

Understanding the ASEAN Digital Economy Framework Agreement: A Means to Support ASEAN Integration

Key Messages:

- The signing of the ASEAN Digital Economy Framework Agreement (DEFA) will establish the foundation for digital economy interoperability within the region.
- The ASEAN Digital Integration Index (ADII) shows that Singapore is the most ready for digital economic integration. Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam follow.
- The ASEAN Single Window and National Single Windows are successful examples of ASEAN'S commitment to trade digitisation.
- Three ways to determine key elements to be incorporated in the DEFA:
 - (i) stocktake the existing initiatives relevant to the digital economy from agreements, master plans, and work plans;
 - (ii) analyse the data findings in the ADII; and
 - (iii) conduct a comparative study on the existing digital economy agreements, taking into account the ASEAN context.

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The coronavirus disease (COVID-19) pandemic has accelerated the importance of digital technologies in the economy, particularly in e-commerce and digital financial services. Recognising the importance of digital technologies for economic recovery, the Association of Southeast Asian Nations (ASEAN) leaders signed the Bandar Seri Begawan Roadmap in 2021, which laid the foundation for the integration of the ASEAN digital economy in three phases – recovery, implementation, and transformation – and affirmed their interest in the establishment of a Digital Economy Framework Agreement (DEFA). The DEFA aims to deepen existing digital economy cooperation and ensure the interoperability of digital economy systems. The formulation and signing of the DEFA will require the provision of flexible timelines and technical assistance, as the ASEAN Digital Integration Index shows that ASEAN is still in the early stages of digital economy development and that ASEAN Member States are at different levels of readiness for digital economy integration.

Background

The coronavirus disease (COVID-19) pandemic increased the importance of digital technologies, as it prompted cost reduction, inventory optimisation, and supply chain multiplexing from reduced demand and disrupted production activities. The pandemic changed the behaviour of both consumers and micro, small, and medium-sized enterprises due to social restrictions and distance imposed by governments. People became more reliant on the internet. The number of digital consumers in the Association of Southeast Asian Nations (ASEAN), which was 290 million before the pandemic, increased to 350 million within 18 months after the pandemic hit (Google, Temasek, and Bain & Company, 2021). Amongst existing digital consumers, the frequency and number of digital services used increased for many goods, particularly for groceries and food delivery, where more than 60% of digital consumers increased their frequency and amount. As a result, more micro, small, and medium-sized enterprises have adopted digital services and become digital merchants (Google, Temasek, and Bain & Company, 2021). The Google report predicted that ASEAN will have a gross merchandise value of \$174 billion by the end of 2021, which will be

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\$363 billion by 2025, and a \$1 trillion digital economy by 2030. E-commerce is expected to account for \$74 billion of the gross merchandise value generated in 2020, rising to \$120 billion in 2021 and reaching \$234 billion by 2025 (Loh, 2021). Digital financial services are growing rapidly, led by digital payments and e-wallet growth. This is reportedly linked to the growth of e-commerce, where people shop online without using physical cash (Loh, 2021). The rapid growth of e-commerce creates opportunities for new technologies to emerge, adjusting to market demand, which paves a way to digital economy transformation. This sends a positive signal to ASEAN Member States (AMS) to harness opportunities to deepen cooperation in the digital economy.

Recognising the importance of digital technologies for the economic recovery from the pandemic slowdown, and taking into account the progress of the digital economy in each AMS, the ASEAN leaders signed the Bandar Seri Begawan Roadmap in 2021. This roadmap laid the foundation for ASEAN digital economy integration, which was built based on three phases: Phase I – Recovery (2021–2022), Phase II – Acceleration (2022–2024), and Phase III – Transformation (2025) (ASEAN, 2021b). All phases cover digital interoperability in digital trade, digital payments, and the digital economy, with the aim of establishing the ASEAN Digital Economy Framework Agreement (DEFA). The first ASEAN DEFA negotiations were initially scheduled for 2025, but at the 41st ASEAN Summit in November 2022, the leaders agreed to bring the date forward.

The ASEAN DEFA, once signed, will serve as the foundation for a secure and interconnected ASEAN digital economy, which will transform the region into a leading digital community and economic bloc, as envisaged in the ASEAN Digital Masterplan 2025 (ASEAN, 2021a).

Defining the Digital Economy

Digital economy is a term encompassing all processes by which digital technologies penetrate economies in the context of rapid change and expansion (ASEAN, 2021b). It is defined, for example, as 'the share of total economic output derived from a set of broadly defined "digital" inputs' (Knickrehm, Berthon, and Daugherty, 2016: 2). According to Bukht and Heeks (2017), the digital economy in a broad sense is the 'digitised economy', which includes the information and communication technology sector, digital services, e-commerce, Industry 4.0, and precision agriculture. The Work Plan on the Implementation of ASEAN Agreement on Electronic Commerce (AAEC) defined the digital economy as e-commerce and all other digitised economic activities (ASEAN, 2021d).

While there is no single definition of the digital economy, in principle it includes the following components: technology as an input (broadband infrastructure); the process of digitisation, which would include policy and regulation, trade, e-commerce, digital payments, digital identity, logistics, and e-government; and people as end users who need digital skills and talents to reap the benefits of the digital economy.

What Digital Economy Integration Means to ASEAN

By definition, '[r]egional integration is the process by which diverse national economies seek mutual gains by complementing one another more' (Tomassian, 2009: 1). This process is measured by '[f]rameworks of engagement, cooperation and entanglement among economies across many different dimensions' (Anukoonwattaka et al., 2021: 115).

ASEAN initiated institutional economic integration in 1992 when the idea of the ASEAN Free Trade Area was introduced (ASEAN, 2021c). Efforts have been made to realise this ASEAN leaders' vision. In 1997, ASEAN leaders adopted the ASEAN Vision 2020, a vision of ASEAN as 'a highly competitive region with free flow of goods, services, investment, a freer flow of capital, equitable economic development, and reduced poverty and socio-economic disparity' (ASEAN, 2021c). The Hanoi Plan of Action, which entailed a series of initiatives to realise the ASEAN Vision 2020, was adopted a year later. In 2003, the Declaration of ASEAN Concord II – a seed for the establishment of the ASEAN Community, which is based on the political-security, economic, and socio-cultural communities – was released (ASEAN, 2021c). The ASEAN Economic Community (AEC) Blueprint 2015 and AEC Blueprint 2025 were subsequently adopted as guiding principles to realise and advance the AEC (ASEAN, 2021c).

The pandemic provided a broader opportunity to deepen regional cooperation in the digital economy, which will eventually lead to digital economy integration. Digital economy integration does not necessarily mean the removal of trade barriers, but rather a platform for digital economy interoperability in a secure environment. Recognising the importance of digitalisation, ASEAN leaders have committed to achieving digital economy integration.

ASEAN, with the support of the United States Agency for International Development (USAID), developed the ASEAN Digital Integration Index (ADII), which measures digital integration based on six pillars: (i) digital trade and logistics, (ii) privacy and cybersecurity, (iii) digital payments and identities, (iv) digital skills and talent, (v) innovation and entrepreneurship, and (vi) institutional and infrastructure readiness (ASEAN and USAID, 2021). The ADII found that ASEAN is still in the early stages

of the digital economy, and AMS are at different levels of readiness for digital economy integration. Singapore, which is the most prepared for digital economy integration, already had a digital economy agreement (DEA) with other countries: Chile and New Zealand, Australia, the United Kingdom, and the Republic of Korea. Other AMS – Indonesia, Malaysia, the Philippines, Thailand, and Viet Nam – are better prepared than Brunei Darussalam, Cambodia, the Lao People’s Democratic Republic, and Myanmar on some of the pillars. The index shows that some AMS are ready to implement the DEFA, while others need more support.

The disparities in technology development and adoption will present challenges for digital economy integration. The AMS, through relevant sectoral bodies, have shown a strong commitment to address these challenges. Regional frameworks – the AAEC, the AEC Blueprint 2025, the Master Plan on ASEAN Connectivity 2025, the ADII, the ASEAN Digital Integration Framework Action Plan 2019–2025, the ASEAN Digital Masterplan 2025, and the Work Plan on the Implementation of AAEC – were developed to guide the transition of the AMS to a digital economy. A series of initiatives listed in those documents is aligned with digital economy integration efforts. Signing the DEFA may not necessarily mean creating a new work plan; rather, continuing the existing initiatives to avoid duplication.

What Elements Are to Be Included in the ASEAN DEFA

The ASEAN DEFA in principle is an agreement that aims at aligning digital trade rules and regulations and establishing digital economy related cooperation. It contains the digital commitments of the AMS towards digital economy integration. Yean (2021) divided digital commitments into three types: (i) market access, such as customs duties, valuation issues, the movement of natural persons (as service providers), and access to data; (ii) rules and regulations, such as intellectual property rights, competition, and protection of personal data; and (iii) facilitation, which includes paperless trade, digital signatures, and digital authentication. ASEAN has been implementing these digital commitments through numerous key initiatives.

The ASEAN Single Window, for example, is an ongoing important initiative in trade. The AMS have National Single Windows in place, which shows a strong commitment to digitise trade documents. At the regional level, the ASEAN Single Window is well under way, such as the ASEAN Trade in Goods Agreement electronic Certificate of Origin form and the exchange of the ASEAN Customs Declaration Document amongst five AMS: Cambodia, Myanmar, and Singapore since

December 2020, followed by Malaysia and Thailand from March 2021 (ASEAN and USAID, 2021). These regional initiatives provide a platform for AMS to learn from best practices and exchange of information on relevant topics.

The digitised trade (paperless trade) systems can take place at the national level, bilaterally and multilaterally. Full implementation of cross-border paperless trade would not only reduce transaction times and costs, but also increase regulatory compliance and enable small and medium-sized enterprises to engage more directly in international trade and cross-border e-commerce. **Paperless trade** is about digitising the flow of information needed to support cross-border goods and services (UNECE and UN/CEFACT, 2018). Paperless trade also means conducting trade transactions on the basis of an electronic exchange of trade-related data and documents in contrast to the conventional way of exchanging trade information using paper documents (Ha and Lim, 2014). The digitisation of trade has the potential to make trade more inclusive and support sustainable development (Bajt and Duval, 2020).

Another important initiative is digital payments, which have become increasingly relevant since the COVID-19 pandemic. **Digital payments** refer to electronic payments without any cash exchange. Indonesia has emerged with the fastest growth in digital payments in the region since the outbreak of the pandemic. Total digital transactions in Indonesia recorded a year-on-year increase of about 37.8% since the large-scale social restrictions and distancing measures were imposed (Deloitte, 2020). The Philippines plans to shift 50% of its payments from cash to digital by 2023 (ADB, 2021). The advanced mobile technology, internet access, robust information and communication technology infrastructure, and consumers’ preference for digital payments such as e-money/e-wallet accelerate the growth of digital payments in ASEAN.

The rapid growth in national digital payments systems can spread across borders through system interoperability. The digital payments systems of AMS are yet interoperable. To address this challenge, bilateral and multilateral initiatives on digital payments interoperability are well under way. The ADII cited the real-time retail payment system linkage between Singapore’s PayNow and Thailand’s PromptPay as an example (ASEAN and USAID, 2021). In July 2022, Bank Indonesia announced that it will collaborate with the central banks of Thailand, Malaysia, Singapore, and the Philippines to implement local currency settlement to enable cross-border payments through QRIS, open API (application payment interface), and Fast Payment (TEMPO.CO, 2022).

There are three ways to define which elements are to be included in the ASEAN DEFA:

First, by stocktaking the existing initiatives that are relevant to digital economy integration. These will include agreements, relevant sectoral bodies' work plans, master plans, and existing regional initiatives. The findings and/or recommendations of such initiatives would be useful references for the DEFA. One of the most recent work plans is the ASEAN Work Plan on the Implementation of ASEAN Agreement on Electronic Commerce, endorsed in 2021. The plan entails comprehensive initiatives focusing on three main streams – cross-border, business, and consumer – and promotes digital economy integration. The stocktake exercise will avoid any possibility of duplication of initiatives.

Second, by referring to the findings of the ADII. The ADII's data showed that AMS are at different development stages on each measure scored. Some countries are more ready to implement the DEFA than others. The data will be a useful reference to measure the readiness of AMS in participating and/or implementing the DEFA, especially for countries that do not have a legal

framework on a particular subject, e.g. personal data protection.

Third, by learning from the existing DEAs within the region. Although the articles must be compared in detail, a comparison of the number of articles and their titles alone will give a general trend and direction. Elms (2022) and Sawatari (2022) compared digital trade clauses within DEAs amongst major digital economy agreements. Singapore has signed DEAs with the United Kingdom (UKSDEA), Australia (SADEA), and New Zealand and Chile (DEPA). The AAEC, which entered into force on 2 December 2021, has fewer clauses than the UKSDEA, SADEA, and DEPA. The table below compares key elements in the existing DEAs.

There are two possible criteria for the selection of new clauses to be incorporated in the DEFA. **One**, a clause that is not in the AAEC but is included in most other DEAs. The reason is that the clauses that most agreements have are of widely shared importance. These would include *no customs duties on electronic transmissions, unsolicited commercial electronic messages, and non-discrimination of digital products*. **Two**, a clause that is not in the AAEC but is incorporated in all three new

Table 1: Comparison of Digital-Related Clauses in Major Digital Economy Agreements

Item	UKSDEA	SADEA	DEPA	CPTPP	RCEP	AAEC	Others	New DEA
Digital trade provisions commitments to facilitate digital trade	✓	✓	✓	✓	✓	✓		
No customs duties on electronic transmissions	✓	✓	✓	✓	✓		5	3
Non-discrimination of digital products	✓	✓	✓	✓			4	3
Domestic electronic transactions framework	✓	✓	✓	✓	✓	✓		
Electronic authentication and signatures	✓	✓		✓	✓	✓		
Cross-border transfer of information by electronic means	✓	✓	✓	✓	✓	✓		
Paperless trading	✓	✓	✓	✓	✓	✓		
Electronic invoicing	✓	✓	✓				3	3
Electronic payments	✓	✓	✓			✓		
Express shipments		✓	✓	✓			3	2
Online consumer protection	✓	✓	✓	✓	✓	✓		
Cooperation on competition policy	✓	✓	✓				3	3
Personal information protection	✓	✓	✓	✓	✓	✓		
Unsolicited commercial electronic messages	✓	✓	✓	✓	✓		5	3
Submarine telecommunications cable systems	✓	✓					2	2
Location of computing facilities for financial services	✓	✓					2	2
Data innovation	✓	✓	✓				3	3
Open government data	✓	✓	✓				3	3
Source code	✓	✓		✓			3	2
Digital identities	✓	✓	✓				3	3
Standards and conformity assessment for digital trade	✓	✓					2	2
Artificial intelligence	✓	✓	✓				3	3
Fintech and Regtech cooperation	✓	✓	✓				3	3
Dispute settlement	✓	✓	✓	✓	✓	✓		
Number of Clauses	23	24	19	13	10	9		

AAEC = ASEAN Agreement on Electronic Commerce, ASEAN = Association of Southeast Asian Nations, CPTPP = Comprehensive and Progressive Agreement for Trans-Pacific Partnership, DEA = digital economy agreement, DEPA = Digital Economy Partnership Agreement, RCEP = Regional Comprehensive Economic Partnership, SADEA = Singapore–Australia Digital Economy Agreement, UKSDEA = United Kingdom–Singapore Digital Economy Agreement.

Notes: In the 'Others' column, shaded figures indicate what is addressed in four or five agreements other than the AAEC. The shading in the 'New DEA' column indicates what is not addressed in the RCEP or CPTPP but is addressed in all three new DEAs (UKSDEA, SADEA, and DEPA).

Source: Author, based on Elms (2022) and Sawatari (2022).

DEAs (UKSDEA, SADEA, and DEPA). This is because areas such as artificial intelligence need to be considered for negotiations, as they are emerging and critical issues. It is also necessary to refer to existing studies on comparative analysis of the DEAs. Since ASEAN as a region and individual AMS have different characteristics, a comparative study would provide supporting data to justify the reasons behind the chosen key elements.

As the AMS are at different stages of development, it is technically difficult to have the same binding clauses of DEAs as those of Singapore. However, given that AMS have the conditions to leapfrog in the digital economy, it is important to establish an institutional framework at the earliest opportunity, with grace provisions for some countries, and to provide technical assistance, as has been done, for instance, in the RCEP.

Policy Recommendations

ASEAN is studying the possibility of signing the DEFA by identifying key elements to be captured within the framework. It is also paramount to understand what is beyond the signing of the agreement, bearing in mind the readiness of individual AMS to implement the agreement. The inexistence of certain laws and regulations, e.g. personal data protection, can slow down the integration process. As an initial step, the ADII entailed initial data on the readiness of AMS for digital economy integration, which included information on the inexistence of a relevant legal framework. A further study to update these data is crucial to design necessary interventions or technical assistance suitable for AMS in need. A flexible timeline, i.e. grace period, for AMS that require more preparation, is, therefore, required.

The digital economy requires participation from both governments and the private sector. The development of digital technology is led by the private sector, whereas the government is required to provide a conducive environment that stimulates and supports technology investment and growth. Slow access speeds, slow penetration of fixed broadband lines and data centres, and disparities amongst AMS on the adoption of new/emerging technology and legal frameworks may slow down the process of transforming ASEAN into a digital economy region. Private sector involvement is, therefore, mandatory to tackle problems related to infrastructure and access to services. Creating public–private sector dialogue and public–private partnerships is a necessary step to tackling those problems.

As the ASEAN integration process started many years ago, digital economy integration should not be regarded as a new initiative. Numerous initiatives related to digitising trade have taken place, e.g. the ASEAN Single Window has been implemented for several years. The last 3 years alone have seen numerous digital economy

related initiatives being endorsed and implemented by ASEAN sectoral bodies. A stocktake of the existing digital economy initiatives from ASEAN agreements and sectoral bodies work plans is crucial not only to see what key elements should be incorporated in the DEFA, but also to avoid duplication with the existing initiatives. It is also imperative to strengthen the existing institutional mechanisms without needing to establish a new one. A solid institutional mechanism will allow AMS to monitor the implementation process of DEFA-related initiatives and identify any challenges.

Lastly, like many other trade agreements, a concise dispute settlement mechanism is a crucial element to be included within the DEFA.

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