

# Digital Cross-Border Trade Between Malaysia and ASEAN: A Comparative Digital Economy Framework Agreement (DEFA) Analysis

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## ABSTRACT

The rapid growth of the digital economy in Southeast Asia presents new opportunities for cross-border trade, particularly under the emerging ASEAN Digital Economy Framework Agreement (DEFA). This paper explores Malaysia's readiness to engage in digital cross-border trade with ASEAN partners, focusing on policy alignment, infrastructure and institutional preparedness among others. Using a comparative policy matrix across six DEFA pillars namely data governance, digital payments, electronic transactions, cybersecurity, e-commerce facilitation, and digital inclusion; the study benchmarks Malaysia's existing performance and readiness against ASEAN peers including Singapore, Indonesia, Thailand, and Vietnam.

**Keywords:** Cross-Border Trade, Digital Economy Framework Agreement (DEFA), Association of Southeast Asian Nations (ASEAN)

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## INTRODUCTION

The digital transformation of international trade is reshaping global economic relationships, with digital technologies reducing transaction costs, improving logistics, and enabling new forms of services and goods delivery (OECD, 2019). Digital cross-border trade defined as trade in goods and services enabled by digital platforms and infrastructure has become a significant growth driver in Southeast Asia. The Association of Southeast Asian Nations (ASEAN) digital economy is projected to reach USD 1 trillion by 2030, driven largely by e-commerce, fintech, and digital services (Bain, 2023). Malaysia, as one of ASEAN's most digitally advanced economies, has actively embraced this transformation. The country launched the Digital Free Trade Zone (DFTZ) in 2017 to facilitate seamless cross-border e-commerce, particularly for Small and Medium-sized Enterprises (SMEs) (Malaysia Digital Economy Corporation (MDEC), 2018). Furthermore, with the implementation of the MyDIGITAL blueprint, the government aims to transform Malaysia into a digitally driven, high-income economy by 2030 (Economic Planning Unit (EPU), 2021). The National e-Commerce Strategic Roadmap 2.0 focuses on improving trade facilitation and digital payments to enhance Malaysia's integration into global value chains (MITI, 2021).

Regionally, ASEAN is progressing toward a Digital Economy Framework Agreement (DEFA), scheduled for completion by 2025, which aims to strengthen and harmonize policies and digital economy cooperation across member states to promote cross-border digital trade (ASEAN Secretariat, 2023). These developments signal a shift toward deeper digital integration within the region, in which Malaysia plays a pivotal role. Key objectives of DEFA includes:

1. To facilitate cross-border digital trade – streamline digital service, e-commerce and digital payments among ASEAN members.
2. To ensure regulatory interoperability – harmonize laws on data privacy, cybersecurity, and digital transactions.
3. To promote inclusive digital economy growth – enhance participation by SMEs and reduce digital divides
4. To support mutual recognition of electronic documents, signatures and authentication methods.
5. To advance digital infrastructure and innovation through regional cooperation and capacity building.

Despite the growth potential, several policy and structural barriers constrain Malaysia's ability to fully capitalize on digital cross-border trade within ASEAN. Regulatory fragmentation, inconsistent data governance policies, non-tariff digital barriers, and gaps in digital infrastructure across member states create friction in cross-border digital flows (World Bank, 2021). While digital payments across Malaysia, Thailand, Indonesia, and Singapore are becoming interoperable (Bank Negara Malaysia, 2022), many SMEs still face difficulties in accessing foreign digital markets due to compliance costs, cybersecurity concerns, and language and cultural differences. Moreover, Malaysia's digital trade competitiveness is impacted by regional disparities in digital readiness. For example, while Malaysia ranks 32nd in the IMD World Digital Competitiveness Ranking 2023, other ASEAN countries such as Myanmar or Laos lag significantly behind (IMD, 2023). This uneven development hampers the creation of a unified digital trading ecosystem and limits the scalability of digital services and e-commerce platforms.

## LITERATURE REVIEW

Digital cross-border trade refers to the exchange of goods and services across borders that are enabled or facilitated through digital technologies, such as e-commerce platforms, digital payments, cloud computing, and data flows (UNCTAD, 2021). It encompasses both digital goods (e.g., software, media content) and digitally delivered services (e.g., financial, educational, and professional services). The World Trade Organization (WTO) highlights that digital trade is becoming increasingly important in global value chains and requires tailored regulatory frameworks (WTO, 2020). Scholars such as Meltzer (2019) and Banga et al. (2021) emphasize the transformative potential of digital trade, particularly for developing countries that can leapfrog traditional infrastructure gaps. However, they also caution that successful digital trade depends on harmonized regulatory environments, investment in digital infrastructure, and skills development.

ASEAN has made strategic efforts to integrate its digital economy through initiatives such as the ASEAN Digital Masterplan 2025 and the ASEAN Digital Economy Framework Agreement (DEFA) (ASEAN Secretariat, 2023). DEFA builds upon existing digital cooperation agreements like the ASEAN Digital Integration Framework (DIF) and is modeled after bilateral digital economy agreements such as the Singapore-Australia Digital Economy Agreement (SADEA). The key policy areas under DEFA are shown in Table 1.

Table 1. Policy Pillar under DEFA

Policy Pillar	Description
Cross-border Data Flows	Rules to enable secure and trusted movement of data across borders
Electronic Transactions	Recognition of digital contracts and e-Signatures
Digital Payments	Interoperability of payment systems across ASEAN
Cybersecurity Cooperation	Strengthening coordinated responses to digital threats
E-Commerce Facilitation	Simplification of rules and logistics for cross-border online sales
Digital Skills and Inclusion	Supporting of rules and logistics for cross-border online sales

Sources: ASEAN’s Portal (2025)

Empirical studies (e.g., Das & Singh, 2022) suggest that intra-ASEAN e-commerce and digital services trade is growing, but the region suffers from high regulatory fragmentation and inconsistent digital standards. The World Bank (2021) notes that although ASEAN has established frameworks like the ASEAN Single Window and Mutual Recognition Arrangements, cross-border digital transactions are still hampered by data localization laws, cybersecurity inconsistencies, and inadequate digital dispute resolution mechanisms. These frictions disproportionately affect Malaysia’s Micro, Small and Medium Enterprises (MSMEs) that lack the legal and technical resources to navigate complex requirements (ADB, 2022). Banga and Macleod (2023) identify that cross-border data flow restrictions and the lack of mutual recognition of electronic documents present major obstacles to seamless trade specific to ASEAN. These findings are echoed in regional assessments by the ASEAN Business Advisory Council and Economic and Social Commission for Asia (ESCAP) (2023), which call for the establishment of digital trade facilitation measures aligned with world Trade Organization (WTO) and Organisation for Economic Co-operative and Development (OECD) principles. Meanwhile, a recurring theme in the literature is the multiplicity of barriers to digital trade in emerging economies. These barriers include regulatory fragmentation (WTO, 2020; UNCTAD, 2021), digital infrastructure gaps (World Bank, 2021), cybersecurity concerns and low trust in online systems (OECD, 2019), and non-tariff digital trade barriers, such as licensing requirements and inconsistent customs procedures (ADB, 2022).

Malaysia is often cited as a digital frontrunner within ASEAN due to its relatively mature information and communication technology (ICT) infrastructure, supportive policy environment, and proactive initiatives such as the Digital Free Trade Zone (DFTZ) and MyDIGITAL Blueprint. According to Malaysia Digital Economic Corporation (MDEC) (2023), the DFTZ helped reduce clearance time for cross-border eCommerce consignments by 50%, particularly benefiting SMEs. However, recent studies (e.g., Lim & Teh, 2021; Yean, 2022) argue that Malaysia still faces challenges in regulatory alignment with its ASEAN partners, particularly concerning data governance, electronic payment interoperability, and consumer protection in digital trade. The mismatch between national policies and regional frameworks reduces the efficiency of digital trade flows and weakens Malaysia’s digital competitiveness. While there is growing interest in digital trade within ASEAN, existing literature often examines the region as a whole or focuses on major economies like Singapore, or Indonesia. There is limited country-specific research on Malaysia’s bilateral or multilateral digital trade relations with other ASEAN states, particularly from a policy challenge perspective. Moreover, few studies provide comparative evaluations of Malaysia’s digital trade readiness vis-à-vis ASEAN standards, or explore how domestic initiatives like Malaysia Digital Economy Blueprint (MyDIGITAL) align with regional goals such as Digital Economy Framework Agreement (DEFA).

The comparative policy analysis in this study is conceptually informed by the Trade Facilitation Theory, which emphasizes the reduction of transaction costs, harmonization of procedures, and regulatory alignment to improve cross-border trade efficiency. Additionally, the study also adopted elements from Digital Transformation Frameworks such as the OECD Going Digital Toolkit which

highlight the role of infrastructure, governance, and human capital as foundational pillars of an inclusive digital economy. These theoretical lenses provide a structured basis for evaluating Malaysia's policy alignment across DEFA's six pillars and understanding the broader implications for regional integration.

While this study draws on credible regional and international sources, future research should incorporate more recent and country-specific empirical studies, particularly post-2023 analyses, to reflect the fast-evolving nature of digital trade policies in ASEAN. For example, emerging developments following Malaysia's 2023 updates to its digital payment linkages and the ongoing DEFA negotiation rounds in 2024–2025 are not yet fully captured in current literature. Including such recent evidence would provide a more dynamic view of Malaysia's alignment and digital readiness trajectory.

## **METHODOLOGY**

### **Research Design**

This study adopts an exploratory research design based on secondary data to analyze Malaysia's digital cross-border trade performance and policy landscape within the ASEAN region. The aim is to identify patterns, opportunities, and policy bottlenecks based on historical and comparative digital trade indicators, institutional reports, and regional initiatives. A qualitative policy review of national and ASEAN-level digital economy framework is employed. A comparative analysis between Malaysia and other ASEAN countries (e.g., Singapore, Thailand, Indonesia, Vietnam) is conducted for key indicators to assess Malaysia's regional position and identify gaps.

The research also integrates theoretical perspectives from Trade Facilitation Theory, which posits that simplified and harmonized regulatory procedures foster trade growth, particularly in the context of digital transactions. In addition, the OECD's Digital Transformation Framework guides the evaluation of digital infrastructure, human capital, regulatory governance, and technological innovation; the key components influencing Malaysia's digital economy readiness.

### **Analytical Framework**

The analysis is structured around the main lenses; firstly, the review of MyDIGITAL Blueprint, Digital Free Trade Zone (DFTZ) policy documents, and their alignment with ASEAN Digital Economy Framework Agreement (DEFA) initiatives. Secondly, the comparative review of Malaysia's digital trade laws and DEFA policy pillar, and lastly the identification of gaps and mismatches such as limited cross-border data provisions under the Personal Data Protection Act (PDPA) 2010, and partial mutual recognition of electronic documents and signatures.

### **Limitation of Study**

The study relies solely on secondary data, which may lack firm-level granularity or the most recent trade volumes. Some ASEAN countries have incomplete or inconsistent reporting on digital trade indicators and limited access to proprietary data such as customs-level digital transaction flows. As a potential enhancement to this study, future research could develop a DEFA-based Digital Trade Alignment Index to systematically score and rank ASEAN countries across the six DEFA pillars. Such an index would provide a standardized benchmarking tool, offer clearer policy diagnostics, and track regional progress over time. This would enhance both the analytical originality and the practical utility of DEFA alignment assessments.

## **RESULTS AND DISCUSSION**

Trends in Digital Trade Performance

Malaysia's digital-deliverable services as a share of total trade in services have shown a steady upward trend, growing from approximately 24.7% in 2015 to 36.4% in 2023 (refer to Figure 1). This indicates growing competitiveness in Malaysia's digital economy, particularly in areas such as IT-enabled services (ITES), e-commerce, cloud services, and digital content. The increase reflects government efforts to boost digital trade under initiatives like the Malaysia Digital Economy Blueprint (MyDIGITAL) and National eCommerce Strategic Roadmap (NeSR), as well as private sector investment in digital transformation.

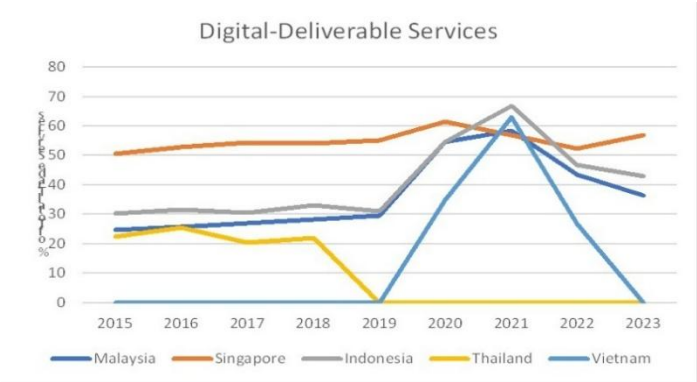


Figure 1. Digital-Deliverable Services

When compared to regional peers, Malaysia's performance is on par with countries like Indonesia and Thailand, which have also prioritized digitalization within their economic development agendas. However, Malaysia still lags behind Singapore, where digital-deliverable services accounted on average for over 50% of total trade in services during similar years. Singapore's strong digital infrastructure, advanced data governance framework, and early adoption of fintech and AI-related services have contributed to its lead.

Malaysia's relative position suggests both progress and untapped potential. Key challenges include limited SMEs participation in cross-border digital trade, digital infrastructure gaps in rural areas, and the need for more specialized digital talent. Addressing these issues could accelerate Malaysia's digital trade growth further, allowing it to close the gap with regional leaders. Moreover, strengthening public-private partnerships and aligning regulatory frameworks with international standards will be critical for enhancing digital trade competitiveness in the long run.

Comparative Readiness for Digital Cross-Border Trade

Malaysia ranks moderately high in the ASEAN region in terms of readiness for digital cross-border trade, with a well-articulated policy framework and emerging digital infrastructure. However, its performance is uneven compared to key regional peers, particularly Singapore, and it faces growing competition from rapidly advancing economies like Vietnam and Indonesia. Singapore remains the clear regional leader in digital cross-border trade readiness. With a highly advanced digital infrastructure, robust data governance frameworks, and proactive trade agreements like the Digital Economy Partnership Agreement (DEPA) and the UK-Singapore Digital Economy Agreement (UKSDEA), Singapore has positioned itself as a global digital trade hub (IMDA, 2021; MTI, 2025). Its streamlined regulatory environment, mature fintech ecosystem, and high levels of digital trust give it a substantial edge over other ASEAN economies, including Malaysia.

Malaysia, while trailing Singapore, outperforms many regional counterparts in terms of digital trade facilitation and policy coherence. National strategies such as the Malaysia Digital Economy Blueprint (MyDIGITAL), National e-Commerce Strategic Roadmap (NeSR) and New Industrial Master Plan (NIMP) 2030 provide a clear direction for enhancing digital trade. The JENDELA initiative to improve broadband and the rollout of 5G infrastructure mark tangible progress. Moreover, Malaysia's active participation in regional digital trade negotiations like the ASEAN Digital Economy Framework Agreement (DEFA) highlights its commitment to integration. Table 2 show comparative indicators of

Digital Readiness between Malaysia and selected ASEAN economies which include Network Readiness Index, IMD Digital Competitiveness, Trading Across Border Score and Logistic Performance Index.

Table 2. Comparative Indicators of Digital Readiness

Country	Network Readiness Index	IMD Digital Competitiveness	Trading Across Border Score	Logistic Performance Index
Malaysia	62.5	70.2	82.1	3.2
Singapore	85.3	90.5	94.3	4.1
Thailand	58.2	65.1	79.8	3.0
Vietnam	60.1	67.3	81.2	3.1
Indonesia	55.3	61.4	76.5	2.9
Philippines	52.6	59.0	75.9	2.8

Source: World Development Indicator, World Bank (2023)

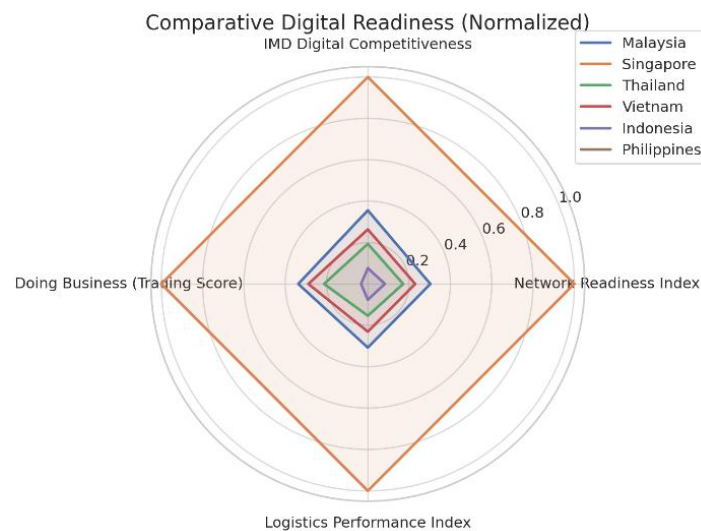


Figure 2. Comparative Digital Readiness Scores

Chart in Figure 2 suggests that Malaysia is well-positioned to benefit from regional digital integration, but must still enhance competitiveness to reach Singapore's performance level.

### E-Commerce and Infrastructure Indicators

Malaysia exhibits a relatively high SME e-commerce participation rate, with approximately 50% of small and medium enterprises engaging in online business activities. This reflects the growing integration of digital platforms such as Shopee, Lazada, and social media commerce into the operations of Malaysian SMEs. Government-led initiatives like Go- e-Commerce Onboarding Programme, MDEC's SME Digitalisation Grant, and incentives under the Malaysia Digital Economy Blueprint (MyDIGITA) have played a key role in encouraging digital adoption among micro and small businesses. This level of participation signals strong foundational readiness for digital cross-border trade, especially in the Business-to-Customer (B2C) and Business-to-Business (B2B) e-commerce segments.

Furthermore, internet penetration in Malaysia stands at around 70 to 78%, indicating that the majority of the population has access to online services. This widespread connectivity provides a solid base for digital commerce and online service exports. However, deeper challenges remain when it comes to the quality and scalability of connectivity infrastructure. Figure 3 shows e- commerce participation and internet penetration comparison between Malaysia and neighbouring ASEAN economies.

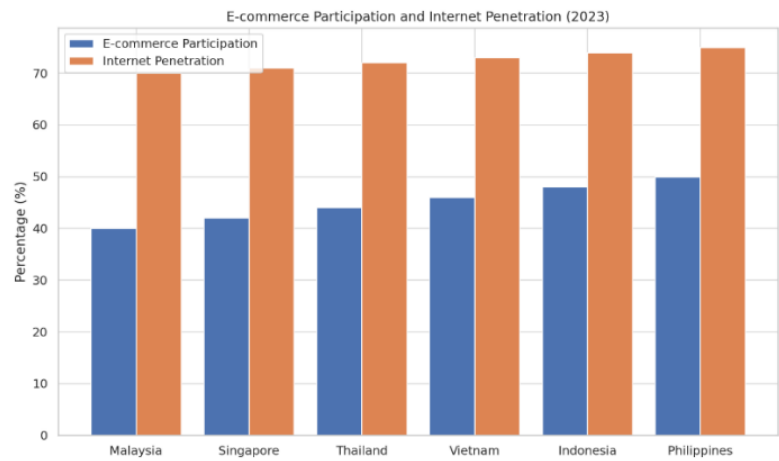


Figure 3. E-commerce Participation and Internet Penetration

The chart in Figure 3 shows internet penetration are high across all countries generally between 70% and 80%. These indicates widespread access to the internet throughout the region where Philippines, Indonesia, Vietnam, and Thailand show the highest internet penetration, followed closely by Singapore and Malaysia. On the other hand, e-commerce participation is lower than internet penetration in every country which ranges roughly from 40% to 50%. These might reflect barriers to e-commerce participation which might include digital trust, logistics, online payment adoption, or regulatory issues.

**Policy and Regulatory Alignment under DEFA**

The ASEAN Digital Economy Framework Agreement (DEFA) represents a significant step toward building a cohesive and integrated digital economy across Southeast Asia. One of the central pillars of DEFA is policy and regulatory alignment, which seeks to harmonize rules, standards, and practices among ASEAN member states to enable seamless digital trade, investment, and innovation across borders. Policy and regulatory fragmentation remain a key barrier to cross-border digital commerce in ASEAN. Each country has its own standards governing data protection, cybersecurity, digital payments, online consumer protection, and digital taxation. These inconsistencies create friction for businesses particularly SMEs which trying to operate regionally. Through DEFA, ASEAN aims to reduce these disparities and promote interoperability of digital systems, mutual recognition of digital regulations, and adoption of international best practices. Table 3 shows a DEFA policy matrix comparing Malaysia with selected ASEAN peers (Singapore, Thailand, Indonesia, and Vietnam). This matrix summarizes alignment with key DEFA pillars, based on available secondary sources (e.g., national strategies, ASEAN publications, and World Bank/International Telecommunication Union (ITU) reports).

The DEFA policy matrix highlights the varying degrees of digital economic readiness and regulatory alignment among Malaysia and selected ASEAN countries namely Singapore, Indonesia, Thailand, and Vietnam across six core policy pillars identified under the ASEAN Digital Economy Framework Agreement (DEFA).

Malaysia demonstrates relatively strong alignment across most DEFA pillars, driven by national initiatives such as MyDigital Blueprint, the National E-commerce Strategic Roadmap (NESR), and digital payment infrastructures like *PayNet* and *DuitNow*. However, Malaysia’s data governance framework anchored in the Personal Data Protection Act (PDPA) has yet to be fully aligned with cross-border data flow mechanisms, especially compared to Singapore’s more liberal and internationally harmonized regime. Singapore consistently leads the region in digital economy integration. With established frameworks under the Digital Economy Agreements (DEAs), such as the Singapore-Australia DEA (2020) and Singapore-Chile-New Zealand DEPA (2020), Singapore shows full alignment across all DEFA pillars.

Its proactive adoption of interoperable digital systems such as *PayNow*, *TradeTrust*, and *SkillsFuture* which serves as a benchmark for ASEAN's digital policy harmonization.

Meanwhile, Indonesia shows a mix of progress and challenges. While the government has introduced comprehensive policies like the Indonesia Digital Roadmap 2021-2024 data localization rules and cyber governance remain relatively rigid. Nevertheless, efforts to unify QR-based payment systems (QRIS, launched in 2019) and develop e-commerce ecosystems via platforms like Tokopedia (2009) and Gojek (2010; app launched in 2015) suggest growing alignment potential. Thailand has made substantial investments in digital infrastructure and regulations, including the Electronic Transactions Act (enacted in 2001, amended in 2019) and initiatives on cross-border payments (PromptPay, launched in 2017). Its National Cybersecurity Strategy and government-backed upskilling programs indicate moderate to strong alignment across most pillars. As for Vietnam, while advancing in digital skills and e-commerce expansion, still maintains relatively strict data control regulations and lacks regionally interoperable payment infrastructure. Cybersecurity and cross-border digital trade remain underdeveloped, which may slow its full DEFA adoption.

Table 3. ASEAN Digital Economy Framework Agreement Policy Alignment Matrix

DEFA Pillar	Malaysia	Singapore	Thailand	Indonesia	Vietnam
Cross-Border Data Flows	Partially aligned: PDPA lacks full cross-border mechanisms	Fully aligned: cross-border data clauses in SADEA, DEA	Moderately aligned: under PDPA & Digital ID initiatives	Partial aligned: under Kominformo supervision, limited liberalization	Limited aligned: strict data localization, limited frameworks
Electronic Transaction & e-signature Recognition	Fully aligned: Digital Signature Act 1997, Electronic Transaction Act (ETA) 2006	Fully aligned: with regional/inter national standards	Fully aligned: Electronic Transactions Act 2019	Fully aligned: regulated under ITE Law and its amendments	Fully aligned: e-signatures recognized under Law on E-transactions
Digital Payment Systems	Fully aligned: DuitNow, PayNet, cross-border QR initiatives	Fully Alligned: interoperable -PayNow linked to regional systems	Fully aligned: implementing cross-border QR codes with partners	Fully aligned: growing integration via QRIS & ASEAN QR collaboration	Limited aligned: domestic-focused but growing cooperation
Cybersecurity Cooperation	Moderately aligned: Cybersecurity Bill (draft), MyCERT established	Fully aligned: CSA-led, aligned with global standards	Moderately aligned: National Cybersecurity Strategy	Moderately aligned: emerging/strengthening initiatives post-2020 cyber attacks	Limited aligned: basic cybersecurity frameworks in place
E-Commerce Laws	Fully aligned: MyDigital, National E-commerce	Fully aligned: TradeTrust, digital	Moderately aligned: national platforms and	Moderately aligned: Tokopedia & Gojek	Moderately aligned: developing/expanding



DEFA Pillar	Malaysia	Singapore	Thailand	Indonesia	Vietnam
	Strategic Roadmap	customs automation	logistics digitalization	integration with push	through national strategies
Digital Skills & Inclusion	Fully aligned: MDEC programs, SME digitalisation grants	Fully aligned: SkillsFuture, IMDA programs for businesses	Moderately aligned: government- subsidized tech upskilling	Moderately aligned: digital literacy programs expanding in scope	Moderately aligned: major focus in post- pandemic recovery plans

Overall, the matrix reveals a digital divide in ASEAN, not only in infrastructure and market readiness but also in policy coherence and cross-border interoperability. Malaysia occupies a middle ground more advanced than some regional peers but still trailing Singapore in terms of digital liberalization and regulatory harmonization. These gaps underscore the need for continued policy dialogue and capacity-building efforts to operationalize DEFA by the targeted timeline of 2025. For Malaysia, strategic improvements in data governance and cybersecurity legislation could significantly enhance its digital competitiveness and cross-border integration under DEFA.

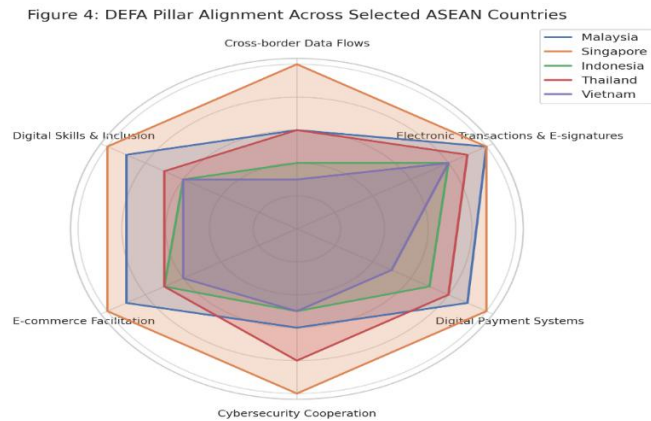


Figure 4. DEFA Pillar Alignment Across Selected ASEAN Countries

Figure 4 shows radar chart of Malaysia and selectes ASEAN peers alignment across the six DEFA policy pillars. The chart visualization shows the disparity in alignment and underscores areas for strategic focus such as in cross-border data governance and cybersecurity.

CONCLUSION

This paper examined Malaysia’s readiness for cross-border digital trade through the lens of the ASEAN Digital Economy Framework Agreement (DEFA). By analyzing six key DEFA pillars namely cross-border data flows, electronic transactions, digital payments, cybersecurity, e-commerce facilitation, and digital inclusion using a comparative policy matrix and visual radar analysis, we find that Malaysia is moderately aligned with DEFA benchmarks, trailing behind Singapore but ahead of several ASEAN peers such as Vietnam and Indonesia. Malaysia exhibits strong performance in areas such as digital payments (e.g., PayNet, DuitNow) and e-commerce facilitation (e.g., MyDigital, NESR), supported by broad digital literacy efforts. However, cross-border data governance and cybersecurity remain relatively underdeveloped. The lack of legal provisions for cross-border data transfer in the current PDPA and the pending enactment of a comprehensive Cybersecurity Bill, limit Malaysia’s full participation in regional

digital trade ecosystems. Given the DEFA's impending implementation and its potential to boost regional digital integration, Malaysia must accelerate policy reforms and ecosystem enhancements.

### Policy Recommendations

Based on the prior discussion, the following recommendations are proposed to improve Malaysia's cross-border digital trade. Firstly, to reform Malaysia's data governance framework by updating the Personal Data Protection Act (PDPA) to explicitly enable and regulate cross-border data transfers, drawing on regional best practices such as the ASEAN Model Contractual Clauses (MCCs) or mutual recognition frameworks with trusted jurisdictions. In parallel, establish trusted data-sharing mechanisms that support innovation and cross-border digital trade, while ensuring strong cybersecurity, privacy protections, and accountability standards. This dual approach will enhance legal certainty, build regional interoperability, and foster a more secure and inclusive digital economy. Secondly, strengthen regional financial integration by expanding bilateral and multilateral QR code payment linkages with key ASEAN partners such as Singapore, Indonesia, and Thailand. Ensure alignment with Bank Negara Malaysia's regulatory frameworks to facilitate seamless, secure, and real-time cross-border retail payments. Greater interoperability will support regional tourism, e-commerce, and SME participation in the digital economy. Thirdly, proactively engage in ASEAN DEFA negotiations to align Malaysia's digital trade regulations with international standards on key areas such as electronic signatures, paperless trade, and cross-border dispute resolution. Regulatory harmonization will enhance legal certainty, reduce transaction costs, and facilitate greater participation of Malaysian businesses in regional and global digital trade networks and lastly to make Singapore's experience with Digital Economy Agreements (DEAs) as Malaysia benchmark in designing Malaysia's future digital trade agreements beyond ASEAN. Adopt the proven successful frameworks and best practices that can help accelerate negotiations, ensure regulatory coherence, and enhance Malaysia's competitiveness in the global digital economy.

### Way Forward

The DEFA presents an opportunity for ASEAN to transform into a unified digital marketplace. For Malaysia, policy readiness is essential not only for regional competitiveness but also for securing long-term digital trade gains. With clear strategic alignment, institutional commitment, and regional cooperation, Malaysia can position itself as a leading hub for secure, inclusive, and interoperable digital trade in Southeast Asia. Beyond Malaysia, the insights from this study may offer guidance to other ASEAN member states seeking to strengthen their digital trade readiness. Malaysia's experience with initiatives such as the Digital Free Trade Zone (DFTZ), MyDIGITAL, and cross-border QR payment systems can serve as useful models for replication or adaptation in economies with similar ambitions but different starting points. A regional learning approach could promote more harmonized digital trade policies and narrow the digital divide within ASEAN.

### References

- Asian Development Bank (ADB). (2022). *Unlocking SME E-commerce Potential in ASEAN*. Available at <https://www.adb.org/publications/series/asia-small-medium-sized-enterprise>
- ASEAN Secretariat. (2023). *ASEAN Digital Economy Framework Agreement (DEFA)*. Available at <https://asean.org/wp-content/uploads/2023/10/ASEAN-Digital-Economy-Framework-Agreement>
- ASEAN Portal (2025). *ASEAN Digital Integration Framework Action Plan (DIFAP) 2019-2025*. Available at <https://asean.org/wp-content/uploads/2021/01/ASEAN-Digital-Integration-Framework>
- Bain. (2023). *e-Conomy SEA 2023 Report*. Available at <https://www.bain.com/insights/e-conomy-sea-2023/>
- Banga, R., & Macleod, J. (2023). *Data Policies and Digital Trade in Asia*. UNESCAP.

Bank Negara Malaysia. (2022). *Interoperable QR Code Payment Linkages in ASEAN*.

Das, K., & Singh, R. (2022). "Digital Trade Integration in ASEAN: Progress and Pitfalls," *Journal of Asian Economic Integration*, 4(2), 102-120.

Economic Planning Unit (EPU). (2021). *MyDIGITAL: Malaysia Digital Economy Blueprint*. Available at <https://ekonomi.gov.my/en/resources/publications/malaysia-digital-economy-blueprint>

InfoComm Media Development Authority (IMDA). (2021). *Singapore and The United Kingdom Substantially Conclude Negotiations on A Digital Economy Agreement*. Available at <https://www.imda.gov.sg/resources/press-releases-factsheets-and-speeches/press-releases/2021/singapore-and-the-united-kingdom-substantially-conclude-negotiations-on-a-digital-economy-agreement>

IMD. (2023). *World Digital Competitiveness Ranking 2023..* Available at <https://www.imd.org/reports/annual-report/2023/world-competitiveness-center>

Lim, H., & Teh, C. (2021). "Malaysia's Digital Trade Aspirations in ASEAN," *Asian Economic Policy Review*, 16(1), 87-106.

Malaysia Digital Economy Corporation (MDEC). (2018). *Digital Free Trade Zone (DFTZ) Overview*.

MATRADE (2025). *MADANI Digital Trade Connecting Malaysia Business to Global Opportunities Amid Market Volatility*. Available at <https://www.matrade.gov.my>

MDEC. (2023). *Malaysia's Digital Economy: Performance and Outlook*. Available at <https://mdec.my>

Meltzer, J. (2019). *Governing Digital Trade: Towards Policy Coherence*. *World Trade Review*. Available at <https://www.cambridge.org/core/journals/world-trade-review>

Ministry of International Trade and Industry (MITI). (2021). *National eCommerce Strategic Roadmap 2.0*. Available at <https://www.miti.gov.my>

Ministry of Trade and Industry (MTI). (2025). *Digital Economy Partnership Agreement (DEPA)*. Available at <https://www.mti.gov.sg/Trade/Digital-Economy-Agreements/The-Digital-Economy-Partnership-Agreement>

OECD. (2019). *Going Digital: Shaping Policies, Improving Lives*. Available at <https://www.oecd.org/en/publications/going-digital-shaping-policies-improving-lives>

OECD. (2019). *Measuring the Digital Transformation: A Roadmap for the Future*. Available at <https://www.oecd.org/en/publications/the-oecd-going-digital-measurement-roadmap>

UNCTAD. (2021). *Digital Economy Report: Cross-border Data Flows and Development*. Available at <https://unctad.org/publication/digital-economy-report-2021>

World Bank. (2021). *Digital Trade in Southeast Asian: Opportunities and Challenges*. Available at <https://documents.worldbank.org/documents-digital>

World Bank. (2021). *ASEAN Digital Trade Integration: Framework and Policy Toolkit*. Available at <https://documents.worldbank.org/document-digital>

WTO. (2020). *E-Commerce in the WTO: Status and Next Steps*. Available at <https://www.wto.org>

Yean, T.S. (2022). "Bridging Gaps in Malaysia's Digital Trade Policies," *ISEAS Perspective*, 2022/43. Available at <https://www.iseas.edu.sg>