An ASEAN Digital Single Market: Boosting the Aspiration for a Single Market in the Digital Era

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Boosting the Aspiration for a Single Market in the Digital Era

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Abstract

Advancements in information and communications technologies have changed the way individuals, firms, and nations create and exchange value across borders. Value comes in the form of goods, services, information, and data, but may also include talent, capital, ideas, and even culture. Southeast Asia is a thriving digital economy with the prospect of becoming a US$200B economy by 2025. However, new forms of protectionist measures arise, which may impede the free flow of value within the region. An aspirational digital single market concept and the changing dynamics of digital trade are explored. A digital economic integration framework that is interoperable, inclusive, and agile is proposed to address both barriers to the creation of an ASEAN digital single market. Requisite conditions for policy solutions are identified, and an empowered digital transformation board with the task of leading the change agenda is proposed as a critical governance enabler across the region.

JEL Classification: F15, L81, O33

Keywords: ASEAN, digitalization, digital trade, digital transformation, regional integration, single market

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Introduction: Digitalization and the Role of ICT in the Global Economic Agenda

The last three decades of the Internet has witnessed the dramatic impact of technology on people, nations, and the world. The Internet has enabled greater interconnectedness between people, communities, with the rest of the world. The Internet has also disrupted conventions of commerce with old business models challenged by new technology-driven ones. It is transforming current businesses through the digitization of products and services and the growing use of data across a variety of business processes and commercial functions. New players have also entered the arena jockeying for position against long-standing market leaders and even institutions in regulated public services like transport. With no doubt, the effects of digital technologies will continue to shape and disrupt various aspects of our economic life: how we learn, how we create new ideas, how we buy, what we consume, how we value our privacy and security, and how we share and exchange with others. Digitalization will continue to reinvent economic life, pari passu, with the advancements in information and communications technologies (ICT).

Literature about the role of ICT in driving economic growth is abundant (e.g., World Bank, 2016; Organisation for Economic Co-operation and Development [OECD], 2017b; Google & Temasek Holdings, 2017; Tay, Tan & Kiruppalini, 2017; Zwillenberg, Field, & Dean, 2014). The topic of digital transformation in the context of economic growth is commonly characterized by the ability of digital technology in lowering transaction costs, enhancing operating efficiencies, in providing customers with a wide array of choices with better value at lower prices, and facilitating the freer flow and exchange of value between firms and customers (B2C), between firms (B2B), amongst consumers (C2C), firms and governments (B2G), and democratizing access to information and knowledge irrespective of an individual's social and economic status (Box & Lopez-Gonzales, 2017; Hinings, Gegenhuber, & Greenwood, 2018; Vu, 2017).

The Digital Transformation of Trade High on the Global Economic Agenda

Box and Lopez-Gonzales (2017), Suominen (2017), and Tay, Tan, and Kiruppalini (2017) studied the impact of digitalization on global trade. They posited that how people (and nations) trade has indeed changed, observing the shift from transacting offline or physical means to transacting in online channels (i.e., through e-commerce). Similarly, what is traded has likewise changed (i.e., physical goods and services in the offline world to digital goods and services) but not why people and nations trade, which is still subject to informational asymmetries, comparative advantage, and trade barriers (cf. Balassa, 1965; Grossman & Hart, 1986; Leamer, 1984; Robson, 1998).

The disruption of global economies through digitalization influencing shifting patterns in global trade has finally made digital transformation a top policy priority in the global agenda of economic leaders and organizations responsible for fostering deeper economic integration (Economic Commission for Latin America and the Caribbean, 2018; Common Market for Eastern and Southern Africa, 2018; OECD, 2017a OECD & Association of Southeast Asian Nations [ASEAN], 2017; World Bank, 2016). One example is the Common Market for Eastern and Southern Africa (2018)'s move to adopt a Digital Free Trade Area incorporating policy infrastructure for e-Trade, e-logistics, and e-legislation to close the gap between offline and digital transactions. The OECD (2016) Cancún Declaration covers policy issues around the free flow of information, digital innovation and creativity mechanisms, digital security risk management and privacy issues, and barriers to e-commerce within and across borders among others. The Group of 20 (2017) is likewise currently exploring policy solutions that will support the development of human capital and the creation of jobs as an effect of digitalization. ASEAN initiatives on digitalization are discussed below.

The Role of Regional Integration in Driving the Digital Agenda

The transformative nature of ICT on the economy may be addressed at the national level. However, to ensure that trade in the digitally transformed era remains relatively free from barriers and that fundamental freedoms are protected, there is a need for countries to come together to coordinate, develop, implement, and monitor policy that meets the demands of and overcomes the challenges digital transformation brings. Regional economic integration is characterized by the greater interdependence of nations as expressed in terms of trade between countries mutually benefiting from the reduction or elimination of barriers, allowing them to trade more freely with each other and the rest of the world (Hoekman & Kostecki, 2009; Mattli, 1999). The very same principles and benefits apply to the liberalization of digital trade.

Given the interdependence of nations in global value chains now subject to transformation because of digitalization, even greater coordination among member states of a regional grouping is imperative to address both the opportunities and challenges digital transformation brings (cf. Cowgill, Dorobantu, & Martens, 2013). Coordination allows member states to harmonize (or standardize) policies within an agreed framework that creates an environment conducive to trade, ensuring that both conventional and digital trade are free from barriers, and that development arising from such trade is supported by robust and agile processes, technical and legal infrastructure, human capital and digital-ready skills, and institutions that protect consumers, intellectual property, personal data, and privacy (Kearney, 2015).

The Southeast Asian Digital Economy is Booming, Yet Digital Protectionism Exists

Southeast Asia presents an extraordinary opportunity for socio-economic development and growth through ICT. Southeast Asia is now the world's fastest -rowing Internet region with a base of users of 260M in 2016 to expand to 500M by 2020, growing at the rate of ~4M per month. Its value is expected to reach US$200B by 2025, mainly driven by e-commerce, digital media, and travel-related digital solutions. E-commerce is expected to exceed 16x growth from US$5.5B in 2016 to US$88.0B by 2025. This economic opportunity is attributed to a thriving young population with 70% of ASEAN people under 40 years old, a rapidly growing middle class, and forecasted GDP growth of 5.3% in the next 10 years (Google & Temasek Holdings, 2016). Interestingly, there are more mobile subscriptions in ASEAN than there are people with over 700M subscriptions vs. its 630M population (Google & Temasek Holdings, 2016, 2017; World Bank, 2016). However, despite this growth momentum in ICT, digital protectionism in the ASEAN region exists, which may hinder the region from achieving its growth potential (Pitakdumrongkit, 2018).

New Forms of Non-Tariff Barriers Impede Potential Growth Arising From Digitalization

Digital protectionism manifests in various forms: restrictions to cross-border data flows, data localisation requirements, restrictions on leased lines, VPNs and Internet access, restrictions to cloud services or choice of cloud services, censorship in the form of filtering and access blocking, content aggregation fees or content toll fees, data localization requirements, restriction on digital content or products, restrictions on cross-border transfer of data, restrictions to online advertising, to name a few new forms of non-tariff barriers arising from the conduct of digital business which puts digital trade under threat from a variety laws and regulations (United States Trade Representative, 2018; United States International Trade Commission, 2013, 2014; Cory, 2018). As of August 2018, there are 10 known digital protectionist measures in the ASEAN region. Table 1 summarises known barriers to digital trade in the ASEAN region, which must be eliminated to fuel the further growth of the digital economy. Digital protectionist measures not only impede trade, but discourages the expansion of enterprises, curtails innovation, and disenfranchises the public from access to a broader array of goods and services, and therefore diminishes the opportunity for generating welfare effects for many.

The Role of ICT in Driving the Single Market Agenda of ASEAN Economic Council (AEC)

The formation of the AEC in 2015 establishes ICT as an essential element in the making the ASEAN a competitive economic region (ASEAN, 2008) with the complementary element of infrastructure development that includes ICT. The *ASEAN ICT Masterplan* (AIM) 2015 focused on six strategic thrusts, namely: economic transformation, people engagement and empowerment, innovation, infrastructure, human capital development, and bridging the digital divide (ASEAN, 2015b). It was completed in 2015 and accepted via the Da Nang Declaration of 2015 immediately followed by the adoption of post-2015 ICT plans via AIM 2020 (ASEAN, 2015b).

AIM 2020 advances the many achievements of preceding regional digital programs but enhances it further with the inclusion of “ICT in the single market,” reinforcing the AEC 2015’s explicit move towards a single market and production base (ASEAN, 2008; ASEAN 201b). It should be noted, however, to be clear, that the mention of single market in AEC 2025 is now only present in the Enhanced Connectivity and Sectoral Cooperation characteristic particularly in ICT and food, agriculture, and forestry (cf. AEC 2015, AEC 2025). Table 2 shows a summary of ASEAN policies on digital trade. Das (2017) likewise noted this change in policy language in explaining the shortfalls in the implementation of the AEC 2015. See Table 3 illustrating the characteristics and elements of both AEC blueprints.

It could be argued that the AEC remains focused on developing a single market and production base across the region. However, due to the shortfalls in its implementation, the transition to AEC 2025 and the changes noted in the policy framework shows a distinct shift from being a roadmap (as it is a blueprint document) with finite deliverables to a live framework that is continuously a “work-in-progress” (Das, 2017). For this analysis, I maintain the context of the single market given its retention in the digital transformation policy framework of ASEAN both in AEC 2025 and AIM2020.

The single market thrust “aims to enable an ASEAN digital economy to develop and grow…so as to lower the cost of doing business, achieve economies of scale and scope, and enable synergies towards sustainable business models within ASEAN” (ASEAN, 2015b, p. 16). The single market drive combined with provisions on ICT in a single market seems to hint at a digital single market (DSM), potentially much like the E.U.’s establishments of its DSM. However, specific and explicit clauses referring to a DSM are absent in both AEC 2015 and AEC 2025. ICT in the single market does not imply an attempt to develop a DSM. This potentially establishes a gap between the policy environment for trade in goods and services in offline trade and digital trade, both of which are concurrently taking place in the region.

The European Digital Single Market, an Inspiration

The E.U. enacted its deliberate move towards a DSM through the Juncker Commission in June 2015 with the full endorsement of “A Digital Single Market Strategy” for Europe leading to an extensive mid-term review in October 2017. A completion report, “Completing a trusted Digital Single Market for all”, was adopted in May 2018, citing the successful endorsement of 29 legislative measures, 17 of which have already been agreed with the European Parliament, the Council of the E.U., and European Commission (European Commission, 2015, 2017, 2018). Table 4 shows key initiatives and legislative agenda for the E.U. DSM.

The E.U. defined a DSM as “the free movement of goods, persons, services and capital is ensured and where individuals and businesses can seamlessly access and exercise online activities under conditions of fair competition and a high level of consumer and personal data protection, irrespective of their nationality or place of residence" (European Commission, 2015, p. 3). This definition is useful in defining the potential of DSM in the context of the AEC, given its absence in policy literature.

Given the absence of any mention of a DSM in AEC and shortfalls seen in the implementation of the AEC, key strategic considerations arise: Would a digital single market be possible if the ASEAN single market, loosely defined as it is, is not yet fully implemented? Is it possible to develop a DSM ahead of a fully implemented single market in the ASEAN? If so, what are the drivers of an integrated digital economy? What is its policy and platform enablers?

Critical Issues in the ASEAN and Digital's State of Play in the AEC

The creation of a DSM must be a priority for the AEC. A DSM will engender the harmonization of policies and infrastructure that address current demands of the trading environment and the future—proofs that the region is preparing it for both known and unknown challenges of digitalization. With the presence of national digital strategies (NDS), the ASEAN signals the prioritization of ICT development at the national level. AIM 2020, however, seems insufficient in providing concrete directives that could rally ASEAN Member States (AMS) to work towards a DSM. The creation of an ASEAN DSM would, retroactively, also achieve deeper integration via the ASEAN single market and production base, addressing structural and institutional demands for an integrated trading environment and effectively closing or eliminating the gap between offline and online trade.

In contrast to the E.U. in which supranational authority exists, and therefore legislative agenda on the creation of its DSM is governed from the top, the AEC only provides policy-making mechanisms that encourage harmonization of laws and initiatives, but its further planning and implementation are left to the national governments to decide on. Das (2018b) noted that the ASEAN economic integration was "never far-reaching" in the first place, given the difference of AMS in terms of economic and governance structure. On the other hand, Vu (2018) noted the vast differences in digital diffusion across AMS are making a DSM again difficult to believe. The digital divide in AMS is characterized by key gaps in the Internet availability, accessibility and affordability, national regulations on infrastructure and digital content, and the availability of digital-ready skills (World Bank, 2016; OECD & ASEAN, 2017) which may act as barriers to the implementation of a DSM.

Moreover, some AMS turn to protectionist measures to retain economic advantage as it leverages on the growth of the ICT sector (Pitakdumrongkit, 2018; Cory, 2018) despite efforts to harmonize regulatory issues requisite to the creation of a DSM in the AEC, namely, consumer rights, dispute settlement mechanisms, cybersecurity, and discussions on information flows, have been stepped up at the regional level, which may take time to be implemented noting that the ASEAN has seen shortfalls in implementation in the past. Observers of the AEC agree that now is the right time to move into a digital single market, yet without the political will to ensure timely implementation, the concept of a DSM may suffer from an economic integration framework that remains to be a "work-in-progress" (Das, 2018b; Chia, 2013).

Notably, the ASEAN Work Programme on E-commerce (AWPEC) 2017–2025 has been defined within the AEC, which details the outcomes on infrastructure development, education and technology competencies, and consumer protection mechanisms, modernizing the legal framework on e-commerce, security and competition (ASEAN, 2018a). The elements of the AWPEC 2017–2025 (Table 5) are promising such that these reflect aspects of a whole-of-government drive to integrate several dimensions of a DSM. However, AWPEC 2017–2025 remains silent in addressing other interrelated aspects of a single market (i.e., harmonization of VAT regimes, free flow of information, and data location) given that its scope is limited within the definition of a largely consumer-focused E-commerce framework. It may be a step in the right direction, but a drive towards DSM remains unclear.

This paper proposes a digital economic integration (DEI) framework that is mainly directed towards the possible creation of a DSM within the AEC. The DEI framework draws insights from on-going initiatives and advancements in this area of regional integration, especially from the E.U. as it mobilises its own DSM agenda forward. The DEI framework is also influenced by peripheral, yet equally critical issues that individuals, firms, and governments confront in the context of digitalization (i.e., issues on privacy, data protection).

Constructing the Digital Economic Integration (DEI) Framework

Figure 1 shows the proposed overall DEI framework designed with a single market in mind, which incorporates insights from a vast array of literature from global organisations (e.g., OECD, World Bank, European Commission, AEC), the E.U. DSM experience to date, the academia, as well as relevant strategy planning literature in which digital transformation is extensively discussed (e.g., Matt, Hess, & Benlian, 2015; Westerman, Tannou, Bonnet, Ferraris, & McAfee, 2012; Zhu, Dong, Xu, & Kraemer, 2006).

Setting the Goal of a Highly Integrated Digital Economy, Critical Operating Characteristics

First, the goal of regional economic integration should be to drive maximum economic growth for member states and ensure that its gains from elevated economic activities are redistributed that maximize welfare and development of society at the national level (cf. Cardona, Duch-Brown, Francois, Martes, & Yang, 2015). Gains from trade at the regional level should have positive productivity and income effects that trickle down to the grassroots level of society. Digital economic integration shares the same goal but leverages on ICT advancements to ensure such growth is inclusive and in step with the rapid changes in digital technologies. In the ASEAN context, indicators of integration in digital trade should, in principle, dramatically enhance currently underdeveloped intra-regional trade and amplify its already healthy trade patterns with the world.

The overarching operating characteristics of the DEI framework are: interoperable, inclusive and neutral, and agile. These characteristics encompass policy, infrastructure, and technology solutions. Interoperability is essential to the harmonization across different information systems, national laws, and levels of the digital readiness of national institutions. It ensures that what is developed at the regional level can be operationalized at the national level, whether in the form of technology solutions, financial policy, or human capital development programs.

Inclusivity and neutrality are conditions of equal importance in the selection of platform solutions that can reach and work for the most considerable number of beneficiaries at the national level. This ensures that solution designs are crafted with welfare in mind and not the convenience or benefit of authorities responsible for development and implementation. Digital engenders openness, and its openness is protected by keeping design and development principles aligned to neutrality. Digital transformation relies on the ability of organizations to design, develop, and deploy systems, infrastructure, and solutions (i.e., policy solutions, technology solutions) quickly in a series of iterative steps called sprints. This allows systems to quickly course-correct and continuously improve solutions or create new ones as more efficient innovations become available.

A Freer Exchange and Flow of Value Across Territorial Borders

Second, the DEI framework should enable and protect the free flow of value across borders in both digital and non-digital means as may be described in an updated, modernized trade facilitation framework both at the WTO and ASEAN levels. WTO members have kickstarted initial discussions on e-commerce and digital trade issues. On the other hand, ASEAN has an updated trade facilitation framework (ATFF) which emphazises on non-discrimination on all matters relating to trade which is, ipso facto, applicable to digital trade (ASEAN, 2016a). The updated ATFF also recognizes the need to review and update, as necessary, rules and regulations relating to trade arising from modernization and use of technology.

The free flow of value across borders, however, should be not only applicable to trade in goods and services, digital or otherwise, but also the free flow of information and data eliminating or progressively reducing barriers such as local content and data location requirements. Free flow of value across borders also implies the need to ensure the free flow of ideas across borders that may be enshrined in the protection of free communications and elimination of tariffs relating to over-the-top platforms (e.g., WhatsApp, Slack) that allow people and firms in different territories to communicate and share ideas. A free flow of culture must also be guaranteed, eliminating barriers to digital content to be created and shared across borders while maintaining the national prerogative on decorum and decency that is sensitive to the participating cultures in the economy to member states. Free and public access to government services must also be provided to ensure that value in terms of public goods is encouraged to flow freely in the economic region.

Actors and Beneficiaries of an Integrated Digital Economy

Third, critical actors in the DSM participate in the free flow and exchange of value across borders: consumers, firms, governments, and non-state actors. They are also the beneficiaries of a highly integrated economy both in the short- and long-run. The framework must allow seamless commercial exchanges at various levels, that is, B2B, B2C, C2C, B2G, and across borders.

Foundations of a Robust Digital Economy, Pre-Requisites to Building a DSM

Fourth, it is essential that fundamental human rights to access and the need for digital-ready skills and human capital are established as these are the foundational, requisite conditions for fostering digitally-enabled economies. Access to affordable and reliable high-speed Internet and pervasive adoption reaching the rural communities ensure that individuals and firms have access to public goods and services online. This is highly dependent on the member states' ability to roll-out infrastructure requirements that may also demand the liberalization of legal impediments that act as barriers to ICT diffusion such as constitutional limitations on ownership and foreign investments. Far-reaching access to reliable and affordable high-speed Internet will allow MSMEs to participate in global value chains at lower transaction costs, given that end-to-end coordination and trade flows are facilitated online (Bin Yahya, 2018).

Human capital development programs at the national level must be developed in conjunction with aligned learning goals that are agreed and set at the regional level. This ensures compatibility of skills and availability of digital-ready talent that can enjoy social and labor mobility within the region (PwC, 2018). Digitalization creates new job opportunities in which technology now plays a critical function in job requirements. All these must be grounded in principles that guarantee the protection of personal privacy and personal data protection, as well as a robust cybersecurity policy framework. Without the protection of privacy, personal data, and a consolidated effort to safeguard security across the region, individuals, and firms may find it challenging to engage in commercial activity online. These are the necessary conditions in establishing trust—a critical condition for participating in the digital economy.

Integrated Policy Solutions and Mechanisms for a Resilient and Sustainable DSM

Fifth, policy requisites that enable the facilitation of trade and the free flow of value across borders need to be addressed and harmonized amongst member states. This should be consistent with a regionally agreed integrated interoperable, inclusive, and agile policy framework that brings together all the working bodies of the regional group together. The region also needs to assess which policy instruments require harmonization, which leave member states the prerogative to develop and implement at the national level and which policy solutions need to be standardized to ensure consistent implementation across the region. This function is best led and facilitated by the creation of a digital transformation board (DTB) that is empowered to take a multilateral "whole-of-government" approach to policy-making in the region.

Coordination and governance must cover the following expansive interrelated areas of regional integration with respect to digital transformation:

(1) spectrum management and connectivity ensuring that there is a legal framework to support the development and equitable distribution of telecommunications infrastructure across all member states while aiding countries that need development assistance in enhancing national telecommunications technologies and standards;

(2) trade facilitation framework that recognizes and includes end-to-end digital trade;

(3) information systems ensuring the free flow of data and the elimination of data location requirements;

(4) reduction or elimination of behind-the-border and border tariffs for both physical and digital goods and services;

(5) the harmonization of VAT or GST regimes allowing consumers in any territory access to consistent landed prices of goods and services (cf. European Commission, 2016);

(6) updated trade and contract laws (cf. De Franceschi, 2016) that include a robust and extensive legal framework for operating and facilitating e-commerce transactions and avenues for disputes and remedies for consumer grievances on product and service quality provision;

(7) laws and statutes concerning intellectual property rights;

(8) copyrights and trademarks harmonized to foster continued R&D and innovation and incentivize for potential commercial gains which may expand in scale through an open single market; and

(9) competition and anti-trust laws that engender a fair and more competitive market that give new players and MSMEs to participate in the digital economy and compete fairly with large-scale enterprises.

The DTB will also coordinate the development of scalable and sustainable regional infrastructure policy environments that: (1) engender cooperation on innovation systems that will nurture open science, high power computing, blockchain opportunities; and, (2) digitally enable peripheral yet essential efficiency drivers in logistics and supply chain such as self-certification, Single Windows, regional supply chains, and customs clearances. The DTB will also centrally coordinate across sectors the quality, standards, and transparency measures that will facilitate further harmonization in policy-making at the regional and national levels. This will ensure the consistent exchange of value across the region and the timely and effective implementation of governance measures arising from audit and monitoring functions over region-wide digital transformation initiatives.

Interoperable, Agile, and Inclusive Digital Technologies Enabling Seamlessness

Sixth, the last but of equal importance with the rest of the framework, platform enablers must be rolled out to facilitate freer trade through centralized and interoperable digital platforms and efficiently address disjoint in the various systems and technologies used by member states. This includes the implementation of a central e-payment gateway that will facilitate secure, reliable, and mutually recognized payment systems across member states to address the walled gardens of local banks currently impeding digital trade and e-commerce across borders. It will also inspire the drive for coherent financial solutions for the "unbanked" sectors of society through public-private partnerships on financial technology, potentially bringing banking and financial solutions to rural communities. Doing so will increase the likelihood of more MSMEs to participate in the global supply chain trade. Member states will also benefit from centralized e-identification and e-authentication systems that use a single identification system in facilitating legitimate commercial transactions online. E-certification systems integrated with custom and duties platform and a regional logistics management platform will enable smoother logistics across borders and efficient customs operations. Finally, a centralized VAT and customs system allows the distribution of levied VAT to the participating governments, ensuring that consumers and firms enjoy a single landed price and avoid the confusion of several different and potentially overlapping VAT regimes in each transaction online (cf. EU DSM Single VAT Area reform initiatives).

Conclusion: An Urgent Call for the Creation of a Digital Single Market in the AEC

The drive of the AEC in fuelling the region's digital economy through AWPEC indicates a collective agreement for the need for policy solutions that embrace digital transformation. This initiative may be a step in the right direction but is limited in scope in terms of leveraging ICT in a single market. While AWPEC 2017-2025 consists of interrelated segments; it does not reflect the magnitude of policy and infrastructure that a DSM demands to address issues beyond e-commerce but are essential in digital transformation at the regional level.

The proposed DEI framework provides a strategic approach to regional integration in a move towards the creation of a digital single market. For the AEC, the challenge and opportunity are of equal magnitude. The challenge rests in rallying a collective political will among AMS to empower the ASEAN Secretariat with support and leadership ability it needs to drive digital transformation from the top rather than waiting for the bottom-up approach to work, which may retard the fast adoption of ICT advancements that digital transformation requires. Without relinquishing national sovereignty, establishing an empowered digital transformation board may be vital in steering the agenda of a digitalized, future-proofed, and highly integrated region forward.

The opportunity is clear: US$200B by 2025 that can benefit AMS and its people. Addressing structural hurdles across the region in creating a digital single market is worth the effort and the investment required to develop its digital economy will bear transformative benefits, especially for the ASEAN's developing economies. The AEC may be a step in the right direction with its intent of creating a single market and production base, but leapfrogging efforts to build a digital single market ahead will effectively address, pari passu, issues and opportunities in the traditional single market. Delivering a DSM will reinforce a modernized AEC that is in step with global megatrends, making the ASEAN an even more attractive destination for trade and investment. The task is daunting, and it will take a village to get it started now.

Appendices

Appendix 1: Tables

Table 1
Summary of Digital Protectionist Measures nown in Southeast Asia

ASEAN Member State/Region	Known Digital Protectionist Measure/s
Indonesia	*Data localization*: The government requires providers of "public service" to establish local data centers and disaster recovery centers in Indonesia. Other regulations require local storage and processing of certain personal data and financial data. *Local content requirements:* Indonesia's Minister of Communication and Information Technology issued a regulation imposing a local content requirement for long-term evolution (LTE) products such as laptop computers, smartphones, and tablets. *Barriers to Internet services*: In 2017, Indonesia proposed new regulations that would require providers of "over the top" (OTT) services to register with the government, identify permanent local representatives, and open bank accounts in Indonesia. The proposed regulations include a broad definition of OTT services that may cover every service provided via the Internet. *Tariffs on digital products*: Indonesia is reportedly moving forward with plans to impose duties on digital products such as digital music, e-books, and apps. The imposition of duties on digital products would likely raise concerns regarding Indonesia's longstanding WTO commitment—renewed on a multilateral basis in December 2017—not to impose duties on electronic transmissions.
Philippines	*Procurement rules and licensing requirements discriminating foreign products and services*: The Department of Information and Communications Technology issued a circular in January 2017 mandating all public ministries and agencies to use the government cloud effectively, barring foreign players opportunity to bid for the service. *Licensing requirement*: ICT operators are mandated to acquire value-added telecommunications service license that is open to Filipino-owned companies only.
Thailand	*Intellectual property rights' impeding innovation*: Patent registration system tends to encounter the issue of backlogs. As of May 2016, the Department of Intellectual Property possessed more than 38,000 pending applications, resulting in foreign stakeholders having to wait for several

	years to get patents registered, disrupting plans for commercialization. Patent litigations in Thailand are conducted in the Thai language. *Web blocking*: Thailand recently expanded its authority to regulate online content, and, over the past year, the Thai government has greatly increased the number of social media posts that it has blocked. The new rules afford no mechanism for appealing or otherwise challenging these decisions.
Vietnam	*Restrictions on online advertising*: Vietnam requires advertisers to contract with a local services supplier as a condition of placing advertisements on foreign websites targeting Vietnam. This requirement is burdensome and impractical, given that the online advertising market typically functions through automated, real-time auctions for ad space. *Data localization*: Government mandates companies or organizations that have established social networks to locate at least one server system in Vietnam serving the inspection, supervision, storage, and provision of information at the request of authorities.

Sources: United States Trade Representative, 2018; Cory, 2018; Pitakdumrongkit, 2018.

Table 2
Summary of ASEAN ICT Master Plans and National Digital Strategies of AMS

ASEAN Member State/Region	National Digital Strategy/Master Plan/s
Brunei	*The National ICT White Paper 2016–2020*: ICT that diversify the economy, boost GDP, improve the quality of life for citizens, and become a "smart society." To achieve a vibrant economy powered by ICT, ICT-smart citizens, a connected and capable nation.
Cambodia	*ICT Masterplan 2020: ICTopia Cambodia*: ICT as a tool to build an intelligent and comfortable nation with intelligent people, intelligent society, and intelligent government.
Indonesia	*National Midterm Development Plan 2015–2019*: To strengthen national connectivity to balance the economic and infrastructure development. *The Indonesian Broadband Plan 2014–2019*: To promote broadband as an engine for growth and to improve the quality of life of Indonesian citizens in the long-term.
Laos	*The National ICT Policy*: Connectivity that is accessible nationwide and affordable to everyone, human resource development (ICT skills), broad-based robust applications (e-government, e-health, e-agriculture, e-commerce, and e-revenue), regulatory frameworks (ICT laws, cybersecurity law, and national ICT standards).

Malaysia	*Digital Malaysia Masterplan*: To transform the country towards a developed digital economy by 2020.
Myanmar	*The 2011–2015 ICT Master Plan (Follow Up Plan)*: To achieve socio-economic development through knowledge-based society.
Philippines	*Philippine Digital Strategy*: A digitally empowered, innovative, globally competitive, and prosperous society where everyone has reliable, affordable, and secure information access, and with a government that provides responsive online citizen-centered services.
Singapore	*Intelligent Nation (iN2015) Masterplan 2006–2015*: An intelligent nation, a global city, powered by Infocomm.
Thailand	*ICT Policy Framework 2020*: ICT is a key driving force to bring knowledge and wisdom to the Thai people and will lead society towards equality and sustainable economy.
Vietnam	*Master Plan on Information and Technology 2011–2020*: A driving force to ensure the country's growth and sustainable development, raise transparency in activities of state agencies, and save the time and funds for agencies, organizations, enterprises, and people.
ASEAN	*ASEAN ICT Masterplan 2015*: Six strategic thrusts for ICT in the single market: (1) Economic transformation with initiatives on creating a conducive environment for businesses to grow leveraging ICT and promoting public-private partnerships (PPP) for the ICT industry; (2) People engagement and empowerment which focus on ICT access to every community, affordable ICT products, affordable ICT contents and services, and trust-building; (3) Innovation which promotes innovation centers of excellence for R&D of ICT services, innovation and collaboration amongst government, businesses, citizens, and other institutions, and nurture innovation and creativity at schools; (4) Infrastructure promoting broadband and network integrity; (5) Human capital development with the incentives on capacity building and ICT skills upgrading and certifying; and (6) Bridging digital divide which promote ASEAN integration and collaboration to narrow the digital gap among member states. *ASEAN ICT Masterplan 2020*: To propel ASEAN towards a digitally-enable economy that is secure, sustainable, and transformative, and to enable an innovative, inclusive, and integrated ASEAN Community. *ASEAN Master Plan on Connectivity 2025*: To achieve a seamlessly and comprehensively connected and integrated ASEAN that will promote competitiveness, inclusiveness, and a greater sense of community through (1) sustainable infrastructure, (2) digital innovation, (3) seamless logistics, (4) regulatory excellence, and (5) people mobility enabling physical connectivity, institutional connectivity, and people-to-people connectivity.

Adapted from Vu (2018).

Table 3
AEC 2025 and AEC 2015 Side-by-Side Comparison of Characteristics

AEC 2025	AEC 2015
I. A Highly Integrated and Cohesive Economy	**I. Single Market and Production Base**
Trade in goods	Free flow of goods
Trade in services	Free flow of services
Investment environment	Free flow of investment
Financial integration, financial inclusion, and financial stability	Free flow of capital
Facilitating movement of skilled labor and business visitors	Free flow of skilled labor
Enhancing participation in global value chains	Priority integration sectors
	Food, agriculture, and forestry
II. A Competitive, Innovative, and Dynamic ASEAN	**II. Competitive Economic Region**
Effective competition policy	Competition policy
Consumer protection	Consumer protection
Strengthening intellectual property rights cooperation	Intellectual property rights (IPR)
Productivity-driven growth, innovation, research and development, and technology commercialization	Infrastructure development (including transport and ICT)
Taxation cooperation	Taxation
Sustainable economic development	E-Commerce
III. Enhance Connectivity and Sectoral Cooperation	
Transport	
Information and communications technology	
E-Commerce	
Energy	
Food, agriculture, forestry	
Tourism, healthcare, minerals and science and technology	
IV. A Resilient, Inclusive, People-Oriented, and People-Centred ASEAN	**III. Equitable Economic Development**
Strengthening the role of micro, small, and medium enterprises (MSMEs)	SME development
Narrowing the development gap (including IAI)	Initiative for ASEAN integration (IAI)
Strengthening the role of the private sector	

Public-private partnership	
Contribution of stakeholders on REI	
V. A Global ASEAN	**IV. Integration into the Global Economy**
Includes ASEAN+1 FTAs and RCEP	Coherent approach towards external economic relations
	Enhanced participation in global supply networks

Sources: ASEAN (2015c, 2008).

Table 4
EU Digital Single Market Key Initiatives Summary and Status

DATE	POLICY INITIATIVE	DESCRIPTION	STATUS
2015-05-06	*Commission's digital single market strategy presented*		
2015-12-09	**Contract rules**	Modern digital contract rules to simplify and promote access to digital content and online sales across the E.U.	P&L
	Cross-border portability of online content services	To fully use online subscriptions to films, sports, events, e-books, video games, or music services when traveling within the E.U.	P&A
2016-02-02	**Coordinate the use of the 470–790 MHz band for mobile services**	To improve Internet access for all Europeans, to help develop cross-border applications, and facilitate the introduction of 5G	P&A
2016-04-19	*Commission's plans to help digitize European industry*		
	EU eGovernment Action Plan 2016–2020		
	Outline of the priorities for common ICT standards to boost digital innovations		
	Commission's plans to create a European open science cloud		
2016-05-25	**Unjustified geo-blocking**	To ensure that consumers seeking to buy online in another E.U. country are not discriminate in terms of access to prices, sales, or payment conditions	P&A
	Cross-border parcel delivery affordability and efficient	Increased price transparency and regulatory oversight of cross-border parcel delivery services	P&A

	Updated audiovisual media services directive	To extend the rules applying to traditional broadcasters, video-on-demand providers, and video-sharing platforms	P&A
	Revision of consumer protection cooperation	Giving more power to national authorities to better enforce consumer rights	P&A
	Updated guidance on the unfair commercial practices directive		
	New approach to online platforms as responsible players of a fair Internet ecosystem		
2016-06-01	*New skills agenda for Europe*		
2016-06-02	*European agenda for collaborative economy*		
2016-06-15	**Regulation of wholesale roaming prices**	As of June 15, 2017, travelers do not have to pay roaming charges in the E.U. This is possible due to a significant price drop in what the operators can charge each other	P&A
2016-07-05	*Cybersecurity communication and public-private partnership*		
2016-09-14	**Modernize E.U. copyright rules and facilitate access to content online**	Better choice and access to content across borders, improved rules on education and research, and a fairer and sustainable marketplace	P&L
	The New European Electronic Communications Code	Modernization of the current E.U. telecoms rules for boosting long-term investments with better use of radio frequencies, stronger consumer protection, and safer online environment	P&A
			P&A

	E.U.-level coordination of electronic communications **Marrakesh Treaty implementation in the E.U. law** **WiFi4EU Initiative** *Commission's plans to improve connectivity and move towards a gigabit society* *Commission's plans to deploy 5G across the E.U.*	Enhancing the role of the Body of European Regulators for Electronic Communications Two legislative files to facilitate access to published works for persons who are blind, visually impaired, or otherwise print disabled Supporting provision of free public wi-fi hotspots in local communities across the E.U. First WiFi4EU networks available in early 2018	P&A P&A
2016-12-01	**New tax rules to support e-commerce and online businesses in the E.U.**	To improve the value added tax (VAT) environment for e-commerce businesses in the E.U. to buy and sell goods and services more easily online as well as for e-publications	P&A, some discussions on-going but likely to turn P&L for one initiative, e.g., single VAT area
2017-01-10	**Stronger privacy in electronic communications** *Communication on building a European data economy*	Extending the scope of ePrivacy rules to all electronic communication providers in full alignment with the General Data Protection Regulation	P&A, 1 P&L
2017-03-23	*New guidance for coordinated digital public services across the E.U. with the European*		

	Interoperability Framework		
2017-05-02	**Single digital gateway**	To make it easier for people and companies to manage their paperwork online in their home country or when working, living, or doing business in another E.U. country	P&A
2017-05-10	*Digital single market strategy mid-term review outlining further actions on online platforms, data economy, and cybersecurity* *Report on e-commerce sector inquiry*		
2017-09-13	**Cybersecurity package to scale up EU's response to cyber attacks** *Building a strong cybersecurity for the E.U. and a better coordinated response to large scale cybersecurity incident and crisis*	A wide-ranging set of measures to build strong cybersecurity in the E.U., including a proposal for an EU Cybersecurity Agency	P&L
	Framework for the free flow of non-personal data in the E.U.	Removing data localization restrictions to unlock the full potential of the E.U. data economy	P&L
	Directive on the combatting of fraud and counterfeiting of non-cash means of payment *Measures for a high common level of security of network and information systems (NIS)*		P&L

2017-09-21	*E.U.'s agenda towards fair taxation in the digital economy*	
2017-09-27	*Guidelines for online platforms to tackle illegal content*	
2017-10-06	*Ministerial declaration on eGovernment – The Tallinn Declaration*	
2017-11-27	*New study on eGovernment services*	
2017-11-29	*Setting out an E.U. common approach to standard essential patents*	
2018-01-11	**Regulation establishing European High-Performance Computing Joint Undertaking**	
2018-01-16	*Digital Education Action Plan*	
2018-01-31	*Adoption of the implementing regulation laying down requirements for digital service providers under the NIS directive*	
2018-03-01	*Commission recommendation on measures to effectively tackle illegal content online*	
2018-03-08	*FinTech Action Plan*	
2018-03-09	*High level group on artificial intelligence*	
2018-03-20	*EU Blockchain Observatory*	
2018-04-25	**Review of the directive on the re-use of public sector information** *Actions on artificial intelligence and robotics and on liability for*	P&L

	emerging digital technologies *Communication on enabling the transformation of health* *Staff working document on data sharing* *Evaluation of directive on the legal protection of databases* *Review and technical adjustment of the recommendation on scientific information*	
2018-04-26	**Regulation on promoting fairness and transparency for users of online intermediation services** *Communication addressing platform challenges regarding the spreading of fake news* *Decision on setting up the group of experts for the Observatory on the Online Platform Economy*	P&L
2018-04-27	**Modernization of the regulations of the top-level domain name .eu** *Guidelines on market analysis and the assessment of significant market power in telecoms sectors*	P&L

Legislative initiatives are in bold. *Non-legislative initiatives are in italics.*

Status legend:

P&A – Presented and agreed as law by the European Parliament, the Council of the EU, and the European Commission
P&L – Presented and likely to be signed in 2018

Source: European Commission (2018b).

Table 5
AWPEC 2017-2025 Elements of E-commerce Work Program

OUTCOMES	INITIATIVES	OUTPUT
INFRASTRUCTURE		
1. Region-wide accessibility of broadband infrastructure	1.1 Identify gaps in Internet access, affordability, and network interoperability	Mapping of priority locations requiring broadband deployment for private sector participation
	1.2 Promote affordable access to international mobile roaming services in ASEAN	Adoption of an ASEAN framework to provide affordable intra-ASEAN mobile voice, SMS, and data roaming services
	1.3.Provide broadband access to rural and underserved areas	Development of next-generation Universal Obligation and telecenter frameworks
2. Conducive environment to foster the growth of e-marketplace and e-commerce platforms	2.1 Develop ASEAN guidelines on accountability and responsibilities of online intermediaries (platform providers)	Guidelines developed
	2.2 Develop coordination mechanisms to enhance the enforcement of intellectual property rights in the digital environment	Coordination mechanism developed
EDUCATION AND TECHNOLOGY COMPETENCY		
3. Human capacity development	3.1 Develop skills at all levels to maximize e-commerce for relevant industry regulators, consumer protection officials, and law enforcement officials	Sectoral roadmaps on capacity building developed

	3.2 Disseminate to business, especially MSMEs, best practices in the use of the Internet for the improvement of their business, including essential tools for business management, as well as information on the available training providers and their range of courses	Information/educational materials and programs developed
	3.3 Provide education to the public with regard to the safe use of the Internet, on the availability of self-regulatory options, screening and filtering technologies, and dispute resolution mechanism	Educational materials and programs developed
CONSUMER PROTECTION		
4. Consumer rights principles for online B2C recognized	Integrate e-commerce considerations into the ASEAN high-level consumer protection principles	E-commerce considerations are reflected in the ASEAN consumer protection high-level principles
5. Code of conduct for online business developed	Develop guidelines/code of good online business practice based on self-regulation best practices	Guidelines developed
6. Consumer rights awareness enhanced	Conduct regular consumer rights awareness training for consumers and consumer associations	Consumers are aware of online rights as illustrated under the ASEAN Consumer Empowerment Index
7. Availability of alternative dispute resolution (ADR)/online dispute resolution	Establish ADR mechanisms, including online dispute resolution systems, to facilitate the resolution of claims over e-commerce transactions based on the best practice for fair, easy-to-use, transparent, and effective ADR mechanisms	ASEAN ADR and ODR mechanism developed

8. Regional/international cooperation enhanced	8.1 Develop ASEAN guidelines on cross-border B2C complaints	Guidelines are adopted by ASEAN
	8.2 Develop a framework of cross-border cooperation in addressing consumer protection issues	Framework of cooperation adopted
	8.3 Develop informal/formal mechanisms for cross-border cooperation such as an MOU	ASEAN adopts an informal/formal regional mechanism of cooperation on cross-border complaints handling
	8.4 Participation in the UN Inter-Governmental Experts Consumer Protection Law (IGE Consumer Protection)	Participate in the UN IGE Consumer Protection meetings
	8.5 Regular interaction with international organizations conducted regularly to enhance understanding, learn best practices	Interaction with UNCTAD/OECD (seminars/workshops)
MODERNISING THE LEGAL FRAMEWORK		
9. Updated e-commerce legal framework	Voluntary internal and peer reviews of national laws/regulations on e-commerce	National laws and regulations on e-commerce covering the legal status of electronic transactions/contracts, the legal status of the e-commerce platform providers/operators, and merchants, electronic signatures, online consumer protection, and personal data protection reviewed
10. Transparent national laws and regulations on e-commerce	Provide comprehensive updated information on domestic e-commerce-related laws and regulations	The information is publicly available in the ASEAN trade repository
SECURITY OF ELECTRONIC TRANSACTIONS		

11. Coherent and comprehensive framework for personal data/privacy protection	Identify best practices in personal data protection (PDP) to promote the implementation of ASEAN PDP framework	Best practices identified
12. Interoperable, mutually recognized, and secure electronic authentication mechanism	Study suitable mechanisms for authentication and electronic signatures and trade documents, based on internationally recognized practices	Voluntary adoption of the electronic authentication mechanisms for cross-border electronic trade documents
13. International cooperation among cyber security agencies	Establish an international coordination mechanism amongst cybersecurity agencies to share best practices, exchange information on policies, strategies, and cooperate in response to cybersecurity incidents	Coordination mechanism institutionalized
COMPETITION		
14. A level playing field in the e-commerce sector	Build and strengthen the capacity of competition authorities to identify/detect and address anti-competitive activities in the e-commerce sector	1. Competition assessment framework for competition issues in e-commerce sector developed 2. Training programs and educational materials developed
LOGISTICS		
15. Improve ASEAN logistics services to facilitate e-commerce	Coordination with relevant ASEAN sectoral bodies and logistics service providers to identify measures to improve ASEAN logistics services' support for e-commerce	Stocktaking conducted, and recommendations developed
E-COMMERCE FRAMEWORK		
16. ASEAN agreement on e-commerce	Review of the elements of the ASEAN e-commerce framework and develop an ASEAN agreement on e-commerce	ASEAN agreement on e-commerce signed

Source: ASEAN (2018a).

Annex 2

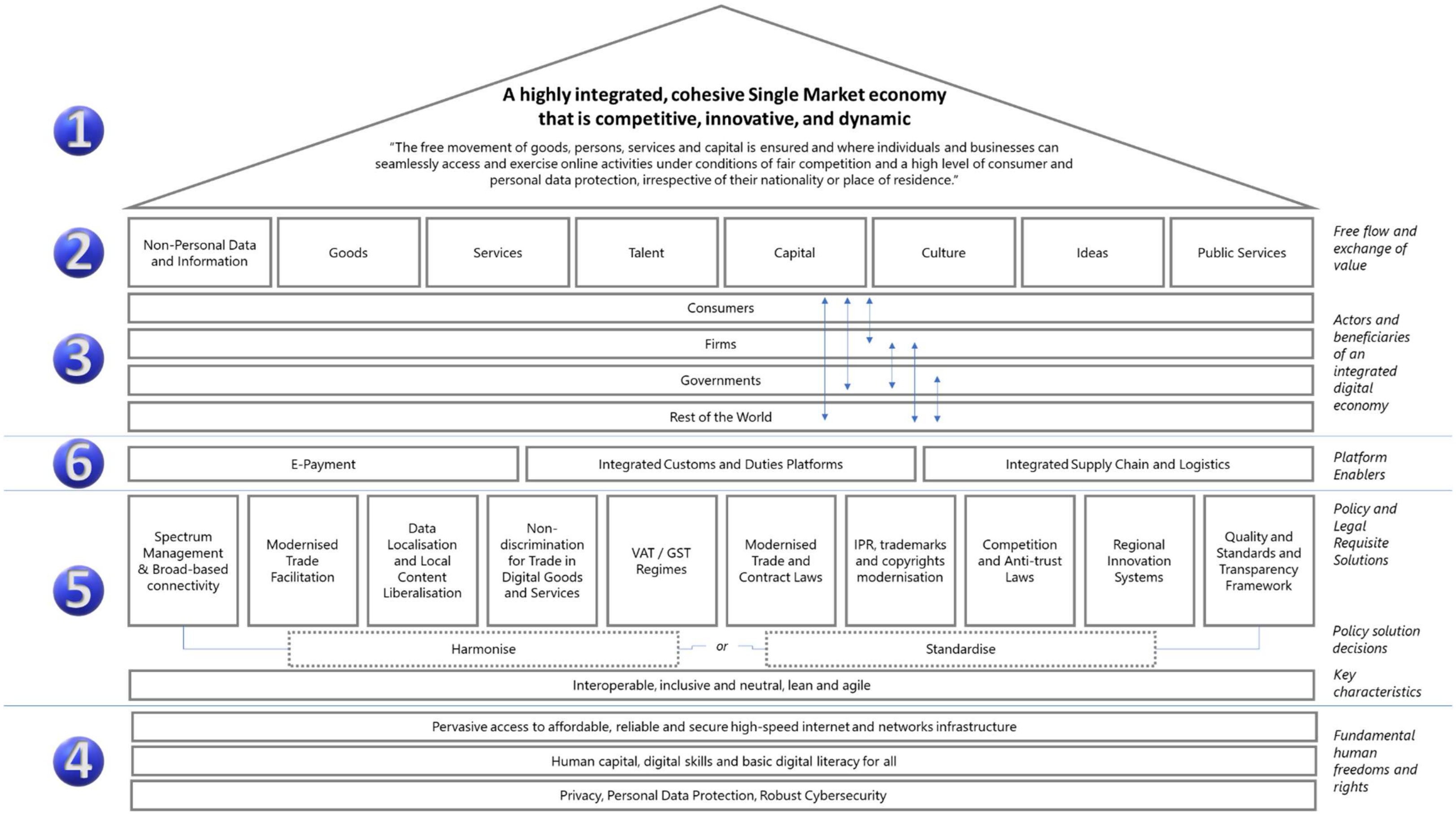

***Figure 1*. The Digital economic integration (DEI) framework for a single market.**

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