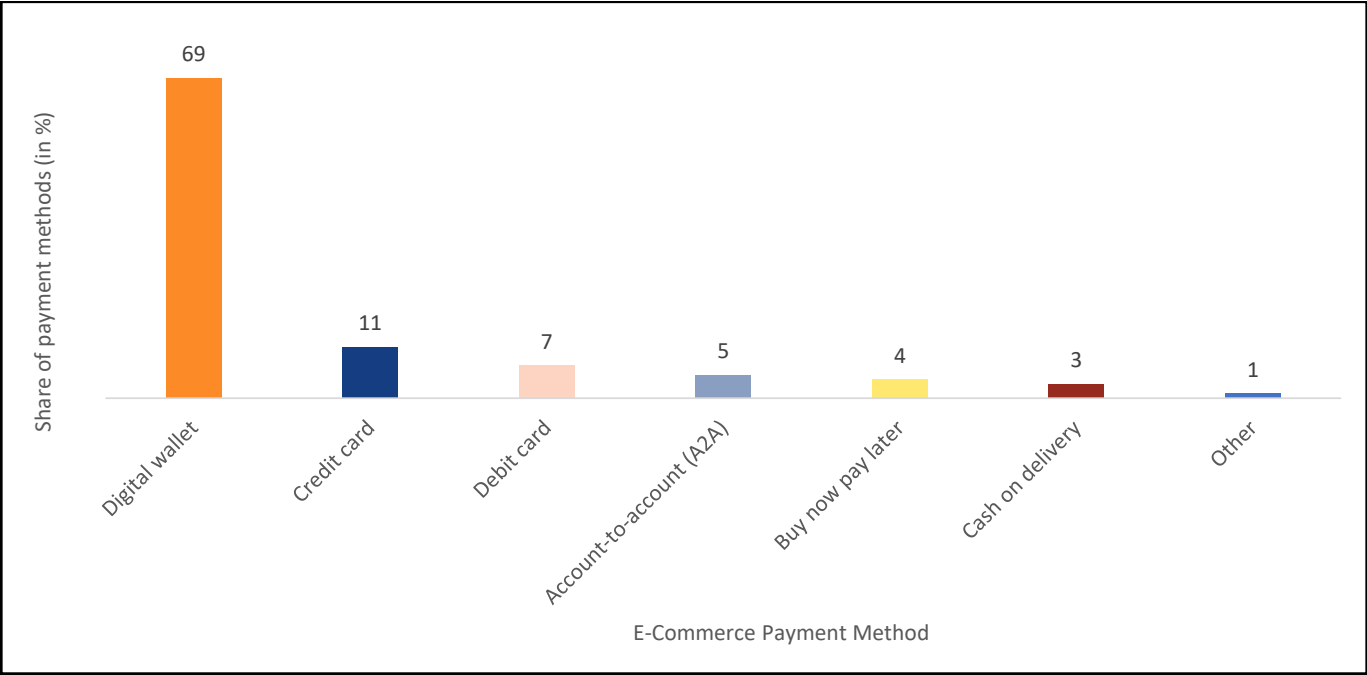
³⁷ Source: <https://www.ebanx.com/en/beyond-borders-2024/digital-revolution-in-india/> (last accessed on April 11, 2024)

3.2.4 Growth of Fintech and Digital Payments

The Asia-Pacific region boasts the world’s fastest growing fintech industry, with major players located in countries like China, India, and Singapore.³⁸ Digital payments are by far the largest fintech segment in the Asia-Pacific region, with India and China mobile payment users alone accounting for two-thirds of global users.³⁹ E-commerce payments make up over half of all digital transactions in Asia, with international payment services being crucial for cross-border e-commerce. In APAC, digital payments make up nearly half of the point-of-sale (POS) payments and more than half of e-commerce payment methods.⁴⁰ The share of digital wallets in e-commerce has doubled, and their value at

POS increased six fold in APAC in the past five years (Worldpay, 2023). Digital and mobile wallets dominate as the preferred payment method in the Asia-Pacific region and continue to grow (see Figure 3.7 for a share of e-commerce payment methods in APAC). In countries like India, where cash was once dominant, the pandemic and success of the Unified Payments Interface (UPI) have accelerated the shift towards digital payments. A 2021 survey revealed that PayPal was the top digital payment platform in the Philippines (used by 74 per cent of the enterprises) and a leading platform for cross-border e-commerce in Southeast Asia, while WorldFirst dominated the market in China with a 43 per cent share, especially in areas with less PayPal presence (see Figure 3.8 for details).

Figure 3.7: Share of E-Commerce Payment Methods in the Asia-Pacific region in 2022



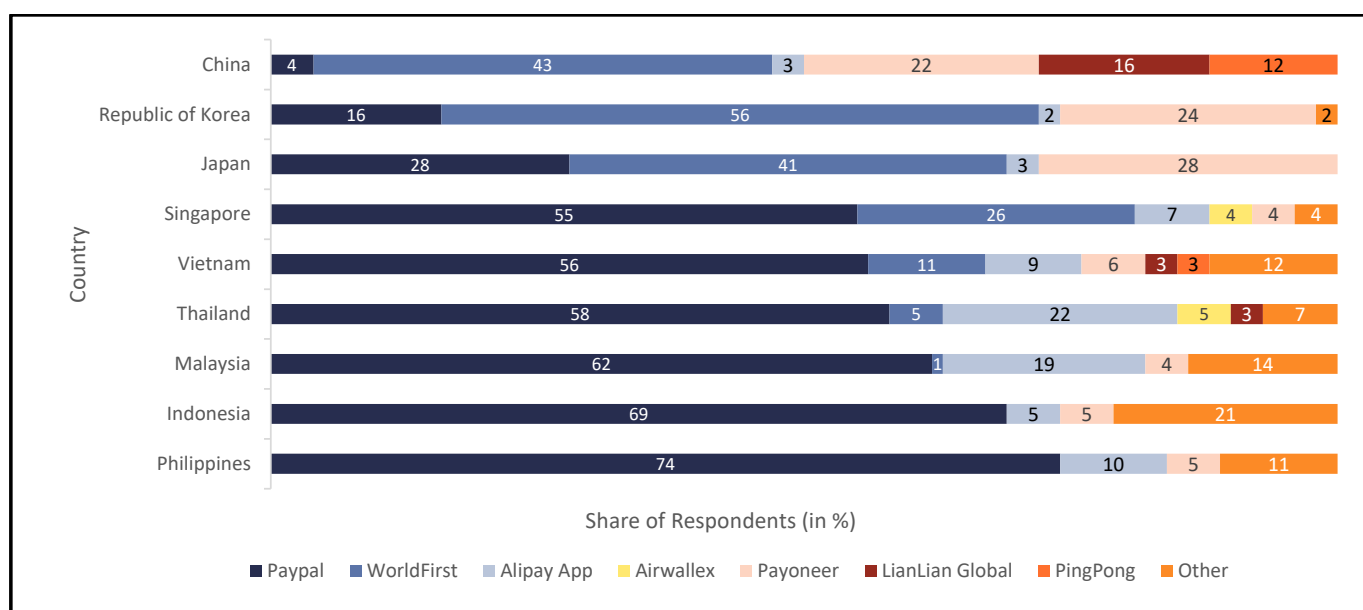
Source: Compiled from Statista, available at <https://www.statista.com/study/82406/e-commerce-in-asia-pacific/> (last accessed on May 29, 2024)

38 Source: <https://www.oakstone.co.uk/new-blog/fintech-growth-in-the-apac-region> (last accessed on May 24, 2024)

39 Source: <https://www.statista.com/topics/7970/fintech-in-asia-pacific/> (last accessed on May 24, 2024)

40 Source: <https://www.statista.com/topics/7970/fintech-in-asia-pacific/> (last accessed on May 24, 2024)

Figure 3.8: Leading Digital Payment Platforms among Cross-Border E-Commerce Enterprises in Asia in 2021 by Market Share in Selected Countries



Source: Compiled from Statista, available at <https://www.statista.com/statistics/1296193/asia-top-digital-payment-platforms-by-country/> (last accessed on May 28, 2024)

3.2.5 Growth of E-commerce and Technological Start-ups

The increasing number of start-ups, including both e-commerce and technological start-ups, is a significant factor that has led to the growth of e-commerce globally as well as in the APAC region. Between 2015 and 2021, the number of start-ups in the ASEAN region almost tripled and reached 1,920. In India, the number of recognised start-ups has increased from 471 in 2016 to 72,993 in 2022.⁴¹ Not only e-commerce start-ups, but those in allied sectors like EDS and fintech have supported the growth of e-commerce in the APAC.

According to the Global Unicorn Index, 2023, India was ranked the third largest country among 48 countries in the world with 68 unicorns in 2022, after the USA and China; it was followed by the UK (4th, 49), Singapore (11th, 9 unicorns), Australia (12th, 8 unicorns), Indonesia (18th, 5 unicorns) and Viet Nam (19th, 4 unicorns).⁴² India currently has 105 unicorns across various sectors, with the e-commerce sector

having the largest share of 23 unicorns such as Droom, GlobalBees, The Good Glam Group, Infra. Market, etc. In AI, some APAC countries, such as India, rank second in having the highest open-source AI projects after the USA (Mishra et al., 2024).

3.2.6 Fast Digitalisation of MSMEs and other Industries

Many MSMEs across sectors like manufacturing and services are undergoing a digital transformation and have on-boarded to e-commerce platforms to keep up with the new, technology-driven world. One such industry is the retail sector and the fashion segment.⁴³ In 2021, the Indian e-retail market saw an influx of 40 to 50 million new shoppers, representing a 30-35 per cent increase in the online shopper base compared to 2020 (Sheth et al., 2023). The number of online registered MSMEs in the country has increased almost three times from 5.1 million in 2021 to 15 million in 2023 (under the Udyam Registration Portal).⁴⁴ In Indonesia, 20.24 million MSMEs entered the digital ecosystem using marketplaces or digital

41 The details are available at <https://www.fortuneindia.com/macro/india-sees-15400-growth-in-startups-in-6-yrs/109064#:~:text=The%20number%20of%20recognised%20startups%20in%20the%20country,ministry%20data%20as%20of%20June%2030%2C%202022%2C%20shows.> (last accessed on February 26, 2024).

42 Compiled from <https://www.hurun.co.uk/hurun-global-unicorn-index-2023-full-report.php> (last accessed on February 26, 2024).

43 Source: <https://www.statista.com/topics/7121/e-commerce-in-asia-pacific/#topicOverview> (last accessed April 12, 2024)

44 The details are available at <https://government.economictimes.indiatimes.com/news/economy/over-3-16-cr-msmes-registered-in-india-between-jul-2020-dec-2023-on-udyam-registration-portal-centre/105927542> (last accessed on February 26, 2024).

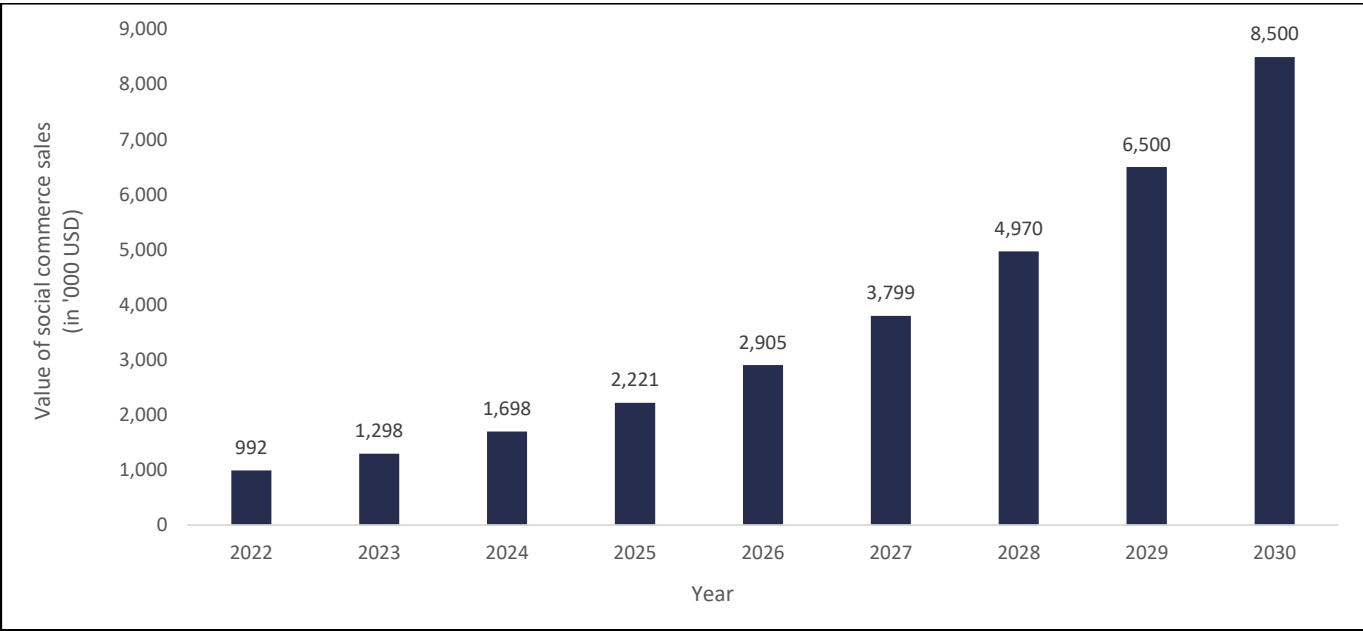
platforms in 2022.⁴⁵ In Singapore, 80 per cent of the MSMEs have adopted digitalisation at the basic level (Callo-Müller, 2020). Integration with e-commerce platforms has increased MSMEs' global market reach and access to finance in the APAC region. Digitalisation was a key coping mechanism for MSMEs to overcome mobility restrictions during the pandemic, but now MSMEs are using the e-commerce platform post-COVID to expand both domestic and global networks. Nearly 64 per cent of MSMEs in India sold their products through online channels, and many of them registered higher sales than in previous years in 2020-21 (Goyal, Kukreja, & Kedia, 2022).

3.2.7 Growth of Social Commerce

Social media platforms have helped the expansion of the e-commerce sector throughout the Asia-

Pacific region by seizing the opportunity to advertise and sell goods by providing direct links to online retailers, MSMEs and start-ups. According to Bain & Company, Inc. et al., 2020, social commerce has the potential to empower more than 40 million small businesses and entrepreneurs across India. Some social media platforms even function as online marketplaces, which makes sure users do not have to leave the platform in order to make purchases. The global market for social commerce is projected to reach US\$8.5 trillion by 2030 (See Figure 3.9). It has become a core feature of e-commerce in countries like China and India, and is rapidly growing in countries like the United States. In India, social commerce is paving the way for a more distributed model that is built on community connection and trust and is likely to hit nearly US\$70 billion by 2030 with a larger market than the e-commerce sector.⁴⁶

Figure 3.9: Estimated Value of Social Commerce Sales Worldwide from 2022 to 2030 (in billion U.S. dollars)



Source: Compiled from Statista <https://www.statista.com/statistics/1251145/social-commerce-sales-worldwide/> (last accessed May 28, 2024)

Thailand has one the highest percentages of social commerce buyers in the world, with 91 per cent of online shoppers in 2023.⁴⁷ It has the highest share of online shoppers followed by China (see Figure 3.10 for details). In 2023, a survey among MSMEs in

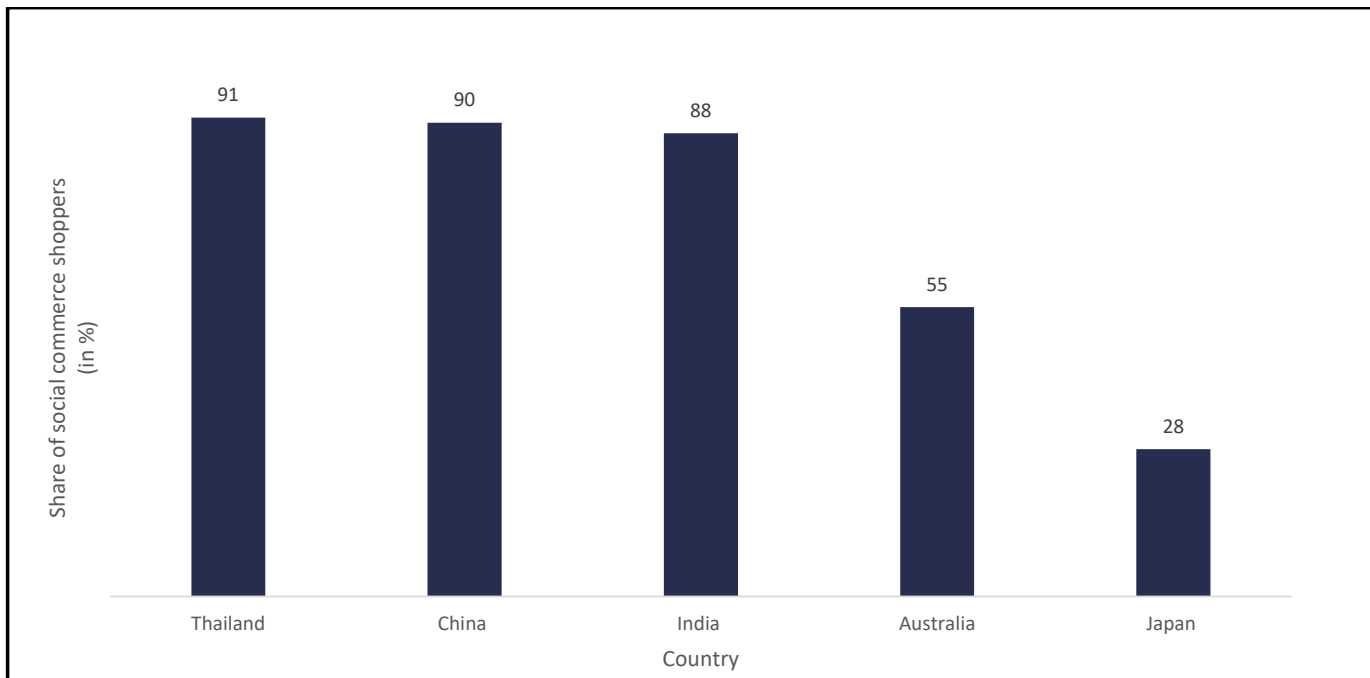
Thailand found that Facebook was the most popular platform used to promote, sell and communicate with clients. This was followed by LINE, a Japanese messenger application commonly used by Thai people.

⁴⁵ The details are available at <https://www.mdpi.com/2227-7099/11/6/156> (last accessed on February 26, 2024).

⁴⁶ Source: bain_report_unlocking_the_future_of_commerce_in_india.pdf (last accessed on April 4, 2024)

⁴⁷ Source: <https://www.statista.com/statistics/1252481/social-buyers-worldwide-countries/> (last accessed on May 28, 2024)

Figure 3.10: Share of Social Commerce Shoppers in the Asia-Pacific Region in 2023



Source: Compiled from Statista, available at <https://www.statista.com/study/82406/e-commerce-in-asia-pacific/> (last accessed May 28, 2024)

3.2.8 Fast growth of EDS

An important factor that facilitates the functioning and growth of the e-commerce sector is a fast and efficient EDS, which offers e-commerce retailers a competitive advantage by enabling shorter shipping times and faster deliveries (Ahmed, Deokar, Lee, & Summerfield, 2024). The express delivery sector also acts as a demand-driving factor influencing consumer expectations and satisfaction. The revenue of the global express delivery industry is projected to increase from US\$263 billion in 2020 to US\$484 billion by 2030. The Asia-Pacific region is the largest contributor to the global express delivery industry and accounted for around 40 per cent of the revenue in 2020 with India, China and Singapore being the largest and fastest growing EDS markets in the region (Mukherjee et al., 2023). According to another study, the market size of the Asia Pacific courier, express, and parcel (CEP) industry is estimated at US\$225.82 billion in 2024 and is expected to reach US\$337.54 billion by 2030, growing at a CAGR of 6.93 per cent during the forecast period (2024-2030).⁴⁸ The proportion of the value of e-commerce in EDS was 34.61 per cent in 2023.

3.2.9 Government Initiatives to Promote E-commerce

The support provided by governments plays a significant role in driving the growth of the e-commerce sector in APAC and some of the policy initiatives such as those linked to supporting MSMEs and women entrepreneurs to on-board e-commerce platforms are discussed in Section 4.

There is a strong linkage between the growth of e-commerce, the adoption of digitalisation by its users like MSMEs, and the growth of infrastructure, logistics and the express delivery system. The growth drivers are many, and they are interconnected; jointly, they can lead to high and inclusive growth for countries in the region, create jobs and bring in investment. Policymakers, therefore, must look at the holistic growth of this sector, and its linkages and contribution to allied sectors, and then take policy decisions to support high, resilient, sustainable and inclusive growth.

⁴⁸ Source: Asia Pacific Courier, Express, and Parcel (CEP) Market Size & Share Analysis - Industry Research Report - Growth Trends (mordorintelligence.com) (last accessed on April 24, 2024)

4. Regulations and Scope for Cross-border Regulatory Co-operation and Harmonisation

Due to its significant growth across countries and its interlinkages with other sectors, e-commerce is receiving significant policy attention in APAC, both in the context of domestic and foreign trade policies. With the growing importance of global trade, not only is e-commerce now a key component of trade agreements amongst APAC countries, but its regulatory aspects are also being discussed at multiple global fora. Most of the APAC countries are members of the World Trade Organization (WTO), where e-commerce discussions take place in two parallel tracks:

- First, the multilateral track at the Work Programme on Electronic Commerce (WPEC), launched in 1998, which addresses trade-related e-commerce issues, its relationship with WTO agreements, and the needs of developing countries. Under this, WTO members have agreed not to impose customs duties on electronic transmissions until March 31, 2026, or the 14th WTO Ministerial Conference (MC14), whichever is earlier.⁴⁹ The work programme and moratorium are set to expire on that date.
- Second, at a plurilateral level, a group of WTO members formed the Joint Statement Initiative (JSI) on E-commerce⁵⁰ at the 2017 Buenos Aires Ministerial Conference to discuss e-commerce trade rules. While the JSI boasts of having 91 WTO members as of June 2024, many APAC countries like Bangladesh, Cambodia, India, Sri Lanka, and Viet Nam are not part of it yet.⁵¹ On July 26, 2024, 80 out of 91 member nations have agreed upon a “stabilised text” (henceforth, JSI text) on e-commerce.⁵²

The pace of plurilateral discussions is much slower

than regional or bilateral level discussions, which has motivated many APAC countries to move towards the inclusion of e-commerce related aspects in regional trade agreements (RTAs) and bilateral free trade agreements (FTAs). As of October 2022, the APAC region had signed 81 out of 193 RTAs with e-commerce chapters or provisions (ESCAP, 2022). These trade agreements differ in terms of their scope, coverage, extent of commitments and co-operation. However, while these agreements have a dedicated chapter on e-commerce, the provisions of other chapters such as those on trade facilitation and financial services also have implications on e-commerce. Therefore, there is an increasing trend amongst APAC countries to sign Digital Economy Agreements (DEAs) or Digital Economy Partnership Agreements (DEPAs) that go beyond the FTAs in terms of their provisions and level of commitments. A DEA is a treaty that establishes rules for digital trade and fosters digital economy collaborations between two or more economies. According to the World Economic Forum, DEAs offer several advantages over traditional trade agreements, which typically include chapters on digital trade issues and focus more on market access. These advantages include the following:

- Encouraging domestic regulatory reforms.
- Promoting “soft” cross-border collaboration on diverse issues such as data innovation, digital identities, cybersecurity, consumer protection, and digital inclusion.
- Providing significant benefits for SMEs, which gain the most from consistent and interoperable digital regulations.⁵³

Many countries, including Japan, Republic of Korea, Australia and Singapore are front runners in signing DEAs, with Singapore having concluded negotiations on five legally binding DEAs, most recently with the EU on July 25, 2024.⁵⁴ Apart from

49 The details are available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/MIN24/38.pd f&Open=True> (last accessed on March 27, 2024) and <https://dig.watch/processes/wto-e-commerce> (last accessed on March 27, 2024).

50 The details are available at https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm (last accessed on March 27, 2024).

51 The details are available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/WT/L/1056.pdf& Open=True> (last accessed on March 27, 2024) and https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm (last accessed on July 15, 2024).

52 The details are available at <https://docs.wto.org/dol2fe/Pages/SS/directdoc.aspx?filename=q:/INF/ECOM/87.pdf&Open=True> (last accessed on July 31, 2024)

53 Source: <https://www.weforum.org/agenda/2022/08/digital-economy-agreements-trade/> (last accessed on August 11, 2024)

54 Source: https://policy.trade.ec.europa.eu/eu-trade-relationships-country-and-region/countries-and-regions/singapore/eu-singapore-agreements_en (last accessed on July 26, 2024)

bilateral agreements, the Association of Southeast Asian Nations (ASEAN) announced the ASEAN Digital Economy Framework Agreement (DEFA) in September 2023, making it the world's first regional digital economy pact. It is expected to unlock the value of ASEAN's digital economy, which is projected to triple through the adoption of digital technologies from approximately US\$300 billion to almost US\$2 trillion by 2030.⁵⁵ The DEFA seeks to offer a comprehensive roadmap to empower businesses and stakeholders across ASEAN. The Regional Comprehensive Economic Partnership (RCEP) signed between 15 APAC nations in 2020 also includes a chapter on e-commerce covering major aspects.⁵⁶

An analysis of DEAs, recent FTAs which include a digital trade chapter, RCEP, 2020 and the JSI text has been presented in Table 4.1. A few observations can be made from the table. First, the DEAs/DEPAs have deeper commitments on most of the provisions than the JSI text and the ASEAN DEFA, which shows that the progress in the plurilateral and regional forums is slower than in bilateral agreements. Second, there are differences in the level of commitments on provisions. There are certain provisions that have hard commitments across most bilateral agreements such as the adoption of UNCITRAL MLEC, e-authentication and e-signatures, online consumer protection, paperless trade, personal information protection, etc. On the other hand,

provisions on AI and SMEs only attracts softer commitments and provisions on cybersecurity are largely limited to recognition of the issue with no commitments. Interestingly, while provisions on express shipment and *de minimis*⁵⁷ are not at all mentioned in most agreements, they attract strong commitments wherever they are mentioned. Third, amongst all bilateral agreements, the India-UAE CEPA is heavily based on soft commitments on all provisions, except paperless trading.

While regional and bilateral agreements are steps towards harmonising e-commerce regulations, international agreements can significantly accelerate this process. Many regional or bilateral agreements already base their provisions on international standards; so, implementing these international agreements could lead to a harmonised global approach to e-commerce regulation. Some regulations like the WTO Trade Facilitation Agreement (TFA) and the ESCAP Framework Agreement on Facilitation of Cross-border Paperless Trade in Asia and the Pacific (CPTA) affect both e-commerce and traditional trade in goods and services. However, certain agreements specifically pertain to e-commerce, such as the United Nations Commission on International Trade Law (UNCITRAL) Model Laws (refer to Box 4.1 for details), and the World Customs Organization (WCO) Rapid Cargo Clearance Guidelines, which help harmonise all related regulations.

⁵⁵ Source: <https://seads.adb.org/solutions/why-aseans-digital-economy-framework-agreement-could-make-region-new-digital-powerhouse> (last accessed on June 29, 2024)

⁵⁶ Source: <https://www.dfat.gov.au/trade/agreements/in-force/rcep> (last accessed on August 30, 2024)

⁵⁷ A *de minimis* value refers to a set value below which countries decide not to collect customs duties or taxes on shipments. Its value varies from country to country.

Table 4.1: Comparison of some key regulations-related provisions in select digital trade agreements amongst APAC countries

Selected Agreements Key Provisions	AUS-Singapore DEA (2020)	Singapore-Chile-New Zealand DEPA (2020)	Regional Comprehensive Economic Partnership (RCEP) (2020)	AUS-UK FTA (2021)	UK-Singapore DEA (2021)	India - UAE CEPA (2022)	Korea-Singapore DEA (2023)	JSI Agreement on E-commerce (2024)
Ensure that the domestic legal framework is in line with principles of the <i>UNCITRAL Model Law on Electronic Commerce, 1996</i> or the <i>United Nations Convention on the Use of Electronic Communications in International Contracts, 2005</i>	X	X	X	X	X	O	X	O
Have a domestic legal framework taking into account the <i>UNCITRAL Model Law on Electronic Transferable Records (2017)</i>	O	O	NM	O	O	NM	O	O
Implement initiatives for use of paperless trading	X	X	O	X	X	O	X	O
Allow cross-border information flow for business	X	X	X	X	X	O	X	NM
Ensure the legal validity of e-authentication and electronic signature certificates	X	X	X	X	X	O	X	X
Ensure the legal validity of e-invoices	X	X	NM	O	X	O	O	X
Have domestic regulations on electronic payments	X	X	NM	NM	O	O	X	O
Have domestic regulations for online consumer protection	X	X	X	X	X	O	X	X
Express shipments	X	X	NM	NM	NM	NM	X	NM
Collaborate on artificial intelligence (AI)	O	O	NM	O	O	NM	O	NM
Facilitate cross-border MSME trade	O	O	O	O	O	O	O	O
Legal framework for protection of personal information	X	X	X	X	X	O	X	X
Addressing cyber security threats	O	O	O	O	O	O	O	O

Source: Collated by authors from the text of the selected agreements.

Note: X – Mandatory/Hard commitments (i.e., obligations like shall adopt, shall enact, etc.), O – Soft commitments (endeavour-based commitments), R – no commitments but recognition of the provision, NM – not mentioned in the agreement. EU – European Union, AUS – Australia, UAE – United Arab Emirates, CEPA – Comprehensive Economic Partnership Agreement

Organisations like the ESCAP have taken significant steps to compare the measures taken by APAC countries towards harmonisation of e-commerce regulations as per the agreements mentioned above. It has mapped cross-country regulations of 21 sample countries in APAC [see ESCAP Regional Digital Trade Regulatory Integration Index (RDTII 2.0)] across 12 pillar/policy areas⁵⁸ in the digital trade ecosystem, which helps examine the cross-country differences in regulations and provide a better understanding of the domestic digital trade policy landscape of member countries. As far as regulations related to online sales and transactions⁵⁹ (Pillar 12) are concerned, it is apparent from Figure 4.1 that most economies in APAC have consumer protection laws for e-commerce transactions and have aligned their domestic laws with

the UNCITRAL Model Law on Electronic Commerce (MLEC) of 1996. This alignment holds the potential to harmonise the e-commerce environment and enhance legal certainty. However, there are challenges to this harmonisation as many economies enforce strict regulations on online payments, de minimis rules, and domain names, and most have not adopted the UNCITRAL Model Law on Electronic Signatures (2001) (MLES) or the United Nations Convention on the Use of Electronic Communications in International Contracts (2005). As seen below, Singapore is one of the best performing countries (score of 0.09) with respect to regulatory harmonisation with international best practices; this has led to lower compliance costs for online sales and transaction as compared to a country like Indonesia (score of 0.91) in ASEAN.

58 Pillar 1: Tariffs and trade defence Pillar 2: Public procurement Pillar 3: Foreign direct investment Pillar 4: Intellectual property rights Pillar 5: Telecom regulations and competition Pillar 6: Cross-border data policies, Pillar 7: Domestic data protection and privacy Pillar 8: Internet intermediary liability Pillar 9: Content access Pillar 10: Non-technical NTMs Pillar 11: Standards and procedures Pillar 12: Online sales and transactions

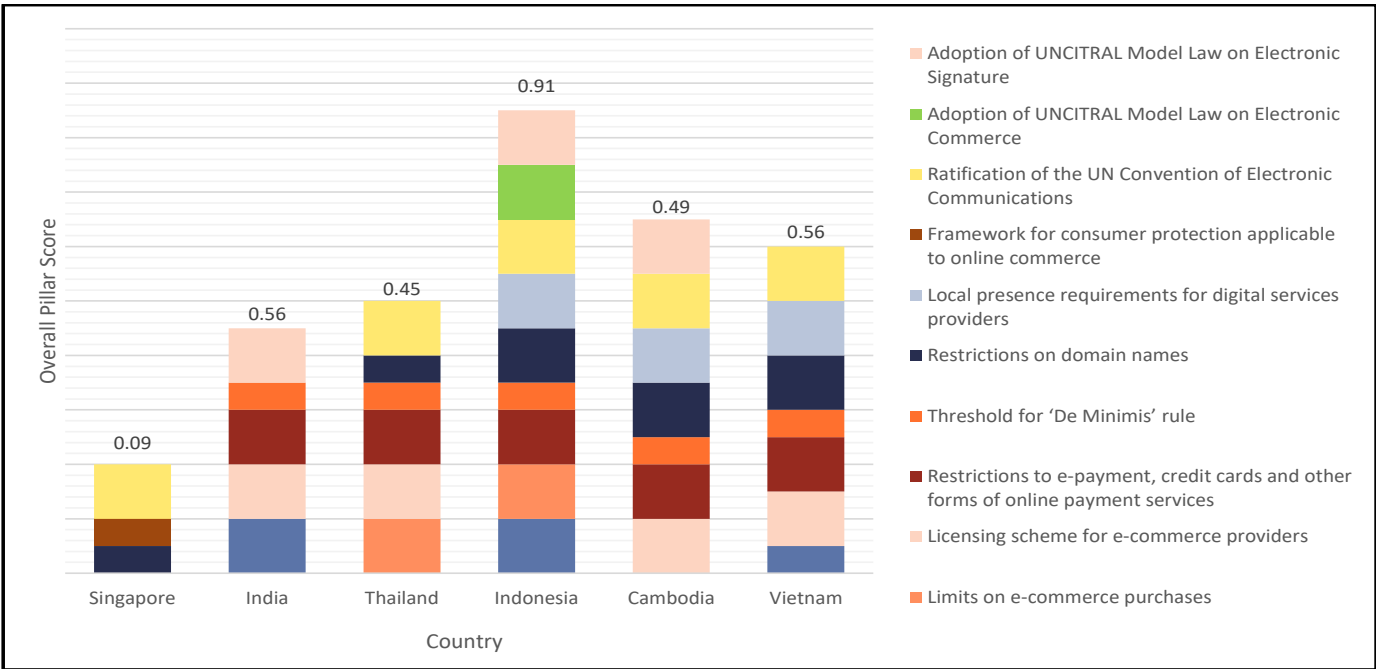
59 Pillar 12 captures a broad spectrum of policies that affect online sales and transactions, including regulations on online purchase, delivery, online payment and domain names as well as legal recognition for electronic signatures and the existence of relevant consumer protection laws. (ESCAP 2023c).

Other than ESCAP, e-commerce has also come to be discussed in the Group of Twenty (G20) and Organisation for Economic Co-operation and Development (OECD), where discussions on several related issues such as digital taxation and integrating MSMEs in the global supply chain using digital platforms have been common.

The subsections below present some key regulations in the context of regulatory co-operation and harmonisation in the APAC region for cross-border e-commerce trade. These include regulations like the UNCITRAL model laws, regulations related to data sharing and protection, and consumer protection

regulations. Note that the list of policies presented in Section 4 follows an order, starting with those regulations (UNCITRAL Laws) that feature strong commitments by countries, followed by topics like MSMEs and women in e-commerce that have largely seen soft commitments, and ending with issues such as social media and AI that are still evolving and need more collaborative efforts. The section also presents the similarities and differences across countries in the region in e-commerce related policies, which can help understand domestic policy gaps and how this sector features in trade agreements and in other international fora where APAC members participate.

Figure 4.1: Select Country Scores for Pillar 12 – Online Sales and Transactions (RDTII 2.0) in the Asia-Pacific Region, 2023



Source: Compiled from ESCAP RDTII 2.0 available at <https://dtri.uneca.org/escap/trade-integration> as on July 9, 2024 (last accessed July 9, 2024)

Note: Each RDTII Pillar score is the weighted average of scores at the indicator level. Indicator scores range from ‘0’ to ‘1’ and are based on a review of existing policies and regulations. A score greater than ‘0’ indicates that at least one of the following conditions occurs: 1) differential treatment between domestic and foreign provider. 2) additional regulatory compliance costs to services provided online, relative to those provided offline. 3) absence of certain international norms, e.g., international agreement, legislation, or legal mechanism considered of significant importance for interoperability across jurisdictions. For information, please see ESCAP et.al. (2024).

4.1 Model Legal Framework for E-Commerce Regulations

With the increasing importance of e-commerce, it is necessary to develop and maintain a robust cross-border legal framework. In this regard, the UNCITRAL plays a key role in developing the framework for

harmonisation and unification of international trade law through conventions, model laws and other instruments.⁶⁰ As of April 2024, the UNCITRAL had 56 member countries including APAC countries such as Australia, India, Indonesia, Japan, Singapore, the Republic of Korea, Thailand and Viet Nam, along with the UK and USA.⁶¹ The UNCITRAL adopted three

60 The details are available at <https://uncitral.un.org/> (last accessed on March 27, 2024).

61 The details are available at https://uncitral.un.org/en/about/faq/mandate_composition/memberhistory (last accessed on March 27, 2024).

model laws for the harmonisation of the electronics transaction framework amongst countries, namely Model Law on Electronic Commerce (MLEC), Model Law on Electronic Signature (MLES) and Model Law on Electronic Transferable Records (MLETR), 2017 (see Box 4.1 for details).

The UNCITRAL MLEC has been the basis of domestic regulation in many APAC countries. Table 4.2 shows some examples of domestic regulations in selected countries that have taken into account the principles of the UNCITRAL model laws. There exist wide variations across countries in their adoption with many only partially adopting the model regulations.

Box 4.1: Model UNCITRAL Laws

- (i) **The Model Law on E-Commerce (MLEC)**, adopted in 1996, aims to facilitate and promote international trade and commerce conducted using electronic means by offering national legislators a set of internationally recognised rules designed to eliminate legal barriers and enhance legal certainty for electronic transactions (e-transaction). The law advises all states to take into account the requirement for uniformity in the law when implementing or amending laws concerning alternatives to paper-based methods of communication and information storage. The law also recommends all countries (including member countries) to enact legislations/regulations either as a single statute or as several pieces of legislations. It provides a definition of e-commerce and covers legal requirements for electronic data interchange (EDI) including data messages, signatures, formation and validity of contracts, time and place of dispatch and receipt of data messages, and carriage of goods through electronic means of communication. * The law also recommends countries to include provisions on consumer protection in their law.
- (ii) **The Model Law on Electronic Signatures (MLES)** adopted in 2001 aims to discuss the desirability and feasibility, and to define the scope of uniform rules on electronic signatures** (e-signatures). It provides the standards required for an e-signature to be considered legally equivalent to hand-written signatures. It also lays out basic rules of conduct regarding the responsibilities and liabilities of the parties, including the signatory, the certification service provider (CSP), and the relying party. Any method of creating an e-signature that satisfies certain requirements satisfies the legal requirement for a signature. If deemed sufficiently reliable, foreign certificates and e-signatures are recognised regardless of the place of issuance of the certificate, creation or use of the signature, or place of business of the issuer or signatory.
- (iii) **The Model Law on Electronic Transferable Records (MLETR), 2017** aims to enable the legal use of electronic transferable records both domestically and across borders. The MLETR applies to electronic transferable records that are functionally equivalent to transferable documents or instruments, which include bills of lading, bills of exchange, promissory notes and warehouse receipts. Their availability in electronic form may be greatly beneficial for facilitating electronic commerce by, for example, improving speed and security of transmission, permitting the reuse of data and automating certain transactions through “smart contracts”.

*Among the means of communication encompassed in the notion of “electronic commerce” are the following modes of transmission based on the use of electronic techniques: communication by means of EDI defined narrowly as computer-to-computer transmission of data in a standardised format; transmission of electronic messages involving the use of either publicly available standards or proprietary standards and the transmission of free-formatted text by electronic means, for example through the Internet. It was also noted that, under 17 circumstances, the notion of “electronic commerce” might cover the use of techniques such as telex and telecopy. (last accessed on March 27, 2024).

** “Electronic signature” means data in electronic form in, affixed to or logically associated with a data message, which may be used to identify the signatory in relation to the data message and to indicate the signatory’s approval of the information contained in the data message.

Source: https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/19-04970_ebook.pdf; https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce; https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/19-04970_ebook.pdf; https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/19-04970_ebook.pdf; https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_commerce; <https://uncitral.un.org/sites/uncitral.un.org/files/media-documents/uncitral/en/ml-elecsig-e.pdf>; <https://openknowledge.worldbank.org/server/api/core/bitstreams/20cc166f-1ef1-516a-be18-3eaec28c3be1/content>; https://uncitral.un.org/en/texts/ecommerce/modellaw/electronic_transferable_records (last accessed on March 27, 2024).

Table 4.2: Regulations on E-Commerce in Select Countries in APAC (as on March, 2024)

Country	Name of Law	Nodal Agency	Features
Australia	Electronic Transactions Amendment Act, 2011	Department of Attorney General ⁶²	<ul style="list-style-type: none"> • It provides a legal framework that recognises e-transaction. • The act aligns e-transaction laws with international standards and best practices, making it easier for businesses to engage in cross-border transactions without facing legal barriers or uncertainties.
Bangladesh	Information Communication Technology Act, 2006	Ministry of Information and Communication Technology	<ul style="list-style-type: none"> • It provides the legal foundation for digital transactions in Bangladesh and the e-government network that supports e-commerce development. • It includes provisions for data protection and privacy, and cross-border cyber threats.
Cambodia	E-commerce Law, 2019	Ministry of Commerce and Industry	<ul style="list-style-type: none"> • It governs both domestic and international e-commerce, ensuring legal certainty for e-transactions and consumer protection. • It covers electronic communications, security, consumer protection and liability for e-commerce platforms, and establishes a regulatory framework including fines and imprisonment for violations.
India	Information Technology Act 2000	Ministry of Electronics and Information Technology	<ul style="list-style-type: none"> • The act governs various aspects of e-commerce transactions. • It contains provisions for data protection and consumer redressal. • It establishes standards for electronic contracts, protects intermediaries and prevents cyber-crimes, which ensure smooth cross-border trade.
Indonesia	Electronic Information and Transactions Law (EIT Law), 2008	Ministry of Communication and Information Technology	<ul style="list-style-type: none"> • This act provides a framework for e-transactions and includes provisions relevant to the protection of online consumers.
Japan	Basic Act on the Promotion of Utilisation of Information and Communication Technology (ICT)	Ministry of Internal Affairs and Communications (MIC)	<ul style="list-style-type: none"> • It includes provisions aimed at facilitating e-commerce transactions. • It addresses cybersecurity concerns and the protection of personal information. The act contributes to creating a safe environment for e-commerce activities. • Its broader objectives promote the facilitation of cross-border trade and transactions.
	Act on Electronic Signatures and Certification Business	Ministry of Internal Affairs and Communications (MIC)	<ul style="list-style-type: none"> • The act regulates certification authorities that issue digital certificates and establishes security standards and procedures that authorities need to follow.
Philippines	Electronic Commerce Act, 2000	Department of Trade and Industry (DTI) ⁶³	<ul style="list-style-type: none"> • This act addresses commerce by ensuring that transactions are secure and legal, providing specific rights to online consumers, and mandating clear disclosure of terms and conditions by online sellers. • It offers protection tailored to the digital environment, ensuring that online consumers enjoy similar rights and protection as those in traditional markets.
	Internet Transactions Act, 2023	Department of Trade and Industry (DTI)	<ul style="list-style-type: none"> • The act creates an e-commerce bureau to implement the act. • It outlines a dispute resolution process, liability regime and penalties for non-compliance, including fines of up to PHP 1 million imposed by the DTI.

⁶² The Department of Attorney General is the national law enforcement and justice department of the Federal Government of the Commonwealth of Australia

⁶³ The Department of Trade and Industry (DTI) is an executive department under the Government of the Philippines.

Country	Name of Law	Nodal Agency	Features
Republic of Korea	Electronic Commerce Act, 2016	Fair Trade Commission ⁶⁴	<ul style="list-style-type: none"> The purpose of this act is to protect the rights and interests of consumers and establish a sound order in e-commerce. It prescribes the duties of business entities to provide information to consumers, and consumers' right to cancel an order.
	Framework Act on Electronic Documents and Transactions, 2012	Ministry of Science and ICT (Information Communications and Technology)	<ul style="list-style-type: none"> The act regulates certification authorities issuing digital certificates to authenticate e-signatures and secure e-transactions. It also regulates consumers engaging in e-transactions and establishes mechanisms for resolving disputes and addressing consumer grievances.
Singapore	Electronic Transactions (Amendment) Act, 2021	Infocomm Media Development Authority (IMDA), Ministry of Communications and Information	<ul style="list-style-type: none"> It is designed to facilitate and regulate the use of e-transactions and communications in both the domestic and international contexts. It focuses on the reliability and integrity of electronic records and transactions, particularly through the use of e-signatures.
Sri Lanka	Electronic Transactions (Amendment) Act, 2017	Ministry of Digital Infrastructure and Information Technology	<ul style="list-style-type: none"> The act aims to support e-commerce by legitimising electronic documents, data messages, records and communications. It also allows electronic records and signatures to be used in governmental and statutory transactions, provided they meet specified standards set by relevant authorities.
Thailand	Electronic Transactions Act 2001	Ministry of Digital Economy and Society	<ul style="list-style-type: none"> The act regulates digital identification and authentication systems to ensure safety and reliability in digital transactions. It also introduces licensing requirements for businesses providing digital identification and authentication services.
Viet Nam	Law on E-transactions, 2023	Ministry of Information and Communications	<ul style="list-style-type: none"> The law established a comprehensive legal framework that validates electronic data messages and digital signatures for conducting transactions. It also mandated governmental support for the adoption and integration of digital technologies across various sectors. The updated law establishes a modern legal environment to foster and regulate e-transactions.
	Law on E-Commerce, 2021	Ministry of Industry and Trade (MOIT)	<ul style="list-style-type: none"> The law says that off-shore entities engaging in e-commerce businesses will be obliged to comply with Viet Nameese law. The entities will also be required to comply with standards and submit periodic reports on their activities.

Source: Compiled from <https://samsn.iffj.org/wp-content/uploads/2015/07/Bangladesh-ICT-Act-2006.pdf>; <https://www.legislation.gov.au/C2011A00033/latest/text>; <https://eprocure.gov.in/cppp/rule sandprocs/kbadqkdlcsfwjdelrquehwuxcfmijmuixngudufgbuubgubfugbububjxcgfvsbdi hbgfGhdfgFHytyhRtMjk4NzY=#:~:text=%5B9th%20June%2C%202000%5D%20An,communication%20and%20storage%20of%20information%2C>; <https://www.japaneselawtranslation.go.jp/en/laws/view/3821>; (last accessed on May 29, 2024); <https://www.legislation.gov.au/C2012A00197/latest/text>; <https://www.legislation.gov.au/C2022A00012/latest/text>; <https://www.meity.gov.in/writereaddata/files/Digital%20Personal%20Data%20Protection%20Act%202023.pdf>; https://jdih.setkab.go.id/PUUdo c/176837/Salinan_UU_Nomor_27_Tahun_2022.pdf; https://www.meti.go.jp/english/policy/mono_info_service/information_economy/digital_platforms/index.html; <https://privacy.gov.ph/data-privacy-act/>; <https://thainetizen.org/wp-content/uploads/2019/11/thailand-personal-data-protection-act-2019-en.pdf>; <https://pipc.go.kr/eng/user/lgp/law/lawDetail.do#none>; <https://sso.agc.gov.sg/Act/P DPA2012>; <https://parliament.lk/uploads/acts/gbills/english/6242.pdf>; https://eurochamvn.org/wp-content/uploads/2023/02/Decree-13-2023-PDPD_EN_clean.pdf (last accessed on March 6, 2024).

⁶⁴ The Fair-Trade Commission comes under the Prime Minister's Office and functions as a quasi-judiciary body.

Overall, it is important to note that domestic regulations on e-commerce in the APAC region are evolving and have variations in the scope of their coverage (see Table 4.3, for a comparison across two countries, namely Cambodia and Viet Nam). While some APAC countries, such as Cambodia and Viet Nam, have already enacted e-commerce specific

regulations compliant with UNCITRAL's MLEC, regulations on e-commerce are still in the draft stage in other countries – for instance, the 'National E-commerce Policy, 2019,' in India. Many APAC countries have also enacted electronic transaction laws that are compliant with the UNCITRAL's Model Law on E-Signatures.

Table 4.3: A Comparison of E-Commerce Laws in Cambodia and Viet Nam

Details	Cambodia	Viet Nam
Name of Law	Law on Electronic Commerce, 2019	Law on E-Commerce, 2021
Enacted on	18 October, 2019	15 September, 2021
Definition	E-commerce refers to activities involving the purchase, sale, rental, exchange of goods or services, including business and civil activities, as well as activities and various transactions by the state through an electronic system.	E-commerce service means an e-commerce activity whereby a trader or an organisation providing an e-commerce service (hereinafter referred to as "e-commerce service provider") sets up an e-commerce website that offers an environment for other traders, organisations and individuals to carry out trade promotion, sale of goods or supply of services.
Scope	This law applies to all activities, documents, civil and commercial transactions that are made via electronic systems.	E-commerce service providers exclude traders and organisations that only provide website design services and do not directly engage in the business, operation or co-ordination of activities on such websites.
Coverage		
Electronic signatures	√	×
Electronic records	√	×
Electronic payments/ Fund Transfer	√	×
Personal Data Protection	√	√
Consumer Protection	√	√
Requirement of licence/certificate	√	√
Penalties	√	×
Provisions on providing information about goods and services (i.e., number, issue date and issuing authority of the licence, certificate of eligibility, certification, etc.)	×	√
Policies on inspection of goods and return of goods	×	√

Source: Compiled from legal text of the law. Cambodia's law is available at https://data.opendatacambodia.net/en/laws_record/law-on-e-commerce/resource/b779a5aa-9ca9-47c8-8a12-55dd408e6171 (last accessed on March 27, 2024) and Viet Nam's law is available at <https://thuvienphapluat.vn/van-ban/EN/Thuong-mai/Decree-85-2021-ND-CP-amendments-to-Government-s-ecree-52-2013-ND-CP/490888/tieng-anh.aspx> (last accessed on March 27, 2024).

Note: Symbol '√' refers to 'Yes' and '×' refers to 'No'

In addition to e-commerce-specific regulations, the sector is governed by various other regulations, including those related to consumer online sales

and purchase protection, data protection, policy support for MSMEs, AI regulations and social media regulations.⁶⁵

⁶⁵ Regulations related to customs process and financial transactions will be covered in different policy papers since they demand more in-depth research.

Apart from domestic regulations on e-commerce in the region, countries have also signed mutual recognition agreements (MRAs) to improve the efficiency of cross-border trade. The cross-border exchange of electronic data requires mutual trust and some uniformity in standards due to varying local legislations, differing data storage and retention protocols, and the impact of emerging technologies like cloud computing, blockchain, and IoT.⁶⁶ To ensure reliable and trusted trans-boundary interactions, a mutual recognition mechanism is essential. An example of this is the MoU for Mutual Recognition of Digital Signature Certificates signed between India and Republic of Korea in January 2014 for efficient e-governance and cross-border trade facilitation. The MRA aimed to boost bilateral trade between the two countries and pave the way for similar landmark multilateral/bilateral arrangements.⁶⁷

4.2 Consumer Protection Regulations for Online Consumers

Consumer protection laws establish a framework for addressing complaints related to unfair trade practices and return and refund policies related to either store-based or online purchases or both. Some examples of consumer protection regulations covering e-commerce are presented in Table 4.4, and like other domestic regulations, they show variations. While India and Viet Nam have updated regulations specifically addressing online transactions, countries like Indonesia and Japan do not explicitly mention online consumers but give a broad definition of consumers to cover online transactions.

Table 4.4: Some Examples of Consumer Protection Regulations for Online Consumers in Select APAC Countries

Country	Name of Regulation	Nodal Agency	Provision for Online Consumers
Australia	Australian Consumer Law (ACL), Competition and Consumer Act, 2010	Australian Competition and Consumer Commission (ACCC), Department of the Treasury	<ul style="list-style-type: none"> The law ensures the same rights to consumers purchasing online and those purchasing from stores. Consumers have the right to repair, get replacement, get refunds and return the goods.
India	Consumer Protection Act, 2019	Department of Consumer Affairs, Ministry of Consumer Affairs, Food & Public Distribution	<ul style="list-style-type: none"> The act explicitly includes e-commerce transactions in its scope and has issued Consumer Protection (E-commerce) Rules, 2020 Act. These rules outline the duties of e-commerce entities and provides a mechanism for customer grievance redressal.
Indonesia	Consumer Protection Act, 1999	Ministry of Trade	<ul style="list-style-type: none"> The principles and protection outlined by the act are broad enough to provide online consumers with the same rights as offline consumers.
Japan	Consumer Contract Act, 2000	Consumer Affairs Agency, Minister of State for Consumer and Food Safety	<ul style="list-style-type: none"> The provisions of the act ensure that the principles of fairness, transparency and equity are maintained in online consumer contracts
Republic of Korea	The Framework Act on Consumers, 1999	Fair Trade Commission	<ul style="list-style-type: none"> The principles set by the framework act broadly apply to online transactions.
Viet Nam	Law on Protection of Consumers' Rights 2023	Viet Nam Competition and Consumer Authority (VCCA), Ministry of Industry and Trade (MoIT)	<ul style="list-style-type: none"> The law replaces the 2011 version and introduces specific provisions for modern commerce entering into effect from July 1, 2024. It broadens the rights of online consumers and enhances the dispute settlement mechanism.

Sources: Compiled from <https://unctad.org/page/online-consumer-protection-legislation-worldwide>; <https://business.gov.au/legal/fair-trading/australian-consumer-law#consumer-guarantees>; <https://consumeraffairs.nic.in/sites/default/files/CP%20Act%202019.pdf>; https://prsindia.org/files/bills_acts/bills_parliament/2019/Legislative%20Brief%20-%20Consumer%20Protection%20Bill,%202018_0.pdf; https://www.aseanconsumer.org/file/pdf_file/04%20Law-No.-8-Concerning-Consumer-Protection.pdf; <https://www.ftc.go.kr/eng/contents.do?key=3056>; <https://www.japaneselawtranslation.go.jp/en/laws/view/3578/en>; <https://www.tilleke.com/insights/significant-aspects-of-vietnams-new-consumer-protection-law/#:~:text=Vietnam%27s%20new%20Law%20on%20Protection,effect%20on%20July%201%2C%202024>; https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/bd/bd2324a/of_24bd050#:~:text=The%20purpose%20of%20the%20Competition,for%20a%20designated%20complaints%20framework (last accessed on April 25, 2024)

66 Source: <https://www.unescap.org/sites/default/d8files/event-documents/Cross-border%20recognition%20of%20digital%20signatures%20%E2%80%93%20lessons%20learned%20from%20India%20-%20Tahseen%20Ahmad%20Khan.pdf> (last accessed June 29, 2024)

67 Source: <https://pib.gov.in/newsite/PrintRelease.aspx?relid=102577> (last accessed on June 29, 2024)

4.3 Regulations on Data Protection in APAC Region

Digitalisation and growth in cross-border e-commerce trade have led to an increase in cross-border data flows.⁶⁸ According to the Cross-Border Data Policy Index by Global Data Alliance, cross-border data transfers contributed US\$2.8 trillion to global GDP, increasing 45 times every ten years. Further, 75 per cent of the value of data transfers accrues to industries like agriculture, logistics and manufacturing.⁶⁹ Facilitating such data flows with trust thus becomes essential for businesses to cater to customer needs across borders and it also helps them in innovation and product development.

Data can be of different types, personal and non-personal (see definition in Box 4.2), with different levels of sensitivities. To ensure national security as well as the privacy of individuals and their personal data, the number of policies and regulations addressing cross-border data flows are increasing in the APAC region (see OECD, 2022, and Jaller, et. al., 2020). APAC countries have been imposing restrictions on data transmission to ensure that domestic authorities can obtain the necessary data for law enforcement and auditing. Some countries are using cross-border data regulations to develop domestic capacity in digitally intensive sectors as a form of their digital industrial policy (OECD, 2022). Therefore, data privacy and protection of both personal data and non-personal data have become a major concern in this region, with countries initiating a variety of policies that have or can become a trade barrier for e-commerce companies in cross-border trade as they have access to a lot of data.

In the ESCAP RDTII 2.0, Pillar 6 captures requirements applied to cross-border data transfers, while Pillar 7 examines domestic policies related to data privacy and protection (ESCAP 2023c). These together help

Cross country mapping of regulations by ESCAP shows that APAC member countries have come up with domestic regulations but their high scores in Pillar 6 (referring to cross-border data policies) indicates higher compliance cost and failure to adopt international norms. Thus, there is need for more cross-border collaborations and harmonisation of domestic regulations.

present a cross-country comparative picture of data regulation. The average score of cross-border data policies in Pillar 6 is 0.33 for APAC countries, which is quite modest compared to their score in the domestic policy regime (Pillar 7- average score of 0.43) (ESCAP 2023c). Thus, while domestic policies for data protection and privacy are in

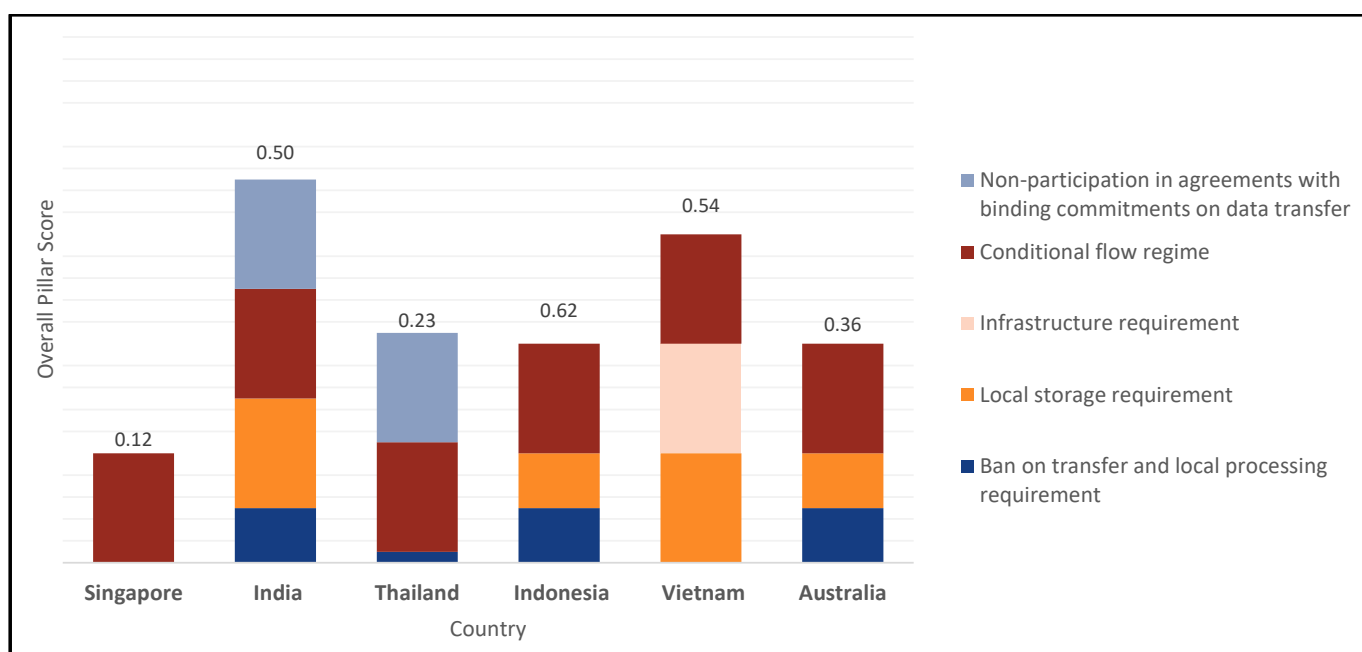
Regulatory analysis from ESCAP RDTII 2.0 shows that while domestic policies for data privacy and protection are in place in many APAC countries, cross-border policies for data sharing are restrictive, adversely affecting cross-border trade and increasing compliance costs.

place in many countries, cross-border data sharing policies are restrictive and/or are becoming more restrictive, adversely affecting cross-border trade. The compliance cost is high as most economies (except Singapore) have imposed conditions on transferring personal data, requiring explicit consent from the data subject and an adequate level of data protection in the recipient economy in order to transfer the data abroad (see Figure 4.3). Further, rules of data protection (see Pillar 7) tend to be complex, even though many countries have a legal framework for data privacy and/or protection. Countries with a fully established legal framework on data protection also tend to impose at least some requirements regarding data retention, government access to personal data, etc.

66 Refers to the transfer of data or information across sovereign boundaries.

69 Source: <https://globaldataalliance.org/wp-content/uploads/2023/07/07192023gdaindex.pdf> (last accessed on April 30, 2024)

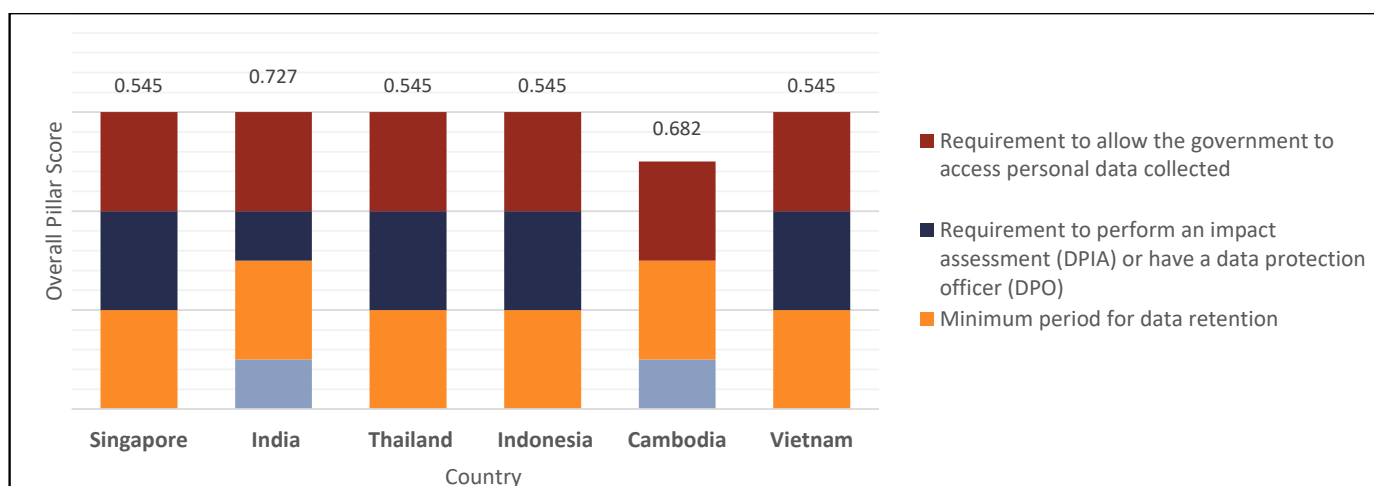
Figure 4.2a: Select Country Scores for Pillar 6 – Cross-Border Data Policies (RDTII 2.0) in the Asia-Pacific Region, 2023



Source: Compiled from ESCAP RDTII 2.0, available at <https://dtri.uneca.org/escap/trade-integration> (last accessed on July 09, 2024)

Note: Each RDTII Pillar score is the weighted average of scores at the indicator level. Indicator scores range from '0' to '1' and are based on a review of existing policies and regulations. A score greater than '0' indicates that at least one of the following conditions occurs: 1) Differential treatment between domestic and foreign providers. 2) Additional regulatory compliance costs for services provided online, relative to those provided offline. 3) Absence of certain international norms, e.g., international agreement, legislation, or legal mechanism considered of significant importance for interoperability across jurisdictions. For information, please see ESCAP et.al. (2024).

Figure 4.2b: Select Country Scores for Pillar 7 – Domestic Data Protection and Privacy (RDTII 2.0) in the Asia-Pacific Region, 2023



Source: Compiled from ESCAP RDTII 2.0, available at <https://dtri.uneca.org/escap/trade-integration> as on July 9, 2024 (last accessed July 9, 2024).

Note: Each RDTII Pillar score is the weighted average of scores at the indicator level. Indicator scores range from '0' to '1' and are based on a review of existing policies and regulations. A score greater than '0' indicates that at least one of the following conditions occurs: 1) Differential treatment between domestic and foreign providers. 2) Additional regulatory compliance costs for services provided online, relative to those provided offline. 3) Absence of certain international norms, e.g., international agreement, legislation, or legal mechanism considered of significant importance for interoperability across jurisdictions. For information, please see ESCAP et.al. (2024).

Box 4.2: Definition of Personal Data and Non-Personal Data

Personal data: Data or information related to an identified or identifiable natural person ('data subject'); an identifiable natural person is one who can be identified, directly or indirectly, in particular by reference to an identifier such as a name, an identification number, location data, an online identifier or to one or more factors specific to the physical, physiological, genetic, mental, economic, cultural or social identity of that natural person.

Non-personal data: When the data is not personal data, or the data is without any personally identifiable information (PII), it is considered non-personal data. In terms of origin, non-personal data refers to (i) data which originally did not relate to an identified or identifiable natural person, such as data on weather conditions generated by sensors installed on wind turbines or data on maintenance needs for industrial machines and (ii) data which were initially personal data, but were later made anonymous. Data which are aggregated and to which certain data transformation techniques are applied, to the extent that individual specific events are no longer identifiable, can be qualified as anonymous data.

Non-personal data can be classified as

- (i) Public non-personal data: data collected or generated by the government in the course of publicly funded works. For example, anonymised data of land records or vehicle registration, etc.
- (ii) Community non-personal data: raw or factual data (without any processing) which is sourced from a community of natural persons – for example, datasets collected by municipal corporations or public electric utilities.
- (iii) Private non-personal data: data which is collected or generated by private entities through privately owned processes (derived insights, algorithms or proprietary knowledge).

Source: Extracted from EU (2016 and 2019) and Ministry of Electronics and Information Technology (MeitY), Government of India (2020).

4.3.1 Cross-Border Data Protection and Data Sharing Agreements

The digital data policy environment that allows for cross border sharing of information varies for different groups of countries, as highlighted by the Cross-Border Data Policy Index, 2023⁷⁰. According to the index, there are 45 economies (referred to as Level 1), including APAC countries like Australia, Japan, and Singapore, having a relatively open digital policy environment, allowing for cross-border sharing of information and which are open to cross-border digital economic opportunity and digital transformation. There are 33 economies (Level 2) with decreasing cross-border digital openness, for example the Republic of Korea, Bangladesh, etc. Countries like India and Viet Nam from the APAC

fall under the highly restrictive category (Level 3) in terms of cross-border data transfer and openness to cross-border digital transformation.

Despite differences in their approaches to data sharing, countries in the region have been taking collaborative measures. Many member nations of the Asia-Pacific Economic Co-operation⁷¹ are becoming party to various cross-border data protection and sharing agreements. Australia, Japan, the Republic of Korea and the Philippines along with other developed countries like the US and Canada are participants/signatories to the APEC Cross-Border Privacy Rules (CBPR) 2011, which is a voluntary, enforceable, accountability-based system that facilitates privacy respecting data flows among APEC economies and enhances consumer privacy.⁷²

70 Source: <https://globaldataalliance.org/wp-content/uploads/2023/07/07192023gdaindex.pdf> (last accessed on April 30, 2024)

71 The Asia-Pacific Economic Co-operation (APEC) operates as a co-operative, multilateral economic and trade forum for 21 economies in the APAC region. For more details, visit <https://www.apec.org/about-us/about-apec> (last accessed July 17, 2024)

72 Source: <https://privacy.gov.ph/the-apec-cbpr-system-an-overview/#:~:text=Established%20by%20the%20APEC%20in,of%20personal%20data%20across%20borders.> (last accessed on August 13, 2024)

At the bilateral level, recent FTAs/ Preferential Trade Agreements (PTAs) in the region are increasingly focusing on addressing issues related to cross-border data flows and trust to facilitate trade. As of December 2020, 29 trade agreements involving 72 economies have introduced some form of data flow provisions (OECD, 2022). According to the Trade Agreement Provisions on Electronic Commerce and Data (TAPED) database, out of the 432 PTAs that were concluded or signed between January 2000 and November 2023, 214 contain provisions relevant to e-commerce and digital trade, and 122 have dedicated e-commerce or digital trade chapters globally (Burri et al, 2024).

As per a UNESCAP report, in the Asia Pacific region alone, there were 81 signed and in force PTAs featuring e-commerce chapters or provisions until 2022.⁷³ However, the depth of these provisions varies among agreements. While some FTAs have non-binding guidance on data flows with broad provisions affirming the importance of working to maintain cross-border data flows (e.g. Korea-Peru Free Trade Agreement),⁷⁴ some FTAs contain binding commitments on data flows (all types of data) and include provisions prohibiting requirements that computing facilities be located domestically as a condition for conducting business, such as in the case for Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) (Article 14.13)⁷⁵ and the USA, Mexico, and Canada Agreement (USMCA) (Article 19.12)⁷⁶ (OECD, 2022 and Gao, 2021). The EU-UK Trade and Cooperation Agreement (TCA),⁷⁷ which was signed on December 30, 2020, introduced a clause stating that “measures on the protection of personal data and privacy, including with respect to cross-border data transfers” should include “instruments enabling transfers under conditions of general application for the protection of the data transferred” (OECD, 2022).

Examples of domestic regulations on protection of personal data are given in Section 4.2.1 and protection of non-personal data are given in Section 4.2.2.

The digitalisation of trade has increased focus on regulations requiring forced data localisation or source code disclosure. Fragmented data protection rules have also led to varying restrictions on personal data transfer and higher compliance costs. As discussed earlier, DEAs can help address these challenges, facilitating smoother data sharing and enabling businesses, including SMEs, to connect internationally with overseas partners.

4.3.2 Examples of Domestic Regulations on Protection of Personal Data

Regulations related to data sharing and localisation are evolving and cover both personal and non-personal data aimed at reinforcing individual rights, promoting transparency and shielding sensitive data from unauthorised access (Verma & Gurtoo, 2023).

The policies related to data protection and sharing depend on the core objectives of the countries. For example, the USA has business interests at the core to promote the growth of technology, Japan has promoted the sharing of data with trust, while China’s policies are driven by state ownership and control of data. The EU recognises privacy as not only a consumer right but also a fundamental human right. Many countries in APAC are examining and/or following the EU General Data Protection Regulation (GDPR) (EU Regulation 2016/679),⁷⁸ which came into effect in May 2018, and is more consumer-centric. The GDPR provides a comprehensive framework for the protection of personal data with substantial penalties for non-compliance, emphasising the protection of individual rights and freedoms (OECD, 2022). It stipulates that personal data

73 Source: <https://www.unescap.org/kp/2022/trade-agreements-asia-and-pacific-bigger-deeper-digital-and-more-supportive-sustainable-20222023> (last accessed on May 23, 2024)

74 The legal text is available at <https://www.mfat.govt.nz/en/trade/free-trade-agreements/free-trade-agreements-in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership-text-and-resources/> (last accessed on April 20, 2024).

75 The legal text is available at <https://www.dfat.gov.au/trade/agreements/in-force/cptpp/comprehensive-and-progressive-agreement-for-trans-pacific-partnership> (last accessed on April 20, 2024).

76 The legal text is available at <https://ustr.gov/trade-agreements/free-trade-agreements/united-states-mexico-canada-agreement> (last accessed on April 20, 2024).

77 The legal text is available at https://commission.europa.eu/strategy-and-policy/relations-non-eu-countries/relations-united-kingdom/eu-uk-trade-and-cooperation-agreement_en (last accessed on April 20, 2024).

78 The legal text is available at <https://gdpr-info.eu/> (last accessed on April 20, 2024).

cannot be transferred to a third country without prior authorisation unless the EU has recognised that country as having an equivalent level of data protection (Gao, 2021).

The UK enacted the Data Protection Act, 2018,⁷⁹ which included additional provisions for data protection of individuals that are not covered under the EU's GDPR. According to the Act, the data user organisation has to follow data protection principles with stronger legal protection for more sensitive information such as race, ethnic background, political opinions, religious beliefs, trade union membership, genetics, biometrics (used for identification), and health and sex life or orientation.

In the USA, personal data is protected through a mix of federal and state laws, industry-specific regulations and broad consumer protection laws (OECD, 2022 and Jaller, Gaillard and Martín, 2020). At the state level, the California Consumer Privacy Act (CCPA), enacted in 2018 and effective since January, 2020, created new consumer rights for the collection, processing, retention and sharing of personal data and businesses are obliged to provide notice to a consumer at or before data collection, respond to consumer requests and maintain detailed records (OECD, 2022).

Among APAC countries, Singapore enacted the Personal Data Protection Act in 2012 and amended the Act in 2021 to add provisions on (i) correction of personal data, (ii) consent of individuals, (iii) rights of deceased individuals, (iv) transfer of personal data outside Singapore, etc.⁸⁰ The Republic of Korea revised the Personal Information Protection Act (PIPA), 2011, in March 2023; the revision included changes with regards to the standards for processing personal data across domains and industries.⁸¹ Other APAC countries such as India, Indonesia,

Sri Lanka, Thailand and Vietnam have enacted personal data protection laws (for details, see Table A1 in Appendix A). India's Digital Personal Data Protection Act, 2023,⁸² follows the EU's GDPR and aims to protect the privacy of individuals relating to personal data. The Act created rules for cross-border transfers and has data localisation conditions under which sensitive personal information is to be stored on servers located in India (Viswanath, Muthanna and Jain, 2023). Viet Nam's Personal Data Protection Decree, 2023, is also based on the GDPR and sets out the responsibilities of organisations and individuals that process personal data, as well as the rights of individuals over their personal data.⁸³ Australia and Philippines have amended their regulations in recent years to include provisions on personal information and protection in their respective data privacy acts.⁸⁴

Data localisation⁸⁵ related regulations are mostly applied in APAC member countries in sensitive sectors like health data (for example, Australia and Japan) or financial services (for example, India). China requires certain types of information to be located within mainland China including financial and medical information. China's Cybersecurity Law (CSL) requires certain types of organisations to conduct security assessments prior to transferring personal data outside China.⁸⁶

4.3.3 Examples of Domestic Regulations on Protection of Non-Personal Data

In the APAC region, there are hardly any country specific regulations on the protection of non-personal data. In some countries, non-personal data is under intellectual property rights (IPR) regulations, while in others, non-personal data regulations are at a draft stage. For example, the Philippines covers protection of non-personal data under the Laws on Intellectual Property R.A. (8293)⁸⁷

79 The legal text is available at <https://www.legislation.gov.uk/ukpga/2018/12/contents/enacted> (last accessed on April 20, 2024).

80 The details are available at <https://sso.agc.gov.sg/SL/PDPA2012-S63-2021?DocDate=20210930> (last accessed on April 20, 2024).

81 The legal text is available at https://pipc.go.kr/eng/user/ltm/new/noticeDetail.do?bbsId=BBSMSTR_000000000_001&ntId=2331 (last accessed on April 20, 2024).

82 The legal text is available at <https://www.meity.gov.in/writereaddata/files/Digital%20Personal%20Data%20Protection%20Act%202023.pdf> (last accessed on April 20, 2024).

83 The details are available at <https://fpf.org/blog/vietnams-personal-data-protection-decree-overview-key-takeaways-and-context/> (last accessed on April 20, 2024).

84 Australia amended the Privacy Act 1988 in 2012; available at <https://www.ato.gov.au/law/view/pdf/acts/20120197.pdf> (last accessed on April 20, 2024). The Philippines amended its laws through circulars in 2022, available at <https://www.noandt.com/en/publications/publication20230228-2/> (last accessed on April 20, 2024).

85 Data localisation is broadly defined as any law, standard or policy that requires an entity to store data on media that is physically present in a specific geographical territory (World Economic Forum, 2020).

86 The details are available at <https://www.isaca.org/resources/news-and-trends/industry-news/2021/cross-border-data-transfer-and-data-localization-requirements-in-china> (last accessed on April 20, 2024).

87 The details are available at <https://www.isaca.org/resources/news-and-trends/industry-news/2021/cross-border-data-transfer-and-data-localization-requirements-in-china> (last accessed on April 20, 2024).

(Suvannaphakdy et al., 2022), whereas in Thailand, protection of non-personal data is under the Trade Secrets Act, 2022 (B.E. 2545).^{88,89} In Australia, the Security of Critical Infrastructure Act, 2018, seeks to regulate information concerning the occurrence of significant events affecting critical infrastructure assets. The Act aims to protect critical infrastructure assets from any kind of harm by regulating non-personal information concerning such assets (Arora and Richa, 2022).

India came up with a draft framework policy for governance of non-personal data (National Data Governance Framework Policy, 2022).⁹⁰ This draft framework policy aims to ensure that non-personal data and anonymised data from both government and private entities are safely accessible by the research and innovation eco-system and provide an institutional framework for data/datasets/metadata rules, standards, guidelines and protocols for sharing non-personal data sets while ensuring privacy, security and trust (see Verma & Gurtoo, 2023).

4.4 Policies/Initiatives/Support Programmes for MSMEs and Women for On-boarding onto E-commerce Platforms and Cross-border Collaborations

Policymakers in many APAC countries have realised the need to have policies/incentives/initiatives to support the on-boarding of MSMEs and women onto e-commerce platforms to enhance their domestic and global reach, both in terms of access to business partners and consumers. This is also aligned with the country objectives of meeting the UNSDGs by 2030 (ESCAP 2023b). Section 4.4.1 highlights the policies and initiatives taken by select countries in the APAC region to facilitate MSMEs, and Section 4.4.2 presents examples of the initiatives undertaken to

empower women entrepreneurs, enabling them to join e-commerce platforms, with a focus on initiatives that can help promote exports.

4.4.1 Policies/Initiatives/Support Programmes for MSMEs

APAC member countries are taking several policy initiatives to support MSMEs exports through e-commerce platforms; some of these are presented in Table 4.5. The table shows the initiatives at different levels, including inter-government ministries/departments and across countries, covering multiple stakeholders. These initiatives range from providing financial support to help MSMEs transition to digital and e-commerce platforms to capacity building and training and sharing of knowledge to support MSMEs in brand building. Interestingly, many governments are encouraging public-private partnerships (PPPs) with e-commerce companies to help MSMEs access global markets. For example, the Directorate General of Foreign Trade (DGFT), Ministry of Commerce and Industry, Govt. of India, has signed MoU with global e-commerce companies like Amazon India to conduct capacity building sessions for MSMEs across 75 districts to boost their exports and to create each 'district as an export hub'.⁹¹ Malaysia External Trade Development Corporation (MATRADE) has signed an MoU with Amazon Global Selling to facilitate cross-border e-commerce transactions.⁹² They aim to expand their presence on Amazon's e-stores in order to establish Malaysian brands in the United States (US), which will help small and medium enterprises grow beyond their current markets. A successful example of a cross-border PPP with a private player of one country collaborating with governments of another countries is mentioned in Box 4.3.

87 The legal text is available at <https://www.ipophil.gov.ph/intellectual-property-code-implementing-rules-and-regulations/> (last accessed on April 22, 2024).

88 The legal text is available at https://ipthailand.go.th/images/784/EM_007.pdf (last accessed on April 22, 2024).

89 The details are available at <https://www.trade.gov/country-commercial-guides/thailand-protecting-intellectual-property> (last accessed on April 22, 2024).

90 The legal text is available at https://www.meity.gov.in/writereaddata/files/National%20Data%20Governance%20Framework%20Policy_26%20May%202022.pdf (last accessed on April 22, 2024).

91 Source: <https://press.aboutamazon.in/news-releases/news-release-details/amazon-and-dgft-sign-mou-leverage-districts-export-hubs> (last accessed June 29, 2024)

92 Source: " <https://www.matrade.gov.my/en/about-matrade/media/press-releases/press-release-2024/6112-matrade-and-amazon-global-sign-mou-to-boost-malaysian-brand-owners-cross-border-e-commerce-transactions>"

Box 4.3: An example of cross-border PPP: electronic World Trade Programme (e-WTP)

The eWTP is a private sector-led, multi-stakeholder initiative to promote public-private collaboration and dialogue in support of inclusive global trade. The concept of eWTP was officially included in the 2016 Group of Twenty (G20) Leaders' Communique in Hangzhou. It was founded by the Chinese conglomerate, the Alibaba group, and has currently collaborated with governments of countries such as Malaysia, Thailand, Ethiopia and Belgium amongst others.

An example of this collaboration is the Digital Free Trade Zone (DFTZ) being established in Malaysia to empower SMEs through cross-border trade. Under this, Alibaba's logistic platform Cainiao and its e-commerce website Lazada will lead the effort to develop a regional e-commerce and logistics hub near the Kuala Lumpur International Airport. Alibaba Cloud, its cloud computing arm, will build a cloud platform in Malaysia to foster the local SMEs, and Ant Financial, an affiliate of the Alibaba group, has already inked an agreement with Malaysia's leading banks, CIMB bank and Maybank, to explore collaboration opportunities in e-payment and financing services in Malaysia. The eWTP has helped the Royal Malaysian Customs Department to realise digitalised customs clearance, reducing the average time of clearance for cross-border parcels to one and a half hours from 24-48 hours, and achieving custom clearance in seconds for 99.9 per cent of online customs clearance applications.

Source: https://brand-studio.fortune.com/alibaba-group/making-global-trade-more-inclusive/?prx_t=dT8HAzi5SAoPEQA&prx_ro=s&ntv_ht=ProZYgA (last accessed on July 25, 2024);
http://www.xinhuanet.com/english/2017-03/22/c_136149064.htm (last accessed on July 25, 2024)

The success of export hubs in Malaysia (as mentioned in Box 4.3) has motivated the Indian government to propose the setting up of E-commerce export hubs in the Union Budget 2024-25 to boost e-commerce exports to a targeted US\$ 200-300 billion by 2030.⁹³ It has also announced the removal of the equalisation levy of 2 per cent on non-residential digital companies, which can further facilitate e-commerce trade.⁹⁴ Other notable initiatives from APAC countries include the "Go-e-commerce On-boarding" and "Shop Malaysia Online" campaigns in Malaysia,⁹⁵ and Indonesia's "Proud of Indonesian Products"⁹⁶ movement, which have helped to widen the reach of MSMEs through e-commerce. By 2021, Malaysia on-boarded 365,900 new MSMEs to e-commerce,⁹⁷ and 19 million Indonesian MSMEs went digital.⁹⁸ The Open Network for Digital Commerce (ONDC) run by the Government of India announced that it has empowered 300 sellers and 400 women entrepreneurs by adding them to its e-commerce network.⁹⁹ Table 4.5 provides examples of policies/initiatives/support programmes for MSMEs taken by select APAC countries with their objective and impact.

4.4.2 Policies/Initiatives/Support Programmes for Women

While women entrepreneurship plays a critical role in promoting gender equality, empowering women and driving job creation and economic development, there are fewer initiatives specifically focusing on on-boarding women entrepreneurs to e-commerce platforms for exports. A number of studies have identified specific barriers faced by women entrepreneurs, including limited access to markets, inadequate finance, limited information, relevant education and skills training, and the lack of networks, which can be addressed if policies are targeted towards helping women entrepreneurs on-board and use e-commerce platforms to enhance their domestic and global reach (see ESCAP-SSWA, 2015).

Some examples of initiatives taken by select countries to help women on-board and use e-commerce platforms are presented in Table 4.6.

93 Source: <https://www.thehindubusinessline.com/economy/e-commerce-export-hubs-dgft-and-dor-close-to-finalising-framework-for-traceability/article68442368.ece#> (last accessed on July 25, 2024)

94 Source: <https://www.livemint.com/budget/ecommerce-union-budget-2024-tax-nirmala-sitharaman-financial-services-equalization-levy-tax-law-cloud-services-11721736776585.html> (last accessed on July 26, 2024)

95 Source: <https://mdec.my/media-release/news-press-release/104/MDEC-Kicks-Off-Go-eCommerce-Onboarding-and-Shop-Malaysia-Online-Campaigns-In-Benefit-of-300,000-Local-Businesses> (last accessed on April 12, 2024)

96 Source: <https://kemlu.go.id/yangon/en/news/20994/indonesia-strives-to-expand-coverage-of-digitalization-of-msmes> (last accessed on April 12, 2024)

97 Source: <https://theedgemalaysia.com/article/ecommerce-digital-heart-malysias-economy> (last accessed on April 12, 2024)

98 Source: <https://kemlu.go.id/yangon/en/news/20994/indonesia-strives-to-expand-coverage-of-digitalization-of-msmes> (last accessed on May 28, 2024)

99 Source: <https://retail.economicstimes.indiatimes.com/news/e-commerce/e-tailing/ondc-adds-300-sellers-400-women-entrepreneurs-to-its-network/111429355> (last accessed on July 25, 2024)

Table 4.5: Examples of Policies/Initiatives/Support Programmes for MSMEs in Select Countries with Objective and Impact

Country	Policies/Initiatives/Support Programmes	Nodal Agency	Objectives	Key Feature of the Initiatives	Target	Impact
Examples of Government Initiatives						
India	Dedicated chapter on MSMEs and e-commerce in the Foreign Trade Policy 2023	Directorate General of Foreign Trade (DGFT), Ministry of Commerce and Industry	Streamline processes and make it easier for MSMEs to on-board e-commerce platforms for exports	<ul style="list-style-type: none"> Export value limit of courier services increased from INR 0.5 to INR 1 million per consignment. Training, handholding and outreach programmes in co-ordination with district industries centres and special training for small exporters to focus on branding, packaging and marketing of goods and services. <i>Dak Niryat</i> Facilitation to ensure smooth working of <i>Dak Ghar Niryat Kendras</i> (Indian post offices) with foreign post offices to facilitate cross-border e-commerce and enable artisans, weavers, craftsmen and MSMEs reach international markets. The benefits for exports under various schemes in the foreign trade policy, which were previously given only to the exports through general cargo, have now been extended to e-commerce exports. DGFT has signed MOUs with global e-commerce companies like Amazon India and express delivery companies like Deutsche Post (DHL) India to conduct capacity building sessions for MSMEs across 75 districts to boost their exports and to create districts as export hubs. 	To grow e-commerce export to UD\$ 200-US\$ 300 billion by 2030	<ul style="list-style-type: none"> There is no information in the public domain on the impact
Thailand	Thaitrade.com – e-commerce platform launched in 2011 and under this, initiatives like Smart Online SMEs (S.O.S)	Department of International Trade Promotion (DITP), Ministry of Commerce (MOC)	To enhance trade opportunities for Thai exporters, especially SMEs by consolidating a wide range of Thai export products in a single e-marketplace	<ul style="list-style-type: none"> The government not only created an e-commerce platform but also initiated online capacity building sessions to enhance SME competitiveness and help on-board them to all types of online commerce. 	N.A.	<ul style="list-style-type: none"> As of 2023, Thaitrade.com had 246283 members, which includes 26789 sellers and 219496 buyers. The estimated value derived through online business matching was 1,774,000,000 baht (US\$50,283,497) in 2023.

Examples of Inter-Government Initiatives						
Singapore	Go Digital Programme 2017 and SMEs Grow Digital Initiative under this programme	Infocom Media Development Authority, Ministry of Communications and Information (MCI) and Enterprise Singapore, Ministry of Trade and Industry	To help SMEs adopt digital technologies and expand their businesses through e-commerce platforms, both locally and overseas, and to help SMEs participate in B2B and B2C e-commerce platforms to sell overseas without the need of a physical presence.	<ul style="list-style-type: none"> The SMEs Grow Digital Initiative provides financial support (grant) to SMEs up to a maximum of S\$ 30,000 (US\$ 21,962) per year, subject to certain eligibility conditions of SMEs. The programme has provision for public-private partnerships (PPP). For example, Enterprise Singapore and Singapore Business Federation partnered with Amazon in July 2023 to unlock growth opportunities for SMEs in cross-border e-commerce. 	N.A.	<ul style="list-style-type: none"> This initiative has helped more than 80,000 SMEs on-board to e-commerce platforms between 2017 and 2022. The PPP helped 100 SMEs by 2023 to launch and scale their brands and 300 got training.
Example of Cross-Country Initiatives						
Cambodia	Go4eCAM 2023	United Nations Development Programme (UNDP), with the support of the Australian Government, has partnered with the Ministry of Commerce and Enhanced Integrated Framework (EIF).	To enhance Cambodia's e-commerce ecosystem, provide financial support to MSMEs to go digital and expand their business opportunities through exports.	<ul style="list-style-type: none"> Creation of e-commerce platforms such as CambodiaTrade.com Access to credit guarantee schemes for SMEs, including a women's credit guarantee scheme. Skills and entrepreneurship building for e-commerce (SME-eBizNest) covering training workshops for 1000 MSMEs as support to join e-marketplace platforms. A series, "Digital Business Talk", on television to increase public understanding and awareness of e-commerce Incubation programme on business digitalisation for technical assistance A grant programme to provide financial support to approximately 50 MSMEs. 	N.A.	<ul style="list-style-type: none"> Out of 101 MSMEs that completed the incubation programme, 70 MSMEs were on-boarded to the CambodiaTrade.com platform.

Source: Compiled and extracted from <https://www.thaitrade.com/common/about-us>; <https://www.undp.org/cambodia/projects/e-commerce-acceleration-and-formalization-msmes>; <https://www.aboutamazon.sg/news/company-news/amazon-global-selling-launches-its-first-cross-border-e-commerce-brand-launchpad-in-singapore-to-help-smes-unlock-growth-opportunities-in-cross-border-e-commerce#:~:text=Amazon%20Global%20Selling%20introduced%20the,and%20help%20them%20access%20burgeoning>; <https://www.aboutamazon.sg/news/company-news/amazon-global-selling-launches-its-first-cross-border-e-commerce-brand-launchpad-in-singapore-to-help-smes-unlock-growth-opportunities-in-cross-border-e-commerce#:~:text=Amazon%20Global%20Selling%20introduced%20the,and%20help%20them%20access%20burgeoning>; <https://www.undp.org/cambodia/projects/e-commerce-acceleration-and-formalization-msmes>; <https://www.enterprisesg.gov.sg/about-us/overview>; <https://research.hktdc.com/en/article/NTg4NDQyNjU4> (last accessed on April 6, 2024); <https://www.imda.gov.sg/-/media/imda/files/news-and-events/media-room/media-releases/06/factsheet-grow-digital-helps-smes-go-international.pdf> (last accessed on August 30, 2024)

Note: NA means not available.

Table 4.6: Examples of Projects/Initiatives/Support Programmes for Women in Select Countries with Objective and Impact

Country	Project/Initiatives/Support Programs	Nodal Agency	Objectives	Initiatives	Target	Impact
Examples Government Initiatives						
Bangladesh	Tottho Apa Project	Jatiyo Mohila Sangstha, the Ministry of Women and Children Affairs, and the Bangladesh Foreign Trade Institute (BFTI).	Empowerment of women through information communication technology aligned with the objective of building an inclusive 'Digital Bangladesh' (2nd Phase).	<ul style="list-style-type: none"> Laalsobuj, e-commerce platform was launched in 2011, and around 490 sub-district information centres were created to offer e-commerce services to support women entrepreneurs in villages. The platform provides online training to develop these women into e-commerce entrepreneurs. 	Creating approximately one lakh women entrepreneurs annually.	<ul style="list-style-type: none"> 15000 women entrepreneurs from 490 sub-districts across the country were on-boarded to this platform by 2021.
India	Mahila E-haat Platform, 2018	Ministry of Women and Child Development	To facilitate socio-economic empowerment of women entrepreneurs	<ul style="list-style-type: none"> The ministry has allocated a budget of US\$ 15,000 towards the development of a platform exclusively designed for women entrepreneurs. This platform enables women to sell their products free of cost directly to customers worldwide. 		<ul style="list-style-type: none"> In 2016, Mahila E-haat had 300,000 registered women entrepreneurs. Between April and October 2016, the website transacted business worth US\$3.1 million.
Example of Government and Multi-stakeholder Initiative						
The Philippines	Connecting Women to the Digital Economy 2020	United States Agency for International Development (USAID) with Department of Trade and Industry (DTI), Ministry of Trade and Industry and the National Confederation of Co-operatives (NATCCO) - Non-profit organisation	Advancing women's digital connectivity	<ul style="list-style-type: none"> It offers a 90-day training programme on integrated digital marketing Social media boost and promotion of online stores through an MSME digital campaign in partnership with Shopee, Lazada, and Facebook. 		<ul style="list-style-type: none"> By 2021, more than 380 women entrepreneurs had successfully established their online stores on Facebook, Lazada (subsidiary of Alibaba group), and Shopee in a span of six months. Over 220 women entrepreneurs have generated a total of PHP 36,000,000 (US\$ 6314.40) in online sale by 2021.

Source: Extracted and compiled from: <https://www.dnaindia.com/india/report-mahila-e-haat-brings-three-lakh-women-entrepreneurs-to-digital-marketplace-2277307>; <https://sansad.in/getFile/loksabhaquestions/annex/175/AU762.pdf?source=pqals>; <http://www.epaypilipinas.com/women-in-digital-economy/>; <https://2017-2020.usaid.gov/philippines/press-releases/sep-18-2020-usaid-partners-philippine-government-and-private-sector-help-filipina-entrepreneurs-boost-businesses>; <https://www.dti.gov.ph/archives/news-archives/e-taas-ang-pinay-msmes/>; (last accessed on May 12, 2024)

4.5 Regulations on Artificial Intelligence (AI)

The global AI market is expected to reach US\$1.81 trillion by 2030, which is approximately nine times the current market worth of around US\$196.63 billion.¹⁰⁰ Governments in the APAC region are trying benefit from the economic opportunities AI poses and to regulate it for its risks. They are also closely monitoring the fast-evolving developments in AI, demonstrating various strategic approaches

to addressing issues like ethical and regulatory concerns, security risks and infrastructure and resource constraints.

Countries such as Australia, Japan, the Republic of Korea and Singapore aim to establish themselves as global leaders in AI technology by prioritising innovation, research and development to maintain competitiveness and drive economic growth through AI advancements. On the other hand,

¹⁰⁰ Source- <https://www.grandviewresearch.com/industry-analysis/artificial-intelligence-ai-market> (last accessed on April 11, 2024)

countries like Bangladesh, India, Indonesia, the Philippines, Thailand, and Viet Nam want to utilise AI to foster socio-economic growth. APAC countries are using various policy instruments to harness AI while balancing innovation and safety. For example, the Republic of Korea (see Box 4.3) and China have enacted AI legislation, while Australia has developed an action plan. India, Japan, and Bangladesh have national AI strategies (see Table 4.7). India is developing AI standards; the Japanese Standards Association has already established them, and Australia and Indonesia have created ethical frameworks and guidelines for AI (see Table 4.9). These efforts are driven by a collective desire to improve economic competitiveness, enhance citizens' quality of life, and position AI as

a cornerstone of national technological sectors to advance innovations in, and the application of AI.

Additionally, to promote and create awareness of AI, these countries are actively fostering international and national collaboration by hosting summits. For example, India hosted the Global Partnership on AI (GPAI) Summit in December 2023,¹⁰¹ where many countries from the APAC region such as Australia, Japan, the Republic of Korea and Singapore participated. This shows a shared commitment among APAC countries to bridge the gap between theory and practice in AI by supporting cutting-edge research and applied activities on AI-related priorities.

Box 4.4: Legislations Related to AI: Republic of Korea

The Republic of Korea is among the few countries globally that has legislations related to AI. The Ministry of Science and Technology, Korea, has implemented the following two acts related to AI to facilitate its growth in an environment that also ensures privacy and safety:

1. Act on Fostering the AI Industry and Establishing a Foundation for Trustworthy AI (2023- 2025)

- a. The Act is based on the three pillars – technology, system and ethics, and 10 action plans that are expected to be implemented until 2025.
- b. The Act allows the development of AI technologies without government pre-approval, but for certain “high-risk AI,” those that directly affect privacy and safety, the Act lays out ethical guidelines that developers must adhere to.

2. Virtual Convergence Industry Promotion Act 2024

- a. The Act permits virtual convergence businesses to form industry-related associations upon approval from the Ministry of Science and Technology, enabling them to self-regulate to ensure user protection and safety in using virtual convergence technologies and services.
- b. It also introduces a temporary standard system to clarify laws in cases where their application to emerging industries, such as the metaverse, is unclear.

Source: <https://www.assembly.go.kr/portal/bbs/B0000051/view.do?nttId=2095056&menuNo=600101&sdate=&edate=&pageUnit=10&pageIndex=1> (last accessed on May 29, 2024)

https://likms.assembly.go.kr/bill/billDetail.do?billId=PRC_H2V3N0A2B1V4M1F6E5K3I3U2K5M9Z1 (last accessed on May 29, 2024)

101 Source: <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1985143#:~:text=As%20Lead%20Chair%2C%20I%20ndia%20is, discuss%20matters%20related%20to%20AI> (Last accessed date April 11, 2024)

Table 4.7: Examples of Action Plans and Strategies Related to AI in Select APAC Countries

Country	Name	Nodal Agency	Key Features
Australia	AI Action Plan 2021-2023	Ministry of Industry, Science and Technology	<ul style="list-style-type: none"> The plan aims for Australia to become a global leader in trusted, secure and responsible AI development. It focuses on enhancing AI adoption to create jobs, boost productivity and attract talent. It seeks to utilise AI to address national challenges and ensure inclusive technologies aligned with Australian values. As part of the plan, the Australian Government is investing \$124.1 million to build its AI capability.
Bangladesh	National AI Strategy 2019-2024	Information and Communication Technology Division	<ul style="list-style-type: none"> The strategy targets economic growth, job creation, and UNSDG fulfilment through AI. Key pillars include research and development, workforce training, data infrastructure, ethics, start-up funding and industrialisation for AI technologies. Partnerships, institutional promotion and awareness are highlighted as means to nurture an innovative and sustainable AI ecosystem.
India	National Strategy on Artificial Intelligence 2018 (NSAI)	NITI Aayog (Apex think tank of the Government of India)	<ul style="list-style-type: none"> NITI Aayog suggested prioritising five sectors for AI implementation: healthcare, agriculture, education, smart cities, and mobility. It says that the government's role is to bolster research, drive adoption and address AI skills while addressing ethical and privacy concerns through technology research.
Indonesia	National AI Strategy 2020-2045	Badan Riset dan Inovasi Nasional, BRIN (National Research and Innovation Agency)	<ul style="list-style-type: none"> The strategy aims to drive automation and technological progress by investing in AI, robotics and tech firms, and fostering partnerships with leading tech companies from Japan, China and Korea. Key focus areas include ethics and policy, talent development, infrastructure and data, and industrial research and innovation. Initiatives include enforcing data sharing ethics, setting up a data ethics board, and enhancing laws against tech abuse and data privacy breaches.
Japan	AI Strategy 2019 and AI Strategy 2022	Council for Science, Technology and Innovation (CSTI) ¹⁰²	<ul style="list-style-type: none"> The strategy focuses on leveraging Japan's strengths to address challenges and open future opportunities through AI. It aims to create an environment for effective AI utilisation in key areas like development, education, and innovation. There is also an extended version of this strategy, launched in 2022, to adapt to current challenges, including the COVID-19 pandemic, and other emerging risks.
The Philippines	National Artificial Intelligence (AI) Strategy Roadmap 2021	Department of Trade and Industry	<ul style="list-style-type: none"> The strategy aims to boost innovation and the internationalisation of MSMEs, fostering sustainable growth. It is structured around pillars, strategic dimensions, imperatives and tasks, with clear metrics to track progress. The strategy emphasises a collaborative approach, involving public consultations and stakeholder convergence to drive AI adoption in the Philippines.
Republic of Korea	National Strategy for AI 2019	Ministry of Science and Information and Communication Technology (ICT)	<ul style="list-style-type: none"> The focus is on leveraging national strengths to close the AI gap and drive innovation. Government will provide support through nationwide action plans and seizing AI opportunities. Key elements include promoting data openness, expanding AI infrastructure and strategic co-operation for data resources.
Singapore	National AI Strategy 2019 and Singapore National AI Strategy 2.0 (NAIS 2.0) 2023	Ministry of Communications and Information	<ul style="list-style-type: none"> The strategy aims to lead in AI development and deployment, leveraging its strong digital infrastructure and talent pool. It focuses on delivering impactful projects and strengthening ecosystem enablers like talent development and data architecture. The extended version was introduced in 2023 with some key shifts that outline 15 actions to be undertaken over the next 3-5 years.
Thailand	Thailand National AI Strategy & Action Plan 2022-2027	Ministry of Digital Economy and Society	<ul style="list-style-type: none"> The strategy focuses on enhancing readiness in social, ethics, law, and regulation for AI application. It aims to develop sustainable AI infrastructure and improve human capability through education. It also aims to drive AI technology, innovation and adoption across the public and private sectors through comprehensive planning and collaboration.
Viet Nam	National Strategy on R&D and Application of AI 2021-2030	Minister of Science and Technology	<ul style="list-style-type: none"> The strategy aims to position Viet Nam as a key player in the fourth industrial revolution, and it includes the following: <ul style="list-style-type: none"> Developing an AI-friendly legal framework prioritising research, development and individual rights Strengthen data and computing infrastructure for AI advancement There is focus on human resource development, business adoption, and international collaboration in AI.

Source - <https://www.industry.gov.au/news/action-plan-artificial-intelligence-australia>; https://ictd.portal.gov.bd/sites/default/files/files/ictd.portal.gov.bd/page/6c9773a2_7556_4395_bbec_f132b9d819f0/Draft%20-%20Mastering%20National%20Strategy%20for%20Artificial%20Intelligence%20-%20Bangladesh.pdf; <https://www.niti.gov.in/sites/default/files/2023-03/National-Strategy-for-Artificial-Intelligence.pdf>; <https://ai-innovation.id/strategi>; <https://www.mfat.govt.nz/en/trade/mfat-market-reports/indonesias-national-strategy-for-artificial-intelligence-july-2023/>; <https://www8.cao.go.jp/cstp/tougosenryaku/kaigi.html>; <https://www8.cao.go.jp/cstp/ai/aistrategy2022en.pdf>; <https://innovate.dti.gov.ph/wp-content/uploads/2021/05/National-AI-Strategy-Roadmap-May-2021.pdf>; https://wp.oecd.ai/app/uploads/2021/12/Korea_National_Strategy_for_Artificial_Intelligence_2019.pdf; <https://file.go.gov.sg/nais2023.pdf>; <https://oecd.ai/en/dashboards/policy-initiatives/http%2F%2Faipo.oecd.org%2F2021-data-policyInitiatives-26337>; <https://en.baochinhphu.vn/national-strategy-on-rd-and-application-of-artificial-intelligence-11140663.htm> (Last accessed on April 9, 2024)

¹⁰² CSTI is a council established inside the cabinet office

Table 4.8: Examples of AI Guidelines in Select APAC countries

Country	Name	Nodal Agency	Guidelines
Australia	AI Ethics Framework 2019	Department of Industry, Science and Resources ¹⁰³	<ul style="list-style-type: none"> It provides voluntary principles for businesses and governments to ensure responsible AI development and implementation. Key principles include prioritising human, societal and environmental well-being as well as upholding human-centred values, fairness, privacy protection, transparency and accountability.
India	Draft Indian Standards for AI 2024	The Bureau of Indian Standards (BIS)	<ul style="list-style-type: none"> It is a draft of the Indian Standards, identical to ISO/IEC 5338:2023 on AI system life cycle processes by the International Organization for Standardization.
Indonesia	AI Ethical Guidelines 2023	Ministry of Communication and Informatics (MOCI)	<ul style="list-style-type: none"> It emphasises ethical values such as inclusivity, humanity, security, democracy, transparency and accountability in AI-based programming. It mandates adherence to ethics, supervision to prevent misuse, protection of data privacy and responsibilities, including safeguarding the public and managing risks.
	Ethical Guidelines on Responsible and Trustworthy AI in the Financial Technology Industry 2023	Financial Services Authority (OJK) ¹⁰⁴	<ul style="list-style-type: none"> These guidelines aim to ensure the ethical and beneficial use of AI while mitigating risks by emphasising principles such as alignment with national values, adding value to operations, fairness, accountability, transparency and robustness/security.
Japan	JIS X22989 (Information Technology – AI – Concepts and terminology)	Japanese Standards Association	<ul style="list-style-type: none"> This standard provides a foundational framework for AI terminology and concepts, facilitating common understanding and communication in the field.
	JISQ 38507 (Information technology – IT governance – Impact of the utilisation of AI on the governance of organisations)	Japanese Standards Association	<ul style="list-style-type: none"> It is in the process of alignment with ISO standards and underscores the significance of AI governance within organisational structures.
Republic of Korea	The National Guidelines for AI Ethics 2020	Ministry of Science and ICT (MSIT) and the Korea Information Society Development Institute (KISDI)	<ul style="list-style-type: none"> The guidelines emphasise ethical principles such as respect for human rights, privacy protection, diversity, prevention of harm, promotion of public good, solidarity, responsible data management, accountability, safety and transparency to ensure AI development and usage align with human values and societal benefit.
Singapore	GenAI Sandbox for SMEs 2024	Infocomm Media Development Authority (IMDA) and Enterprise Singapore (EnterpriseSG)	<ul style="list-style-type: none"> This initiative offers Singaporean SMEs practical exposure to GenAI solutions, targeting about 300 SMEs spanning sectors like retail, F&B, education and hospitality. It focuses on two key areas: marketing and sales, and customer engagement.
Thailand	Ethics Guidelines for AI 2021	Ministry of Digital Economy and Society	<ul style="list-style-type: none"> These guidelines are issued as practices to be followed by researchers, developers and service providers engaging in tech development. The guidelines also aim to ensure that artificial intelligence is reliable, safe and secure, bringing benefits to individuals, society and the environment. Their approach emphasises transparency, comprehensive adherence to the law, and a commitment to ethics and human rights.
Viet Nam	Draft National Standard on Artificial Intelligence and Big Data 2023	Ministry of Information and Communications	<ul style="list-style-type: none"> The AI standard aims to ensure quality assurance and transparency by setting quality requirements for AI safety, privacy and ethics. It emphasises evaluating AI modules based on risk assessment to determine their potential impact.

Source - <https://www.industry.gov.au/publications/australias-artificial-intelligence-ethics-framework/australias-ai-ethics-principles>
https://www.services.bis.gov.in/tmp/WCLITD38624866_16022024_1.pdf <https://hsfnotes.com/tmt/2024/02/12/ethical-guidelines-on-use-of-artificial-intelligence-ai-in-indonesia/#:~:text=In%20December%202023%2C%20Indonesia%20saw,the%20MOCI%20AI%20Circular%20Letter> <https://www.meti.go.jp/press/2023/01/20240115001/20240115001.html> <https://ai.kisdi.re.kr/eng/main/contents.do?menuNo=500011#:~:text=AI%20should%20be%20developed%20and,violates%20human%20rights%20and%20freedom>
https://services2.imda.gov.sg/CTOaaS/Highlight/42/generative-artificial-intelligence-sandbox-for-smes?utm_source=PR&utm_medium=PR&utm_campaign=GenAISandbox <https://oecd.ai/en/dashboards/policy-initiatives/http:%2F%2Fai.oecd.org%2F2021-data-policyInitiatives-26337> <https://www.dataguidance.com/news/vietnam-mic-requests-comments-draft-ai-and-big-data> (Last accessed date April 9, 2024)

¹⁰³ Department of Industry, Science and Resources is a central government office/executive department in the Division of Canberra, Australia

¹⁰⁴ OJK is a government autonomous agency which regulates and supervises the financial services sector

Table 4.9: Examples of Social Media Regulations in Select Countries with Objective and Nodal Agency

Country	Regulations/Regulations in the pipelines/Bills	Nodal Agency	Key Features
Australia	<ul style="list-style-type: none"> • Social Media (Anti-Trolling) Bill 2022 	<ul style="list-style-type: none"> • Ministry of Communications, Urban Infrastructure, Cities and the Arts 	<ul style="list-style-type: none"> • Establishes a legal framework for handling defamatory content on social media and regulates the operations of social media companies in Australia. It mandates social media companies to have an Australian-incorporated entity to fulfil key obligations and grants authority to the Attorney-General to intervene in defamation cases on behalf of the Commonwealth and authorise legal assistance grants.
Bangladesh	<ul style="list-style-type: none"> • Regulation for Digital, Social Media and Over the Top (OTT) Platforms, 2021 	<ul style="list-style-type: none"> • Bangladesh Telecommunication Regulatory Commission 	<ul style="list-style-type: none"> • Provides a content governance framework for digital, social media and media platforms seeking to introduce e-traceability within end-to-end encrypted services.
India	<ul style="list-style-type: none"> • Information Technology (Intermediary Guidelines and Digital Media Ethics Code) Rules, 2021 • Guidelines for Prevention and Regulation of Dark Patterns, 2023 • Online Consumer Reviews – Principles and Requirements for their Collection, Moderation, and Publication 	<ul style="list-style-type: none"> • Ministry of Electronics and Information Technology • Ministry of Consumer Affairs, Food and Public Distribution in India • Bureau of Indian Standards (BIS) 	<ul style="list-style-type: none"> • Prescribe a framework for regulating the content by online publishers of news and current affairs content, and curated audio-visual content. It governs a wide range of Internet-based service providers operating social media, messaging, news, etc. • Guidelines for the prevention and regulation of dark patterns listing 13 specified dark patterns such as false urgency, basket sneaking, subscription trap, interface interference, etc. It prohibits all platforms systematically offering goods or services in India, advertisers and sellers from engaging in dark patterns as specified in the guidelines. • Framework to safeguard consumers from fraudulent and misleading reviews in e-commerce
Indonesia	<ul style="list-style-type: none"> • Presidential Regulation 74/2017 	<ul style="list-style-type: none"> • Ministry of Telecommunication (MoT) and the Co-ordinating Ministry of Electronic Affairs 	<ul style="list-style-type: none"> • It includes an e-commerce roadmap and a draft that requires online merchants, platforms, and “intermediaries,” such as Internet service providers, social media sites, and search engines conducting business in Indonesia to register with the Indonesian government, set up or appoint a local representative office, and give priority to Indonesian goods and services. • It also imposes new privacy restrictions, including a ban on transfers of customer data to countries deemed by the Minister of Trade not to have a level of data protection “equivalent” to that of Indonesia.
Viet Nam	<ul style="list-style-type: none"> • Decree 72/2013/ND-CP • Decree 27/2018/ND-CP • Draft Amendment to Decree 72 (and Decree 27) in July 2021 	<ul style="list-style-type: none"> • Ministry of Information and Communication 	<ul style="list-style-type: none"> • Regulates internet services and online information, prohibiting activities that oppose the government, threaten national security, or promote violence, hatred or superstition. • It consolidates existing content, server localisation, and data retention requirements for social networks and information websites. • Amendments in July 2021 expanded Viet Nam's regulations, imposing content censorship, data localisation and stringent registration requirements on electronic gaming, social media and cloud service industries, aiming to strengthen oversight and control over online activities.

Source: <https://ustr.gov/sites/default/files/2023-03/2023%20NTE%20Report.pdf> (last accessed on April 1, 2024); https://www.aph.gov.au/Parliamentary_Business/Bills_Legislation/Bills_Search_Results/Result?bld=r6831 (last accessed on April 1, 2024); <https://consumeraffairs.nic.in/sites/default/files/The%20Guidelines%20for%20Prevention%20and%20Regulation%20of%20Dark%20Patterns%2C%202023.pdf> (last accessed on April 1, 2024); <https://consumeraffairs.nic.in/sites/default/files/fileuploads/latestnews/Draft%20Guidelines%20for%20Prevention%20and%20Regulation%20of%20Dark%20Patterns%202023.pdf> (last accessed April 1, 2024)

4.6 Regulations on Social Media

The growth of social media has led to countries imposing restrictions, which vary across countries based on their governance objectives. The most common reasons behind social media restrictions are related to public safety issues, maintaining national security and maintaining political stability.¹⁰⁵ For example, China has banned Meta-owned Facebook and Twitter (now X) since 2009 due to government crackdowns on activists rioting in Xinjiang. This censorship of foreign media platforms, including Meta's WhatsApp and Instagram, is a part of the Great Firewall of China while it promotes its own domestic social media. Similarly, India has banned certain Chinese apps, such as Shein and WeChat, in retaliation to hostility at the India-China border, for national security reasons. Viet Nam limits Internet access to a few state-controlled or state-influenced providers, blocking websites deemed politically or culturally unsuitable. On the other hand, countries like Australia have a different approach to regulation. According to draft legislation in June 2023, the Australian Communications and Media Authority (ACMA) will have the authority to order social media companies to maintain records and report on how they are handling the spread of misinformation on their platforms. The Policy on Labour Market Testing in Australia does not accept the use of social media, such as LinkedIn, as a valid channel to advertise job opportunities (Mukherjee & Goyal, 2021).

5. Challenges to E-Commerce in the APAC Region

The e-commerce sector in the APAC region is rapidly evolving, driven by technological innovations, rising start-ups, increased on-boarding of MSMEs to e-commerce platforms, express delivery and other causes. At the same time, there are various issues that impede the expansion of cross-border e-commerce that adversely affect users like MSMEs from using the platforms to expand exports. These include (a) evolving regulations and lack of policy discussions and harmonisation in the APAC region on issues such as data privacy and consumer

protection, and restrictions on use of social media for business expansion, (b) procedural issues such as complex customs procedures including gaps in initiatives towards paperless trade, (c) gaps in digital infrastructure, (d) capacity and knowledge related issues – for example, gaps in the training of MSMEs and women entrepreneurs to on-board onto e-commerce platforms, (e) cross-border payments related issues, and (f) other issues related to return consignments, logistics gaps and inadequate infrastructure. Logistics and last-mile delivery are key concerns for cross-border e-commerce. Deficient transportation infrastructure, especially for surface and air transportation, can lead to prolonged delays and delivery durations, high logistics costs, and heightened susceptibility to product damage during transit (ADB, 2023; ESCAP 2019 and UNCTAD).¹⁰⁶ In developing countries like India, the Philippines and Viet Nam, “last-mile” delivery to rural and remote areas is a challenge, primarily due to gaps in last-mile connectivity, an issue that most countries in the region are trying to address through infrastructure development.

The issues discussed in the 1st Asia Pacific E-Commerce Policy Summit on March 14, 2024, and those highlighted by various studies, are presented below.

5.1 Lack of Forums for Multi-Stakeholder Discussions, Sharing of Best Practices and Policy Co-ordination

There is a lack of regulatory co-operation, dialogue, initiatives and engagement at the regional level in APAC (ADB, 2023). There is also a lack of regional platforms for regulators to discuss the development of e-commerce policies in APAC countries (ADB, 2023). Further, there is a lack of co-ordination, both within and across countries, and between different stakeholders such as government, domestic and international companies/firms, MSMEs, industry bodies and associations. Overall, multi-stakeholder participation and engagement in regional dialogues and consultations in APAC, sharing of best practices and examples of cross-border partnership and

¹⁰⁵ Source: <https://veepn.com/blog/ban-social-media/#:~:text=Countries%20that%20ban%20social%20media%20platforms%2C%20like%20Facebook%2C%20often%20don,or%20impose%20traditional%20social%20values> (Last accessed date April 1, 2024)

¹⁰⁶ The details are available at <https://unctad.org/news/role-transport-and-logistics-promoting-e-commerce-developing-countries> (last accessed on May 1, 2024).

collaboration to facilitate just-in-time door-to-door delivery is limited (ADB, 2023 and ESCAP and ADB, 2018).

While many APAC countries are members of the WTO, the WTO's WPEC, which has been in place since 1998, has not been able to create a platform to discuss many regulatory issues like cross-border data flows, cross-border payments, data protection/privacy, consumer protection, and domestic regulations.¹⁰⁷ The Work Programme primarily focused on extending the moratorium on customs duties. At the recent WTO Ministerial Conference (MC13), members agreed to extend the moratorium on imposing customs duties on electronic transmissions until MC14 or March 31, 2026, whichever comes first. The renewal of the moratorium is contingent upon unanimous agreement among WTO members, posing challenges to its continuation. If not renewed, this could lead to the end of the WPEC, leaving no multilateral platform for e-commerce discussions.

In the WTO, plurilateral discussions began to take shape after 2015 under the WTO JSI on e-commerce, which was formed to build some consensus on trade rules related to e-commerce, and covered many regulatory aspects like openness, trust and digital trade, data sharing, consumer protection, etc. As of June 2024, 91 WTO members (of a total of 164 WTO members), accounting for over 90 per cent of global trade, were participating in these discussions.¹⁰⁸ However, some key countries in APAC like India have not joined the JSI. In October 2023, the USA withdrew its main digital trade stances at the WTO, which included positions on data flows/localisation, access to source code and the location of computing facilities. Thus, there is lack of certainty in various platforms for regulatory co-operation in the WTO framework.

Ideally, the WTO Work Programme was the best way forward to design rules, but it has not been able to move forward the discussions on regulations, except for a moratorium on customs duties. Therefore, countries opted for different routes, including the plurilateral one under JSI, and bilateral and regional

agreements. However, the bigger issue is that multi-stakeholder policy discussions are limited both within countries and across countries in the APAC region.

5.2 Policy and Regulatory Challenges related to E-Commerce

There are three key policy challenges that emerged out of the policy discussions in the 1st Asia Pacific E-Commerce Policy Summit. These are discussed below.

5.2.1 Evolving Regulations and Heterogeneity in Regulations

In the APAC region, regulations related to technology, such as AI and issues such as data transfer and protection, consumer protection, etc., are evolving. One key impediment is the lack of harmonised adopted standards. While countries are trying to implement domestic regulations based on UNCITRAL model laws, there is wide heterogeneity in terms of enactment and implementation of the laws (refer to section 4.1 for examples). Therefore, APAC countries like India are worried about taking regulatory commitments on international platforms.

Studies have also found that varying international rules related to online transactions, electronic signatures and authentication increase the complexity and cost of cross-border e-commerce [World Economic Forum (WEF), 2017; ADB, 2023]. APAC countries have been trying to enact regulations related to e-transactions, providing legal recognition of electronic communications, records and signatures. However, most legal and regulatory frameworks established in the region are incomplete, with less than 30 per cent of the countries fully recognising electronic data or documents. Similarly, fewer than 40 per cent have established recognised certification authorities for electronic signature certificates. Both measures are crucial for cross-border paperless trade, aiding both domestic and international stakeholder collaboration (ESCAP 2023a).

¹⁰⁷ Source: https://www.cuts-geneva.org/wp-content/uploads/2023/09/KP2022-RRN-The_WTO_Work_Programme_on_Electronic_Commerce-2017-2022.pdf (last accessed on May 14, 2024)

¹⁰⁸ Source: https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm (last accessed on May 15, 2024)

Some APAC countries lack robust consumer and data protection laws. Cybersecurity has emerged as a significant concern in least developed and developing economies, with many ill-equipped to address security and privacy issues. Additionally, there are hardly any countries in the APAC region that have regulations specifically for the protection of non-personal data (see Section 4.3). There are also delays in enacting regulations in some APAC countries. For example, Thailand enacted the Personal Data Protection Act in 2019, but it became effective after two years in June 2022.¹⁰⁹

Further, due to the diverse sectors involved in e-commerce, there are very few cohesive policies addressing cross-border e-commerce, with most being fragmented in the APAC countries.

5.2.2 Data Localisation

With rising trade in cross-border data, various concerns have arisen related to its use, national security, and the beneficiaries of data free flow. Governments across the world have responded to these concerns by implementing measures such as data localisation requirements, aiming to control data within their sovereign space. Some APAC countries are implementing data localisation laws to secure the personal and financial data of citizens along with other sensitive data such as health sector data (refer to Section 4.3 for detailed examples). However, rigid barriers to data flows, without data sharing provisions based on trust, can impede trade and e-commerce and hinder the development of an innovative data economy, both domestically and internationally. Data governance is now a key component of trade agreements, but there is hardly any platform to bring together all stakeholders to discuss concerns and best practices, which can help design robust trade rules. Trade rules impact data flows in three main ways: regulating cross-border movement of data, influencing domestic regulations concerning electronic signatures and data protection, and potentially limiting regulators' policy flexibility, known as data sovereignty. There is limited information on how these issues are looked upon by policymakers in APAC countries.

5.2.3 Issues with respect to Customs Regulation, Digitalisation and Clearance Processes

Despite being a part of the WTO's Trade Facilitation Agreement (TFA), countries in the APAC are slow to adopt paperless trade, and there is variation in the implementation of cross-border paperless trade. The UN Global Survey on Digital and Sustainable Trade Facilitation 2023¹¹⁰ examines trade facilitation reforms across 47 countries in the Asia-Pacific region with measures encompassing non-binding measures of the WTO TFA as well as measures extending beyond the scope of the TFA. Implementation rates across the five sub-groups of trade facilitation for select APAC countries are given in Figure 5.1. It shows that the 'paperless trade' sub-group has a 66 per cent implementation rate in the APAC region, though this varies by specific measures. The measure of delegating border controls to customs authorities has been adopted by 70 per cent of countries, but only 23 per cent have fully implemented it, indicating room for improved co-operation between government agencies and customs authorities. Even though most countries have at least piloted automated customs systems, only 51 per cent have implemented electronic applications for customs refunds. Lastly, a regional implementation gap is highlighted in 'government agencies delegating border controls to customs authorities, as only 23 per cent APAC countries have fully implemented inter-agency collaboration measures (ESCAP 2023a). Further, import-export restrictions, different product safety requirements, etc., adds to the cost of compliance for exporters and their e-commerce platforms.

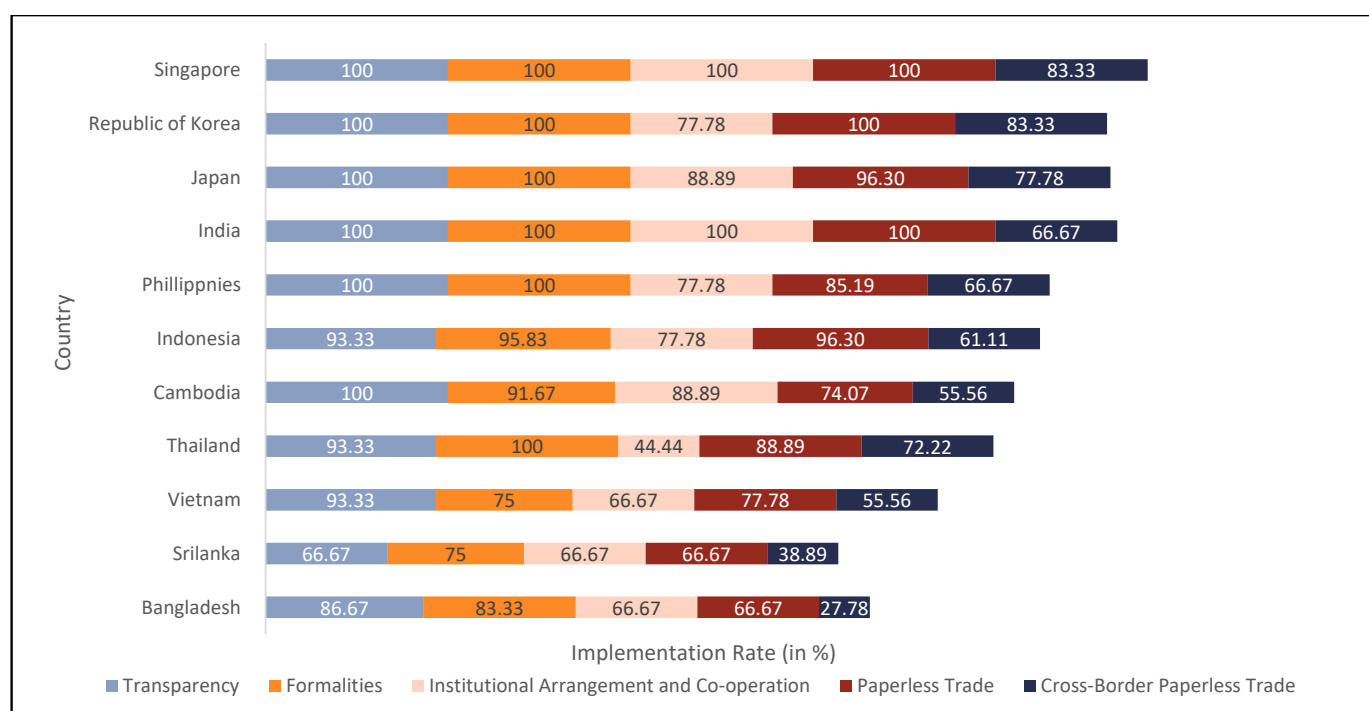
5.2.4 Issues related to Taxation and Subsidies

The rapid expansion of the digital economy and cross-border e-commerce pose a challenge for finance and tax authorities, particularly concerning tax and subsidy policy, administration and compliance. One of the challenges in consumption taxation is determining the location of consumption (ADB, 2023). Exporters getting subsidies linked to exports face issues when there is a return consignment.

109 The details are available at <https://iapp.org/news/a/key-developments-in-thailands-pdpa-regulations/> (last accessed on May 1, 2024).

110 Source: <https://www.untsurvey.org/region?id=ESCAP> (last accessed on May 16, 2023)

Figure 5.1: Trade Facilitation and Paperless Trade in select APAC countries in 2023¹¹¹



Source: Compiled from The UN Global Survey on Digital and Sustainable Trade Facilitation 2023 available at <https://www.untsurvey.org/region?id=ESCAP> (last accessed on May 30, 2023)

Note: Paperless trade measures involve the application of modern information and communication technologies (ICT) in trade processes, ranging from basic Internet connectivity at border crossings to fully integrated electronic single window systems. The sub-group 'cross-border paperless trade' encompasses six measures aimed at facilitating the exchange and recognition of trade-related data and documents such as laws and regulations for electronic transactions, recognised certification authority for e-signatures, etc.

5.3 Cross-border Payment related Issues

The growth of cross-border trade has fuelled the adoption of digital payments in the APAC region. However, some APAC countries still have under-developed financial systems, lack technology and/or digital banking infrastructure and/or are unable to facilitate electronic payments (ADB, 2023). Cross-border payment-related issues can include policy-related restrictions on cross-border financial transactions, such as financial data localisation requirements, and process-related issues, such as ensuring smooth financial transactions for return consignments. Different countries in APAC support different payment schemes, and there is a lack of payment interoperability. While credit cards have been the most popular options, especially in the Republic of Korea and Japan, most countries

have their own preferred payment systems like AliPay and WeChatPay in China, Konbini in Japan, KakaoPay in Republic of Korea and Unified Payments Interface (UPI) and RuPay in India. Studies have found that digital wallets will grow significantly in the Philippines, Indonesia, India, Malaysia, and Viet Nam by 2026.¹¹² The varying payment systems also include crypto-currencies for cross-border trade, which countries like India have been concerned about.

Countries like Singapore, Malaysia and Thailand have established cross-border payment linkages. India is also expanding UPI and RuPay internationally. However, the diversity of payment methods creates challenges for financial institutions due to the increasing volume and complexity of transactions. There is hardly any forum for central bank regulators

¹¹¹ The five indicators/subgroups of the 'Trade Facilitation and Paperless Trade 2023' include transparency, formalities, institutional arrangement and co-operation, paperless trade, cross-border paperless trade

¹¹² Source: <https://fintechnews.hk/23285/payments/navigating-the-challenges-and-opportunities-of-cross-border-payments-in-apac/#:~:text=Mahendra%20identifies%20three%20crucial%20factors,financial%20institutions%20striving%20to%20adapt> (last accessed on May 28, 2024)

to interact with their counterparts in other APAC countries and the user industry to facilitate cross-border trade. Further, digital fraud and concerns related to financial data privacy are growing. Some countries have rigid regulations that do not allow mirroring of financial data, which makes it difficult to address digital frauds.

5.4 Limited Engagement of MSMEs and Women in E-commerce

MSMEs face significant challenges while engaging in e-commerce, primarily due to the procedural complexities and costs involved. They encounter specific challenges during e-commerce customs clearances, including difficulties in resolving customs related technical disputes such as HS code classification and customs valuation, non-user-friendly importer registration requirements involving complex documentation procedures, etc. (Asian Trade Centre (ATC), 2017). Most e-commerce shipments are typically small in size and low in value. However, despite their smaller scale, they often face the same regulatory burdens and paperwork requirements as larger, higher-value shipments (WTO, 2016). MSMEs also face a high compliance cost because of regulations demanding local presence and business licensing.

Lack of knowledge about effectively using digital technologies and e-commerce platforms is also one of the primary factors constraining MSMEs from on-boarding e-commerce platform as a sales channel and using it for international trade. MSMEs have to invest in training employees and purchasing new equipment and machinery, and software to join e-commerce platforms, which increase their costs. While various measures have been taken by APAC countries to help women and MSMEs on-board e-commerce platforms, very few measures help them to actually be a part of the global value chain and international trade. There are also process related issues that prevent them from using e-commerce platforms. For example, in most countries, regulations were designed for B2B

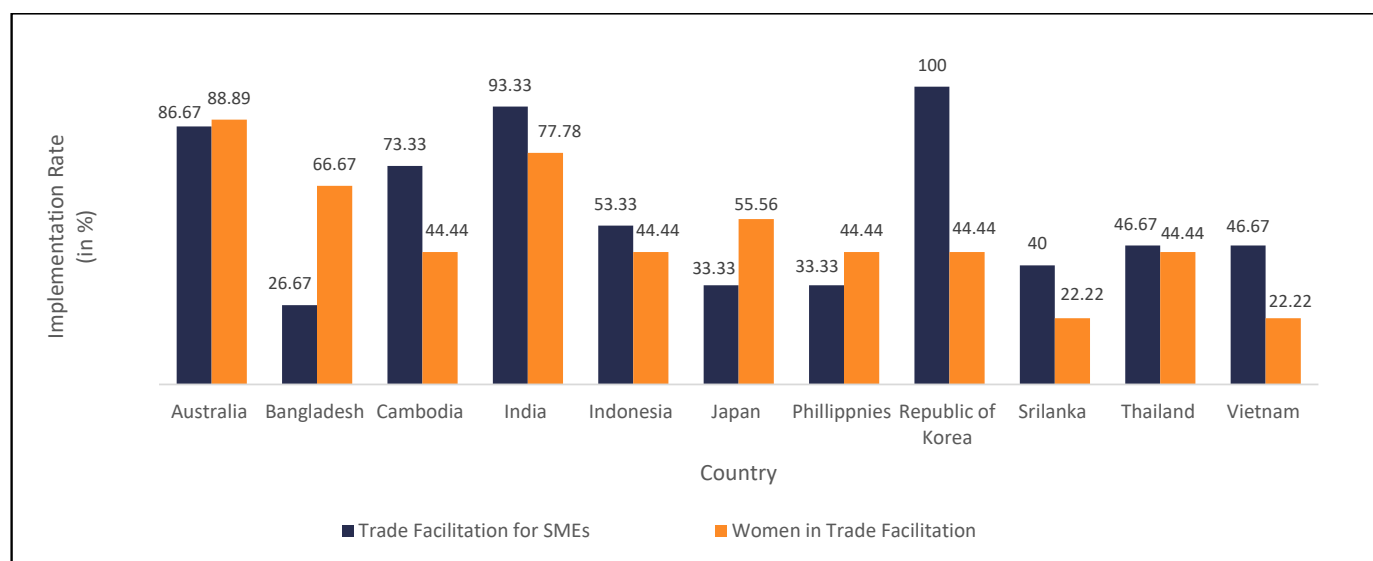
large shipment of goods while B2C smaller shipment of goods were not covered. The inability to access markets, retain customers, and effectively market their products are some of the other issues faced by the MSMEs in the APAC region.

Gender disparity is another key issue in the region. Women-led MSMEs continue to lag behind in terms of access to digital-related skills, digital-driven entrepreneurship, and access to leadership in the digital economy (see Marsan and Sey, 2021; ADB, 2018; ESCAP and ASEAN, 2022). There are very few targeted initiatives for women entrepreneurs and hardly any targets and monitoring of the initiatives (refer section 4.4).

According to the United Nations Global Survey on Digital and Sustainable Trade Facilitation 2023 (referred as UNTF, 2023) the regional average for implementing trade facilitation measures for SMEs in APAC is only 43 per cent. While the region has a higher implementation rate of 67 per cent for trade-related information measures for SMEs, other SME-focused measures, such as participation in national trade facilitation committees, the authorised economic operator (AEO) scheme, and access to single window systems, have low implementation rates, ranging from 31 per cent to 45 per cent (see Figure 5.2). While some countries like Cambodia have shown progress with its SeT4SME project by developing e-commerce portals and improving customs processes to support SMEs, there is still little sharing of best practices (ESCAP 2023a).

The implementation of measures related to 'women in trade facilitation', according to the UNTF 2023, is relatively low in the Asia-Pacific region, averaging from 39 per cent to 43 per cent. This low implementation rate suggests significant potential for improvement in addressing gender-specific concerns for women traders. Despite the integration of gender equality in various policies, targeted initiatives for women traders in trade facilitation remain limited across countries in the region (ESCAP 2023a).

Figure 5.2: Implementation of Trade Facilitation for SMEs and Women¹¹³



Source: The UN Global Survey on Digital and Sustainable Trade Facilitation, 2023, available at <https://www.untfsurvey.org/region?id=ESCAP> (last accessed on May 16, 2023)

6. Facilitating Cross-border E-Commerce through Collaborations and Partnerships: The Way Forward

APAC is one of the fastest growing regions for e-commerce with a growth rate of 11 per cent in 2022, which has enabled the growth of investment and employment, and of allied sectors like express delivery in the region. It has also benefitted MSMEs by increasing their global reach with a number of countries promoting e-commerce and providing them a platform. However, as noted in Section 4, e-commerce regulations cover a wide range of areas and of these, only a few need to be focussed on priority by APAC nations as the first step towards regulatory co-operation. While these regulations cannot technically be graded in terms of implementation priority due to their complementary nature, they can be differentiated based on the level of co-operation undertaken as of now. The following four areas have seen advanced discussions among member nations, with subjects such as data sharing with trust and UNCITRAL laws featuring hard commitments in FTAs among these countries:

- ▶▶ Ensuring cross border data sharing with trust.
- ▶▶ Harmonisation of regulations based on international laws like UNCITRAL, which must be preceded by adaptation of international best practices into domestic regulation.
- ▶▶ Adopting Paperless Trade.
- ▶▶ Facilitating the participation of MSMEs and women entrepreneurs in cross border trade.

There are other topics of discussion, namely social media, AI and financial cross-border transactions, for which countries are at a very nascent stage of developing domestic policies. Given their still evolving nature, co-operation on these policies is still low.

Section 5 showed that the growth of e-commerce in the region and its benefits to users may be lower than the potential due to issues such as the lack of a forum for policy discussions and co-ordination, heterogeneity in laws and regulations, partial implementation of trade facilitation measures in general as well as those for SMEs and women, cross-border payments related problems, etc.

¹¹³ Note: Implementation of Trade Facilitation (TF) for SMEs and Women includes the following components: 1) Trade-related information measures for SMEs 2) SMEs in AEO scheme 3) SMEs' access to Single Window 4) SMEs in National Trade Facilitation Committee 5) Other special measures for SMEs 6) TF policy/strategy to increase women's participation in trade 7) TF measures to benefit women involved in trade and 8) Women's membership in the National Trade Facilitation Committee or similar bodies.

This section provides key policy recommendations for domestic reforms and regional co-operation, which, if implemented, will help support cross-border e-commerce trade, and benefit all countries, particularly MSMEs and women entrepreneurs.

6.1 Forum for Policy Discussion and Greater International Co-ordination

Since regulations are evolving across countries in the region and there is a lack of platform for regulatory collaboration and sharing of best practices, it is important to create a platform which will help facilitate co-ordination and partnerships across APAC countries, covering multiple stakeholders such as policymakers, academicians, industry, legal experts, etc. This is also needed since the WTO WPEC has not been able to create a policy platform that can discuss core policy issues affecting countries in the region.

Countries in the APAC region can brainstorm and look at the possibility of forming a cross-border regional e-commerce platform in partnership with business enterprises. Such platforms can be used as a model for collaboration across countries, where countries recognise each other's digital transactions, cross-border contracts and legal bindings.

Recognising the importance of social media in helping the growth of e-commerce and helping MSMEs build and promote their brands, there is a need for APAC countries to discuss and collaborate on a social media policy, especially on areas of concerns such as dark patterns, misinformation, brand safety and security. There is also a need for collaboration on developing a model AI regulation that can serve as a universal standard, ensuring a safe and fair online environment and the use of AI for inclusive

growth among APAC countries. Safeguarding consumer welfare and privacy is a priority that can be enhanced through cross-border regulatory co-operation. The growing incidence of cross-border fraud, consumer grievances, and regulatory and surveillance requirements need cross-border collaboration and policy discussions on areas such as consumer grievance redressal mechanisms for purchases done through e-commerce.

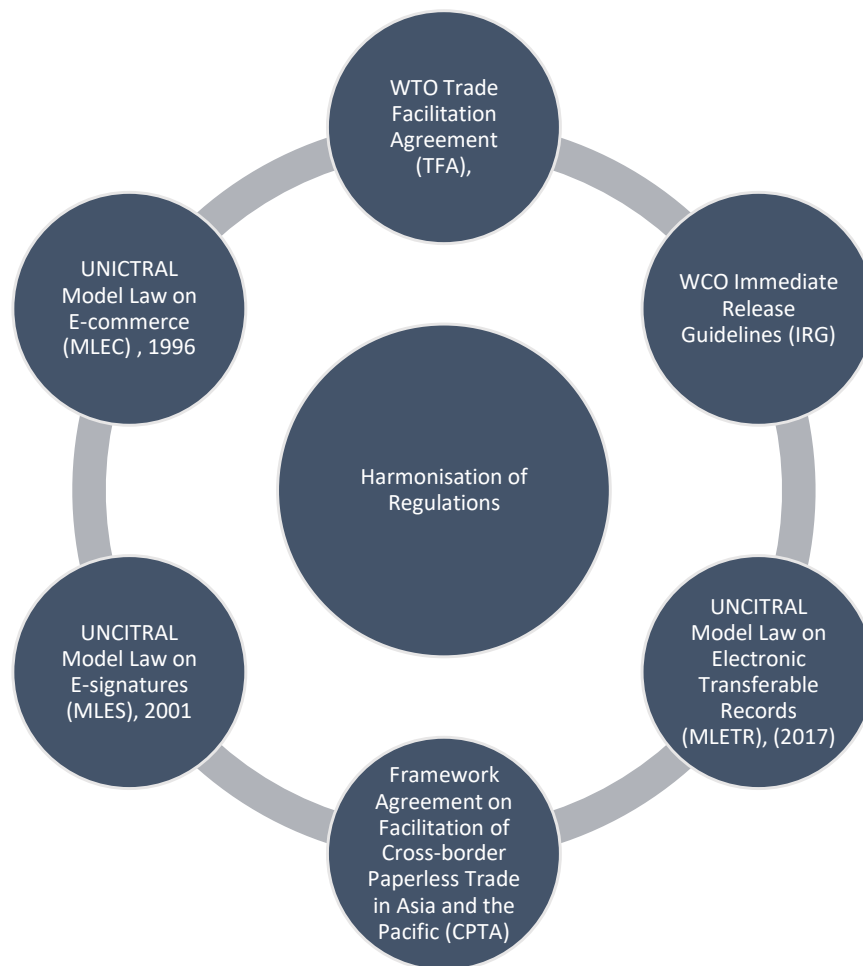
Organisations such as the UNESCAP can help create such policy platforms in which policy makers of different countries can participate with industry experts and academicians to share and learn from best practices. Such policy forums can also help generate not only north-south but also south-south collaborations, facilitating more fund inflows and capacity building for developing and less developed countries in the APAC region.

6.2 Adoption of International Agreements in Domestic laws for Harmonisation of Regulations

Countries in the APAC region are heterogeneous not only with respect to the enactment and implementation of e-commerce related regulations, but also in how they adopt international best practices in their domestic regulations. Some of the most important international agreements have been mentioned below through which countries can achieve harmonisation of domestic regulations (see Figure 6.2).

First, countries in the APAC may adopt the UNCITRAL model laws, which will help harmonise domestic regulations on e-commerce and facilitate cross-border e-commerce trade (for more, refer Box 4.1).

Figure 6.1: International Agreements for Harmonisation of Regulations



Source: Authors' compilation

Second, APAC countries need to implement the provisions of the WTO TFA to which many of them are signatories. These countries have already been adopting policies that improve procedures and regulations, enhancing trade efficiency by reducing border red tape, increasing transparency, and leveraging new technologies; they can further promote e-commerce trade by expediting the cargo clearance process. TFA measures that can help e-commerce trade are as follows:

- a) adoption of technology, for example, integrated digital clearance systems that are increasingly paperless including electronic payments, and the introduction of a single-window approach, reducing the complexity of, and time taken for, clearance.
- b) adopt risk management systems that allow for targeted surveillance, interdiction, and scrutiny of shipments.
- c) expedite shipments (commonly referred to as express cargo or courier).

The TFA also holds the potential to benefit MSMEs and women entrepreneurs engaged in cross-border e-commerce trade.

Note that the UNCITRAL MLEC complements the TFA by providing model legal principles to support the legal validity of electronic messages and digital copies of paper documents and contracts, the evidentiary aspects of these, and the principles of exchange of such documents between parties across borders. The MLEC includes transport related documents and commercial documents such as invoices and bills of lading in its ambit. In other words, it provides the model legislation and principles that would help achieve the goals of TFA better.

The third international agreement of importance is the CPTA adopted by ESCAP. It goes a step further by providing the architecture for governance and the adoption of common guidelines and principles. This framework allows participating countries to establish a dedicated inter-governmental structure to develop legal and technical solutions, enabling

cross-border paperless trade through the exchange and mutual recognition of trade-related data and documents in electronic form. It enhances the scope for cross-border regulatory co-operation and mutual recognition.¹¹⁴ As of June 2024, 13 countries – Azerbaijan, Bangladesh, China, Islamic Republic of Iran, Kyrgyzstan, Mongolia, Philippines, Republic of Korea, Russian Federation, Tajikistan, Timor-Leste, Turkmenistan, and Tuvalu – have ratified the treaty while Armenia and Cambodia have signed the treaty. More ESCAP member states are expected to join the treaty. Further, according to a UNESCAP paper, the provisions related to paperless trade in the recently agreed upon JSI text are found to be consistent with the general principles and other provisions included in the CPTA. Thus, this shows that the JSI member states acknowledge the benefits that could arise from the CPTA.

If countries like India implement WTO Trade Facilitation Agreement (TFA) together with cross-border paperless trade measures, it could achieve trade cost reductions of 22 per cent, instead of only about 7 per cent if it aims at basic compliance with the TFA. The difference is equivalent to a trade cost saving of more than USD 3.4 billion per year.

The fourth measure is related to the adoption of WCO Immediate Release Guidelines (IRG), which are a set of guidelines and best practices to guide customs administrations to assist customs and trade to expedite the clearance of a large number of small or negligible value parcels across borders. It facilitates pre-arrival processing and risk management of the consignment based on advance electronic information.¹¹⁵ For numerous small shipments carried through e-commerce, it is important to have systems and processes that provide a clear classification of the products, check for illegal products, and help link customs with allied agencies for fast-track clearances. For developing countries and LDCs, the World Customs Organisation (WCO) can help create a system of data sharing in advance with regulators, within and across countries, which builds trust and ensures that all security protocols are duly followed. There is a need for more south-south collaboration and sharing of best practices in this.

If countries follow the principles of these four sets of agreements/guidelines, it would significantly reduce their cross-border compliance costs and facilitate trade. It will also facilitate mutual recognition of regulations and standards. There are some LDCs serving as an example of best practices that are doing very well and are taking targeted measures. One such example is Cambodia, which is trying to align its domestic regulations with international laws and best practices and has become one of the top-performing countries in UNCTAD's second eTrade Readiness Implementation Review 2022, with a 92 per cent implementation rate for e-commerce laws with strong involvement of the private sector, MSMEs and women entrepreneurs. Cambodia is also very proactive when it comes to negotiating regional and bilateral trade agreements with provisions and chapters related to e-commerce.

Additionally, an example of a step in the right direction towards harmonisation of regulations at a regional level is the ASEAN Digital Economy Framework Agreement (DEFA) (as mentioned in Section 4), which can be used as a model and best practice by APAC countries. The agreement aims to develop rules for seamless digital trade and secure data flow between member states. ASEAN member countries are also in the process of incorporating international standards such as UNCITRAL into their domestic regulations.

While countries are coming up with regulations and moving towards paperless trade, there are gaps in monitoring and implementation. Therefore, there is a need for regulatory impact assessments for evidence-based decision making.

6.3 Establish and promote the use of Financial and Cross-Border E-Payment Systems

Apart from the above steps, countries also need to streamline and harmonise other e-commerce related digital measures, such as digital data localisation and protection, consumer rights protection and payment related regulations. To mitigate technology fragmentation and operational inefficiencies caused by diverse payment systems, countries may develop

¹¹⁴ Source: <https://www.unescap.org/projects/cpta> (last accessed on June 28, 2024)

¹¹⁵ Source: <https://www.wcoomd.org/-/media/wco/public/global/pdf/topics/facilitation/instruments-and-tools/tools/immediate-release-guidelines/immediate-release-guidelines.pdf?db=web> (last accessed on June 28, 2024)

and implement standardised payment systems to enhance interoperability, streamline transactions and establish a unified regional payment scheme to improve payment efficiency and interoperability across the region. Acceptance of different payment systems across countries can create a seamless system, which can be done through collaboration and co-ordination between the central banks of different countries. Countries should foster collaboration among financial institutions to manage the growing volume and complexity of e-commerce transactions effectively. Another area requiring co-operation and harmonisation is consumer rights protection. Key aspects include transparency in pricing, clear and accurate product descriptions, and the right to return or exchange products.

Consumers should be protected from fraudulent practices and have access to secure payment methods. Effective dispute resolution mechanisms and regulatory frameworks are necessary to address consumer grievances and enhance trust in e-commerce platforms. By safeguarding consumer rights, e-commerce can provide a reliable and positive shopping experience for all users. India submitted a communication to the WTO on consumer protection in E-commerce that highlights key issues consumers face while engaging in e-commerce purchases in three different phases, namely, pre-purchase phase, purchase phase and post-purchase phase. It asks member states to share their experience regarding consumer protection as well as open a discussion on the role WTO can play in the same (for more, please refer WT/GC/W/857¹¹⁶). Such discussions on a multilateral platform can help in harmonisation of consumer protection laws across countries. The ASEAN DEFA also mentions promoting and enforcing a transparent environment for business competition and consumer choice.

A related aspect is the need to address growing concerns regarding digital fraud and data privacy; it is essential to develop robust infrastructure and regulations. APAC countries should encourage and support financial technology (fintech) companies that use big data and machine learning capabilities to facilitate lending and take measures to attract

foreign online payment companies. Countries should foster collaboration among financial institutions to manage the growing volume and complexity of e-commerce transactions effectively.

6.4 Need for Targeted and Result-Oriented Initiatives for MSMEs and Women

Greater co-operation is needed between governments and stakeholders like companies, trade associations, MSMEs and industry bodies, both domestically and regionally, for greater on-boarding initiatives for MSMEs and resolving the cross-border trade-related issues faced by them through targeted initiatives. The respective line ministers in the countries need to collaborate with different ministries and industry players. Initiatives like the collaboration of DGFT under the Ministry of Commerce and Industry, Government of India, with private sector companies like Amazon India and DHL India for capacity building and boosting exports of select products of MSMEs can be replicated by other countries in the region. Examples of many inter-governmental collaborations and multi-stakeholder partnerships from APAC countries are presented in this working paper, which can be used as examples by other countries in APAC.

To promote increased involvement and equality for women entrepreneurs within the e-commerce sector, APAC countries may implement tailored policy interventions and initiatives supported by governmental and non-governmental organisations. These efforts should prioritise enhancing digital literacy and providing e-commerce training, skill development and capacity building. There should be more jointly funded initiatives between industry and governments, and organisations like UNESCAP can provide support by creating a platform for training and sharing of best practices. Furthermore, initiatives aiming to connect women entrepreneurs on e-commerce platforms with global markets and export prospects are crucial. Specialised financial programmes such as flexible loans, skill upgradation, digital literacy courses and trade-related assistance may be provided by partnerships between governments, private players, educational institutions, civil society organisations, as well as international and regional organisations.

¹¹⁶ WT/GC/W/857, Consumer Protection in E-commerce, Communication from India, WTO, 2022. Available at https://docs.wto.org/dol2fe/Pages/FE_Search/FE_S_S006.aspx?MetaCollection=WTO&IssuingDateFrom=01%2f12%2f2022&IssuingDateTo=01%2f02%2f2023&ConcernedCountryList=%22India%22&SubjectList=%22consumer+protection%22&Language=ENGLISH&SearchPage=FE_S_S001&languageUIChanged=true# (last accessed on August 23, 2024)

7. Conclusion

To unleash the full potential of e-commerce and benefit its users, policymakers need to implement domestic and trade policies that foster inclusive and sustainable growth, focusing on the interests of e-commerce users like MSMEs, women entrepreneurs and consumers. Nationally, e-commerce policies should link platform use to achieving the UNSDGs, with special emphasis on women and MSMEs. Exporters across APAC seek a stable and predictable digital business environment and a streamlined regulatory framework to operate effectively across various fragmented regimes. This can be achieved through enhanced discussions and the sharing of best practices among regional policymakers. Numerous best practices in the region can be replicated across APAC.

Deeper dialogues and detailed research are needed to address specific e-commerce challenges, such

as social media and dark patterns, AI regulations, complexities in cross-border financial transactions and digital payments. Emphasis should be placed on learning from successful experiences and case studies. Continuous awareness-building and capacity-building initiatives, including periodic webinars and focus group discussions, are crucial to keeping stakeholders informed and engaged.

While countries may have their political sensitivities to partnerships, alliances and subgroups among like-minded countries and stakeholders can help sustain dialogues and collaborations on various aspects of the e-commerce ecosystem, such as paperless trade, consumer protection, grievance redressal and digital payments. A centralised knowledge repository, such as an APAC e-commerce website, can help consolidate resources, analytical work and information, providing a comprehensive resource for stakeholders in the e-commerce policy domain.

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Appendix A

Table A1: Regulations on E-Commerce in Selected APAC Countries

Country	Name of Law	Nodal Agency	Features
Australia	Electronic Transactions Amendment Act, 2011	Attorney-General's Department	<ul style="list-style-type: none"> The Act provides a legal framework that recognises electronic transactions. It aligns transaction laws with international standards and best practices, making it easier for businesses to engage in cross-border transactions without facing legal barriers or uncertainties.
Bangladesh	Information Communication Technology Act, 2006	Ministry of Information and Communication Technology	<ul style="list-style-type: none"> The Act provides the legal foundation for digital transactions in Bangladesh and the forming of a complex e-government network that supports e-commerce development. It includes provisions for data protection and privacy and cross-border cyber threats.
Cambodia	E-commerce Law, 2019	Ministry of Commerce	<ul style="list-style-type: none"> The law governs both domestic and international e-commerce, ensuring legal certainty for electronic transactions and consumer protection. It covers electronic communications, security, consumer protection, and liability for e-commerce platforms, and establishes a regulatory framework, including fines and imprisonment for violations.
India	Information Technology Act 2000	Ministry of Electronics and Information Technology	<ul style="list-style-type: none"> The Act governs various aspects of electronic commerce (e-commerce) transactions It provides provisions for data protection and consumer redressal. It establishes standards for electronic contracts, protecting intermediaries, and preventing cybercrimes, which ensures smooth cross-border trade.
Indonesia	Electronic Information and Transactions Law (ITE Law), 2008	Ministry of Communication and Information Technology	<ul style="list-style-type: none"> This Act provides a framework for electronic transactions and includes provisions relevant to the protection of online consumers.
Japan	Basic Act on the Promotion of Utilisation of Information and Communication Technology (ICT)	Ministry of Internal Affairs and Communications (MIC)	<ul style="list-style-type: none"> The Act includes provisions aimed at facilitating e-commerce transactions. It addresses cybersecurity concerns and protects personal information, and contributes to creating a safe environment for e-commerce activities. Its broader objectives promote the facilitation of cross-border trade and transactions
The Philippines	Electronic Commerce Act, 2000	Department of Trade and Industry (DTI)	<ul style="list-style-type: none"> This act addresses commerce by ensuring transactions are secure and legal, providing specific rights to online consumers, and mandating clear disclosure of terms and conditions by online sellers. It offers protection tailored to the digital environment, ensuring that online consumers enjoy similar rights and protection as those in traditional markets.
The Republic of Korea	Electronic Commerce Act, 2016	Fair Trade Commission	<ul style="list-style-type: none"> The purpose of this act is to protect the rights and interests of consumers and establish a sound order in electronic commerce. It prescribes the duty of business entities to provide information to consumers, and consumers' right to cancel an order.
Singapore	Electronic Transactions Act 2010	Infocomm Media Development Authority (IMDA), Ministry of Communications and Information	<ul style="list-style-type: none"> The Act is designed to facilitate and regulate the use of electronic transactions and communications in both the domestic and international contexts. It focuses on the reliability and integrity of electronic records and transactions, particularly through the use of electronic signatures
Sri Lanka	Electronic Transactions Act, 2006	Ministry of Digital Infrastructure and Information Technology	<ul style="list-style-type: none"> The Act aims to support electronic commerce by legitimising electronic documents, data messages, records and communications. It also allows electronic records and signatures to be used in governmental and statutory transactions, provided they meet specified standards set by relevant authorities.
Thailand	Electronic Transactions Act 2001	Ministry of Digital Economy and Society	<ul style="list-style-type: none"> The act regulates digital identification and authentication systems to ensure safety and reliability in digital transactions. It also introduces licensing requirements for businesses providing digital identification and authentication services.
Viet Nam	Law on E-transactions, 2023	Ministry of Information and Communications	<ul style="list-style-type: none"> The law established a comprehensive legal framework that validates electronic data messages and digital signatures for conducting transactions. It also mandated governmental support for adoption and integration of digital technologies across various sectors. The updated law establishes a modern legal environment to foster and regulate electronic transactions.
	Law on E-Commerce, 2021	Ministry of Industry and Trade (MOIT)	<ul style="list-style-type: none"> The law says that off-shore entities engaging in e-commerce businesses will be obligated to comply with Vietnamese law. The entities will also be required to comply with standards and submit periodic reports on their activities.

Source: <https://samsn.ifj.org/wp-content/uploads/2015/07/Bangladesh-ICT-Act-2006.pdf> <https://www.legislation.gov.au/C2011A00033/latest/text> (last accessed on May 21, 2024); <https://eprocure.gov.in/cppp/rulesandprocs/kbadqkdlcswfjdelrquehwux-cfmijmuixngudufgbuubgubfugbububjxcgfvbsdihbgfGhdfgFHYtyhRtMjk4NzY=#:~:text=%5B9th%20June%2C%202000%5D%20An,communication%20and%20storage%20of%20information%2C> (last accessed on May 21, 2024)

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