

DIGITAL TRADE PRIORITIES FOR ASEAN



Executive Summary

Digitalization is fundamentally transforming every sector of the global economy, making a robust digital economy increasingly the driving force for post-pandemic economic recovery and growth. In this connection, trade has become increasingly digitally driven and digitally delivered, including in ASEAN.

Digital trade will drive the next phase of ASEAN's economic growth

These trends are readily apparent in ASEAN: the region has seen 40 million new Internet users come online in 2021 alone, and its digital economy is projected to grow to US\$1 trillion by 2030. Digitalization is set to stay for the long haul and has become a way of life in ASEAN. 90% of new digital services users in 2020 continue to use these services in 2021. Digital trade will drive the next phase of ASEAN's economic growth, as more people in the region participate in the digital economy and engage in cross-border digital transactions.

Digital trade helps to promote inclusive growth

Inclusivity has emerged as an important consideration in trade policy globally, and digital trade can help make trade more inclusive within ASEAN. Internet-enabled trade has brought unprecedented opportunities for traditionally marginalized communities such as micro, small, and medium sized enterprises (MSMEs), women, minorities, rural communities etc. to participate in global markets. Ecommerce, for instance, greatly expands opportunities for MSMEs to participate in international trade. On average, the World Trade Organization (WTO) reports that 97% of Internet-enabled MSMEs export, in contrast to between 2% to 28% for traditional MSMEs in most countries.³

ASEAN Digital Economy Framework Agreement (DEFA): an opportunity to build an enabling framework for ASEAN digital trade to flourish

A forward-looking digital trade agenda is needed for ASEAN Member States (AMS) to capture the benefits of these developments and to engender trust and confidence in the digital economy amongst all of its stakeholders. The US-ASEAN Business Council (US-ABC) welcomes the ASEAN Economic Ministers' (AEM) September 2021 announcement to begin defining DEFA by 2023 and to commence negotiations by 2025. The DEFA would no doubt form the foundation for ASEAN's digital trade and economic integration and its importance cannot be understated.

For the DEFA to maximize ASEAN's digital trade potential, it will be important for the framework to be responsive to the end user, which in this case, is the business community who are engaged in the day-to-day digital trade transactions and interactions in the market. In this regard, we would like to humbly offer some suggestions on the overall framing of DEFA as well as the important issues to include from the business perspective:

 Consider accelerating the negotiating timelines. Given the rapid pace of developments in the digital economy, we urge ASEAN to consider accelerating the negotiating timelines for DEFA so

¹ e-Conomy SEA 2021 - https://services.google.com/fh/files/misc/e_conomy_sea_2021_report.pdf

² e-Conomy SEA 2021 - https://services.google.com/fh/files/misc/e_conomy_sea_2021_report.pdf

 $^{^{3}}$ WTO Trade Report 2016 - https://www.wto.org/english/res_e/booksp_e/wtr16-2_e.pdf

that the rules and norms can be relevant and helpful to businesses on the ground, and to accelerate the growth of the regional digital economy. There is already a body of work involving AMS that ASEAN can draw from – for instance the Regional Comprehensive Economic Partnership's (RCEP) E-Commerce Chapter, ASEAN Agreement on Electronic Commerce, the Digital Economy Partnership Agreement (DEPA) and Singapore's Digital Economy Agreements.

- Take reference from existing commercially meaningful digital agreements. The U.S.-Japan Digital Trade Agreement and the U.S., Mexico and Canada Free Trade Agreement (USMCA) establish commercially meaningful rules of the road for the digital economy, which U.S. industry broadly supports. Additionally, Singapore's Digital Economy Agreement with Australia (SADEA), its Digital Economy Agreements with the United Kingdom (UKSDEA), with Korea (KSDPA) and DEPA with New Zealand and Chile, all include strong commitments that promote best practices in digital trade. We encourage ASEAN to look into the provisions in these agreements as good references as it works towards negotiating a commercially meaningful DEFA which would help grow ASEAN's digital economy.
- As far as possible, ensure that commitments are binding and commercially meaningful. Such commitments will be necessary if ASEAN were to fully realize the potential benefits of digital transformation, as they will give confidence and certainty to businesses investing and operating in the region. Binding commitments, with recourse to robust dispute settlement mechanisms, will give investors both foreign and domestic more confidence and certainty to invest and engage in ASEAN's digital economy.
- Build in flexibility to accommodate different levels of development but work towards the same end goal. The U.S. industry fully appreciates the differing levels of development within ASEAN which would necessitate some measure of flexibility in the way DEFA is designed. Flexible architectures such as a modular approach could be helpful in this regard. However, for ASEAN to fully seize the digital trade opportunity, it is important that all AMS are pulling in the same direction and working towards the same end goal. As such, concrete, demonstrative projects that are tied to the provisions of the DEFA which encourage interoperability between AMS could help in fostering such alignment.
- <u>Stakeholder consultation and engagement</u> will be critical to ensure that DEFA is relevant and responsive. With the rapid digital and technological progress, it is essential that robust stakeholder consultation be carried out as ASEAN formulates and negotiates DEFA. ASEAN should also seek to establish a formal mechanism with other players on the forefront of digital trade, including the U.S. government and U.S. private sector, to consult on how the provisions and principles of the agreements that either party has started, ratified or plan to begin, could fit into broad plurilateral, regional or even global conversations on a digital trade agreement.

The white paper elaborates a number of digital trade enablers that the US-ABC would like to submit to the AEM and relevant sectoral bodies for consideration in developing DEFA. The Council hopes to discuss this further and work closely with the relevant ASEAN Sectoral Bodies in the process of developing DEFA.

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Enable Effective Cross-Border Data Flows

The cross-border flow of data underpins ASEAN's digital economy. The ability of organizations and governments to easily share data, including financial services data, across borders is essential to advance a range of commercial interests as well as public policy objectives.

Current state of play

Several AMS have policies that restrict the flow of data through various data localization requirements. Such restrictions have a dampening impact on the development of ASEAN's digital economy and could especially hurt ASEAN MSMEs' prospects of engaging in digital trade and developing new products and services. Many MSMEs in ASEAN only exist online and can only afford to reach global markets from one location. Studies show that data localization restrictions raise the cost of hosting data by 30-60%, resulting in higher cost of businesses that primarily rely on data and discouraging them from investing more broadly in data security or protection. Even for global businesses, localization requirements prevent them from accessing markets where they do not operate a data center or from relying on global firmwide applications and capabilities.

Data localization requirements on the grounds of national security can also be detrimental to national security goals as they would reveal the location of data to cybercriminals. Moreover, firms are not given the freedom to locate their customers' data based on security requirements. In the Monetary Authority of Singapore's Data Connectivity Initiative⁴ with the Swiss State Secretariat for International Finance, it was also raised that data localization requirements may increase cybersecurity risks and other operational risks, hinder risk management and compliance, and inhibit financial regulatory and supervisory access to data. Data localization requirements repress innovation by placing burdens on new entrants and increasing barriers to entry, thus jeopardizing ASEAN's competitiveness in the long term.⁵ All these barriers make it extremely challenging for most businesses that rely on data flows to provide their products and services across ASEAN.

In many cases in ASEAN, recent efforts to liberalize cross-border data flows have not been extended to financial services. For example, some data protection laws may permit financial data transfers under certain limited circumstances (such as via explicit consent) but restrict the ability of firms to process or store data offshore. Existing domestic laws and regional mechanisms are – understandably – often drafted with numerous different sectors in mind and may not contain the appropriate types of provisions applicable to the needs of financial institutions (including banks), whose requirements encompass a broad range of regulations such as bank secrecy laws, payments processing regulations, outsourcing requirements, and technology risk management regulations.⁶

⁴ https://www.mas.gov.sg/news/media-releases/2022/joint-statement-of-intent-between-the-monetary-authority-of-singapore-and-the-swiss-state-secretariat-for-international-finance-to-promote-data-connectivity-for-financial-services

⁵ https://www.itic.org/news-events/techwonk-blog/the-costs-of-data-localization

⁶ Financial Data and the ASEAN Digital Economy, US-ASEAN Business Council, 2021

Recommendations

In developing DEFA, ASEAN should:

- 1. Ensure that the movement of data across borders is not restricted and that data transfer restrictions are allowed only in very limited circumstances.
- 2. Prohibit mandates to use or locate computing facilities in-country as a condition for conducting business in that country.
- 3. Support the financial services sector:
 - (i) Ensure that the above two provisions also apply to financial services and financial technology, particularly relating to payments.
 - (ii) Facilitate the harmonization of e-payment regulatory frameworks across the region, including by fostering greater alignment and convergence in areas such as e-payment licensing, standards, and processes such as Anti-Money Laundering and Counter-Terrorism Financing (AML/CTF), Know-Your-Customer (KYC) and verifications.
 - (iii) Consider establishing collaboration mechanisms in future DEFAs to promote greater interoperability amongst payment systems to bring about greater efficiency gains and to facilitate cross-border payments across ASEAN.
- 4. Consider including cross-border transfer of healthcare data, which is critical to enable scientific advances e.g., innovation, discovery and evaluation of new treatments. There is a need for facilitating and supporting international research collaborations and information exchange on an on-going basis, to have more globally diverse research capacity for tackling future unmet clinical needs and health emergencies.

Eliminate Local Presence Requirements

The Internet has provided MSMEs with opportunities to trade beyond their home markets and sell to regional and global customers. There are many successful ASEAN MSMEs that are "born digital", and their growth potential will be limited by local presence requirements.

Current state of play

Some AMS have local presence requirements in the form of domestic workers or physical office location. E-commerce businesses are often required to be registered locally in order to operate and sell to a particular market. Such requirements for the provision of cross-border digital services undercut the power of the Internet to allow small businesses to overcome traditional barriers of geography and localization. They artificially restrict businesses' market and growth prospects. Policies that require companies to open a physical office or hire local staff in any country in which they seek to do business impose unnecessary, expensive, and inappropriate requirements on companies providing goods or services digitally – hurting MSMEs most of all. With their limited resources, it is burdensome for MSMEs to invest in local offices in every market to which they seek to expand digitally.

Recommendations

As part of DEFA, ASEAN should require that businesses are not subject to local presence requirements, whether it be establishing or maintaining a representative office, being a resident in a country, or meeting onerous local shareholding requirements, as a prerequisite for the cross-border supply of goods and services to that country.

Ensure Privacy and Data Protection

Digital trade hinges on trust. The lack of legally enforceable data protection regulation can limit consumer confidence and trust in digital trade. Additionally, it can restrict the cross-border flow of data that is essential to a thriving digital economy, as firms and countries outside or within ASEAN will be wary of moving data to servers in a country where compliance with best practices are not legally enforced. Consumers and various stakeholders will also be wary of sharing their personal data; this is detrimental to sectors for which the provision of personal data is essential, such as healthcare and finance, and for businesses that collect the data their users generate to create opportunities to improve their consumer engagement.

Current state of play

Currently, not all AMS have data protection laws and frameworks in place. There is fragmentation of data protection and localization practices with distinct classification for sensitive data. This makes it challenging for businesses to operate and trade with confidence across ASEAN especially when personal data is required to flow across borders to complete the digital trade transaction. Data protection laws, where they exist, also substantially differ, which adds to the complexity and compliance costs for businesses, especially MSMEs who seek to operate regionally.

Recommendation

As part of DEFA, ASEAN should require Parties to adopt legal frameworks to protect personal information and promote industry best practices, internationally-recognized standards, and other cooperative mechanisms to strengthen privacy and data protection. AMS should consider principles and guidelines of relevant international bodies, such as the Global Cross-Border Privacy Rules (CBPR) and the OECD Guidelines governing the Protection of Privacy and Transborder Flows of Personal Data (2013).⁷ They should also promote adherence to strong and widely accepted non-discriminatory privacy principles that are aligned with internationally-recognized standards in the cross-border transfer of information, including through interoperable transfer mechanisms such as the APEC CBPR.⁸

⁷ https://www.oecd.org/sti/ieconomy/oecdguidelinesontheprotectionofprivacyandtransborderflowsofpersonaldata.htm.

⁸ APEC Privacy Framework, APEC, 2015.

DEFA should affirm the ASEAN Model Contractual Clauses for Cross-Border Data Transfers⁹ as a valid and privacy-protecting transfer mechanism. While different AMS may take different legal approaches to protect personal information, DEFA is expected to establish mechanisms to promote compatibility between these different regimes.

With the growing importance of healthcare data sharing, ASEAN needs to also consider clear, harmonized rules on permitted national and international data access, sharing and use that protect patient's privacy These rules should apply to access and use of data in the delivery of care as well as in research and innovation.

Ensure Non-Discriminatory Treatment of Digital Products

Core trade principles of non-discrimination should equally apply in digital trade. Companies and consumers must have the choice to utilize technologies that work best and suit their business and customers' needs — whether these providers are foreign or domestic. Otherwise, innovation and efficiency will be jeopardized, and AMS may see the state of their technology adoption stagnate. Mandating the use of a certain technology or standard where legitimate alternatives exist also disincentivizes investment and innovation and undermines a core strength of the digital economy — the competition between alternative technological solutions based on market needs and demands.

Current state of play

While no AMS have explicit laws or policies that directly ban the use of digital products from specific countries, the inclusion of a non-discrimination provision in DEFA would give assurance to foreign companies – including ASEAN companies seeking to offer their products to other ASEAN markets – that firms can choose their suppliers regardless of where these suppliers are headquartered.

Recommendation

As part of DEFA, ASEAN should prohibit the discriminatory treatment of digital products. Companies should not be prevented from freely choosing the technologies they wish to use to supply their services and AMS should not accord less favorable treatment to digital products from other countries than it does to other, similar digital products.

Improve Digital Trade Facilitation

Digitized trade and cross-border paperless processes will benefit businesses, including MSMEs; from lower entry barriers and reduced compliance costs to cheaper operational and inventory costs, as well as indirect savings from the faster movement of goods. These processes include the electronic submission and processing of trade documents, use of digital certificates and signatures and contracts,

⁹ https://asean.org/wp-content/uploads/3-ASEAN-Model-Contractual-Clauses-for-Cross-Border-Data-Flows_Final.pdf

adoption of e-communications, e-transferrable records and e-payment services, and implementation of electronic single windows.

Current state of play

1. Digital Identity (ID)

Enabling national digital IDs in ASEAN is critical to the digitalization of ASEAN economies. The lack of formal identification in some segments leaves many individuals and MSMEs struggling to secure basic governmental services, including access to public healthcare, education, and access to crucial financial services such as lending, insurance, and banking. Physical IDs are also more vulnerable to threats compared to digital IDs, as they can be manipulated or purchased illegally. By eliminating the need for in-person authentication of individuals or documents, digital IDs unlock digital access to a wide variety of services thus improving quality of life, including the underbanked population in rural and remote areas. As digital IDs allow consumers to participate in commercial activities and perform secure transactions through online verification methods, the risk of online fraud is lowered for businesses.

2. Digital payment

During COVID-19, small businesses around the world set out to sell their products online, which necessitated the use of digital payments and other digital services (e.g., financial and logistics services) for transacting with customers and vendors remotely. In fact, between 2020 and 2021, the Visa Economic Empowerment Institute small business surveys showed that the use of online marketplaces and digital payment technologies grew by well over 50%, often by up to 70% to 80% among MSMEs in developing countries and even in emerging and advanced economies. Digital payments help enable MSMEs with greater choice and price-competitive options and drive export competitiveness. Opportunities remain to enhance and improve existing payments infrastructure by adopting global standards such as International Organization for Standardization (ISO) and EMVCo¹¹ to help drive standardization and interoperability.

3. Trade facilitation for low-value express shipments

Logistical delays and higher customs compliance costs may deter MSMEs from fully capitalizing on the opportunity to sell overseas, especially if their cross-border shipment volumes are low and infrequent. In many AMS, the cost of compliance – including the preparation, submission, processing, and retaining/storing of cargo and goods declarations – remains the same regardless of the value of the shipment. This would jeopardize the e-commerce supply chain, which is the backbone of ASEAN's digital economy. It also incurs administrative costs to AMS governments

¹⁰ Harper, C. (2021.) Small Business in the Digital Age: Recommendations for Recovery and Resilience. Visa Economic Empowerment Institute. https://usa.visa.com/content/dam/VCOM/global/ms/documents/veei-small-business-in-the-digital-age.pdf

¹¹ EMV° is a registered trademark in the U.S. and other countries and an unregistered trademark elsewhere. The EMV° trademark is owned by EMVCo, LLC. https://www.emvco.com/about/overview/

that exceed the tariff revenues generated. The business community has been advocating for an ASEAN Low-Value Shipment Program (ALVSP) to encourage simplification of clearance procedures, tax and payments, and refunds, to help accelerate e-commerce in the region.

4. Paperless trade

The existing mechanisms in ASEAN, including the ASEAN Single Window (ASW), should be capitalized further to enable a full operationalization of the online exchange of documents. Using e-documents can help strengthen regulatory control and compliance by AMS governments by allowing relevant data and documents to be efficiently exchanged among agencies and across borders. For trade control and customs agencies, the availability of more accurate and timely data in electronic form can enable efficient evaluation of the compliance risks associated with individual shipments, allowing them to identify high-risk transactions, ultimately boosting customs revenue while also speeding up the trade of compliant traders. In addition, through a reduction in clearance times, digital trade facilitation can increase port efficiency and reduce port congestion and related problems.

Recommendation

1. Digital IDs

ASEAN should endeavor to promote interoperability and compatibility among the respective governments' digital IDs schemes. A mutual recognition of AMS digital IDs schemes could be incorporated into DEFA similar to the provisions in SADEA. As AMS work towards implementing digital identity frameworks and pilot programs, ASEAN should promote private-public consultation and collaboration to ensure that regulatory regimes are in line with technological developments and innovation.

2. Digital payments

DEFA needs to ensure transparency for electronic payments-related regulations, including regulatory approval, licensing requirements, procedures and technical standards. In driving greater interoperability, ASEAN should also adopt internationally-recognized standards for electronic payment, such as the EMVCo, the ISO Standard ISO 20022, Universal Financial Industry Message Scheme, and encourage implementation of these standards across ASEAN. Adoption of globally interoperable standards and open-source payments systems (e.g., open Application Programming Interfaces (APIs)) can also promote inclusiveness by enabling central banks, market infrastructures, payment processors, and fintech firms to accelerate the creation and deployment of interoperable payment platforms that can scale domestically and across borders.

Any payments policy framework should ensure that competition is not limited for private sector participants, and frameworks should also ensure any central banks that are both the

regulator and provider of payment services or infrastructure have clear separation between these responsible divisions.

3. Trade facilitation for low-value express shipments

DEFA should commit to facilitate e-commerce by simplifying clearance procedures and cutting red tape for the low-value shipments across all modes of transport. This includes considering automation of revenue collection and the use of electronic invoicing using interoperable systems to increase efficiency, accuracy and reliability of commercial transactions. Border formalities should only be focused on health, security and safety issues.

4. Paperless trade

DEFA should also include commitments to eliminate all paper-based exchanges of documents within a specific timeline, building on the current operationalization of the ASW. This could serve as a sunset clause to the alternate paper-based exchange provided in ASEAN Trade in Goods Agreement (ATIGA).

5. Digital Signature

DEFA should include commitment to reforming electronic and digital signatures laws to better enable digital trade and unlock economic value in ASEAN. Specifically, laws should permit a wide variety of use cases, be recognized by relevant institutions and not require paper-based or in-person attendance.¹²

Eliminate Customs Duties on Electronic Transmissions

Customs duties on electronic transmissions will impact every industry and add considerable friction to digital trade. AMS should commit to make the WTO Moratorium permanent.

Current state of play

The WTO Moratorium on Customs Duties for Electronic Transmissions is subject to review and renewal at every Ministerial Conference and is currently in place until the 13th Ministerial Conference (MC13) which should ordinarily be held by December 2023. Even so, the need for periodic renewal causes unnecessary uncertainty for all businesses. Failing to renew the Moratorium, or narrowing its scope to exclude transmitted content, would hamper the cross-border supply of digital services and digital products (i.e., data flows/electronic transmissions) that have fueled the growth of the digital economy and supported post-COVID 19 recovery. It would also require countries to develop and impose new customs administration requirements for electronic transmissions as for physical goods such as rules of origin, customs valuation, customs inspection, among others. This will increase the administrative and

¹² Advancing Digital Transactions in APEC: http://ncapec.org/library/AdvancingDigitalTransactionsinAPECEnhancingE-SignaturesandDigitalSignatures.pdf

compliance burden for MSMEs and entrepreneurs, as well as creating new resourcing and workload burdens on customs agencies themselves.

Recommendation

As part of DEFA, ASEAN should make the customs duties moratorium on electronic transmissions permanent. This will give businesses assurance that digital trade can flow unimpeded and would help in the growth and development of digitally-enabled services that drive innovation for companies and consumers.

Ensure Consumer Protection

Consumer protection and trust are essential for the digital economy to function smoothly. As customers participating in e-commerce are often unable to vet goods in-person before they purchase them, effective consumer protection measures should be in place to give consumers the confidence to participate in digital trade.

Current state of play

Not all AMS currently have robust consumer protection laws. Given the increasing number of new consumers in the e-commerce ecosystem, some may not be familiar with digital processes and are therefore at risk of falling for cyber scams, identify theft, phishing, and ransomware. A lack of robust consumer protection measures across ASEAN will leave consumers without a safety net if they fall prey to deceptive or unfair commercial activities, stifle consumer confidence in e-commerce and undermine its growth in the region.

Recommendations

As part of DEFA, ASEAN should recognize the importance of enforcing transparent and effective measures to protect consumers from misleading and deceptive commercial activities, unfair contract terms, and unconscionable conduct when they engage in e-commerce. To this end, ASEAN should enforce consumer protection laws to prohibit such activities that cause harm or potential harm to consumers engaged in online commercial activities. ASEAN should also recognize the importance of cooperation between the national consumer protection agencies of different AMS to improve consumer welfare. To this end, ASEAN should promote cooperation on matters of mutual interest related to misleading and deceptive commercial activities, including in the enforcement of their consumer protection laws, with respect to online commercial activities.

Encourage Open Digital Architectures

The use of closed architectures prevents interoperability and competition; and hinders the ability of companies to use the most cost-effective, secure, and innovative technologies. Contrastingly, the use of open architectures will facilitate interoperability among diverse hardware and software systems, thus ensuring companies a wide variety of choices in technology suppliers, irrespective of where the

suppliers are headquartered. This will allow an inclusive development of key emerging technologies such as cloud computing, artificial intelligence (AI), and next-generation technologies in telecommunications and networking, thus driving innovation and contributing to the further development of the digital economy.

Recommendation

As part of DEFA, AMS should encourage the widespread use of open architectures and promote the development of internationally-recognized and voluntary standards, that are established through a transparent process. It is paramount to keep any rules and guidelines inclusive towards the use of advanced technologies. Cloud computing, for example, will not only ensure data integrity and privacy but can also support the advancement of international trade. There needs to be a set of rules supporting the development of such technologies.

Promote Cybersecurity

Cybersecurity is fundamental to digital trade, just as threats to cybersecurity undermine confidence in digital services. Common risk-based approaches to enterprise security supported by consensus-based international standards, such as ISO/IEC 27110 and 27103, and the NIST Cybersecurity Framework, enable enterprises to secure digital trade across the entire value chain. Fragmented or bespoke regulations in specific jurisdictions limit the ability of digital trade participants to protect global enterprises and may serve as non-tariff barriers to trade.

Current state of play

According to a report by Kearney, cyber resilience in the ASEAN region is generally low with varying levels of cyber readiness among the member states.¹³ Many AMS have already been used as launchpads for attacks, either as vulnerable hotbeds of unsecured infrastructure or as well-connected hubs to initiate attacks. In 2021, the Singapore Cyber Security Agency (CSA) reported 137 ransomware cases in Singapore alone, an increase of 54% from the 89 cases reported in 2020. The cases affected mostly SMEs from manufacturing and IT sectors.¹⁴ Unfortunately, some governments have taken highly prescriptive approaches to cybersecurity that have severely restricted digital trade. Cybersecurity is also increasingly cited as a rationale for restrictions on the free flow of data. Giving firms the freedom to leverage global cybersecurity capabilities and solutions can help firms adopt best practices in protecting digital security. Conversely, restricting businesses' choice of cybersecurity solutions would prevent them from tapping into the latest innovations available globally to defend against cyber attacks.

¹³ https://www.kearney.com/digital/article/-/insights/cybersecurity-in-asean

¹⁴ https://www.csa.gov.sg/News/Press-Releases/ransomware-and-phishing-attacks-continued-to-threaten-singapore-organisations-and-individuals-in-2021

Recommendation

As part of DEFA, it is critical for ASEAN to strengthen cybersecurity capabilities through international cooperation and adoption of risk-based approaches to cybersecurity regulations to mitigate threats and vulnerabilities. ASEAN should adopt existing internationally-recognized standards, created through collaborative processes and on a consensus basis, when setting cybersecurity requirements (e.g., regulations, certifications). The DEFA should also consider incorporating actions on vulnerability disclosure principles on known and public vulnerabilities and cryptography, such as transparency, timeliness and responsible reporting.

ASEAN may want to note that cybersecurity in certain sectors is unique e.g., in healthcare field, due to the type of information at risk and the consequences for patient safety. There is a need to build digital platforms and communication strategies to increase awareness for consumers and public at large to be aware of different types of risks associated with cybersecurity.

Protect Source Code and Algorithms and Uphold Intellectual Property Rights

When source code and algorithms account for the crucial benefits derived from technology, requirements to share such information with other parties can compromise the confidentiality of the proprietary know-how and threaten to negate any competitive advantage. The protection of source code and algorithms will encourage international trade and investment by reassuring foreign software developers that they will not have to disclose the confidential and proprietary information underlying their products and services.

Current state of play

Across ASEAN, intellectual property rights laws are inadequately and unevenly enforced, and it is reported that legal enforcement, for example on copyright infringement, is not carried out thoroughly. These conditions present significant market access barriers and hinder the ability of firms to operate in ASEAN markets in addition to discouraging investment. Without robust intellectual property rights laws along with diligent enforcement across ASEAN, incentives to innovate will not be present which can be detrimental to ASEAN's competitiveness in the long term.

Recommendation

As part of DEFA, ASEAN should protect innovation by ensuring that AMS do not require the sharing of source code and algorithms or transfer of technology, intellectual property, trade secrets, production processes, or other proprietary information as a condition for market access, unless for specific investigations under certain warranted circumstances. ASEAN should also ensure that persons have the legal means to prevent trade secrets lawfully in their control from being disclosed to, acquired by, or used by others (including state-owned enterprises) without their consent in a manner contrary to honest commercial practices.

On intellectual property, ASEAN needs to consider commitments to achieve a robust copyright system, including effective copyright enforcement. We encourage appropriate copyright exceptions and limitations, including exceptions to prohibitions on circumventing technological protection measures to copyrighted works, consistent with the obligations under the three-step test of the Berne Convention, World Intellectual Property Organization (WIPO) Copyright Treaty, WIPO Performances and Phonograms Treaty and the WTO Trade-Related Aspects of Intellectual Property Rights (TRIPS) Agreement.

Foster Innovative Cryptography Products

Cryptography is critical to building trust in online transactions as it provides the means to ensure the authenticity of transactions between suppliers and customers and protect the contents of transactions in e-commerce. Firms also use cryptography to protect the confidentiality of their research from competitors or hackers. Strong cryptography helps firms and consumers securely communicate with the systems and individuals around the world, thereby facilitating the transactions that allow the global digital economy to grow.

Current state of play

With the average cost of a breach in Southeast Asia being US\$ 2.71 million per organization, the vulnerabilities resulting from an absence of strong cryptography are evident. However, mandatory cryptography standards inconsistent with internationally-recognized standards can also constitute a technical barrier to trade as they prevent the use of solutions that will allow greater interoperability and integration of operations. For example, there is a case in ASEAN where licensing of import and export of cryptography is required. While the process is tedious and scope of application is wide and ambiguous, import could be blocked by Customs if the licenses are not obtained. Such a scheme blocks access in the market to cryptography.

Recommendation

Given the importance of cryptography in minimizing disruption to the digital economy, it is imperative for AMS to adopt policies that support cryptography's role in protecting cross-border data flows and limit policies that discourage cryptography and jeopardize digital trade. ASEAN's DEFA should protect innovation in cryptography products to meet consumer and business demand for product features that protect security and privacy while allowing law enforcement access to communications consistent with applicable law.

ASEAN should ensure that companies are not required to transfer or provide access to any proprietary information relating to cryptography (for example, a private key or other secret parameters, algorithm specification, or other design detail), partnership or cooperation with any domestic parties, or use or integrate a particular cryptographic algorithm or cipher as a condition for

¹⁵ https://www.ibm.com/sg-en/security/data-breach

market access. Firms should also have the freedom to choose the cryptography technology they wish to use, and not be forced to only use domestic cryptography products, for example.

Promote Open Access to Government-Generated Public Data

Open access to government generated data is critical for digital transformation and data-driven innovation in ASEAN. As data is often the bedrock and fuel of research, open access to large government data sets can drive and facilitate research, thus accelerating the rate of discovery. It can be used to identify emerging governmental and societal needs in addition to encouraging collaboration. These, in turn, can drive innovation and open up new opportunities for commercial applications to develop new products and services. This would otherwise not be possible as small businesses are often unable to generate such large amounts of data by themselves. Additionally, opening up data access reduces the risk of data degradation and also increases transparency for citizens and improves trust and credibility in the government.

Current state of play

AMS are at varying levels of maturity in providing open access to government data. There is also scope for openness and consistency in the release of regional data sets for example by the ASEAN Secretariat, which would facilitate region-wide innovation and research.

Recommendation

ASEAN should recognize that facilitating public access to and use of government information fosters economic and social development, competitiveness, and innovation. Thus, as part of DEFA, ASEAN should endeavor to make government information, including data, available to the public in a machine-readable and open format that can be freely searched, retrieved, used, reused, and redistributed. ASEAN should also endeavor to cooperate to identify ways in which AMS can leverage government information and data to enhance and generate business opportunities, especially for SMEs.

As healthcare becomes increasingly digital, the volume of health data generated is increasing and therefore, there is also a need to build a systems approach for access to government supported health data sharing arrangements at national/sub-national levels. We need federated FAIR (Findable, Accessible, Interoperable, Re-usable) health data sharing ecosystems where appropriate access to data by individuals, industry, healthcare providers, and researchers is enabled.

Accelerate Digital Skills Development

With the increasing pace of digitalization in ASEAN, it is essential that ASEAN populations are equipped with the relevant digital skills to participate in the digital economy and digital trade.

Current state of play

Research¹⁶ has shown that the growth of the Southeast Asian digital economy may be held back due to a shortage of workers with the right skills. There is an urgent need and opportunity to reskill and upskill workers, including the youth, so that they can find jobs in growing Internet sectors amid the tough employment climate.¹⁷ There are existing digital skilling programs offered both by the private and public sectors, but there is room to make them more coherent and accessible through the DEFA.

Recommendation

ASEAN should acknowledge the importance of digital skills development to unlock digital trade opportunities and emphasize the need for collaboration with the private sector to build a steady pipeline of digital talent in ASEAN.

As healthcare is becoming increasingly digital, ASEAN needs to also consider greater investments and a more systematic approach to digital upskilling for all categories/cadres of health workers, by developing future ready curriculum which includes skills such as critical appraisal of data and digital health ethics.

Promote Market Access

Access to digital economy-relevant goods such as ICT equipment is critical to facilitate access to the Internet economy and digital trade. Market access for services in relevant sectors such as computer and related services and telecommunications services would also help to encourage improvement of digital literacy and foster more inclusive economic growth.

Current state of play

Not all AMS are party to the 1996 WTO Information Technology Agreement and the 2015 Expansion of the Information Technology Agreement, which have been pivotal in eliminating customs duties and facilitating the flow of digital technology hardware and equipment. AMS also currently have significant water in their WTO services schedules.

Recommendation

As part of DEFA, all AMS should commit to joining both the WTO ITA and its expansion to promote digital equipment and service access. AMS should also consider making further market access commitments in digital trade relevant sectors to provide businesses with more operating certainty and market access.

 $^{^{16}\} https://storage.googleap is.com/gweb-economy-sea.appspot.com/assets/pdf/e-Conomy_SEA_2020_Report.pdf$

¹⁷ https://www.aseanfoundation.org/mind_the_gap_mapping_youth_skills_for_the_future_in_asean

Promote Good Regulatory Practices (GRPs)

Many barriers to digital trade, especially digital services trade, are domestic in nature. Good regulatory practices can help to foster greater interoperability and promote the use of internationally-recognized or regional standards. It also encourages transparency, stakeholder consultation, and the consideration of a variety of regulatory tools which balance innovation with public policy objectives.

Current state of play

While ASEAN has a robust set of guidelines on GRPs, ¹⁸ not all AMS adhere to these GRPs when developing new regulations and laws. Poorly designed regulations have a significant impact on the digital economy, given the pervasive use of digital technologies across many economic sectors. There is also room for improvement on stakeholder engagement and transparency throughout the regulatory process.

Recommendation

DEFA should acknowledge the importance of GRPs in the digital economy, and the need for a new set of regulatory tools when considering digital regulation. For instance, on emerging technologies, DEFA should encourage the development of soft law instruments for advancing ethical practices while safeguarding the public interest. Industry guidelines, principles, and co-regulatory arrangements can complement existing regulatory frameworks.

Regulation of emerging technologies should be risk-based and focused on concrete and measurable harms, including their probability and severity. Regulatory burdens should only be imposed when the risk of harm is clear and should reflect a cost-benefit calculation that appropriately considers benefits. Meanwhile, regulatory risk assessments should be tiered and not discourage innovation. They should distinguish a technology from its associated potential undesirable outcomes and target these outcomes but not limit the technology itself. Additionally, rules should avoid prescribing technical requirements, as in the field of emerging technologies, regulation is often unable to keep up with the pace of development and can quickly be rendered obsolete and hinder technological evolution.

ASEAN should also strive for regional and global consistency in emerging technology regulation, to maximize effectiveness and make compliance and interoperability easier.

¹⁸ https://asean.org/wp-content/uploads/2017/09/ASEAN-Guidelines-on-Good-Regulatory-Practices2.pdf



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