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PERSPECTIVE

RESEARCHERS AT ISEAS – YUSOF ISHAK INSTITUTE ANALYSE CURRENT EVENTS

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Governing the Digital Economy in Thailand: Domestic Regulations and International Agreements

*Antonio Postigo**



Digital Economy and Society Minister Chaiwut Thanakamanusorn addresses the Bangkok Post Tech Conference 2022 held at the Centara Grand at CentralWorld on 30 June 2022. (Photo by Pattarapong Chatpattarasill / Bangkok Post / Bangkok Post via AFP).

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EXECUTIVE SUMMARY

- Thailand is among the ASEAN countries that have seen the most rapid growth in digital infrastructure and e-commerce since the COVID-19 pandemic.
- In a 2022 study conducted by the Asian Development Bank, Thailand was among just eight countries in the Asia-Pacific region that have implemented comprehensive legislation governing digital trade.
- In the absence of a multilateral agreement, Thailand, like many other countries, is leveraging its participation in FTAs to shape global rules for digital trade; but this approach requires significant administrative resources and can lead to regulatory fragmentation and increased business costs.
- Alternatively, the standalone Digital Economy Partnership Agreement (DEPA) is emerging as a key consensus-building platform towards a multilateral digital economy regime that Thailand may consider joining.

INTRODUCTION

The world economy is increasingly dependent on the cross-border flow of digital information. Data can serve as inputs to a final product, function as final products themselves, or facilitate the production and/or trade of other goods. Between 2007 and 2017, the flow of data increased by more than 20 times.¹ The COVID-19 pandemic has accelerated the digital transformation of many economies and boosted digital trade. At the same time, the rapid digitalisation of the global economy has prompted national governments to introduce new legislation, often leading to increased regulatory fragmentation and barriers to digital trade.²

While there is no single definition of digital trade, the comprehensive definition proposed by the OECD as “*digitally enabled or digitally ordered cross-border transactions in goods and services that can be delivered digitally or physically*”³ has gained widespread acceptance. While electronic commerce (e-commerce) is the most commonly reported component of digital trade because it is the easiest to assess, it is just one element on the broader digital trade landscape.⁴ Estimates suggest that a 20% increase in the size of the digital sector from the 2020 baseline would result in a 5.4% global output increase and a 6.1% increase in Asia’s gross domestic product by 2025.⁵ Similarly, a 10% increase in digital connectivity can boost trade in goods and services by 4% and 3%, respectively.⁶

Since the onset of the COVID-19 pandemic in March 2020, there has been a surge in digitalisation accompanied by an increase in legislation related to digital trade. However, many developing countries either lack entirely or have insufficient digital trade legislation.⁷ At the same time, certain domestic regulations can create barriers to digital trade, including:⁸ a) Forced data localisation: While data localisation measures can enhance data privacy, consumer protection, and cybersecurity, they can also limit firms’ access to global networks⁹; b) Customs duties on electronic transmissions: In 1998, WTO members agreed to a moratorium on tariffs for electronic transmissions (see below), which requires periodic renewal;¹⁰ and c) Inconsistency and lack of interoperability between national regulations.

To assess the restrictiveness of domestic regulations on digital trade, several indexes have been developed. The United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) has created the *Regional Digital Trade Integration Index* (RDTII), which measures regulatory measures affecting digital trade integration.¹¹ Additionally, the Organisation for Economic Co-operation and Development (OECD) has compiled the *Computer Services Trade Restrictiveness* (STRI) and *Digital Services Trade Restrictiveness* (DSTRI) indexes, which quantify regulatory barriers impacting trade in services, including digitally-enabled services.¹²

THE DIGITAL ECONOMY IN THAILAND

In 2021, e-commerce alone in ASEAN was valued at US\$170 billion in gross merchandise value and is projected to reach US\$360 billion by 2025 and US\$1 trillion by 2030.¹³ Thailand is one of the countries in ASEAN and Asia that witnessed the fastest growth in digital

infrastructure and accessibility, a trend that has been further accelerated by the COVID-19 pandemic (Table 1).

Thailand boasts the second-largest penetration of e-consumers in ASEAN, at 48 million internet users and 9 million new digital consumers since the start of the pandemic until mid-2021. Notably, 67% of these users are located outside the Bangkok area. In 2021, the internet economy in Thailand reached US\$30 billion in global merchandise value, marking a 51% increase compared to 2020, and is expected to reach US\$57 billion by 2025. Thai e-commerce alone accounted for US\$21 billion in 2021, ranking 19th globally in terms of value.¹⁴

Table 1: Selected digital indicators in Thailand

	2021
Broadband connection over all connections	98.7%
People’s access to Internet at home *	19.5%
People’s access to mobile internet *	97.3%
People’s use of e-commerce *	76.6%
People’s use of banking & financial apps *	68.1%
People’s use of mobile payment services *	46.7%
People aged 55-74 years using Internet	48.4%
People’s concern over payment security *	5.4%
People’s use of online government services *	60.7%
Workforce in the digital economy	12.9 million 34.4% total workforce
Workers working from home	29.5%
Corporate’s acknowledgment of the PDPA	80.5%
Corporate’s adoption of cloud services	70.3%
Corporate’s investment in digital technologies	530 billion Baht (3.3% GDP)
Mobile banking volume (per year/head)	524,820 Baht

* Population between 16 and 64 years old.

Abbreviation: The PDPA = Personal Data Protection Act

Sources: Bangkok Post 2 July 2021; 3 September 2021; and 27 August 2022; Thailand Digital Outlook 2022 (<https://tdo.onde.go.th/>)

The digitalisation wave has also transformed numerous service sectors in Thailand, with most notable advancements observed in financial services. Foreign investment in digital services has surged, particularly in e-commerce, fintech, e-health, and online education. This growth has been driven by increased Internet and mobile phone penetration, as well as the improvement of logistics and e-payment systems.¹⁵ In terms of e-commerce transactions, 50% are business-to-consumer (B2C), followed by business-to-business (B2B) at 27%, and business-to-

government (B2G) at 23%.¹⁶ One-third of B2B e-commerce transactions are in the food and service sector, with manufacturing at 16% and retail and wholesale at 15%.

In 2016, Thailand introduced the *Thailand 4.0 Strategy*, aiming to transition the country to developed status through an industrial transformation in ten key sectors, including digital industries, and position Thailand as ASEAN's innovation and knowledge-based digital hub.¹⁷ Similar to traditional industries like automotive, electronics, petrochemicals, and heavy industries, Thailand has prioritised digital transformation in the *Eastern Economic Corridor* (EEC), which accounted for 60% of total FDI inflows in 2021.¹⁸

Furthermore, in recent years, Thailand has implemented several projects to promote and strengthen the digital economy and digital transformation across various dimensions.

First, in the e-commerce ecosystem, the Department of International Trade Promotion (DITP) at the Ministry of Commerce established *Thaitrade.com* in 2011. *Thaitrade.com* serves as a B2B electronic marketplace connecting over 25,000 Thai exporting firms, particularly small and medium enterprises (SMEs), with international importers.¹⁹

Second, to bolster digital infrastructure, Thailand initiated the construction within the EEC of the *Digital Park Thailand* in late 2021.²⁰ This public-private partnership aims to promote the development of digital infrastructure, enhance digital connectivity and aspires for the Park to become an ASEAN hub for digital innovation by attracting high technology and digital industries.²¹

Third, to facilitate trade, encompassing both digitally enabled and digitally delivered goods as well as traditional goods and services, Thailand launched the pilot stage of the *National Digital Trade Platform* (NDTP) in September 2022.²² The NDTP will serve as the centralised point for communication and electronic document delivery between trading partners.²³ The NDTP is linked with Thai facilities such as the *National Single Window* and will be integrated with similar digital platforms in other countries.²⁴

DOMESTIC REGULATIONS ON DIGITAL TRADE

In 2016, Thailand launched the *Office of the National Digital Economy and Society Commission* to draft national policies for the digital economy and society. A year later, a *Digital Economy Promotion Agency* was created to facilitate the growth of digital industries and promote the use of digital technologies. Both have been later integrated into the *Ministry of Digital Economy and Society*, which was established in October 2016 as a replacement for the Ministry of Information and Communication Technology.²⁵ The *Digital Development for Economy and Society Act* (2017) established the legal framework for the digital development of both the economy and society in Thailand.²⁶ It also created a *Digital Economy and Society Development Fund* to finance future digital economy and social development plans.

In the past five years, Thailand has introduced a substantial number of new regulations concerning the digital economy.²⁷ According to a recent ADB report,²⁸ Thailand is one of only eight countries among the 49 surveyed in the Asia-Pacific region which has implemented

digital trade legislation. The current Thai regulatory framework on digital trade encompasses various dimensions, including electronic transactions, consumer protection, privacy, data protection, cybercrime, and the adoption of the *United Nations Commission on International Trade Law* (UNCITRAL) model law on e-commerce.²⁹

The *Electronic Transactions Act* (2019) established the legal equivalence of electronic records and signatures with paper records and handwriting signatures.³⁰ All digital businesses in Thailand are required to register under the Commercial Registration Act.³¹ The *Personal Data Protection Act* (PDPA) issued in June 2022, outlines the obligations for both overseas and domestic e-commerce businesses regarding the collection and use of personal data.³² In December 2022, Thailand issued the *Decree on Digital Platforms*, which establishes the obligations of digital platform providers.³³

Of note, the PDPA does not require data localisation, and Thailand has lower tariffs and non-tariff barriers on information and communication technology (ICT) goods compared to the Asia-Pacific average.³⁴ However, Thailand imposes stricter restrictions on foreign investments and the operations of telecommunication businesses, as well as on online sales and transactions. Consequently, Thailand's score on the UN-ESCAP's RDTII is higher (indicating more digital trade restricting policies) than the ASEAN and Asia-Pacific averages.³⁵ Thailand also receives higher scores (more restrictive) in both OECD's indexes, with the fourth-highest DSTRI and second-highest STRI in ASEAN.

INTERNATIONAL GOVERNANCE OF THE DIGITAL ECONOMY

A plurilateral negotiating platform at the WTO, the *Joint Initiative on Electronic Commerce* (JIEC), was established in 2017 to build consensus on trade-related aspects of electronic commerce.³⁶ Progress among the current 86 JIEC members has been most notable in the following areas: online consumer protection, electronic signatures, spam, open government data, electronic contracts, transparency, paperless commerce, and open Internet access.³⁷

The Asia-Pacific Economic Cooperation (APEC) has launched discussions among interested members on trade facilitation and data privacy and on making the WTO moratorium on electronic transmissions permanent.³⁸ Despite these efforts, variations in national regulatory frameworks and the absence of multilateral rules and standards governing digital trade and data-driven markets can create what some authors refer to as a “digital noodle bowl”, which entails additional costs for businesses.³⁹

While a multilateral digital trade agreement materialises, countries are relying on regional and bilateral free trade agreements (FTAs) as well as ad hoc digital economy agreements as the main mechanisms to establish international rules on digital trade. As of May 2023, there were 356 free trade agreements (FTAs) in force, with over half of them implemented in the last decade incorporating provisions related to digital trade.⁴⁰

However, analyses of digital trade provisions in FTAs reveal a fragmented landscape, with three primary templates for digital chapters emerging in FTAs: those led by China, the European Union (EU), and the United States (US).⁴¹ Digital trade provisions in Chinese FTAs

tend to be less comprehensive and focus on facilitation and e-commerce; provision in the EU's and the US' FTAs are broader and deeper, and while the EU's FTAs emphasise personal data protection, the US' FTAs stress non-discrimination of digital products provisions.⁴²

Although digital trade chapters have been included in many recent FTAs, the *Regional Comprehensive Economic Partnership* (RCEP) and the *Comprehensive and Progressive Agreement for Trans-Pacific Partnership* (CPTPP) distinguish themselves through their extensive geographic reach and comprehensive provisions on digital trade rules.⁴³ RCEP's liberalisation in traditional goods trade and other trade-related issues is less comprehensive and deep than the CPTPP.⁴⁴ The digital trade in the RCEP overlaps with that of the CPTPP in areas such as paperless commerce, electronic signatures, and online consumer protection. However, the RCEP, which is shaped by the digital trade framework of its members, especially ASEAN and China, allows for greater flexibility in restricting data flows if it is deemed necessary to achieve legitimate public policy objectives or protect security interests. In contrast, the CPTPP, building upon the initial membership of the US in its predecessor (the Trans-Pacific Partnership, TPP), incorporates the US model of digital trade provisions in FTAs, including non-discrimination of digital products, prohibition of source code access, prohibition of localisation requirements, and prohibition of cross-border data transfer restrictions, thereby emphasising open data flows.⁴⁵

In December 2021, ASEAN implemented the *ASEAN Agreement on E-Commerce*, which closely aligns with the digital chapter in the RCEP covering various digital trade rules on cross-border trade facilitation, electronic payments, internet neutrality, personal data, and consumer protection.⁴⁶ Also, like the RCEP, the agreement does not include provisions on non-discrimination of digital products or restrictions on source code requirements.

Among the FTAs that ASEAN has already implemented with Australia/New Zealand, China, Hong Kong, India, Japan and South Korea, only the first FTA (AANZFTA) has been upgraded to include a digital chapter.⁴⁷ The e-commerce chapter in the AANZFTA, which could serve as a model for other ASEAN's FTAs, covers various digital trade issues such as transparency, consumer protection, online personal data protection, authentication, certification, electronic signatures, and paperless trade administration. However, it does not include applicability of WTO rules (e.g., digital service supply), non-discriminatory treatment of digital products, or the moratorium on tariffs on digital products.

Thailand participates in the WTO's JSIEC but, like other countries, has leveraged its engagement in FTAs to shape global rules and standards for digital trade. It has implemented six bilateral FTAs and is a party to eight regional agreements, namely ASEAN, the six ASEAN-centred FTAs, and the RCEP (Table 2).⁴⁸

Among the bilateral FTAs, only the Thailand-Australia (TAFTA) and Thailand-New Zealand (NZTCEP) FTAs contain digital provisions, albeit that they are fairly generic.⁴⁹ Both FTAs include provisions on consumer protection, online personal data, paperless trade administration, customs facilitation, applicability of WTO rules to e-commerce, and a pledge to follow UNCITRAL's model law. Unlike the NZTCEP, TAFTA also includes provisions on authentication, certification, electronic signatures, the applicability of trade rules to digital services, and a moratorium on tariffs on digital products.⁵⁰

All members of ASEAN are part of the RCEP, but only Brunei Darussalam, Malaysia, Singapore, and Vietnam are members of the CPTPP (Table 2). While the Thai government has expressed interest in the CPTPP, it has not yet joined due to strong opposition from civil society organisations.⁵¹

Table 2: Digital provisions in the FTAs and digital agreements participated by Thailand and other ASEAN countries

	WTO JIEC	RCEP	CPTPP	Bilateral FTAs	ASEAN FTAs	Bilateral DEAs	DEPA
Thailand	Yes	Yes	No	Australia; New Zealand	AANZFTA	No	No
Brunei Darussalam	Yes	Yes	Yes	No	AANZFTA	No	No
Cambodia	No	Yes	No	Chile; South Korea	AANZFTA	No	No
Indonesia	Yes	Yes	No	Australia	AANZFTA	No	No
Lao PDR	Yes	Yes	No	No	AANZFTA	No	No
Malaysia	Yes	Yes	Yes	Australia; Turkey	AANZFTA	No	No
Myanmar	Yes	Yes	No	No	AANZFTA	No	No
Philippines	Yes	Yes	No	No	AANZFTA	No	No
Singapore	Yes	Yes	Yes	Australia; China; Costa Rica; EU; GCC; India; Jordan; New Zealand; Panama; Peru; South Korea; Sri Lanka; Turkey; Taiwan; US	AANZFTA	Australia; South Korea; United Kingdom	Yes
Vietnam	No	Yes	Yes	EU; Eurasian Economic Union; South Korea	AANZFTA	No	No

Abbreviations: AANZFTA: ASEAN-Australia-New Zealand FTA; EU: The European Union; GCC: Gulf Cooperation Council; US: The United States of America

Sources: Honey (2021); ADB (2022); Corning (2023); WTO-JIEC (undated)

Beyond FTAs, some countries are negotiating standalone bilateral or plurilateral digital economy agreements. For example, the US and Japan have signed an agreement on digital trade.⁵² Singapore has taken a leading role in establishing international rules and standards for the digital economy and has bilateral digital partnerships with Australia (2020), the United Kingdom (2022), the European Union (2023), and South Korea (2023). But it is the *Digital Economy Partnership Agreement (DEPA)* signed by Singapore with Chile and New Zealand in 2020 that has garnered the greatest attention.

Unlike other digital agreements, DEPA is an “open agreement” that allows for the inclusion of additional countries.⁵³ South Korea, Canada, and China have initiated negotiations to join DEPA, potentially giving the agreement the necessary critical mass to become a consensus-building platform in the harmonisation or convergence toward a multilateral digital economy regime. In May 2022, Singapore extended an invitation to Thailand to join DEPA, and both countries have signed a memorandum of understanding (MoU) covering several key issues of the digital economy.⁵⁴ However, Thailand is still to decide whether it will join DEPA or not.

Another distinctive feature of DEPA is its modular approach. DEPA is organised into 16 modules, each addressing specific aspects of the digital economy. This allows for future revisions as the digital economy evolves and new issues arise. It also offers flexibility, allowing countries to join DEPA in its entirety or incorporate specific modules into their domestic policies or other trade negotiations.⁵⁵

While DEPA and other bilateral digital agreements do not address traditional issues like cross-border services, financial services, and intellectual property included in FTAs, they offer greater coverage in terms of the digital economy.⁵⁶ DEPA and Singapore’s bilateral digital partnerships align with the CPTPP digital trade template, encompassing provisions on data flows, data localisation, electronic transactions, and non-discrimination of digital products. However, its scope extends beyond digital trade, aiming to cover the entire value chain and various aspects of the digital economy, like open government data, internet access, competition, fintech and e-invoicing.

EXPLORING THAILAND’S FUTURE CHOICES IN DIGITAL ECONOMY GOVERNANCE

While FTAs and standalone digital agreements have made important strides in building an international digital trade regime, there is still a pressing need for substantial progress at the multilateral level through the JIEC. An agreement facilitated by the WTO offers distinct advantages.

Firstly, it can better accommodate the “special and differential treatment” for developing and least developed countries compared to FTAs. Secondly, it enables the integration of rules for digital trade with those governing traditional goods, services, and intellectual property rights. Most importantly, it ensures interoperability and prevents fragmentation within the digital trade system. However, the institutional gridlock within the WTO hampers negotiations and makes it unlikely for any digital trade agreement to be reached quickly.⁵⁷

In this scenario, Thailand faces the decision of whether to upgrade its existing FTAs to include digital trade rules, join the CPTPP with its more comprehensive digital chapter compared with RCEP, or join DEPA.

Upgrading existing FTAs to include digital trade rules with specific partners allows for the customisation of digital trade provisions based on bilateral or regional needs. This approach

will require significant administrative resources and contribute to increased regulatory fragmentation and higher costs of doing business.

Joining the CPTPP would grant Thailand access to a more comprehensive digital chapter, compared to the RCEP. However, it would also require Thailand to meet a broader and more extensive set of requirements in other trade-related areas and could limit the policy space to implement certain developmental strategies.

Finally, and due to the evolving nature of the digital economy, a standalone and adaptable digital agreement such as DEPA can more adequately and rapidly address the barriers encountered by businesses better than FTAs. Although DEPA's membership is still small, several major economies have expressed interest in joining it.

The existing MoU and the range of cooperative efforts in the digital economy between Singapore and Thailand have the potential to generate momentum for Thailand's membership in DEPA. Early membership will also provide Thailand with the opportunity to actively participate in shaping the agenda of the agreement.

ENDNOTES

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² OECD (2022). Services Trade Restrictiveness Index: Policy Trends up to 2022. Paris, France: OECD at https://issuu.com/oecd.publishing/docs/oecd_stri_policy_trends_up_to_2022 (accessed on 13 January 2023).

³ López González, J. and M. Jouanjean (2017), Digital Trade: Developing a Framework for Analysis, *OECD Trade Policy Papers*, No. 205, OECD Publishing, Paris. <http://dx.doi.org/10.1787/524c8c83-en> (accessed on 13 January 2023).

⁴ E-commerce refers to the “sale or purchase of goods or services, conducted over computer networks by methods specifically designed for the purpose of receiving or place orders” and involves transactions between consumers, businesses, and/or governments (OECD, 2019).

⁵ Asian Development Bank (ADB) (2022a) Aid for trade in Asia and the Pacific. Leveraging trade and digital agreements for sustainable development. Manila, Philippines: ADB.

https://www.wto.org/english/tratop_e/devel_e/a4t_e/gr22_e/aid-trade-asia-pacific-trade-digital-agreements.pdf (accessed on 13 January 2023).

⁶ López González, J. and J. Ferencz (2018), Digital Trade and Market Openness, *OECD Trade Policy Papers*, No. 217, OECD Publishing, Paris. <http://dx.doi.org/10.1787/1bd89c9a-en> (accessed on 13 January 2023).

⁷ According to the World Bank, lower-middle and low-income countries often exhibit weak or absent regulatory readiness in areas such as personal data protection, consumer online protection, intermediary liability, and licensing of digital firms. Haddad, M (2022). In digital trade talks, the voices of least developed countries are missing. World Bank Blogs. In: <https://blogs.worldbank.org/trade/digital-trade-talks-voices-least-developed-countries-are-missing> (accessed on 17 May 2023).

⁸ Similar to other policy domains, newly introduced regulations in digital trade can either facilitate or impede the flow of digital goods and services.

⁹ Cory, N. and L. Dascoli. 2021. How Barriers to Cross-Border Data Flows are Spreading Globally, What they Cost, and How to Address Them. Washington, DC: Information Technology & Innovation Foundation. <https://itif.org/publications/2021/07/19/how-barriers-cross-border-data-flows-are-spreading-globally-what-they-cost/> (accessed on 13 January 2023).

¹⁰ The most recent extension of the Moratorium was in June 2022. International Chamber of Commerce (ICC) and International Trade Centre (ITC) (2023) The WTO Moratorium on Customs Duties on Electronic Transmissions: What is really at stake? Paris, France: ICC. At: https://iccwbo.org/wp-content/uploads/sites/3/2023/04/2023_Joint-ICC-ITC-Policy-Brief-Edition-1-WTO-Moratorium.pdf (accessed on 1 May 2023).

¹¹ The RDTII includes 11 digital-trade indicators grouped into three clusters, namely, regulations as tariff and non-tariff measures, other policy areas that affect an integrated digital trade environment (public procurement, investment, intellectual property rights, telecom regulations, and competition), and domestic rules on digital trade (UN-ESCAP, 2022). RDTII indicates how the regulatory environment adds to the cost of doing digital trade-related business. RDTII scores range from zero to one and a higher score indicates more complex and costly policies. United Nations Economic and Social Commission for Asia and the Pacific (UN-ESCAP) (2022) Asia-Pacific Digital Trade Regulatory Review 2022. ESCAP-OECD Initiative on Digital Trade Regulatory Analysis. Bangkok, Thailand: UN-ESCAP. <https://repository.unescap.org/rest/bitstreams/fb195c62-f985-4aa5-8f34-35d99c5c1be1/retrieve> (accessed on 13 January 2023).

¹² Ferencz, J. (2019). The OECD Digital Services Trade Restrictiveness Index, OECD Trade Policy Papers, No. 221. Paris, France: OECD. <http://dx.doi.org/10.1787/16ed2d78-en> (last accessed on 13 January 2023).

The DSTRI covers five areas, namely, infrastructure and connectivity, electronic transactions, payment systems, intellectual property rights, and other barriers affecting trade in digitally-enabled services (UN-ESCAP, 2022). The STRI measures restrictions on computer services related to regulatory transparency and restrictions on foreign entry, the movement of people, and competition.

¹³ Google, Temasek, and Bain (2022) e-Conomy SEA 2022 report.

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¹⁴ Google, Temasek, and Bain (2022), ITA (2022)

¹⁵ The introduction of the PromptPay electronic payment service by the Bank of Thailand in 2017 has played a pivotal role. Bank of Thailand (BoT). (2021) Payment Systems Roadmap, No.4 (2019-2021). Bangkok, Thailand.

¹⁶ Electronic Transactions Development Agency (undated) <https://www.eta.or.th/en/information-center.aspx> (accessed on 12 May 2023).

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¹⁷ Wongwuttawat J, Lawanna A. (2018) The digital Thailand strategy and the ASEAN community. *The Electronic Journal of Information Systems in Developing Countries*. 84(3):e12024.

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¹⁸ The ECC, located 200 km southeast of Bangkok and comprising three provinces (Chonburi, Rayong, and Chachoengsao), has been an automobile and electronics manufacturing hub since the 1980s (Kohpaiboon, 2020; Phuangketkeow, 2020; Tontisirin and Anantsuksomsri, 2021). Trying to balance the concentration of economic activities in the EEC, *Thailand 4.0 Strategy* will extend the broadband network for all villages across the country. Kohpaiboon, A (2020) Phuangketkeow, S (2020) Thailand's Eastern Economic Corridor: A Bold Strategic Move. ISEAS Perspective. 2020 No. 13. Singapore: ISEAS – Yusof Ishak Institute. Tontisirin N, Anantsuksomsri S. (2021) Economic development policies and land use changes in Thailand: From the eastern seaboard to the eastern economic corridor. *Sustainability*. 13(11):6153.

¹⁹ Thaitrade.com website: <https://www.thaitrade.com/home>

The platform also facilitates connections between Thai exporters and global logistics and payment firms, other e-commerce platforms, government agencies, and social networks. Additionally, the platform includes a government-to-business (G2B) capacity-building facility for SMEs.

²⁰ Digital Park Thailand website: <http://digitalparkthailand.org/>

²¹ The Digital Park Thailand will prioritize investors in S-Curve industries (automotive, electronics, food, robotics, hardware, software, telecom, digital service, and content and data) that will receive tax exemptions and one-stop services from the Board of Investment and the Digital Economy Promotion Agency. The Park will also incorporate the *Internet of Things and Digital Innovation Institute* that will provide a digital ecosystem as well as business matching services between local start-ups and multinational technology firms IoT & Digital Innovation Institute. <https://www.depa.or.th/en/thailand-digital-valley>

²² Asia-Pacific Economic Cooperation (APEC) (2021). National Digital Trade Platform Overview. Symposium on Advancing Digital Trade Transformation and Connectivity in APEC. Document 2021/DESG/SYM/007. Available at:

http://mddb.apec.org/Documents/2021/DESG/SYM/21_desg_sym_007.pdf, Ministry of Digital Economy and Society. <https://mdes.go.th/> last accessed on 13 January 2023). United Nations Economic and Social Commission of Asia Pacific (UN-ESCAP) (2022). Thailand's JSCCIB pilots blockchain-based National Digital Trade Platform (NDTP). Bangkok, Thailand: UN-ESCAP, <https://www.digitalizetchinrade.org/projects/thailands-jscceb-pilots-blockchain-based-national-digital-trade-platform-ndtp> (accessed on 13 January 2023).

²³ The NDTP has already been tested for issuing certificates of origin, tracing CO2 emissions, managing transport and logistics documents, and handling government and insurance certificates (Krungsi, 2022) Krungsi (2022) Krungsri fully supports National Digital Trade Platform by joining hands with Toyota Tsusho to promote digital transformation connecting trade data between Thailand and Japan. In: <https://www.krungsri.com/getmedia/d05e9079-c379-4f80-bb1b-d0ce0451c327/press-release-national-digital-trade-platform-06122022-en.pdf.aspx> (accessed on 30 April 2023).

²⁴ The National Single Window is an e-logistics business-to-government and government-to-government initiative. United Nations Economic and Social Commission of Asia Pacific (UN-ESCAP) (2012). *Single window legal planning and implementation guide*. Bangkok, Thailand: UN-ESCAP <https://repository.unescap.org/rest/bitstreams/91b1253a-b1d8-4071-89f4-9bd52c9bc507/retrieve> (last accessed on 30 April 2023). During the first phase, the NDTP has been linked with Japan's *TradeWaltz* platform and will soon be linked with Singapore's *Networked Trade Platform*.

²⁵ Digital Economy Promotion Agency (<https://www.depa.or.th/en/home>) Ministry of Digital Economy and Society. <https://mdes.go.th/>. The DEPA develops its activities through a series of newly created institutes. The *Government Big Data Institute* (GBDi) supports big data analytics services, data-driven decisions and personnel development within the public sector. The *Digital Startup Institute* supports the growth of digital startups through proposals for the introduction of supporting legislation, facilitating access to funding, promoting networking among digital entrepreneurs,

investors, and public/private sectors, and providing recognition for international expansion. Other government-related entities in the area of innovation and development in the IT and digital area are the National Innovation Agency (<http://www.nia.or.th/nia/en/home/>) to promote economic restructuring and competitiveness and, under the realm of the Ministry of Higher Education, Science, Research and Innovation the National Science and Technology Development Agency (<https://www.nstda.or.th/en/>) that supports R&D in five core economic sectors) and the National Electronics and Computer Technology Center (under the realm of the Ministry of Higher Education, Science, Research and Innovation, <https://www.nectec.or.th/en/>) that supports R&D in the IT sector.

²⁶ Digital Development for Economic and Social Act, 2017.

https://onde.go.th/view/1/Digital_Development_for_Economic_and_Social_Act_2017/EN-US

²⁷ <https://www.depa.or.th/en/relevant-laws>

²⁸ ADB (2022a)

²⁹ ADB (2022a), UN-ESCAP (2022)

³⁰ Electronic Transactions Development Agency (ETDA) (2019) Electronic transactions Act.

<https://www.etda.or.th/getattachment/ef10d3c2-1d31-43c9-96cd-4a58b4fcb10d/ETA-3-ACT-ENG-Version.aspx> (accessed on 1 May 2023).

³¹ These include businesses engaged in the trade of goods or services through internet networks, internet service providers (ISP), web hosting firms, and e-marketplace businesses that must register in the Department of Business Development at the Ministry of Commerce. If marketing activities are conducted online, registration with the Consumer Protection Board under the Direct Sale and Direct Marketing Act is also necessary. International Comparative Legal Guides (ICLG) (2022). Digital Business Laws and Regulations-Thailand. <https://iclg.com/practice-areas/digital-business-laws-and-regulations/thailand> (accessed on 13 January 2023).

³² Norton Rose Fulbright (2022) Overview of Thailand Personal Data Protection Act B.E.2562 (2019) <https://www.nortonrosefulbright.com/en/knowledge/publications/e29d223d/overview-of-thailand-personal-data-protection-act-be2562-2019> (accessed on 15 May 2023).

³³ Yangiam N and C Sunthorn-opas (2023) Thailand's Royal Decree on Digital Platform Services – Update from the Draft to the Recently Enacted. Nagashima Ohno & Tsunematsu Legal Review no 55. <https://www.noandt.com/en/publications/publication20230131-3/> (accessed on 2 May 2023).

The Amendment Act 2022 of the Thai Copyright Law defines the rules under which copyright owners can request ISPs to take down online copyright infringements

³⁴ UN-ESCAP (2022)

³⁵ UN-ESCAP (2022)

Within ASEAN, Thailand ranks third in the RDTII, following Vietnam and Indonesia.

³⁶ World Trade Organization (WTO) (2017) Joint Initiative on E-commerce.

https://www.wto.org/english/tratop_e/ecom_e/joint_statement_e.htm (accessed on 8 May 2023).

³⁷ ADB (2022)

At the March 2023 meeting, discussions revolved around relaxing implementation periods for developing countries and assistance for capacity building

https://www.wto.org/english/news_e/news23_e/jsec_30mar23_e.htm (accessed on 24 May 2023).

³⁸ In 2005, APEC launched the Cross-Border Privacy Rules (CBPR) system, a voluntary government-backed data privacy certification system aimed at ensuring secure and privacy-respecting data flows among participating APEC economies. Currently, nine economies, including two ASEAN countries (the Philippines and Singapore, but not Thailand), participate in this system (APEC, undated; APEC, 2016, 2019).

Asia-Pacific Economic Cooperation (APEC) (undated) Cross-Border Privacy Rules (CBPR) System. <http://cbprs.org/about-cbprs/> (accessed March 20, 2023)

Asia-Pacific Economic Cooperation (APEC) (2016) Pathfinder Initiative Proposal for a Permanent Customs Duty Moratorium on Electronic Transmissions. <https://www.apec.org/docs/default->

source/Publications/2016/11/2016-CTI-Report-to-Ministers/TOC/Appendix-26-Pathfinder-on-Permanent-Customs-Duty-Moratorium-on-Electronic-Transmissions-Including-Co.pdf (accessed on 18 May 2023).

Asia-Pacific Economic Cooperation (APEC) (2019) Updated Pathfinder Initiative Proposal on Building Blocks for Facilitating Digital Trade. https://www.apec.org/docs/default-source/publications/2019/12/2019-cti-report-to-ministers/toc/appendix-5---pathfinder-initiative---building-blocks-for-facilitating-digital-trade.pdf?sfvrsn=3f96310c_1 (accessed on 18 May 2023).

³⁹ Honey, S (2021) Asia-Pacific Digital Trade Policy Innovation. In: I Borchert and LA Winters (eds). *Addressing Impediments to Digital Trade*. (p 217-239). London, UK: Centre for Economic Policy Research.

⁴⁰ World Trade Organization (WTO) (undated) Regional Trade Agreements Database.

<https://rtais.wto.org/UI/PublicMaintainRTAHome.aspx> (accessed on 26 May 2023).

World Trade Organization (WTO) (undated) Database on Preferential Trade Arrangements.

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Wunsch-Vincent S, Hold A. (2012) Towards coherent rules for digital trade: Building on efforts in multilateral versus preferential trade negotiations. In: *Trade Governance in the Digital Age*: World Trade Forum. New York: Cambridge University Press.

Duval, Y. and K. Mengjing. (2017). Digital Trade Facilitation: Paperless Trade in Regional Trade Agreements. *Asian Development Bank Institute Working Paper* number 747. Tokyo, Japan: ADBI. Available: <https://www.adb.org/publications/digital-trade-facilitation-paperless-trade-regionaltrade-agreement>

Meltzer (2019), Mitchell AD, Mishra N. (2020) *Digital trade integration in preferential trade agreements*. Bangkok, Thailand: UN ESCAP/ARNeT

Burri M, Polanco R. (2020) Digital trade provisions in preferential trade agreements: introducing a new dataset. *Journal of International Economic Law*. 23(1):187-220.

Elsig M, Klotz S. (2021) Digital trade rules in preferential trade agreements: Is there a WTO impact?. *Global Policy*. 12:25-36. ADB (2022a)

⁴¹ Meltzer (2019), Burri and Polanco (2020), Willemyns I. (2020) Agreement forthcoming? A comparison of EU, US, and Chinese RTAs in times of plurilateral E-Commerce negotiations. *Journal of International Economic Law*. 23(1):221-44.

ADB (2022a), Chin YC, Zhao J. (2022) Governing cross-border data flows: International trade agreements and their limits. *Laws*. 11(4):63.

Corning GP. (2023) ASEAN and the Regime Complex for Digital Trade in the Asia-Pacific. *Journal of World Trade*. 56(6):915-938.

⁴² Non-discrimination of digital products refers to the requirement that the digital products receive equal treatment in the territory of the other party as it accords to similar digital products (Willemyns, 2020).

⁴³ The CPTTP includes 11 countries located around the Pacific Rim: Canada, Mexico, Peru, Chile, New Zealand, Australia, Brunei, Singapore, Malaysia, Vietnam, and Japan. Any new member seeking to join the trade bloc must receive approval from all the original signatories. The United Kingdom, Ecuador, Costa Rica, Uruguay, and China have submitted their applications for membership, although Australia does not support China's accession. The RCEP is the largest FTA in the world and seven of its members also participants in the CPTPP. The RCEP includes all 10 ASEAN members (Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand, and Vietnam), and five of the ASEAN+6 countries, namely China, Japan, South Korea, Australia, and New Zealand.

⁴⁴ The RCEP allows for the exclusion of sensitive goods and does not incorporate provisions on labour and environmental standards, which are present in the CPTPP. Nevertheless, the RCEP has more flexible rules of origin compared to the CPTPP.

Asian Development Bank (ADB) (2022b) *The Regional Comprehensive Economic Partnership Agreement: A New Paradigm in Asian Regional Cooperation?* Manila, Philippines: ADB.

<https://www.adb.org/sites/default/files/publication/792516/rcep-agreement-new-paradigm-asian-cooperation.pdf> (accessed on 8 January 2023).

Leblond P (2021) Governing cross-border data flows beyond trade agreements to support digital trade: Inspiration from international financial standards-setting bodies. In: I Borchert, LA Winters (eds) *Addressing Impediments to Digital Trade*. London, UK: Centre for Economic Policy Research.

⁴⁵ ADB (2022a); Corning (2023); Honey (2021); Leblond (2021).

Although the CPTPP has removed several provisions backed by the US in the original TPP regarding intellectual property rights and investment, it still involves commitments on labour and environmental standards and state-owned enterprises as well as stricter enforcement of transparency and competition laws (Honey, 2021; Leblond, 2021; ADB, 2022b). Digital regulations in CPTPP exempt government procurement and financial services, and exemptions are allowed when there is a legitimate public policy objective. The CPTPP restricts members from requiring access to source code as a condition for import, distribution, sale, or use of that software within their territory. It also requires country members to protect their privacy (Honey, 2021; Leblond, 2021). The CPTPP template on digital trade has been incorporated in US agreements like the US-Mexico-Canada Agreement (USMCA) and the US-Japan Digital Trade Agreement.

⁴⁶ ASEAN (2019) *ASEAN Agreement on E-Commerce*.

<https://agreement.asean.org/media/download/20190306035048.pdf>

⁴⁷ Yean, TS (2021) Digital Commitments in ASEAN's Free Trade Agreements. ISEAS Perspectives. number 163. Singapore: ISEAS – Yusof Ishak Institute.

ASEAN (2022) Joint Statement on the substantial conclusion of the ASEAN-Australia-New Zealand FTA upgrade negotiations <https://asean.org/wp-content/uploads/2022/11/04-Special-AEM-CER-Joint-Statement-Substantial-Conclusion-ADOPTED.pdf>

⁴⁸ Thailand has FTAs with India (implemented in 2004), Australia (2005), New Zealand (2005), Japan (2007), Peru (2011), and Chile (2015). The Thailand-China FTA (2003) was later subsumed into the China-ASEAN FTA. Thailand is a member of seven regional FTAs, the six ASEAN-centred FTAs and the RCEP, which are less comprehensive, and provide for slower liberalization than bilateral FTAs.

⁴⁹ Wunsch-Vincent, S (2008) Trade Rules for the Digital Age. In: M. Panizzon, N. Pohl and P. Sauvé (eds.), *GATS and the Regulation of International Trade in Services* (p. 497-529), Cambridge, England: Cambridge University Press.

Wunsch-Vincent S, Hold A. (2012)

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Foreign Affairs and Trade, New Zealand (2005) New Zealand-Thailand Closer Economic Partnership (NZTCEP) <https://www.mfat.govt.nz/assets/Trade-agreements/Thailand-NZ-CEP/thainzcep-agreement.pdf> (Last accessed January 15, 2023)

⁵⁰ Wunsch-Vincent S, Hold A. (2012); ADB (2022a); Corning (2023).

Unlike FTAs based on the US model, TAFTA and NZACEP do not employ a negative list approach or include provisions regarding the applicability of trade rules to digital service supply or non-discrimination for digital products.

⁵¹ A platform including 25 civil society organisations opposed the Thai membership to both the RCEP and the CPTPP because of their potential impact on food security, universal health care coverage, and biological diversity. For instance: <https://focusweb.org/statement-of-civil-society-in-thailand-on-rcep-negotiation-and-the-thai-governments-effort-in-joining-cptpp/> and Thai PBS World (2021, available at: <https://www.thaipbsworld.com/thai-civil-society-urges-government-to-end-plans-to-join-cptpp/>) (accessed on 8 January 2023)

⁵² United States Trade Representative (USTR) (2019) Agreement between the United States of America and Japan concerning digital trade.

https://ustr.gov/sites/default/files/files/agreements/japan/Agreement_between_the_United_States_and_Japan_concerning_Digital_Trade.pdf (accessed on 3 January 2023)

⁵³Ministry of Trade and Industry of Singapore (MTI-S) (2020). Digital Economy Partnership Agreement. <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/The-Digital-Economy-Partnership-Agreement>

Soprana M. (2021) The digital economy partnership agreement (DEPA): Assessing the significance of the new trade agreement on the block. *Trade L. & Dev.* 3:143.

Peters (2023).

⁵⁴ Nation, The (2022). Thailand and Singapore sign MoU on digital economy partnership; 23 May 2022 <https://www.nationthailand.com/international/40015859> (accessed on 5 January 2023).

Nation, The (2022). Thailand, Singapore discusses MoU for digital economy, enforcing PDPA, 6 June 2022 <https://www.nationthailand.com/business/40016364> (accessed on 5 January 2023).

⁵⁵ MTI-S (2020) Ramasubramanian, G (2020) Building on the modular design of DEPA.” East Asia Forum, www.eastasiaforum.org/2020/07/10/building-on-the-modular-design-of-depa/ (accessed on 15 May 2023); Bacchus, J (2021) *The Digital Decide: How to Agree on WTO Rules for Digital Trade*. Waterloo, ON: Centre for International Governance Innovation (CIGI).

<https://www.cigionline.org/static/documents/TheDigitalDecide-Bacchus.pdf> (accessed on 18 January 2023).

⁵⁶ Honey (2021); Leblond (2021); ADB (2022a); Peters (2022); Corning (2023).

⁵⁷ Narlikar A. (2022) How not to negotiate: the case of trade multilateralism. *International Affairs.* 98(5):1553-73.

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