

ASEAN DEFA:

ASEAN's offensive interest in digital services trade



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Executive summary

A SEAN economies have a strong offensive interest in digital services trade. This paper analyzes the regional economies' digital services exports and their importance for GDP growth, job creation, and regional firms' expansion. The main findings are as follows:

- **ASEAN economies have increased their digital services and goods exports significantly over the past decade**, with digital services exports expanding to \$269 billion or 50 percent of all commercial services exports in 2023, from 36 percent in 2009. Digital services exports make up a particularly large share of commercial services exports in the Philippines, Singapore, Indonesia, and Thailand.
- **ASEAN has risen to become the world's top-3 digital services exporter**. ASEAN digital services exports made up 6.1 percent of global digital services exports in 2023, up from 3.6 percent in 2009, making the ASEAN region a top-3 exporter of digitally deliverable services in the world only behind the United States and the UK, and right ahead of Germany and India. The integration of ASEAN region's digital services in regional and global value chains has also deepened.
- **ASEAN intra-regional market is critical for ASEAN digital services exporters and has enabled ASEAN economies that are newer to digital trade to grow their digital services exports**. In 2021, 13 percent of ASEAN digital services exports were destined to the intra-regional market while 14 percent were exported to Japan, 10 percent to the United States, and 7 percent to China. Intraregional digital services exports have grown especially rapidly for economies that have not traditionally been strong digital services exporters, such as Vietnam, Cambodia, Myanmar, and Thailand.
- **Digital services exports are an increasingly important part of ASEAN economic growth and job-creation**. Digital services exports were in 2023 about 7 percent of the ASEAN GDP, up from 4 percent in 2009. As the digital services sector continues to outpace services trade and economic growth, its importance will only expand. At current growth trajectories, digitally deliverable services exports could expand to 15.5 percent of ASEAN GDP in 2030. Digitally deliverable services employment tracks the share of digital services of GDPs. In the ASEAN digitally deliverable services sectors make up 7.9 million jobs, or 2 percent of all employment; Singapore, Brunei, and Philippines have the highest shares of workers in digitally deliverable services sectors.
- **ASEAN's strong expansion of digital services exports is due to a number of business and policy factors**, such as the rise of millions of regional digital service providers, scalable digital startups, vibrant tech ecosystems, investments from leading technology companies in the region, an enabling environment for digital services trade, and the regional economies' participation in digital trade and economy agreements.

- **ASEAN digital services exporters are highly export-driven and especially small firms rely on the intraregional market.** Some 87 percent of ASEAN micro and small and 95 percent of medium and large digital services providers export, and 27 percent of the micro and small and 45 percent of medium and large providers derive more than a quarter of their revenue from exports. The ASEAN market is especially important to micro and small digital services exporters, which use the intra-regional market as a springboard in which to grow and expand to other world markets.
- **ASEAN digital services exporters critically depend on imported services, highlighting the importance of permissive import policies for ASEAN digital service exporters' success.** ASEAN digital service providers' import intensity rises with their export intensity: firms that derive a large share of their revenues from exports also make extensive use of imports, while most non-exporters do not import. Policies that enable digital services imports are thus essential for digital services export growth.
- **Digital trade opportunities have helped promote, and been expanded by, the formation of some 26,000 disruptive digital services startups in the ASEAN region over the past decade, and the establishment of over a hundred offices by the world's top-30 technology companies in the region.** ASEAN digital services startups across such industries as software, financial services, data analytics, edtech and fintech, and many more, are highly scalable and can promote regional exports further.
- **The Digital Economy Framework Agreement (DEFA) opens one important opportunity to expand ASEAN digital services exports further, and cement the ASEAN region as exporters' power base.** By expanding ASEAN economic intra-regional trade in digital services by as much as 42 percent starting about 2026, the DEFA could amplify the role of digital services in ASEAN economies even further, to 16.3 percent of ASEAN GDPs and 13.1 percent of global digital services exports.
- **The adoption of pro-digital trade policies by the ASEAN economies is also fueling digital exports; bridging intra-regional disparities in the adoption of policies through the DEFA could promote digital services trade further.** A recent analysis by Nextrade Group for the USAID-backed eTrade Alliance of the adoption of 100 policies conducive to digital trade suggests that the more advanced ASEAN economies are well on the way in adopting pro-digital trade policies. The economies with the best adoption rates of good digital policies also have a high intensity of digital services exports in their economies. In economies such as Myanmar, Lao PDR, and Brunei, the DEFA could help accelerate the adoption of pro-digital trade policies in these economies.

1. Introduction

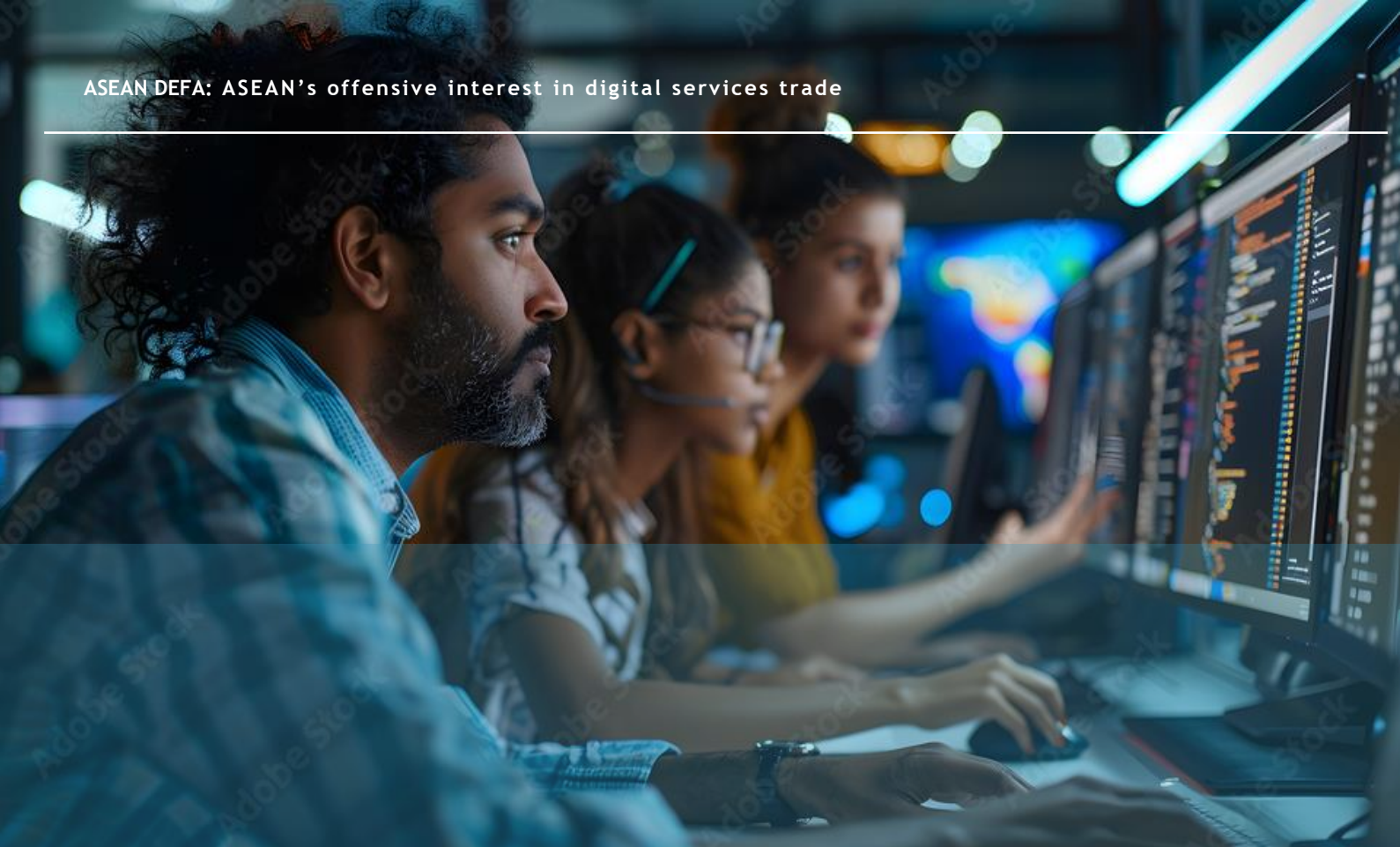
ASEAN economies have increased their digital services and goods exports significantly over the past few years, with digital services exports expanding to \$269 billion or 50 percent of all commercial services exports in 2023, from 36 percent in 2009. ASEAN has also expanded its share of global digitally deliverable services exports to 6.1 percent from 3.6 percent in 2009.

Also the regional digital services' share of in regional manufacturing and services value chains remains strong. Digital services trade has also expanded as share of ASEAN economies, rising to make up 7 percent of the region's GDP in 2023, from 4 percent in 2009. Malaysia, the Philippines, Singapore, and Thailand have experienced considerable growth in the share of digital services exports of their GDPs. The digital services make up nearly 8 million formal jobs in the region.

This strong expansion of digital services exports is due to a number of factors, such as the rise of thousands of regional digital service providers, startups, and fast-growing tech unicorns, investments from leading technology companies, and an enabling policy environment that is conducive to promoting digital services trade, and the regional economies' participation in digital trade and economy agreements.

There is however still much room to expand the current exports, the bulk of which is still driven by the Philippines, Singapore and Thailand. Intra-regional exports offer an important opportunity – they currently make up The currently negotiated Digital Economy Framework Agreement (DEFA) opens one important opportunity to expand these flows further.

This paper, one in a series on the DEFA, analyzes the regional economies' current direct and indirect digital services exports; the growing potential for digital services exports thanks to the expansion of the regional digital services providers; and the potential impacts of expanded digital services exports on job-creation, business growth, and business creation in the region. The paper makes a case for the economic gains from policies to expand ASEAN digital services exports, and develops a policy agenda for ASEAN economies to expand their digital services exports further, including through trade agreements like the DEFA.

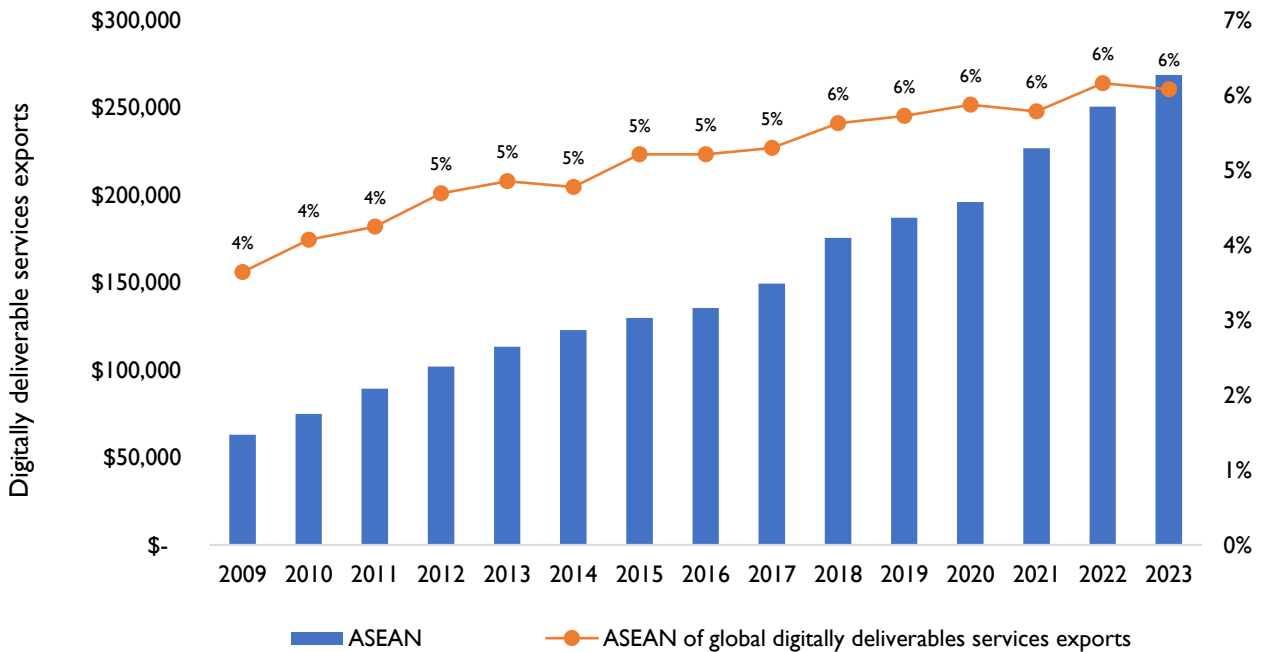


2. Expansion of ASEAN digital services and goods exports

ASEAN economies' digitally deliverable services exports have expanded rapidly over the past decade. The region's digitally deliverable services exports have more than tripled since 2009 to \$269 billion by 2023, rising to make up one-half of all commercial services exports (figures 1-2). Malaysia, the Philippines, Singapore, and Thailand have consistently been the largest contributors to the region's digital services exports; Vietnam, Singapore, Indonesia, and Cambodia, and the Philippines have scored the fastest growth rates.

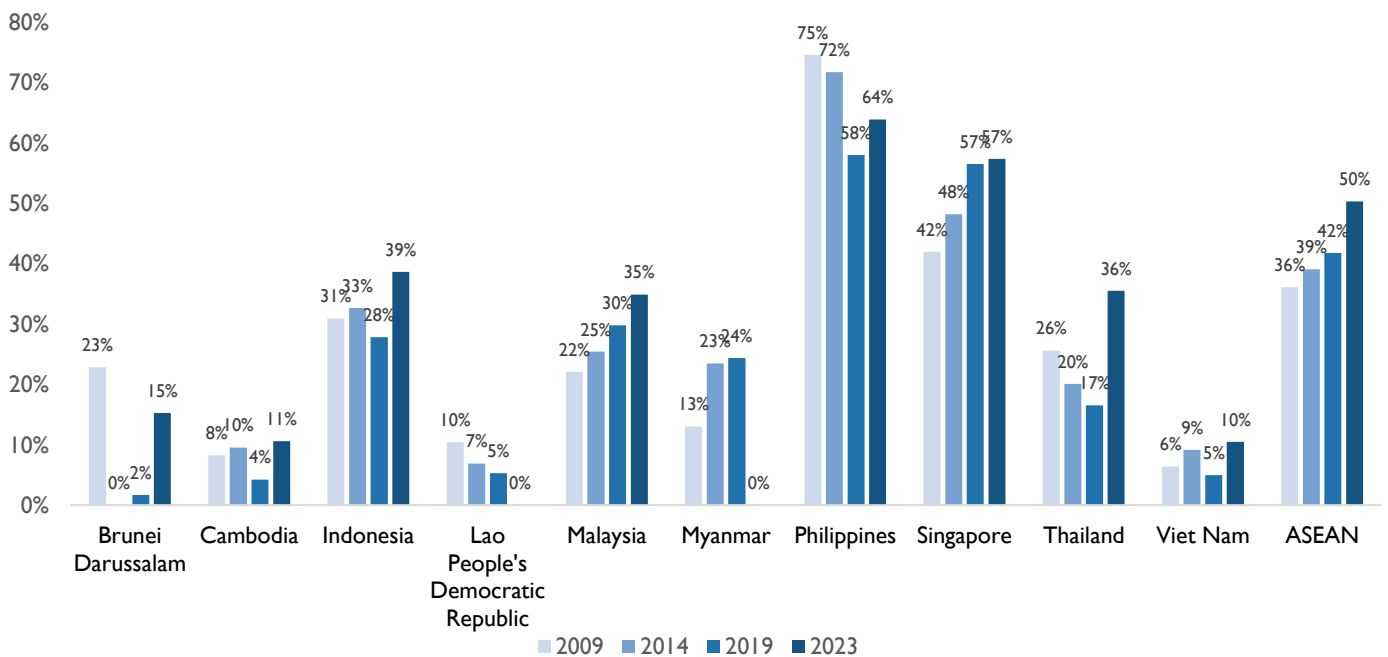
ASEAN has also become more relevant in global digital services exports. ASEAN digital services exports made up 6.1 percent of global digital services exports in 2023, up from 3.6 percent in 2009, making the ASEAN region a top-3 exporter of digitally deliverable services in the world only behind the United States and the UK (figure 3). ASEAN surpassed the third largest exporters, Germany, in 2022, and also remains slightly ahead of India.

Figure 1- ASEAN digitally deliverables services exports and as share of global digitally deliverable services exports in 2009-23 (in millions of USD)



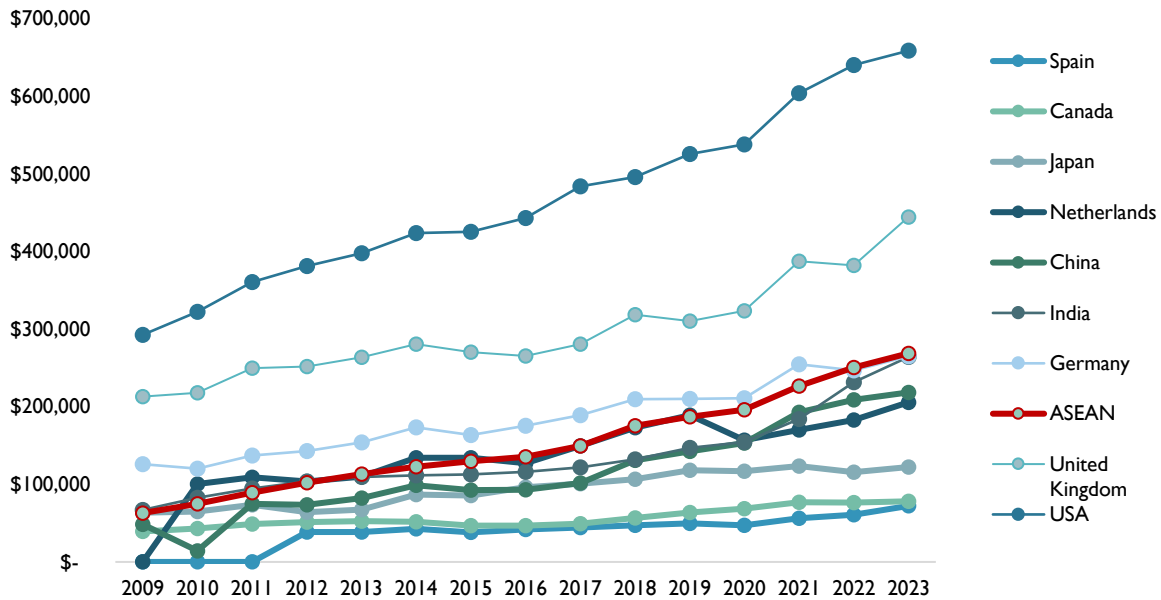
Source: Nextrade Group on the basis of WTO data.

Figure 2 - ASEAN digitally deliverables services exports as share of commercial services exports, 2009-23



Source: Nextrade Group on the basis of WTO data.

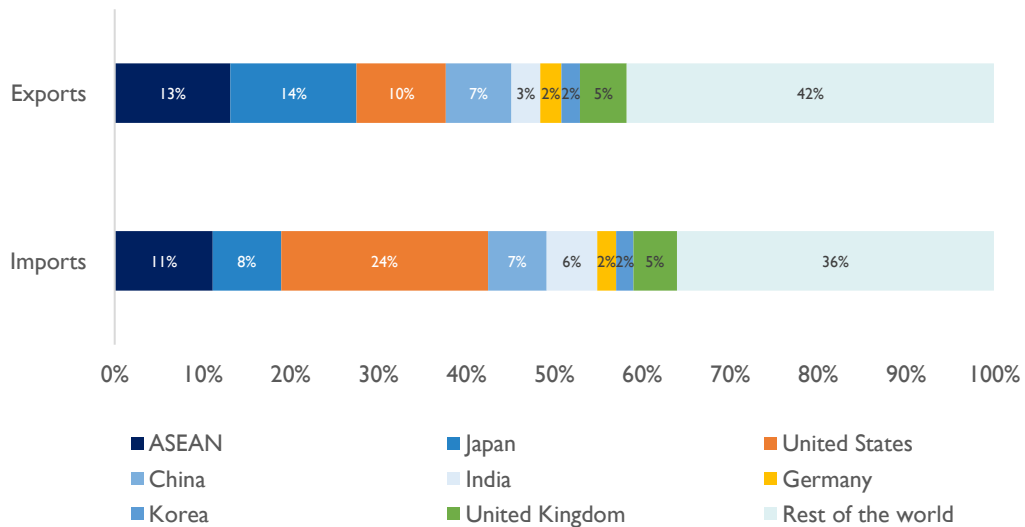
Figure 3 – World's top-10 digital services exporters in 2023 (in millions of USD)



Source: Nextrade Group on the basis of WTO data.

ASEAN intra-regional market is essential for ASEAN exporters of digitally deliverable services. In 2021, 13 percent of ASEAN digital services exports were destined to the intra-regional market while 14 were exported to Japan, 10 percent to the United States, and 7 percent to China (figure 4). The United States remains an important source of digitally deliverable services imports.

Figure 4 – Direction of ASEAN economies' digital services exports in 2021 (in billions USD)

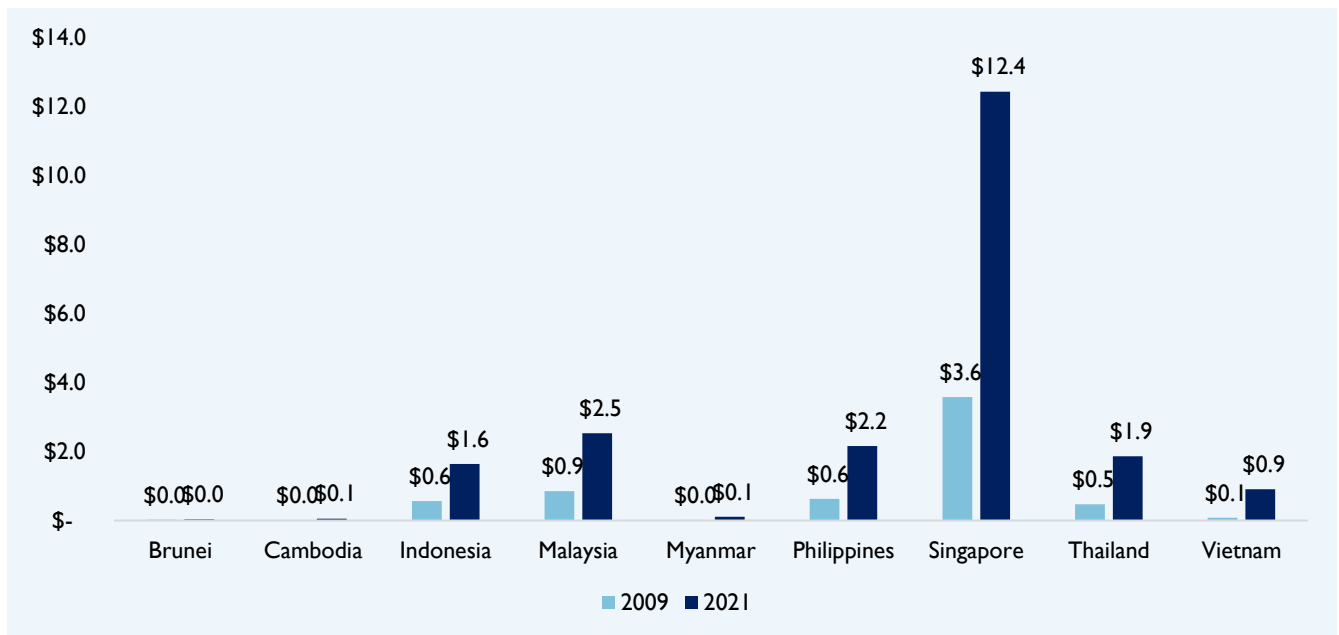


Source: Nextrade Group on the basis of the OECD Balanced trade in services (BaTIS) data.

Intra-regional exports of digitally deliverable services have grown rapidly at 20.8 percent per annum, from \$6.2 billion in 2024 to \$21.7 billion in 2021, the latest data for which bilateral data are available, to make up a tenth of the region's digital services exports that year. The bilateral flows in the region are centered on exports from Singapore to Indonesia, Malaysia, and Thailand, and from Malaysia, Philippines, and Thailand to Singapore (table 1).

Intraregional exports have grown especially fast for Vietnam (88 percent average annual growth in 2009-21), Cambodia (55 percent), Myanmar (41 percent), and Thailand (25 percent) (figure 4). In other words, ASEAN economies that have not traditionally been strong digital services exporters have been catching up with the traditional leaders Singapore and Philippines. The integration of ASEAN region's digital services in regional and global value chains has also deepened, especially with other emerging economies.

Figure 5 – ASEAN economies' intra-regional digital services exports in 2009 and 2021 (in billions USD)



Source: Nexttrade Group on the basis of the OECD Balanced trade in services (BaTIS) data.

Table 1 – Bilateral digital services trade in the ASEAN, 2021

		<i>Importers</i>								
		Brunei	Cambodia	Indonesia	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam
<i>Exporters</i>	Brunei		\$0.0	\$1.6	\$20.2	\$0.1	\$0.2	\$12.1	\$0.4	\$0.1
	Cambodia	\$0.1		\$1.4	\$3.6	\$0.0	\$0.5	\$45.0	\$4.9	\$1.5
	Indonesia	\$11.5	\$3.0		\$226.7	\$5.9	\$59.7	\$1,140.6	\$153.8	\$42.3
	Malaysia	\$44.1	\$8.2	\$209.0		\$6.4	\$89.1	\$1,739.0	\$304.0	\$35.3
	Myanmar	\$1.1	\$0.8	\$8.0	\$5.6		\$2.4	\$62.1	\$22.8	\$1.3
	Philippines	\$30.2	\$5.9	\$186.0	\$147.4	\$7.4		\$1,362.7	\$321.5	\$93.5
	Singapore	\$237.9	\$118.9	\$3,565.5	\$3,764.0	\$82.0	\$1,364.5		\$2,184.6	\$1,087.9
	Thailand	\$6.8	\$7.6	\$206.8	\$271.9	\$17.6	\$86.3	\$1,188.8		\$73.1
	Vietnam	\$2.1	\$4.0	\$64.0	\$75.4	\$4.2	\$30.2	\$619.1	\$106.9	

Source: Nextrade Group on the basis of the OECD Balanced trade in services (BaTIS) data.



3. Importance of digital services exports to ASEAN economies and employment

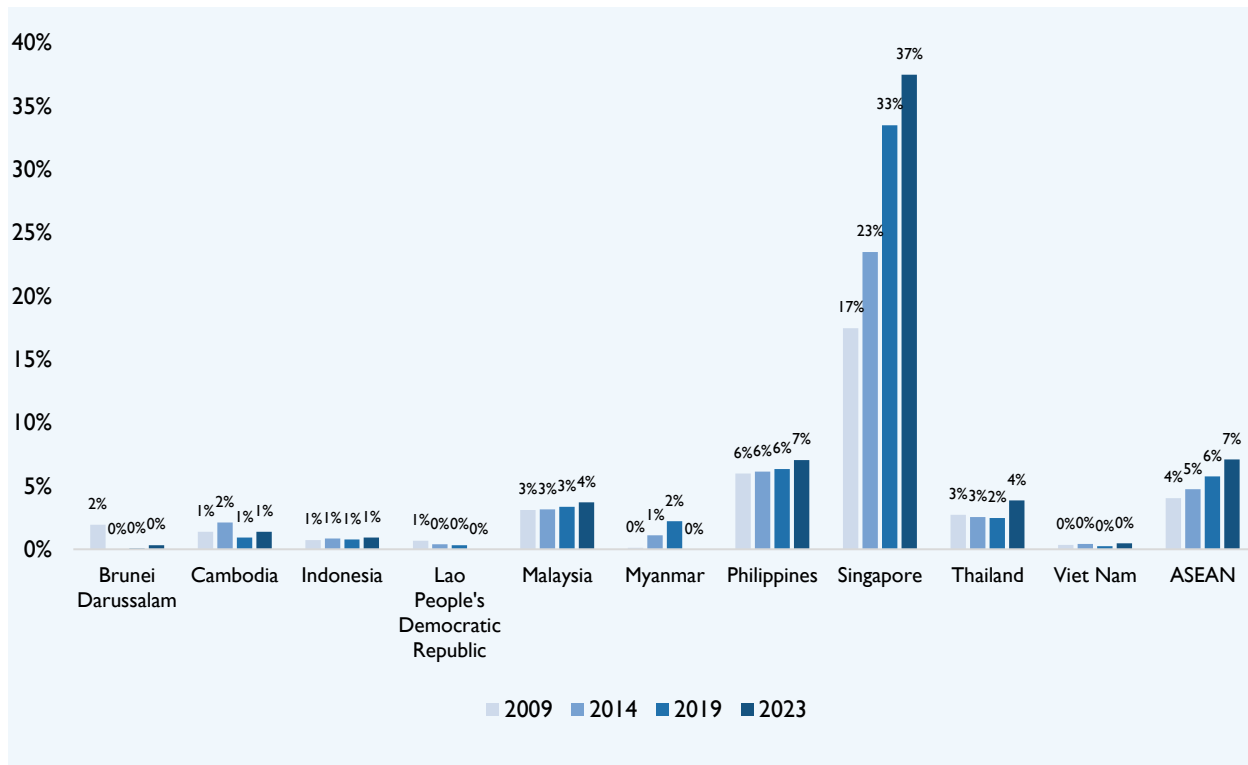
Digital services exports are not only a source of export revenue; they can promote export growth and diversification and increase exports' value-added. For example, in a study on Thailand, the IMF finds that digitalization (ICT, patents, robots) are positively related with export sophistication. The presence of sophisticated digital services exporters in an economy can also promote the integration of advanced IT services into traditional industries can lead to the development of smart manufacturing techniques, improved supply chain management, and more efficient business processes, and promote trade in goods. As the digital economy grows, there is a rising demand for ancillary services such as cybersecurity, cloud computing, and data analytics, further expanding employment opportunities.

Digital services exports can also promote economic growth and well-paying jobs. There are some recent studies on the impact of digital trade on economic and income growth. For example, Mulenga and Mayondi (2022) find that a 1 percent increase in digital service exports increases per capita GDP by 0.88 percent, 0.78 percent and 0.34 percent in developed, emerging and developing countries respectively. Saleem et al. (2021) studying Jordan, found a positive relationship between digital trade and economic growth.

In the ASEAN, the economic importance of digital services exports is expanding. Digital services exports were in 2023 about 7 percent of the region's GDP, up from 4 percent in 2009 (figure 9). Singapore's digital services exports have expanded especially remarkably, from 18 percent of GDP in 2009 to 38 percent in 2023, highlighting Singapore's position as a digital services hub. The importance of digital services exports has also expanded in Thailand and Malaysia's economies. Digital services exports are still limited but rapidly growing in Indonesia, Cambodia, and Vietnam's economies.

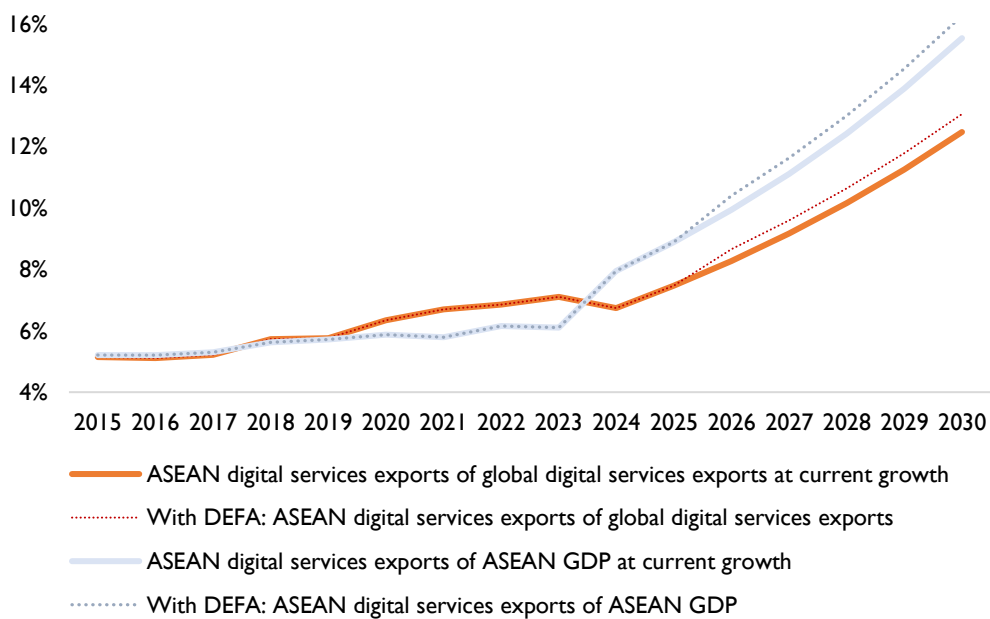
As the digital services sector continues to outpace services trade and economic growth, its importance will only expand with the natural growth trajectories, digitally deliverable services exports could expand to 15.5 percent of ASEAN GDPs in 2030 and to 12.5 percent of global digital services exports (figure 10). By expanding ASEAN economic intra-regional trade in digital services by as much as 42 percent starting about 2026, the DEFA could amplify the role of digital services in ASEAN economies even further, to 16.3 percent of GDPs and 13.1 percent of global digital services exports.

Figure 9 - ASEAN digitally deliverables services exports as share of national GDPs, 2009, 2014, 2019, 2023



Source: Nextrade Group on the basis of WTO data and World Development Indicators.

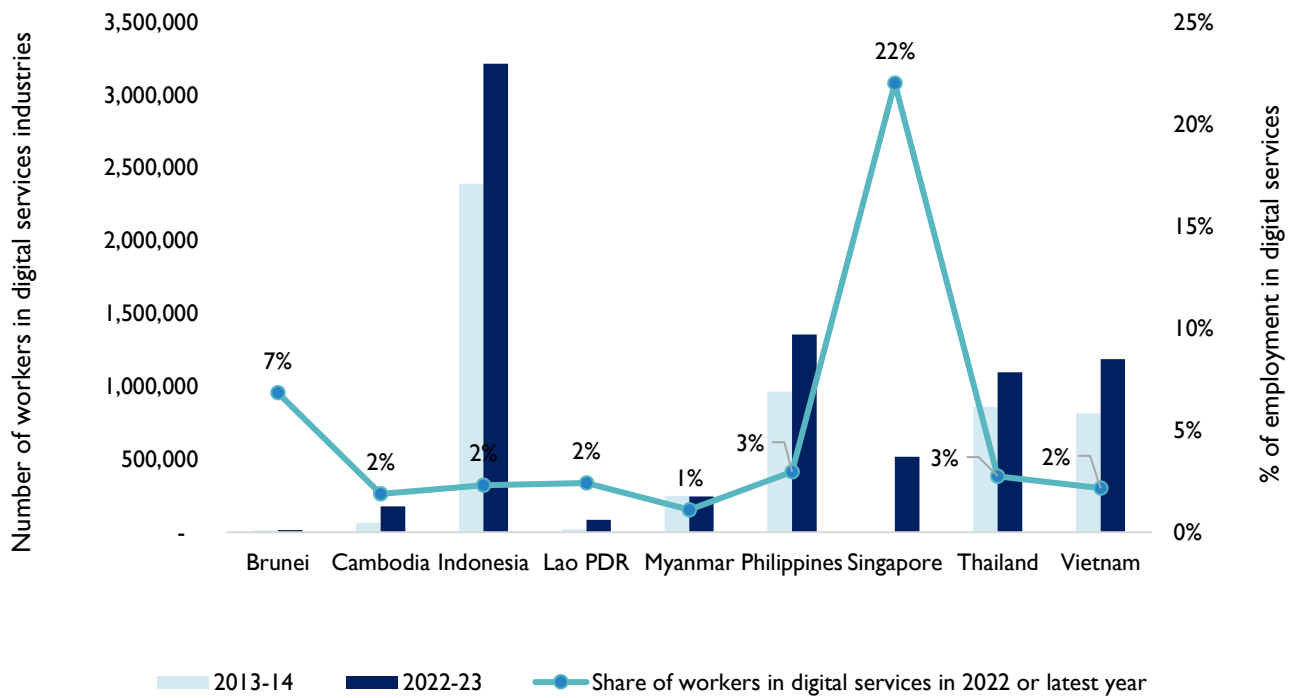
Figure 10 - ASEAN digitally deliverables services exports as share of national GDPs current growth and under DEFA



Source: Nextrade Group estimates on the basis of WTO data and World Development Indicators.

Digitally deliverable services employment tracks the share of digital services of GDPs. In the ASEAN digitally deliverable services sectors make up 7.9 million jobs, or 2 percent of all employment (figure 11).¹ Singapore, Brunei, and Philippines have the highest shares of workers in digitally deliverable services sectors.

Figure 11 – Share of domestic employment in digitally deliverable services sectors in the ASEAN, 2013-2023



Source: Nextrade Group on the basis of International Labor Organization (ILO).

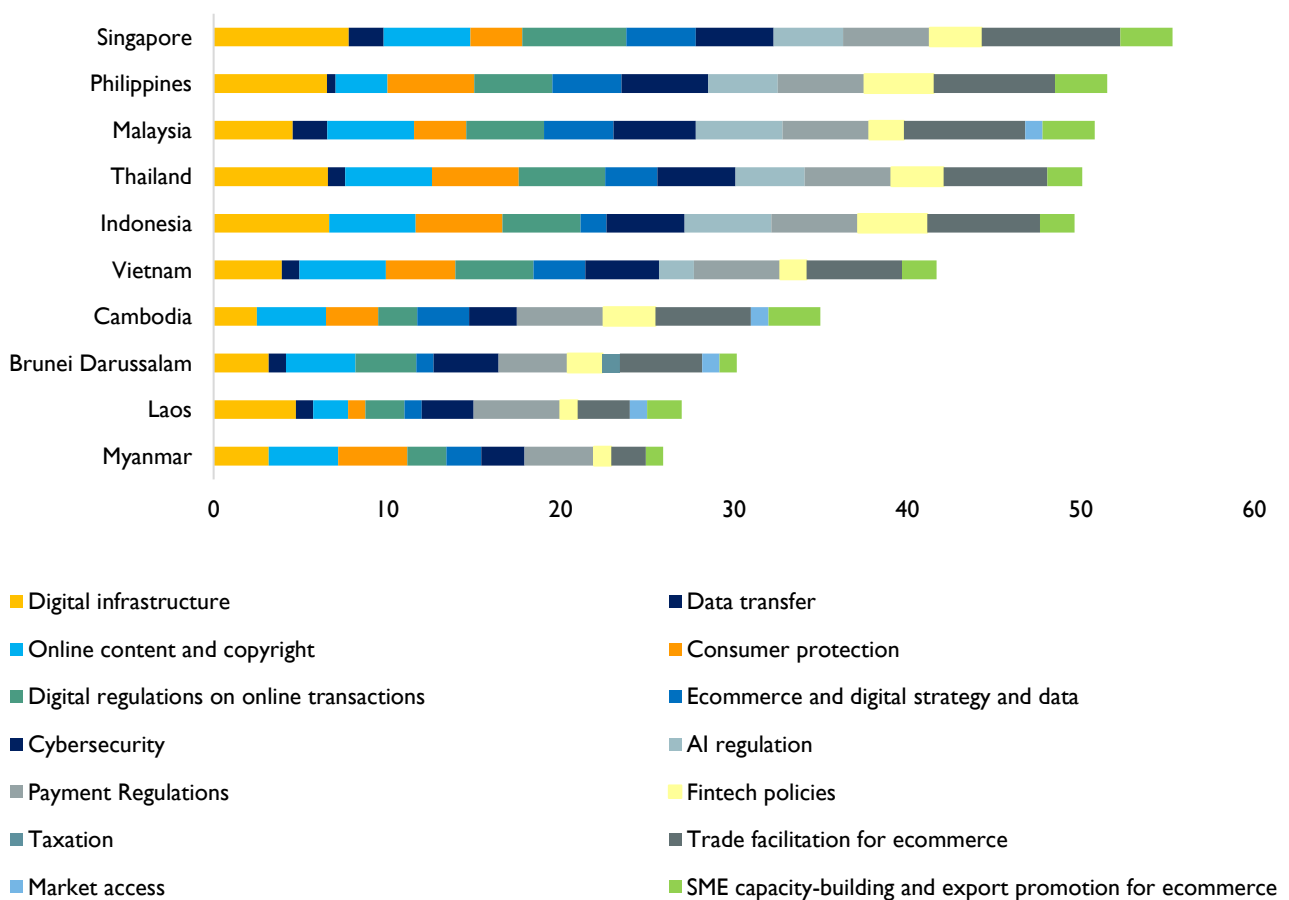
4. Policy and business drivers of ASEAN digital services exports

Behind ASEAN digital service exports are various variables, such as investment in digital infrastructure, human capital, and innovation – and conducive policy environments and businesses that produce digital services.

a. ASEAN pro-digital trade digital policies

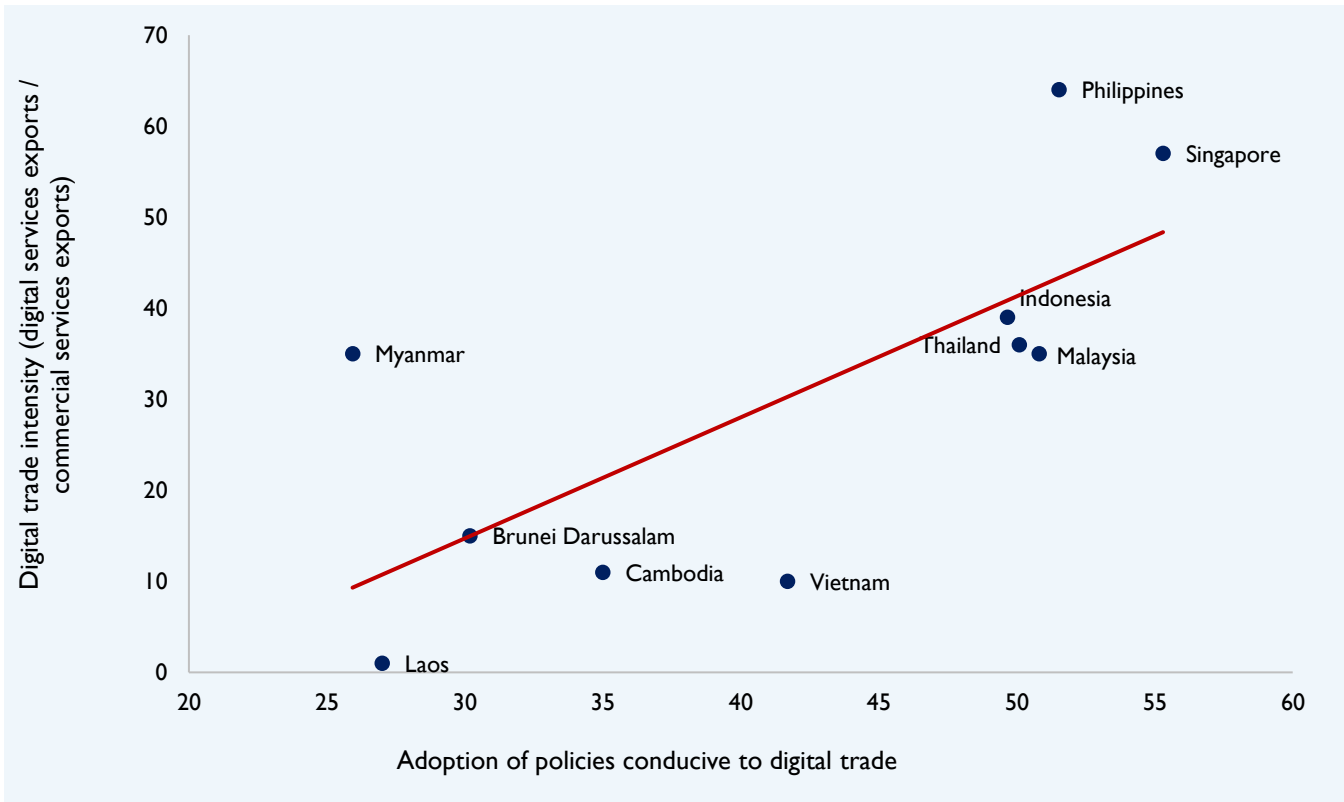
One driver of ASEAN digital services exports is the adoption of pro-digital trade policies by the ASEAN economies. A recent analysis by Nextrade Group for the USAID-backed eTrade Alliance of the adoption of 75 policies conducive to digital trade in 14 main policy areas in the ASEAN and 50 other economies suggest that the more advanced ASEAN economies are well on the way in adopting pro-digital trade policies, but that several economies such as Myanmar, Lao, PDR, and Brunei still lag behind (figure 12). Singapore is a global benchmark with similar scores as the UK and Japan, for example. The economies with the best adoption rates of good digital policies also have a high intensity of digital services exports in their economies (figure 13).

Figure 12 – ASEAN economies' adoption of policies conducive to digital trade (max. 75)



Source: Nextrade Group for the U.S. Agency for International Development and Alliance for eTrade Development in 2024.

Figure 13 – ASEAN economies’ adoption of policies conducive to digital trade in 2024 and digital trade intensity

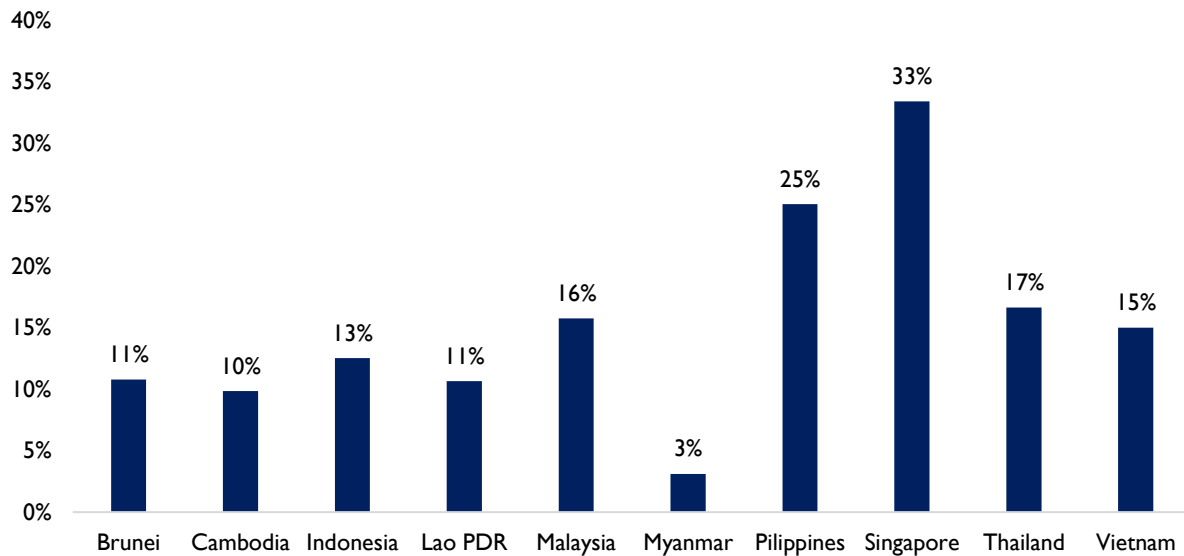


Source: Nextrade Group for the U.S. Agency for International Development and Alliance for eTrade Development in 2024.

b. ASEAN SMEs and startups

Behind the digital services exports are thousands of ASEAN firms. Some 18 percent of ASEAN firms are in digital services sectors – information and communication, financial and insurance activities, and real estate, renting and business activities (figure 14). Singapore has the highest share, 33 percent; in 2023, 42 percent of Singaporean companies that were newly formed were in information and communication, financial, or professional services. There are many storied examples of large raises by such leading digital service providers as superapp Grab, ride hailing platform Gojek, Vietnam’s VNG corporation, and many others (cases 1-3).

Figure 14 – Share of ASEAN firms that are in digital services industries in 2022²



Source: Nextrade Group on the basis of the ASEAN Statistical Yearbook 2023.

Case 1: Ruangguru (Indonesia)³

Founded in 2014 by Iman Usman and Adamas Belva Syah Devara, Ruangguru began as an online marketplace in Indonesia connecting students with private tutors. Ruangguru initially focused on offering a platform for students to find and book tutoring sessions. However, it quickly expanded its services to include a broad range of educational products, such as video-based courses, learning management systems (LMS) for schools, and exam preparation tools. The company has developed various educational apps, including Ruangguru, Ruangbelajar, and Ruangkelas, catering to students from elementary to high school levels. Ruangguru also offers corporate training solutions under the brand Skill Academy, targeting professional development and upskilling for adult learners.

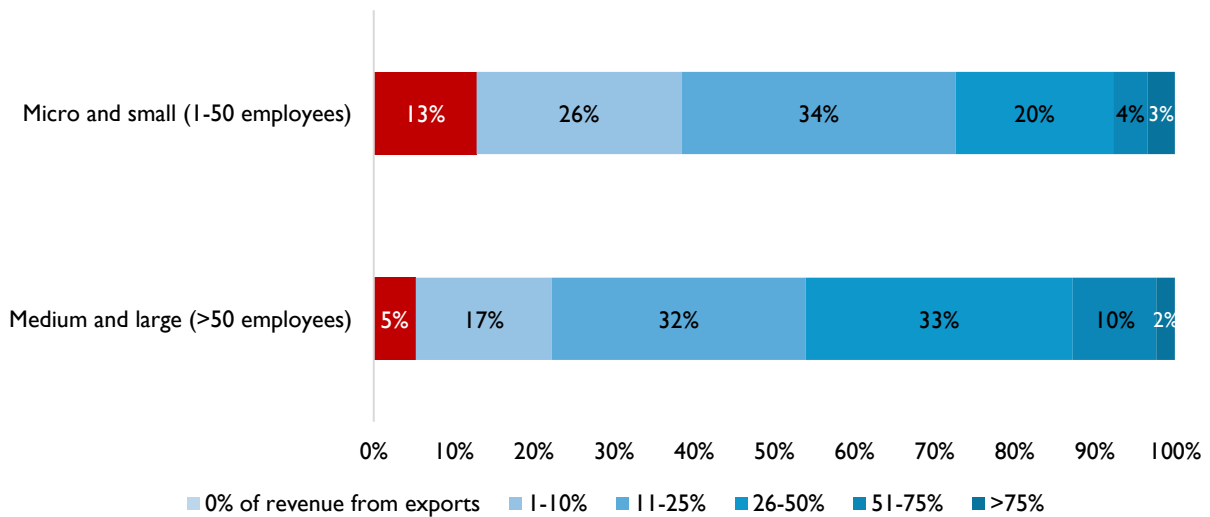
The platform's success in Indonesia encouraged Ruangguru to expand its services to the Vietnamese market under the brand name Kien Guru, offering similar online educational services to Vietnamese students. The company has also expanded its services to Thailand, marking its growing influence in the ASEAN region. Ruangguru has helped promote digital services trade within ASEAN through its edtech platform. By offering its services in multiple languages and adapting its content to different national curriculums, Ruangguru has effectively exported its digital education services across borders. The platform enables cross-border knowledge transfer, providing students across the ASEAN countries with access to high-quality educational resources. This not only enhances educational outcomes in these countries but also fosters greater regional integration through shared learning experiences and standardized educational content.

What share of these firms export digital services? Recent Nextrade Group survey data on 800 ASEAN firms suggests that digital services firms are highly export-driven: of micro and small enterprises, 61 percent report deriving more than 10 percent their revenues from exports and 27 percent derive more than a quarter of their revenues from exports (figure 15). Of medium and large firms, 46 percent derive more than a quarter of here revenues from exports.

For micro and small digital services exporters, the ASEAN market is the second most important export market after the United States. Some 31 percent of micro and small firms report exporting to other Southeast Asian markets, a higher share than export to Japan, China, for example (figure 16). This suggest that micro and small firms use the ASEAN market as a springboard in which to grow and expand to other world markets. Some 38 percent of ASEAN regions' medium and large firms also export to the ASEAN region, but similar shares also export to the United States, China, and Japan.

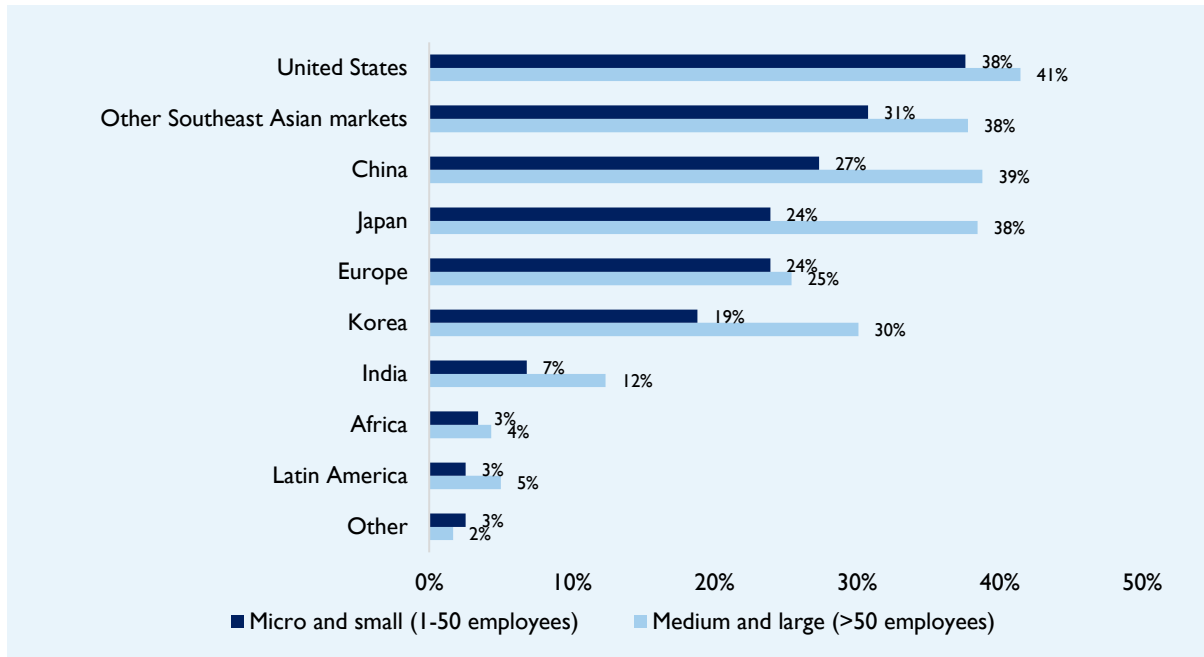
An important observation in the data is that most ASEAN digital services exporters are also importers of digital products and services. Especially digital services firms that derive more than half of their revenues from exports also import – almost 40 percent report that imports make up over a half of their total purchases, and three-quarters report imports making over a quarter of their purchases (figure 17). Meanwhile, most non-exporters do not import. Thus imports are critical to ASEAN region's digital services exporters' success and participation in regional and global digital value chains.

Figure 15 – Share of exporters of digital services of all digital services firms, by firm size



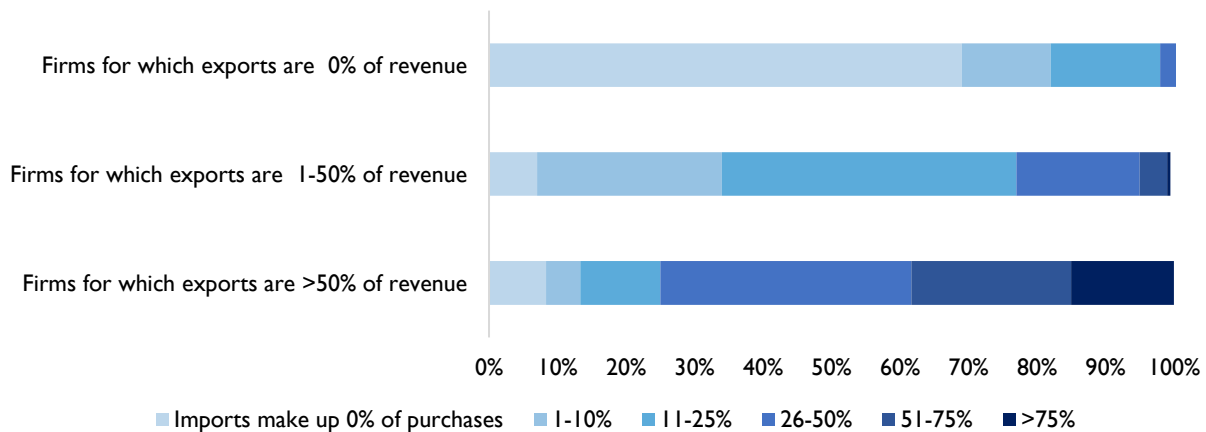
Source: Nextrade Group survey with 800 ASEAN region firms, 5-7 August 2024.

Figure 16 – ASEAN digital service providers' main export markets, by firm size



Source: Nextrade Group survey with 800 ASEAN region firms, 5-7 August 2024.

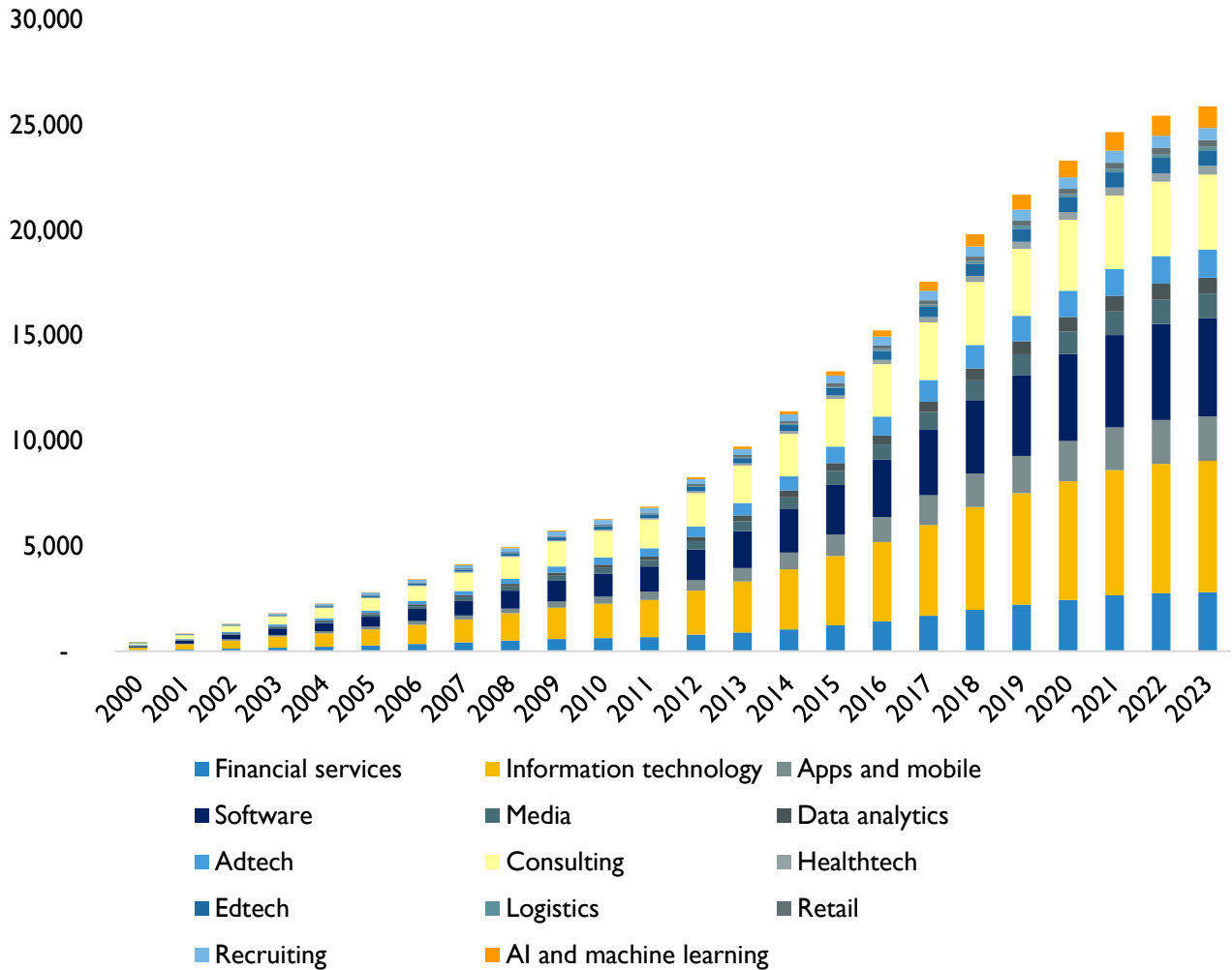
Figure 17 – Share of exporters of digital services producers that import, by export intensity



Source: Nextrade Group survey with 800 ASEAN region firms, 5-7 August 2024.

While many ASEAN digital services exporters may be professional services, engineering, and other more traditional firms, there are also in the region a rapidly growing set of disruptive startups that provide sophisticated digital services, arguably thanks to the expanding digital trade opportunities.⁴ These firms are formed across such industries as software, financial services, data analytics, edtech and fintech, and many more, and are highly scalable and can promote regional exports further. While national census data on these types of firms is limited, private databases such as Crunchbase indicate that the number of startups in ASEAN digital services industries has more than doubled in the past decade to about 25,900 firms in 2023 (figure 18). There are particular tech startups hubs with largest funding rounds in Singapore, Malaysia, and Indonesia.

Figure 18 - Cumulative number of firms in ASEAN digital services startup ecosystem, 2000-2023



Source: Nextrade Group on the basis of Crunchbase.

These many digital services startups have received also significant financing rounds, with a fifth of those for which fundraising data is available receiving more than \$10 million. Singapore, Indonesia, and Vietnam have the highest shares of firms with larger raises (figure 19).

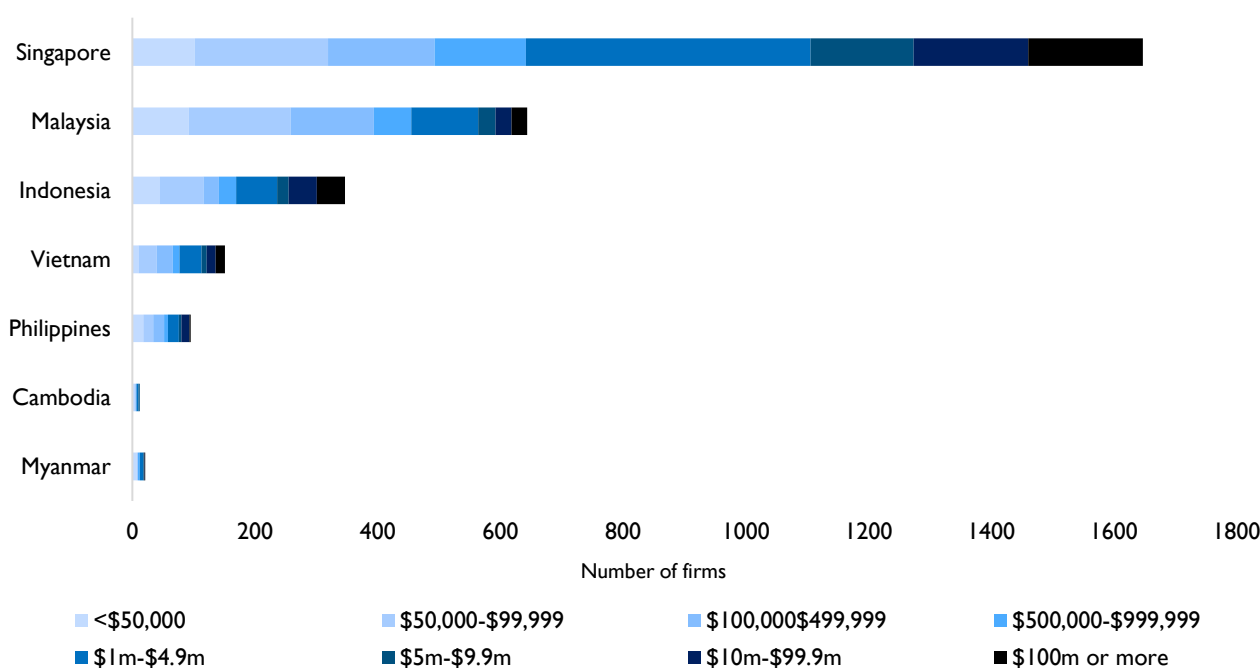
Case Study 2: Grab (Singapore)⁵

Founded in 2012 by Anthony Tan and Tan Hooi Ling, Grab began as a taxi-hailing app in Malaysia under the name MyTeksi. Recognizing the potential for growth in the broader Southeast Asian market, the company quickly moved its headquarters to Singapore. Grab aimed to revolutionize the region's fragmented and inefficient taxi industry by providing a user-friendly platform for booking rides via smartphones.

Grab soon diversified into other on-demand services such as food delivery (GrabFood), parcel delivery (GrabExpress), and digital payments (GrabPay). These expansions were supported by key acquisitions, including the notable acquisition of Uber's Southeast Asian operations in 2018, which significantly boosted Grab's market share and solidified its dominance across the region. Today, Grab operates in eight ASEAN countries, including Singapore, Malaysia, Indonesia, Thailand, Vietnam, Myanmar, the Philippines, and Cambodia.

Grab has made substantial contributions to the digital services trade in ASEAN by creating a cross-border platform that facilitates transactions and service delivery across the region. GrabPay, its digital wallet service, enables seamless financial transactions between consumers and businesses in different countries, promoting digital commerce. Moreover, by partnering with local businesses and integrating them into its platform, Grab has empowered small and medium-sized enterprises (SMEs) to expand their reach beyond their domestic markets, thus boosting intra-ASEAN trade.

Figure 19 – Number of digital services startups by the latest funding round



Source: Nextrade Group on the basis of Crunchbase.

Case Study 3: VNG Corporation (Vietnam)⁶

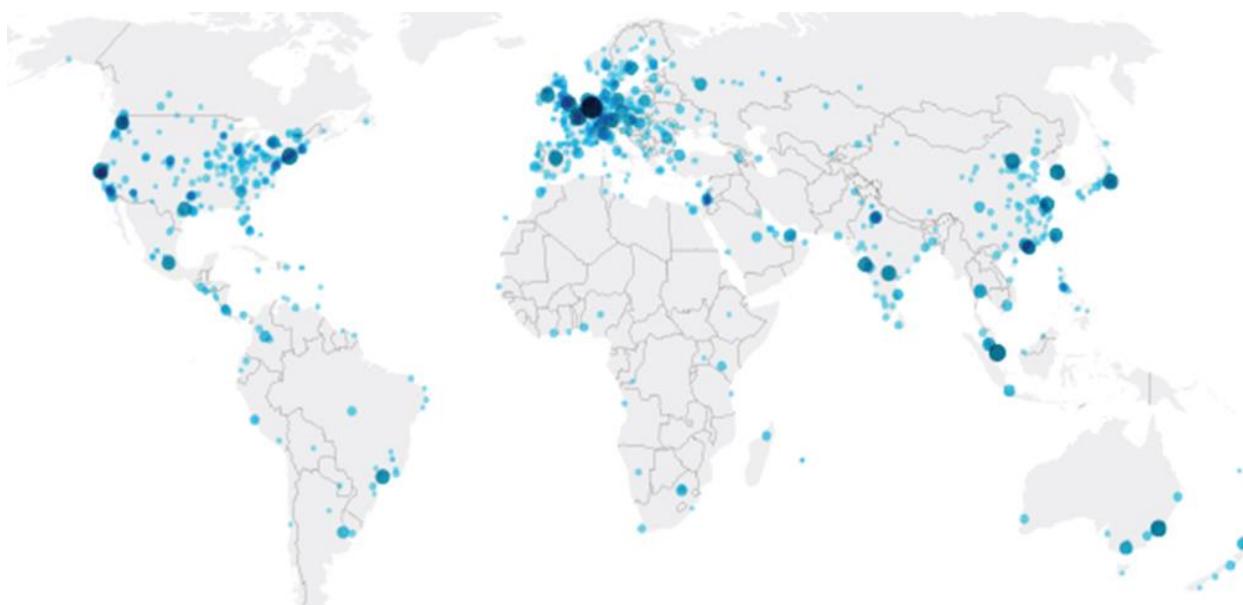
VNG Corporation, founded in 2004 as VinaGame by Le Hong Minh, started as a gaming company in Vietnam. The company quickly expanded its offerings to include digital content, social networking, and e-commerce. Rebranding as VNG Corporation in 2011, the company has since become a leading tech firm in Vietnam, offering a wide range of digital services, including Zalo (a popular messaging app) and Zing MP3 (a music streaming service).

VNG has also expanded its services internationally, particularly in the Southeast Asian market, where Zalo has gained popularity in countries like Myanmar and Laos. It has contributed to the growth of digital services trade in ASEAN by offering platforms that connect users across borders, particularly through Zalo and its gaming services. The company's expansion into other ASEAN markets has facilitated the flow of digital services and content within the region, contributing to the integration of the ASEAN digital economy.

c. Foreign digital services providers in the ASEAN

Granted, also contributing to the region's digital services exports are global technology companies that have established offices in these cities to service the increasingly vibrant local digital ecosystem and leverage talent to export (figure 20). Of the 3,126 office locations of the top-30 global technology companies around the world, ASEAN is home to 107 offices or 5 percent of the global total, with major hubs in Singapore, Bangkok, Kuala Lumpur, and Jakarta (table 2).

Figure 20 – Office locations of the world's top-30 global technology companies



Source: Nextrade Group on the basis of the companies' websites.

5. Role of DEFA in promoting digital services trade

ASEAN has risen to the world's top-3 digital services exporter and into an important source of digital services value-added in global supply chains. Given their millions of digital services exporters, startups and multinational tech companies, ASEAN economies has a strong offensive interest in digital services exports.

The ASEAN Digital Economy Framework Agreement (DEFA) opens one important opportunity to expand ASEAN digital services exports further, and cement the region as a power base for ASEAN firms. DEFA could amplify the role of digital services in ASEAN economies even further, to 16.3 percent of ASEAN GDPs and 13.1 percent of global digital services exports by 2030. The DEFA could also accelerate the adoption of pro-digital trade policies by the ASEAN economies and cement the region as an export market for ASEAN firms.

What then should DEFA's priorities be? There are two ways to answers.

First, DEFA should align with the many agreements that have adopted gold-standard digital trade provisions (table 1). The 2018 Comprehensive and Progressive Agreement for Trans-Pacific Partnership (CPTPP) pioneered such rules and these have since become incorporated into multiple digital trade agreements.

These rules require parties to enable cross-border data flows, ban localization of computing facilities, protect member country firms' source code, impose a moratorium on customs duties on electronic transmissions, adopt consumer protection and data privacy laws, promote cybersecurity protections and cooperation, among other provisions. The CPTPP template is incorporate nearly word for word in several agreements since, including in the Asia-Pacific and the U.S.-Mexico-Canada Agreement (USMCA). This is unsurprising given that these agreements are also formed mostly by CPTPP members – which would clearly want to apply similar rules across their various digital trade agreements.

The Digital Economic Partnership Agreement (DEPA) of 2020 between Singapore, New Zealand, and Chile goes beyond the CPTPP in calling for parties to work on interoperable digital identities, electronic invoicing, electronic payments, and cooperation in such areas as AI governance and digital inclusion

Convergence to this global digital trade policy template is one reason for ASEAN to incorporate the CPTPP's core provisions into the DEFA.

Table 1 – Selected Digital Trade Provisions in Leading Trade Agreements with CPTPP Members

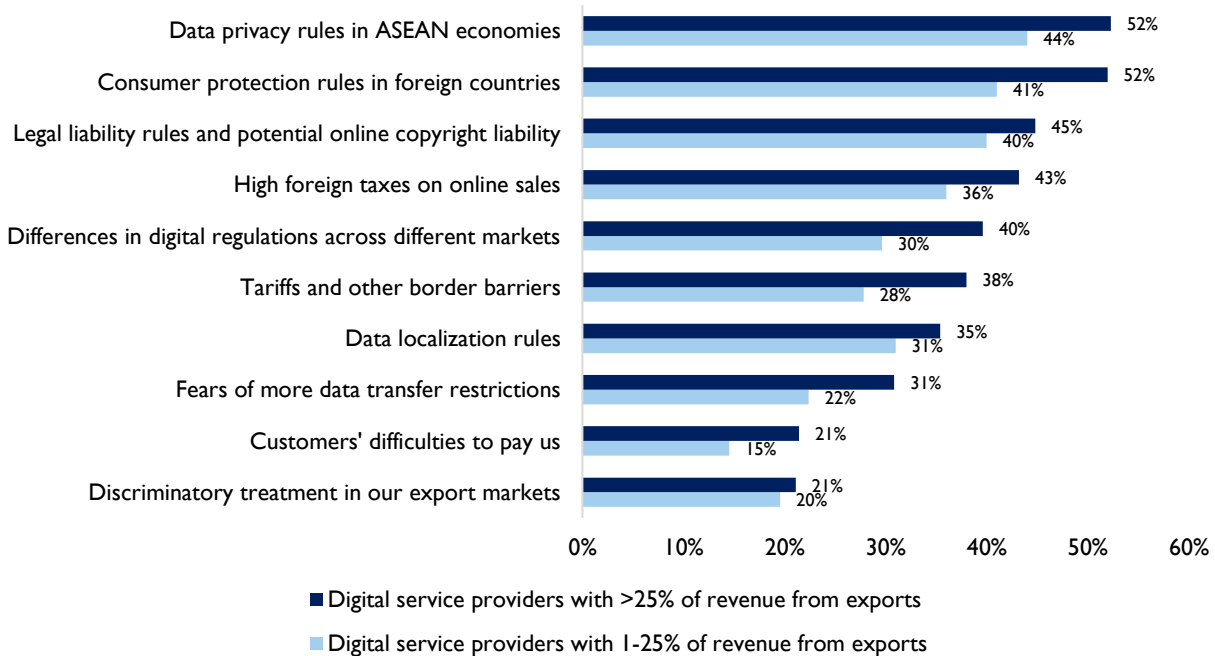
Provision	Korea-U.S. FTA (2011)	CPTPP (2018)	Chile-Uruguay FTA (2018)	USMCA (2019)	U.S.-Japan DTA (2020)	RCEP (2020)	DEPA (2020)	SADEA (2020)	UK-Australia FTA (2021)	UK-New Zealand FTA (2022)	UK-Singapore Digital Economy Agreement (2022)	Korea-Singapore Digital Partnership Agreement (2021)
Moratorium on customs duties on electronic transmissions and digital products	●	●	●	●	●	○	●	●	●	●	●	●
Non-discriminatory treatment for digital products	●	●	●	●	●		●	●	●	●		●
Ban on data localization (localizing “computing facilities” such as servers)		●	●	●	●	○	●	●	●	●	●	●
Free cross-border transfer of data of personal information	○	●	●	●	●	○	●	●	●	●	○	●
Protect consumers' personal information		●	●	●	●	○	●	●	●	●	●	●
Consumer protection laws preventing deceptive commercial activities	○	●	●	●	●	○	●	●	●	●	●	●
Measures against spam or unsolicited messages		●	●	●	●	○	●	●	●	●	●	●
Prohibit forced transfer of source code as a condition for market access		●	●	●	●			●	●		●	●
Collaboration on cybersecurity management		●	●	●	●	○	●	●	○	●	●	●
Safe harbor for internet intermediaries				●	●							
Open government data				●	●		●	○	○	○	○	○
Interoperable electronic invoicing							○	○	○	○	○	○
Interoperable electronic payments system							○	○	○	○	○	○
Interoperable digital identities							○	○	○	○	○	○
Cooperation in fintech sector							○	○	○	○	○	○
AI governance							○	○	○	○	○	○
Data innovation									○		○	○
Digital innovation and emerging technologies										○	○	
Logistics best practices											○	○
Standards and technical regulations											●	●
Open internet access to consumers											●	●
Cooperation on digital inclusion							●	●	●	●		

Binding
 Best endeavor
 Non-binding

Source: Suominen 2022.

Second, the DEFA's contents should also be based on ASEAN firms' priorities. In a survey of 800 ASEAN digital services providers, some of the key challenges to export to the ASEAN market include complex data privacy and consumer protection rules, legal liability and data transfer rules, and taxes on online sales (figure 21).

Figure 21 - Challenges identified by ASEAN digital service providers to exporting in the ASEAN, by firms' export intensity

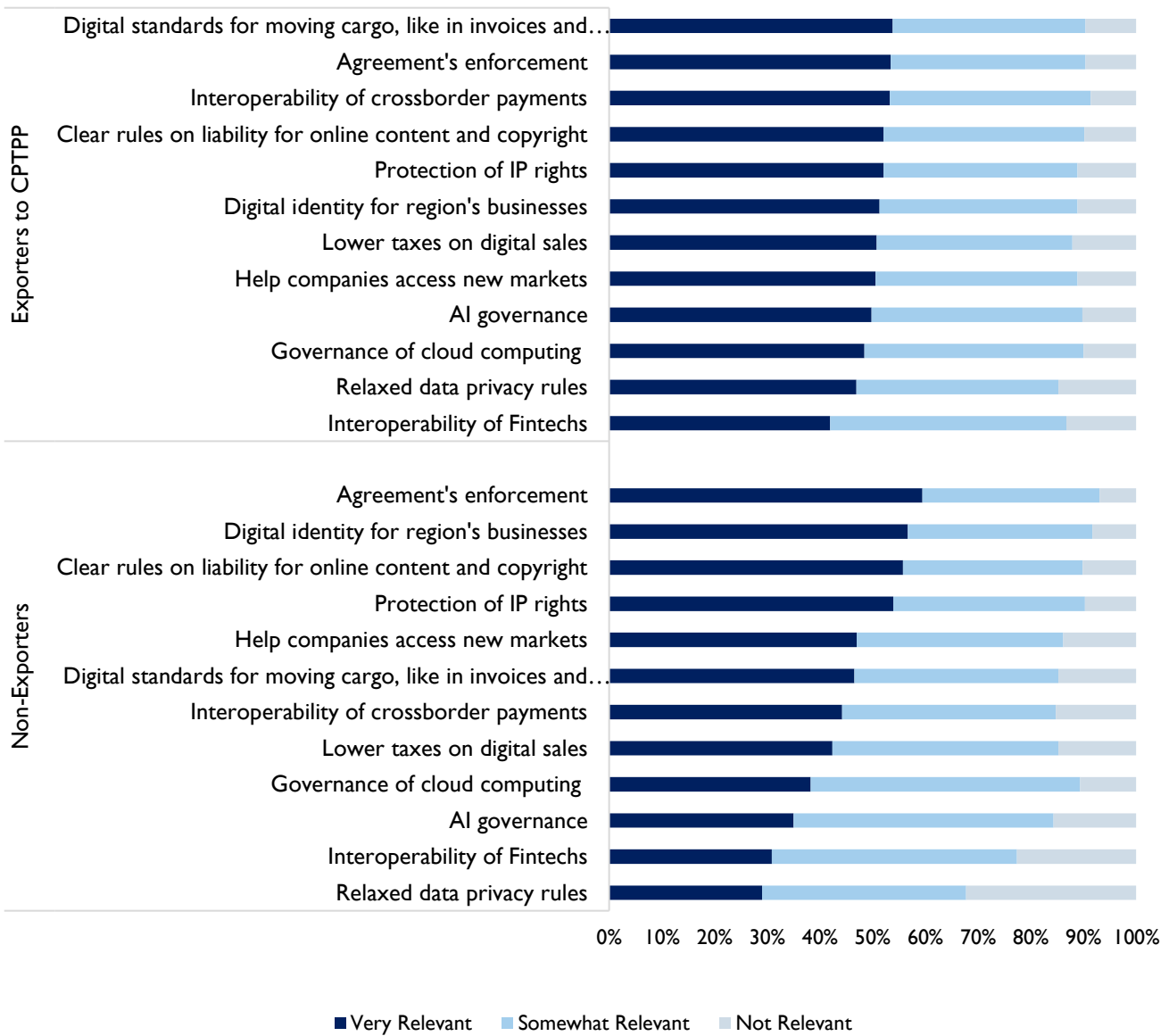


Source: Nextrade Group survey with 800 ASEAN region firms, 5-7 August 2024.

These issues concern especially firms that derive a large share of their revenue from exports – and are ones that DEFA can help solve. Indeed, asked about how the CPTPP e-commerce chapter could be expanded, over 50 percent of the exporters and non-exporters surveyed in July 2023 found it “very relevant” for the CPTPP to promote:⁷

- Digital standards for moving cargo, such as for invoices and bills of lading;
- Interoperable digital payments;
- Clear rules on liability for online content and copyright infringements;
- Protection on intellectual property rights;
- Digital identity for businesses to promote trust with their customers; and
- Common AI standards (figure 22).⁸

Figure 22 - Percentage of CPTPP region firms seeing a provision as relevant for the future



Source: Suominen 2024 <https://www.csis.org/analysis/implementation-cptpps-e-commerce-chapter-2023-and-toward-cptpp-20>.

6. Conclusion

This paper has assessed the remarkable growth and promise of ASEAN economies' digital trade, including for bolstering national economic growth and employment. The paper has also reviewed the ecosystem and policy drivers of this digital trade. The next paper in this series turns to the potential impacts of the DEFA on ASEAN trade and economies, and the specific impacts of some of the key provisions, such as ban on data localization and on discrimination against foreign digital products exporters, and the moratorium on customs duties on electronic transmissions.



References

- ¹ This calculation includes ISIC Rev. 4 2-digital sectors 58-72.
- ² Digital services sectors are here taken to mean information and communication, financial and insurance activities, and real estate, renting and business activities.
- ³ "Ruangguru." Crunchbase, <https://www.crunchbase.com/organization/ruangguru>.
"Ruangguru Raises \$150M Series C Funding Round to Scale Across Southeast Asia." TechCrunch, <https://techcrunch.com/2019/12/25/ruangguru-series-c-150m>.
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"Ruangguru: Empowering Education in Southeast Asia." Forbes, <https://www.forbes.com/sites/forbestechcouncil/2021/06/07/ruangguru-empowering-education-in-southeast-asia/?sh=2870fd43dc>
- ⁴ Nextrade Group data, built from national statistical agencies in the ASEAN region, indicates that about 30 million firms have been formed in the ASEAN region in the past ten years. Among these are thousands of startups in digital services industries.
- ⁵ Sources: "Founded in 2012 by Anthony Tan and Tan Hooi Ling, Grab began as a taxi-hailing app in Malaysia under the name MyTeksi." - [Wikipedia - Grab Holdings](#); "Recognizing the potential for growth in the broader Southeast Asian market, the company quickly moved its headquarters to Singapore." - [Success Story - Grab](#) "Grab aimed to revolutionize the region's fragmented and inefficient taxi industry by providing a user-friendly platform for booking rides via smartphones." - [Tech Edt - Grab Overview](#); "Grab soon diversified into other on-demand services such as food delivery (GrabFood), parcel delivery (GrabExpress), and digital payments (GrabPay)." - [Wikipedia - Grab Holdings](#); "These expansions were supported by key acquisitions, including the notable acquisition of Uber's Southeast Asian operations in 2018, which significantly boosted Grab's market share and solidified its dominance across the region." - [Rappler - Grab History](#); "Today, Grab operates in eight ASEAN countries, including Singapore, Malaysia, Indonesia, Thailand, Vietnam, Myanmar, the Philippines, and Cambodia." - [Wikipedia - Grab Holdings](#); "Grab has made substantial contributions to the digital services trade in ASEAN by creating a cross-border platform that facilitates transactions and service delivery across the region." - [Grab Press Release - GrabPay](#); "GrabPay, its digital wallet service, enables seamless financial transactions between consumers and businesses in different countries, promoting digital commerce." - [Grab - Our Story](#)
- ⁶ Sources: "VNG Corporation, founded in 2004 as VinaGame by Le Hong Minh, started as a gaming company in Vietnam." - [Wikipedia - VNG Corporation](#); "The company quickly expanded its offerings to include digital content, social networking, and e-commerce." - [Wikipedia - VNG Corporation](#); "Rebranding as VNG Corporation in 2011, the company has since become a leading tech firm in Vietnam, offering a wide range of digital services, including Zalo (a popular messaging app) and Zing MP3 (a music streaming service)." - [Vietnamese Wikipedia - VNG, Wikipedia - VNG Corporation](#); "VNG has also expanded its services internationally, particularly in the Southeast Asian market, where Zalo has gained popularity in countries like Myanmar and Laos." - [Vietcetera - Zalo's Momentum](#); "It has contributed to the growth of digital services trade in ASEAN by offering platforms that connect users across borders, particularly through Zalo and its gaming services." - [Viettonkin Consulting - VNG's Rise to Prominence](#); "The company's expansion into other ASEAN markets has facilitated the flow of digital services and content within the region, contributing to the integration of the ASEAN digital economy." - [Viettonkin Consulting - VNG's Rise to Prominence](#)
- ⁷ <https://www.csis.org/analysis/implementation-cptpps-e-commerce-chapter-2023-and-toward-cptpp-20>
- ⁸ Estimates by Suominen and Poor (2022) show that interoperability in payments alone would deliver tens of billions of dollars in new SME exports. See Kati Suominen and Michael Poor, *Alliance for Etrade Development: Interoperability of Digital Payments for Inclusive Trade in Southeast Asia* (Washington, DC: U.S. Agency for International Development, June 2022), https://www.allianceforetradedevelopment.org/files/ugd/478c1a_46e4a911a04a48d0a46fa99a5a6dd895.pdf. For example, interoperable digital payments in Southeast Asia alone would, if increasing by just 10 percent the export revenues of firms that report having lost sales because of the inability to accept payments from a customer, generate \$30.6 billion in new SME sales, growing regional SMEs revenues by 2.4 percent and increasing employment by as many as 4.2 million jobs.