ASEAN DEFA:

Promoting Interoperable Payments in Southeast Asia through the ASEAN Digital Economy Framework Agreement (DEFA)

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Executive summary

The ASEAN region is a rapidly growing hub for fintechs and digital payments innovation. However, significant frictions persist in cross-border payments within the region. These frictions increase ASEAN businesses' trade costs, curtail the growth of crossborder ecommerce and regional value chains, and limit consumer choice. They stem largely from ASEAN Member States' fragmented and, in some cases, restrictive payments-related policies that complicate payment service providers' (PSPs) scalability in the region.

The ASEAN Digital Economy Framework Agreement (DEFA) negotiations open an important opportunity for promoting crossborder payments in the ASEAN region. This paper, the third in Nextrade Group's series on DEFA, is intended to support DEFA negotiators with data on the economic opportunity unlocked by interoperable payments, and to make recommendations on the set of payments provisions that could be included in the agreement.

The main findings are as follows:

- **The use of digital payments has grown rapidly in recent years in Southeast Asia.** Digital wallets have become a popular payment method in ecommerce transactions, accounting for around one-third of transactions in most economies and some 40 percent in Indonesia. Real-time account-to-account payments are also increasingly popular, particularly in Indonesia, Malaysia, and Thailand. In point-of-sale transactions, cash is still significant, though digital wallets take up a significant share – for example, about a fifth in the Philippines a third in Indonesia.

- **Southeast Asia's payments ecosystem has expanded remarkably over the last decade**. The number of digital payment providers, digital wallets, and innovative tools such as buy now pay later apps has tripled in the past decade in Southeast Asia. The region's broader fintech ecosystem has also grown remarkably, thanks to businesses; interest in various lending, insurance, invoicing, payroll management, and other services.

- **ASEAN has long sought to promote payments interoperability.** ASEAN has had many initiatives to promote interoperable payments, such as the ASEAN Working Committee on Payment and Settlement Systems (WC-PSS). ASEAN economies have also created multiple bilateral real-time payment (RTP) interoperability initiatives.

- **However, significant frictions exist in crossborder digital payments in Southeast Asia, due in good part to fragmented and restrictive national payments regulations.** Restrictive payment licensing rules and lack of interoperability among national rules in such areas as cross-border data transfer, payment licensing, cybersecurity, anti-money laundering and countering the financing of terrorism (AML/CFT), and others hinder payment providers' scalability in the ASEAN region, which in turn creates inefficiencies, delays, and increased transaction processing costs for micro, small and medium enterprises (MSMEs) that transact across borders in the regional market.

- **A survey with 800 ASEAN region MSMEs reveals that intra-regional payments interoperability has improved, but that frictions to interoperability still curtail MSMEs' exports and export diversification, costing as many as 2.7 million MSME jobs.** The surveyed MSMEs report greater ease of accepting payments from other Southeast Asian markets in the past three years. However, payments acceptance challenges have still stopped almost a third of firms from closing at least one sale with a customer in another Southeast Asian economy. Firms report that payments frictions cause them to forego about 3-10 percent export revenue in the intra-regional market.

ASEAN Member States have a great opportunity in the DFEA to create a more integrated regional payments ecosystem, for example by adopting the following policies:

- **Passporting for payment providers and fintechs.** Rules and especially processes to license payment providers are arcane in various ASEAN economies. To enable PSPs and fintechs' to quickly deploy in multiple markets, ASEAN economies could encourage regional mutual recognition of payments licenses.[1] This could be done through "passporting", a practice used in Europe that allows financial institutions to provide services across the European Union (EU) with minimal additional authorization.

- **Relaxing local presence and ownership requirements.** For payments providers, the requirement to establish local offices, have local directors, and even to form joint ventures with local companies entails costs and delays deployments. The DEFA could promote exceptions to these rules and loosen local ownership requirements, in order to enable PSPs to enter new markets quickly and cost-effectively.

- **Easing and converging cross-border data transfer rules.** Various ASEAN economies impose restrictions to the crossborder movement of data; there are also notable cross-country variations as to where user data has to be stored and where payment processing can take place. This fragmentation of rules raises the costs for PSPs to operate across markets. The DEFA can support a regional data privacy and transfer framework that allows payment providers to apply the same template when using customer data and transferring data for processing.

- **Aligning AML/CFT Standards.** ASEAN economies vary in their level of implementation of the Financial Action Task Force (FATF) guidelines that would create a common baseline for payments regulations and facilitate cross-border investigations of suspicious transactions. he DEFA could promote ASEAN economies' alignment with the FATF guidelines regional economies' application of AML/CFT rules.

- **Ensuring open APIs.** The progress on open APIs that enable different payment systems and software to "speak the same language" and promote interoperability is also uneven in Southeast Asia.[2] Singapore, Malaysia, Thailand, Indonesia, and the Philippines have made strides in open APIs, but other economies lag behind.

- **Implementing ISO 20022.** Nine ASEAN economies are in different stages of adopting ISO 20022, the international messaging standard for electronic data interchange between financial institutions. Myanmar has yet to start. The DEFA could accelerate ISO 20022 implementation.

- **Aligning consumer protection regulations.** Most ASEAN Member States have consumer protection policies and laws that ensure transparency and accuracy in product descriptions and pricing, and prohibit unfair and deceptive advertising. However, ASEAN economies could still align their consumer protection rules, for example to ensure unform refund mechanisms and cooling periods that enable a consumer to return a good within a certain time without justification.

Many of these recommendations have already been encapsulated in the Singapore-Australia Digital Economy Agreement (SADEA). SADEA calls for the parties to make regulations on electronic payments such as on regulatory approval, licensing requirements, and procedures and technical standards publicly available; prevent discrimination between financial institutions and non-financial institutions in relation to access to services and infrastructure in operating electronic payment systems; and adopt international standards for electronic payment messaging, especially ISO 20022.[3]

ASEAN economies can use SADEA as a blueprint for DEFA payment provisions. The promotion of interoperable payments in the ASEAN should continue well after the DEFA is finalized. To ensure implementation and drive payments interoperability further, DEFA could:

- **Set out to develop a roadmap for ASEAN Digital Payments Area** similar to the European Single Euro Payments Area Framework (SEPA), which makes cross-border euro transactions as simple and cost-effective as domestic payments by standardizing the format and processing of credit transfers and direct debits across Europe. Before SEPA, international transfers within Europe were expensive and slow. SEPA has lowered costs, enabling small businesses to more easily sell across borders.

- **Promote the measurement and public-private dialogue on payments interoperability.** ASEAN economies should promote the analysis of payments interoperability as well as dialogues between governments, central banks, and the private sector to ensure that the national payments-related regulations are conducive to PSPs' regionalization and innovation.

- **Promote regional payments innovation through regional regulatory sandbox.** Southeast Asian economies could also create a regional fintech sandbox specifically focused on scalable payment innovations, and together test cross-border digital payment solutions in a controlled environment. Such a sandbox would enable regulators to share ideas and approaches, and learn from each other when considering optimal regulations that support participating firms' regionalization.

1. Introduction

The ASEAN region is a dynamic hub for innovative payment providers and fintechs that have promoted the region's rapid payments digitization and helped consumers and businesses access various financing solutions. However, there remain significant frictions in crossborder payments across the region, reflected in various challenges for Southeast Asian micro, small, and medium enterprises (MSMEs) to accept payments from individuals and business customers in other Southeast Asian markets. These frictions stunt MSMEs' prospects in regional trade and ecommerce.

These frictions stem in part from ASEAN Member States' disparate, and in some cases restrictive, payments-related policies and standards, such as licensing rules for payment service providers (PSPs) and disparate anti money laundering and countering the financing of terrorism (AML/CFT) regulations that complicate payment service providers' ability to operate in multiple markets.

The ASEAN Digital Economy Framework Agreement (DEFA) negotiations open an important opportunity for removing the barriers to crossborder payments and realizing new trade gains. This paper, the third in a series on realizing a trade-creating DEFA, is intended to support DEFA negotiators with data on the importance of interoperable crossborder payments for intra-ASEAN trade, and to provide policy ideas, on payments disciplines that could be included in the DEFA.

The following section reviews the growth of the digital payments and fintech ecosystems in the ASEAN region in the past decade. Section three analyzes the various regulatory issues that create frictions in crossborder payments in the ASEAN region. Section four uses survey data to assess the costs that these frictions have on MSMEs that export in the ASEAN region. Section five includes policy recommendations, while section six concludes.

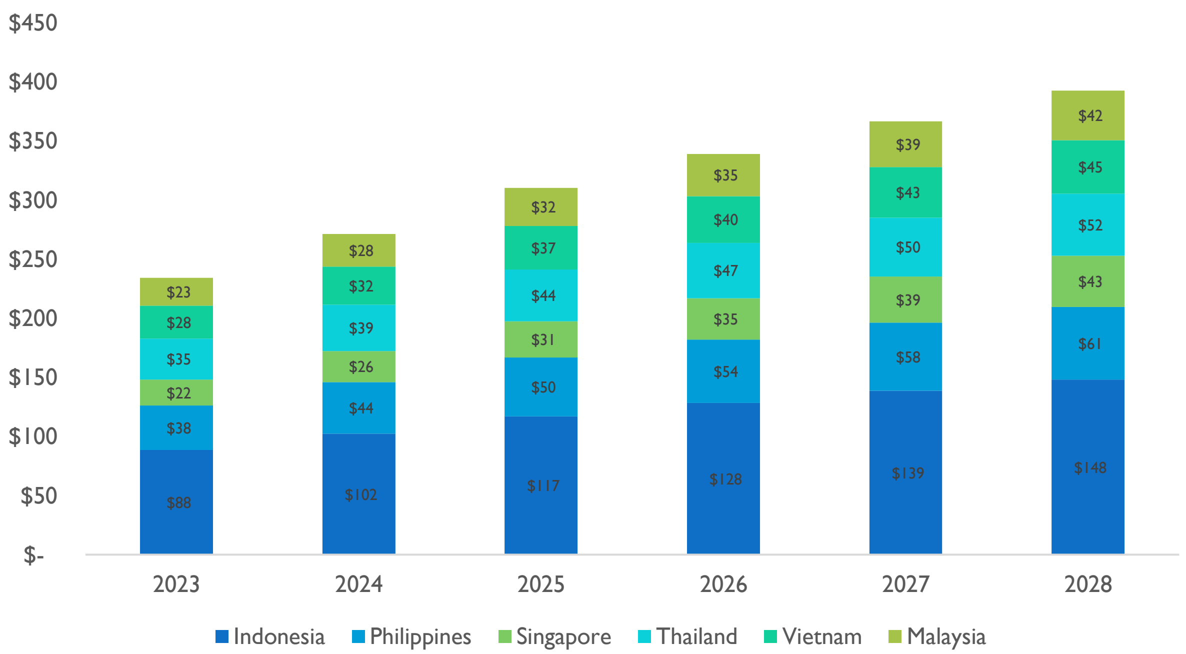
2. Growth of digital payments and fintech ecosystems in the ASEAN

Payments have digitized rapidly in the ASEAN region, helping to boost the region's ecommerce growth. Payments digitization has been paralleled by the rise of fintechs that offer diverse financial services. This section takes stock of the digitization of payments and the rise of PSPs and various types of fintechs in the region.

a. Payments digitization in the ASEAN

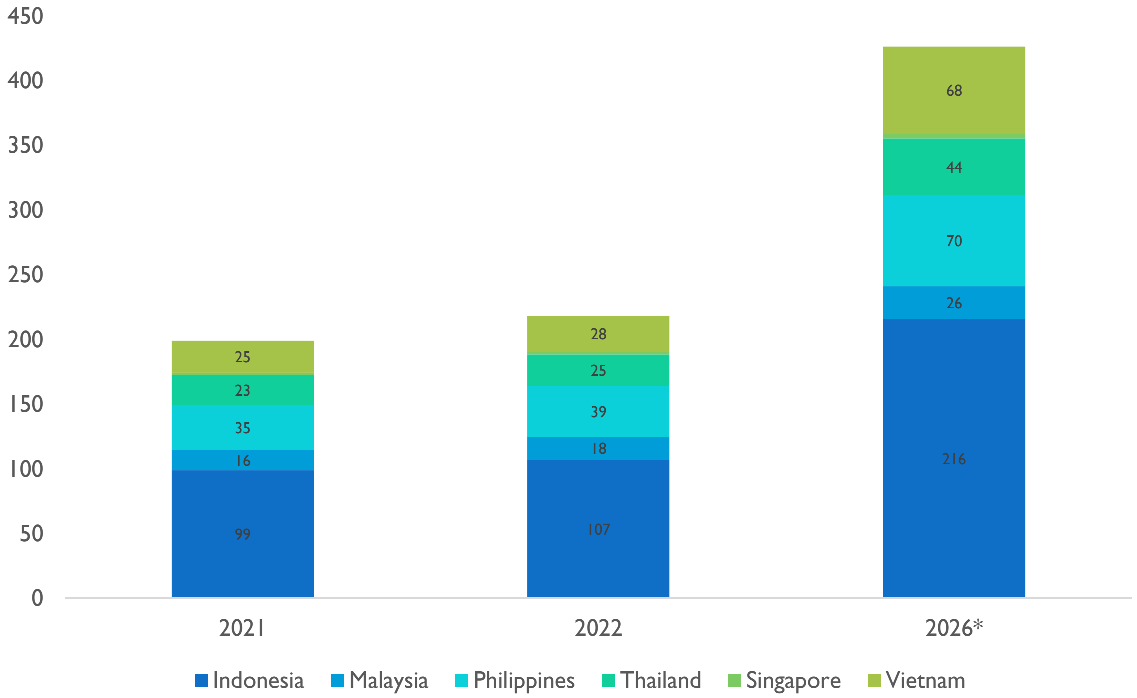
The use of digital payments has grown rapidly in the ASEAN region to about $270 billion in 2024, and is poised to grow further to nearly $400 billion by 2028 (figure 1). According to IDC forecasts, nearly 450 million people in the region, or about two-thirds of the population, will use digital payments by 2026, more than double the percentage in 2021 (figure 2).

Figure 1 – Digital payments transaction value in Southeast Asia in 2023-2028, by economy (in billion U.S. dollars)



Source: Statista Digital Market Insights. Includes Digital Commerce, Mobile PoS payments, and Digital Remittances.

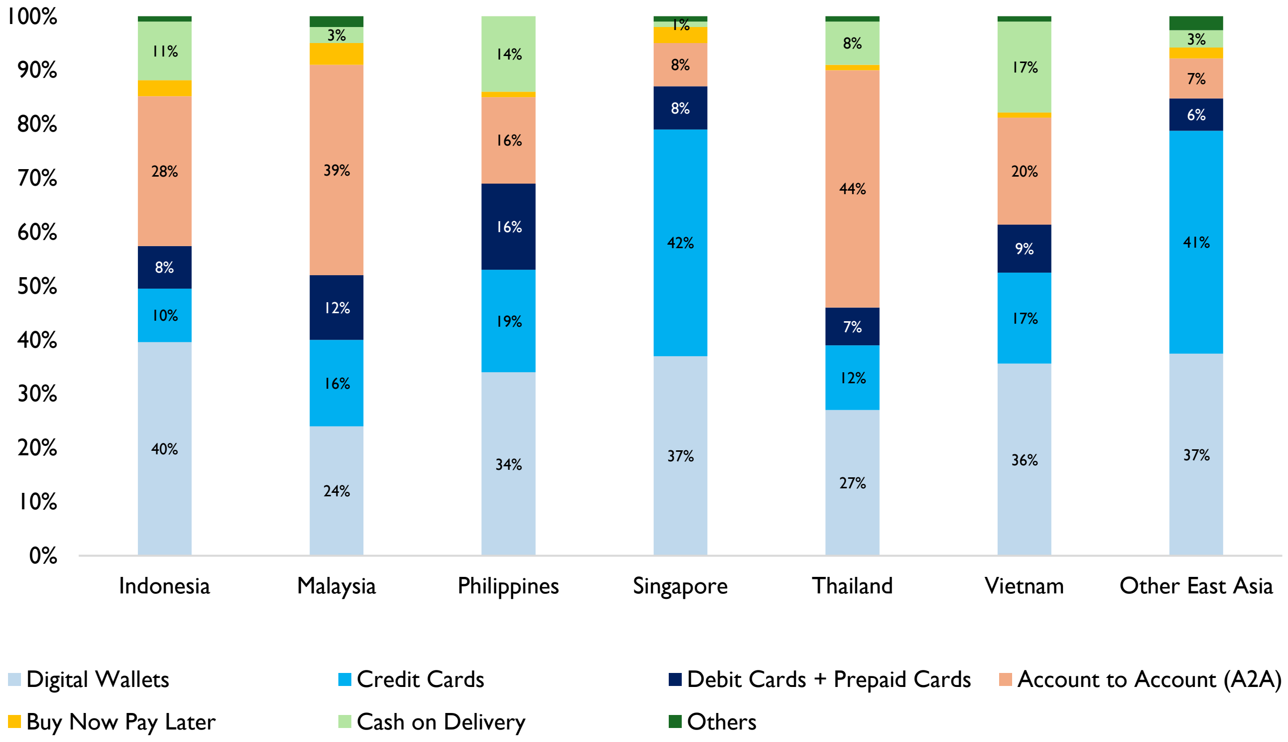
Figure 2 – Number of Southeast Asian consumers that use digital payments, 2021-26)



Source: IDC.

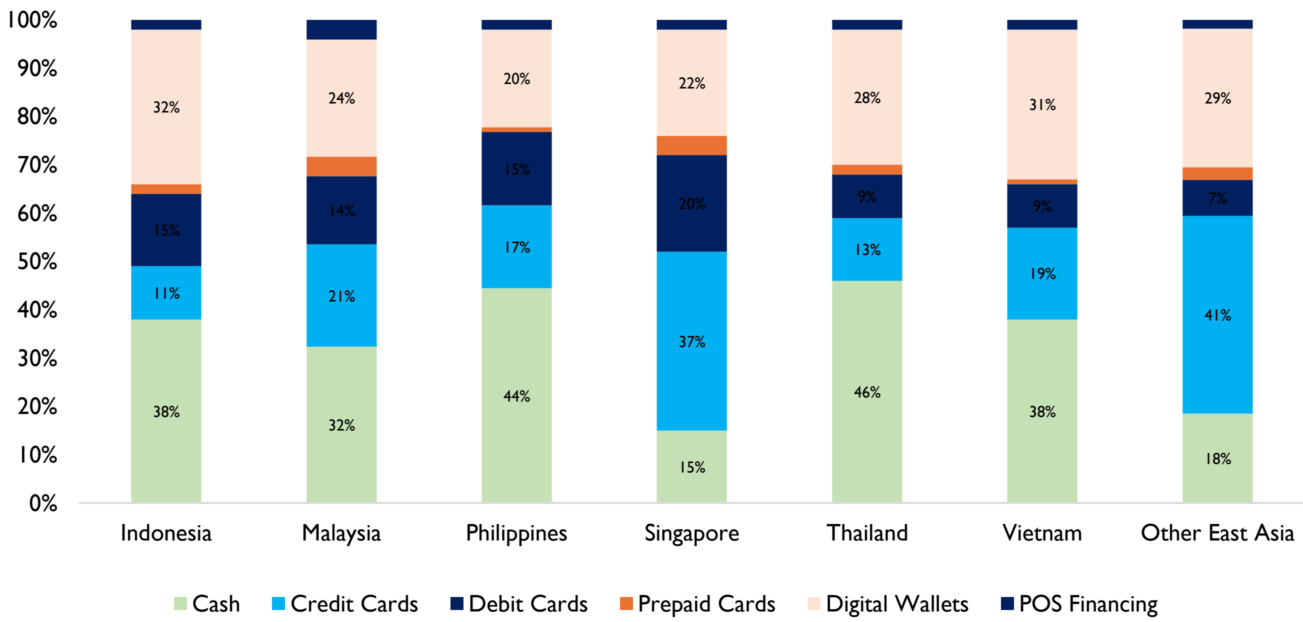
In ecommerce transactions, cash on delivery today makes up less than a fifth of all payments in Southeast Asia and less than five percent of payments in Malaysia and Singapore (figure 3). Digital wallets have become a popular payment method in ecommerce transactions, accounting for about one-third of transactions in 2023, and up to 40 percent in Indonesia. Account-to-account (A2A) payments, which move money directly from a payer's bank to a payee's bank without intermediaries, are increasingly popular, particularly in Indonesia, Malaysia, and Thailand. In point-of-sale transactions, cash is still prevalent, especially in the Philippines and Thailand. However, digital wallets also take up a significant share, including 32 percent in Indonesia (figure 4).

Figure 3 – Southeast and East Asian ecommerce payment methods, 2023



Source: Worldpay Global Payments Report, 2024

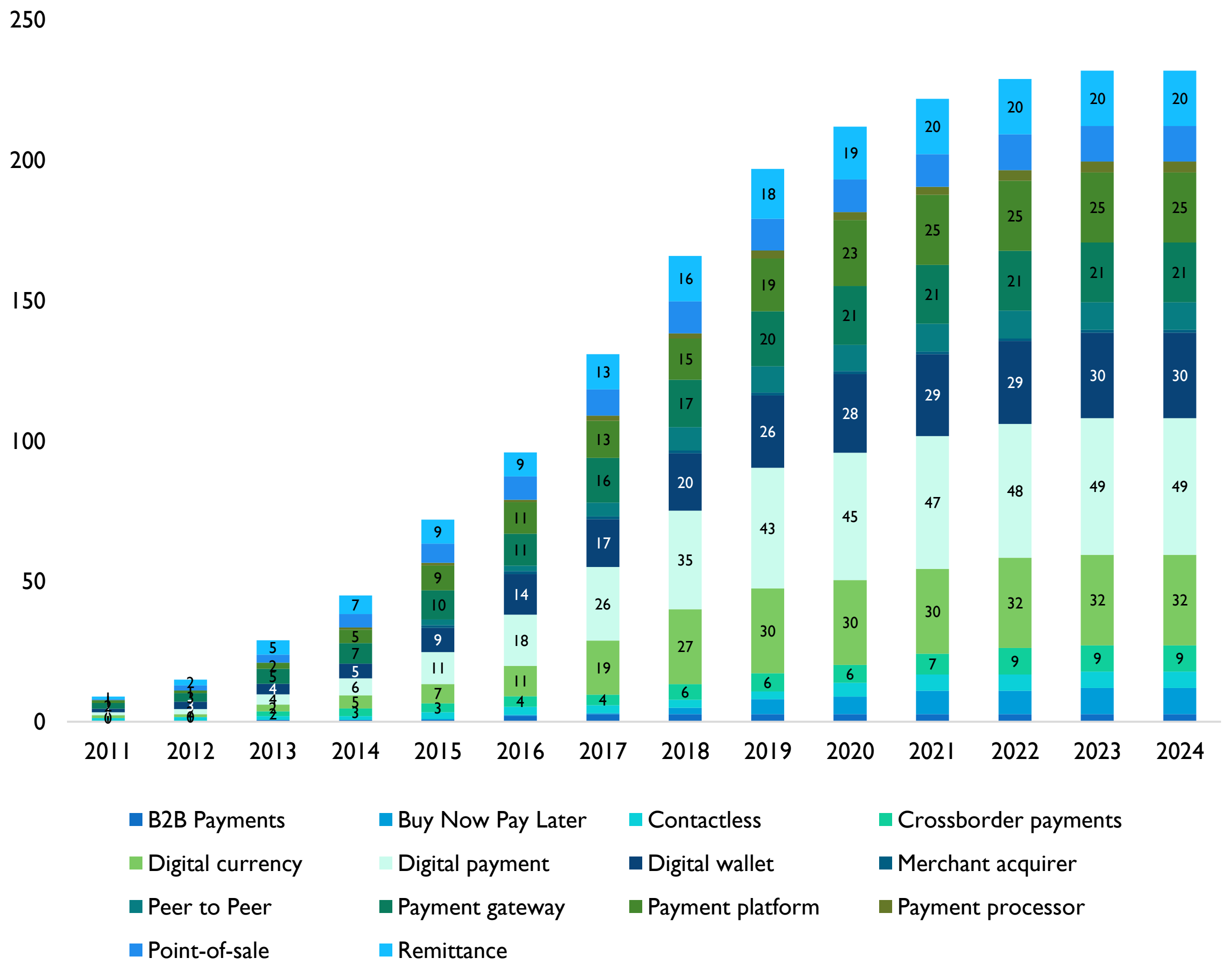
Figure 4 – Southeast and East Asian point of sale payment methods, 2023



Source: Worldpay Global Payments Report, 2024.

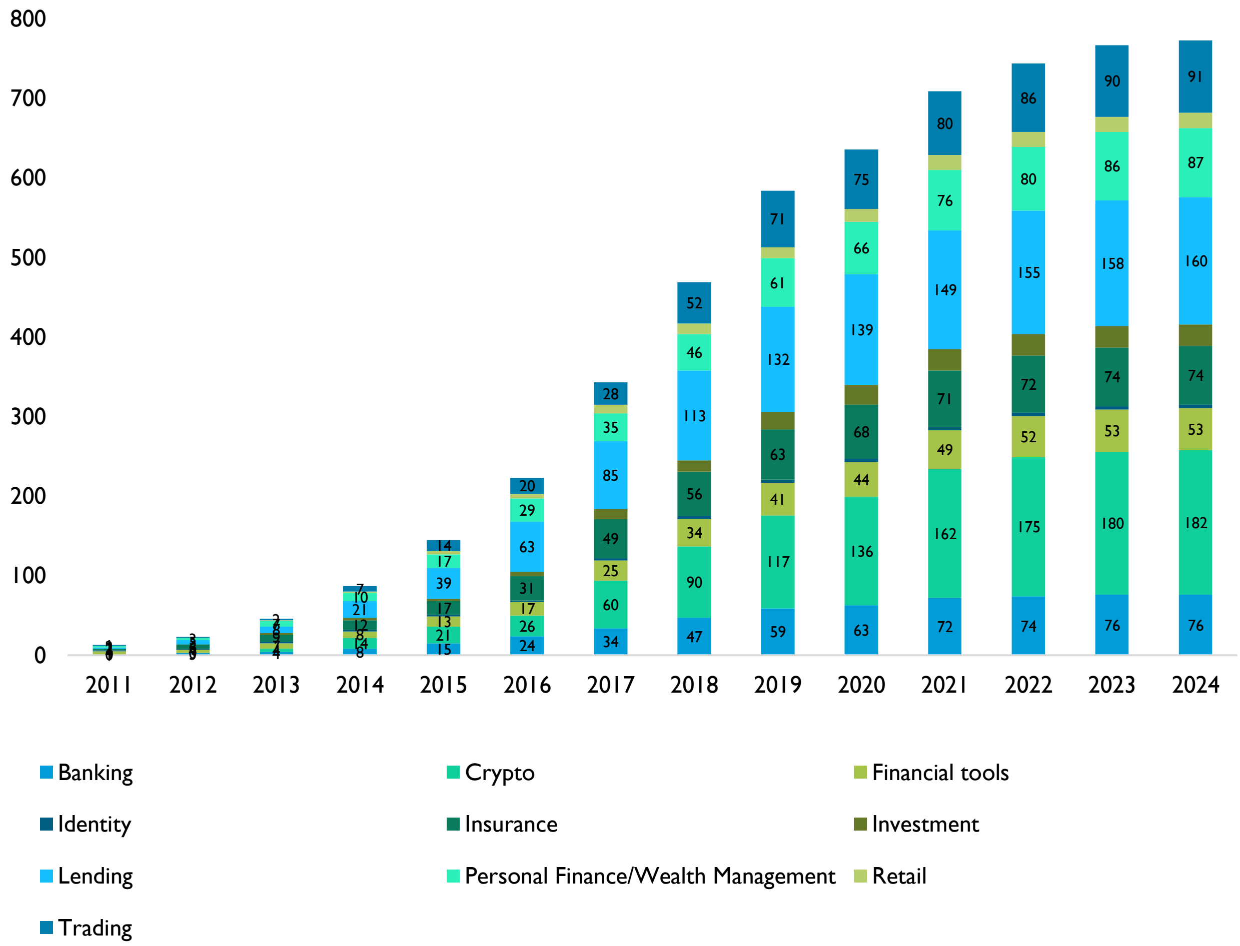
Behind Southeast Asian payments digitization is a remarkable PSP ecosystem. The number of PSPs such as digital wallets and buy now pay later apps tripled in 2015-24, from just 72 companies in 2015 to 232 in 2024 (figure 5). The fintech ecosystem has also grown, particularly thanks to the rise of cryptocurrency, lending, and trading services (figure 6).

Figure 5 – Number of new payment startups in Southeast Asia in 2011-2024, by sector (cumulative)



Source: Nextrade Group on the basis of Crunchbase data.

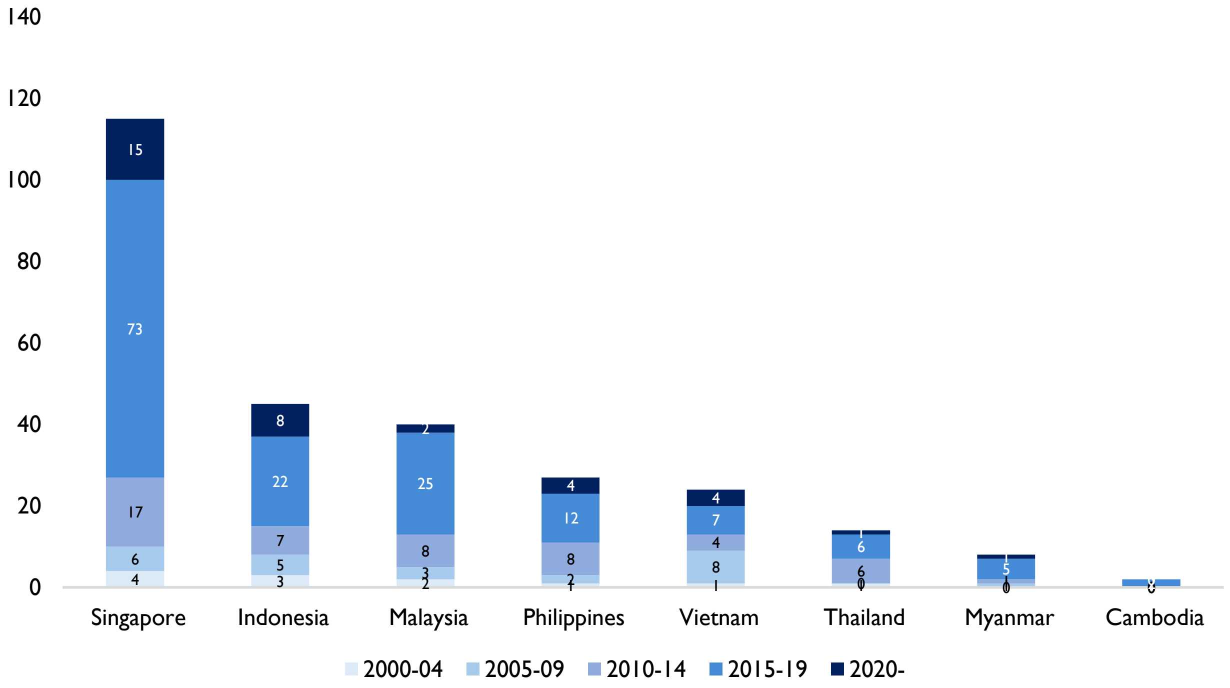
Figure 5 – Number of new fintechs in Southeast Asia in 2011-2024 (cumulative)



Source: Nextrade Group on the basis of Crunchbase data.

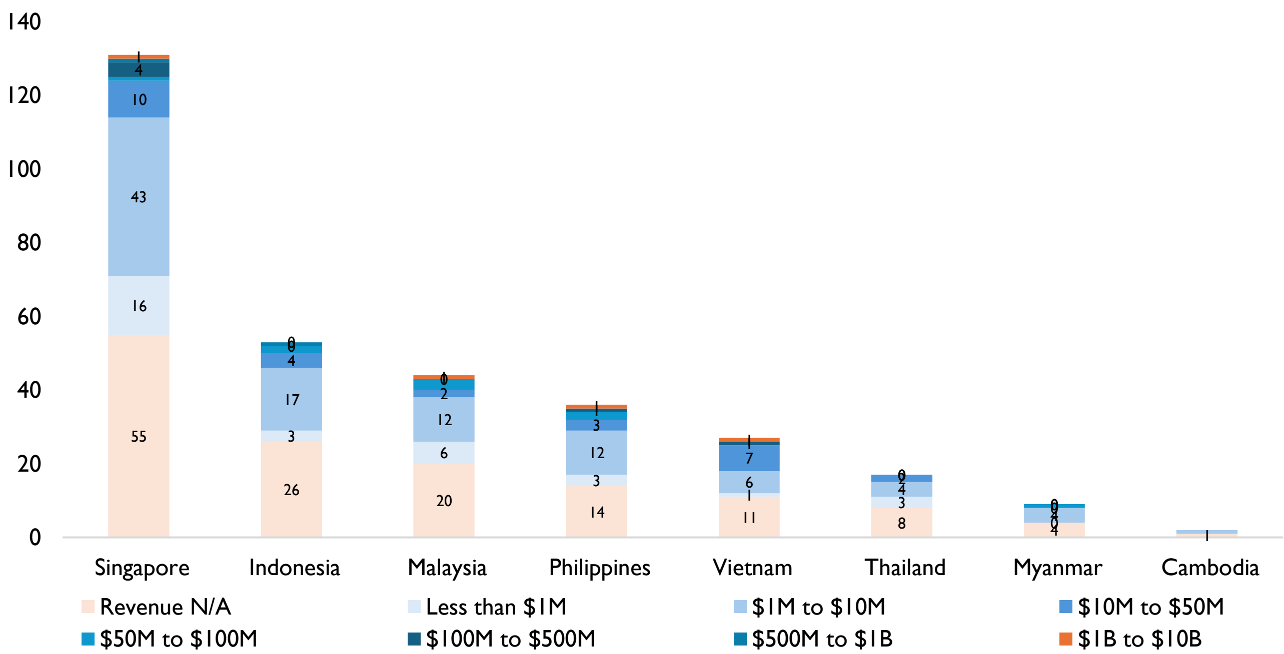
Singapore leads the way in the number of digital payment companies (114 are headquartered there, per Crunchbase data), followed by Indonesia, Malaysia, and the Philippines (figure 7). PSPs for which revenue data is available have typically between $1 million and $10 million in revenue, though in Singapore, 15 firms have surpassed the $10 million revenue mark (figure 8). Most companies have received 1-3 rounds of funding; some 13 percent of companies in Singapore reported 4-6 funding rounds, and five companies had seven or more funding rounds (figure 9).

Figure 7 – Digital payments companies in the ASEAN, by year founded and economy



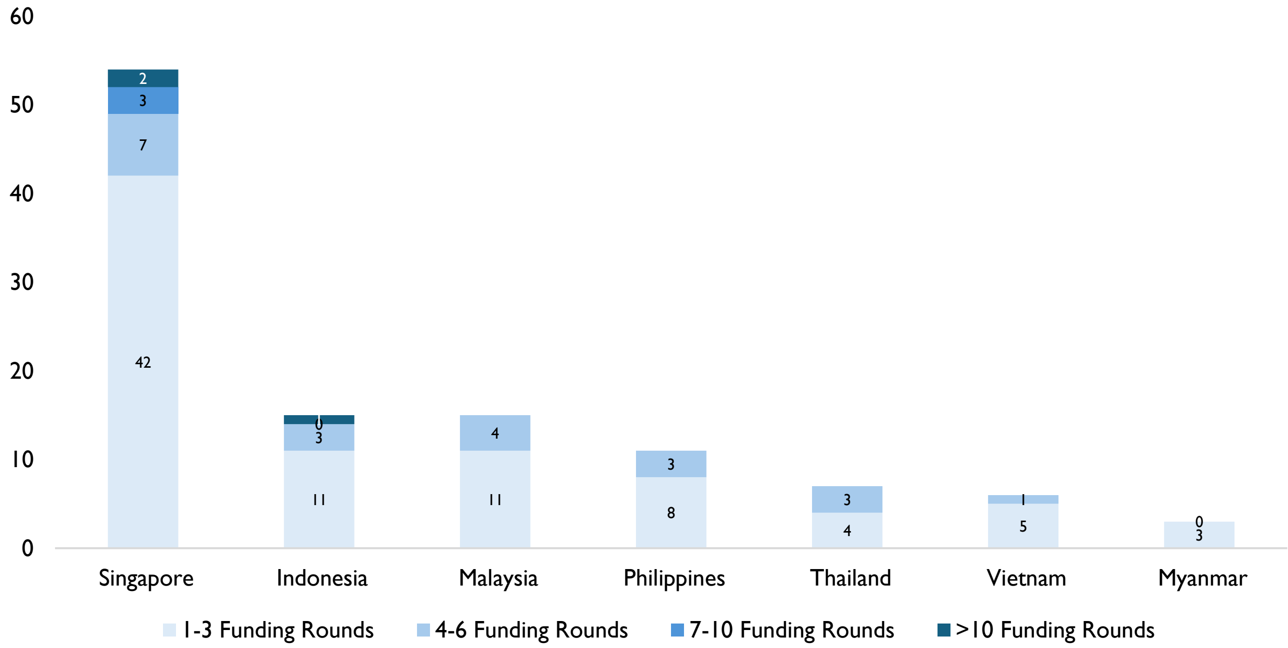
Source: Nextrade Group on the basis of Crunchbase data.

Figure 8 – Digital payments companies in the ASEAN region, by revenue and economy



Source: Nextrade Group on the basis of Crunchbase data.

Figure 9 – Digital payments companies in the ASEAN region, by funding rounds and economy



Source: Nextrade Group on the basis of Crunchbase data.

There are multiple prominent digital wallet providers in the region – many of them technology companies that offer digital payments like Alipay and GooglePay, and superapps like Grab and Gojek, which enable digital payments for such services as ride sharing, food delivery, and logistics, and which also offer financing for their users. According to a survey conducted by Rakuten Insight in October 2022, the ecosystem is quite fragmented regionally, with each economy having its own set of prominent digital payment providers. GoPay by Gojek was the most used digital payment service in Indonesia, with 78 percent of the respondents using it; in Thailand, PromptPay led the way, while PayMaya was prominent in the Philippines and MoMo in Vietnam (table 1, case 1). PayPal was the most commonly used digital payment service across Southeast Asian countries, with a significant market share in Indonesia, Malaysia, the Philippines, Singapore, and Vietnam. There are innovative providers like Coda that provide a common platform for local payments providers (case 2).

Table 1 – Share of population using selected digital payments in Southeast Asia as of October 2022, by economy

	Indonesia	Malaysia	Philippines	Singapore	Thailand	Vietnam
E-payment services/e-wallets from banks	20	34	20	29	36	24
PayPal	34	25	61	44		29
GrabPay		51	15	55	24	
Google Pay				34	17	
AirPay					12	18
GoPay	78					
Touch 'n Go		92				
Gcash			98			
DBS PayLah!				64		
TrueMoney Wallet					83	
MoMo						76
OVO	70					
DANA	69					
LinkAja	25					
Boost		36				
BigPay		14				
PayMaya			49			
Coins PH			23			
7-Eleven CLIQQ Rewards			21			
Favepay				26		
Apple Pay				21		
Samsung Pay				11		
PromptPay					73	
Rabbit LINE Pay					19	
Lazada Wallet					22	
ZaloPay						59
Viettel Pay						36
VNPAY						25
Moca						14

Source: Rakuten Insight.

Case 1: Superapp MoMo enabling digital payments in Vietnam

Driven by the success of other Southeast Asian tech giants such as GoJek and Grab, Vietnam's MoMo has become the country's leading super app, seamlessly combining payments, financial services, entertainment, shopping, and transportation. By 2025, the company will have surpassed 40 million active users with a 20 percent month-over-month increase in transaction volume and user engagement, and will have grown to include more than 10,000 partners across various industries, including consumer finance, insurance, e-commerce, travel, and on-demand services.[4] MoMo's Mini-App ecosystem hosts over 100 integrated services, enabling users to complete a wide range of tasks such as transferring money, paying bills, buying insurance, shopping online, booking travel, and even medical consultations. The app provides access to more than 100,000 payment points nationwide. In 2025, MoMo remained the only Vietnamese fintech company listed among the Top 50 Global Fintech Innovators.[5]

A study done in 2023 used data collected from 138 MoMo users to analyze user attitudes and behavior, and found that perceived usefulness, ease of use, social influence, mobility, and convenience were key to catalyzing adoption.[6]

The study found that people 18-29 years of age make up the majority, or 75 percent, of MoMo e-wallet users. Full-time employees dominate this demographic, accounting for 67 percent of users; students, freelancers, and self-employed individuals also actively use the platform. Most users are from the southern region, Vietnam's economic hub, accounting for 61 percent of the surveyed population. They are somewhat better off than the average Ho Chi Minh resident, making US$392-US$588 per month.

The study also reveals numerous use cases for MoMo, with 73 percent of users engaging in multiple services, such as purchasing tickets, shopping, and paying for leisure activities.

The research tested several hypotheses to determine factors influencing MoMo adoption. Findings indicate that 70 percent of users regard the MoMo e-wallet as useful, and 63 percent find that the app positively impacts their daily activities. Additionally, 73 percent of respondents appreciate the speed of account updates. Perceived ease of use was another critical factor, with 60 percent strongly agreeing that MoMo is simple to learn and use. Social influence also plays a role, as familiarity and peer influence significantly impact adoption.

Mobility and convenience emerged as additional key determinants in MoMo's adoption. More than half of the surveyed completely agree that they could access and use the app anywhere, while 41 percent indicated they could use the app while traveling. 57 percent of respondents agree that MoMo wallets can be used for daily living expenses like water, power, and internet, and the majority of respondents agree that they can use the app for online purchases, with more opportunities for use as more establishments accept mobile wallet payments.

Case 2: Promoting interoperable payments in Southeast Asia: Coda Payments[7]

Coda is a payment technology company specializing in out-of-app monetization and commerce solutions. Established in 2011 in Indonesia, the company set out to solve a major obstacle to purchasing and accessing digital content, which was becoming an increasingly popular industry. At the time, payment options to purchase digital content were scarce, with credit cards often the only method, yet just 0.5 percent of the population had access to a credit card.

To bridge this gap, Coda's founders developed a system that integrated widely trusted local payment methods with global online commerce. This innovation expanded access for users while creating new revenue opportunities for publishers, laying the groundwork for Coda's broader mission to seamlessly connect people with digital content.

Seeing a significant opportunity in the gaming sector, Coda launched two key solutions. Codapay is a plug-and-play API that enables publishers to integrate more than 400 payment methods through a single connection, from e-wallets to direct carrier billing, where payments are charged to a user's mobile phone. Codashop operates as a marketplace for in-game currencies and digital content, lowering transaction fees and improving conversion rates for game publishers.

Today, Coda collaborates with over 300 publishers, supports more than 90 percent of the most widely used payment methods, and serves over 200 million paying users globally.

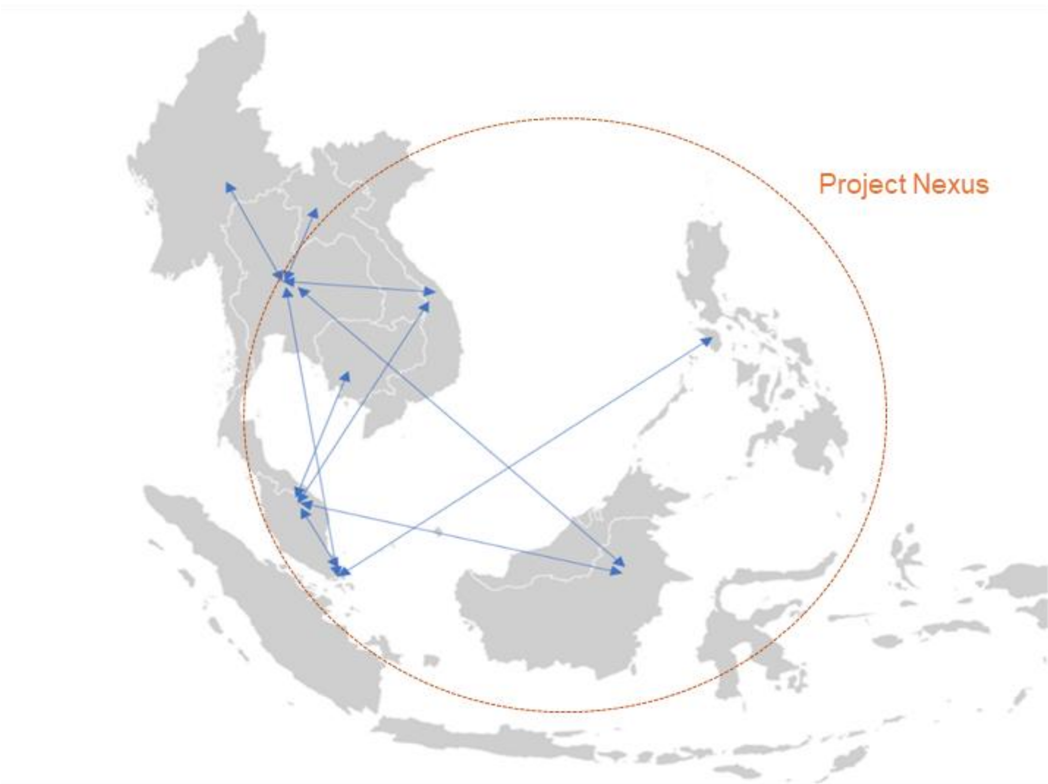
Southeast Asian economies have sought to promote regional payments interoperability, especially by launching multiple bilateral real-time payment (RTP) and QR code interoperability initiatives (figure 10). For example, in 2019, in the world's first RTP interoperability initiative, Thailand and Singapore connected their PromptPay and PayNow real-time retail payment systems into a cross-border payment system. It enables the customers of participating Singaporean and Thai banks to transfer funds of up to about $800 daily across the two economies, just with the use of a mobile number. The Bank of Thailand has launched interoperable QR code payments with Lao (2019), Cambodia (2020), and Vietnam (2021). In 2021, the Bank of Thailand connected the person-to-merchant RTP system with payment systems in Vietnam, Malaysia, Indonesia, and Singapore.

There have also been multiparty real-time payment interoperability proofs of concept (POC) and pilots. The most prominent is Project Nexus by the Bank of International Settlements, whose initial partners included the Monetary Authority of Singapore, the Bank of Italy, the Central Bank of Malaysia, BCS in Singapore, and PayNet in Malaysia. The initiative aims to offer a platform to which payment system operators can connect to, in lieu of building custom connections with every new economy.

The 2022 Nexus pilot yielded a range of recommendations, such as on the importance of ISO 20022 and on pre-validation of payment instructions, confirmation of payee functionality, and support for sanctions pre-screening. The project has continued with central banks and IPS operators of Indonesia, Malaysia, the Philippines, Singapore, and Thailand; these five economies have agreed to establish a managing entity in Singapore, the Nexus Scheme Organization (NSO), which will manage the project in its live implementation stages.[8]

These are commendable efforts. However, so far, RTPs reach only a share of the population and do not cover larger transactions (due to limits to daily transactions) – or the 77 percent of the regional economies' trade that is with extra-regional partners. Overall, the Southeast Asia region's remarkable wave of payments innovation has yet to be matched by policies that would promote interoperability of the various payments solutions in the region. The following sections detail and quantify the pending frictions.

Figure 10 – Real-time payment interoperability initiatives in the ASEAN region



3. Crossborder payment frictions in Southeast Asia

While digital payments have grown in use in Southeast Asia, regional payments interoperability is still limited. Recent commentary by diverse financial services providers reflect the challenges of operating regionally:[9]

- Abhi Sharma, the CFO of Coda Payments, states that "Operating in multiple regulatory environments can be complex, particularly with varying policies on data security across different regions. Fintechs should prioritize building dedicated compliance teams and hiring regulatory experts to stay informed and ensure their operations meet all legal requirements."[10]

- Anoushka Dua, Citi's Head of Treasury and Trade Solutions for Singapore and ASEAN, states that "the technical integration is simpler. It's the integration across the various regulatory regimes, which have different rules and standards around compliance, risk management, and AML/CTF, that is more challenging."[11]

- Eric Barbier, the CEO of the Singapore-based Triple-A, argues that "The biggest challenges will be regulatory changes, cybersecurity threats, and competition. Fintechs need to stay flexible and secure while keeping up with fast-changing regulations."[12]

The challenges in crossborder payments in Southeast Asia are well-known, highlighted in studies by the Economic Research Institute for ASEAN and East Asia (ERIA) and many other analysts.[13] Also the Singapore Fintech Association has discussed the need for interoperability in Real Time Gross Settlement (RTGS) systems, ACH systems, and common infrastructure standards.[14]

ASEAN economies have pursued several initiatives to promote payments interoperability, such as the ASEAN Economic Community Blueprint 2025, the Masterplan on ASEAN Connectivity 2025, and the Digital Integration Framework Action Plan (DIFAP). The ASEAN Digital Data Governance Framework, Model Contractual Clauses, and the ASEAN Framework on Personal Data Protection have sought to create a common data governance framework. In addition, the ASEAN Working Committee on Payment and Settlement Systems (WC-PSS) has promoted common policies and standardization.

In addition, some recent trade agreements formed by Singapore, such as the Digital Economic Partnership Agreement (DEPA) of 2020 between Singapore, New Zealand, and Chile, and the Singapore-Australia Digital Economy Agreement (SADEA), explicitly call for parties to work on interoperable digital payments.

Yet there remain two persistent challenges for Southeast Asian PSPs and fintechs to regionalize:

- **Restrictive licensing and other rules** that complicate PSPs' access to various regional markets and operations in different markets; and

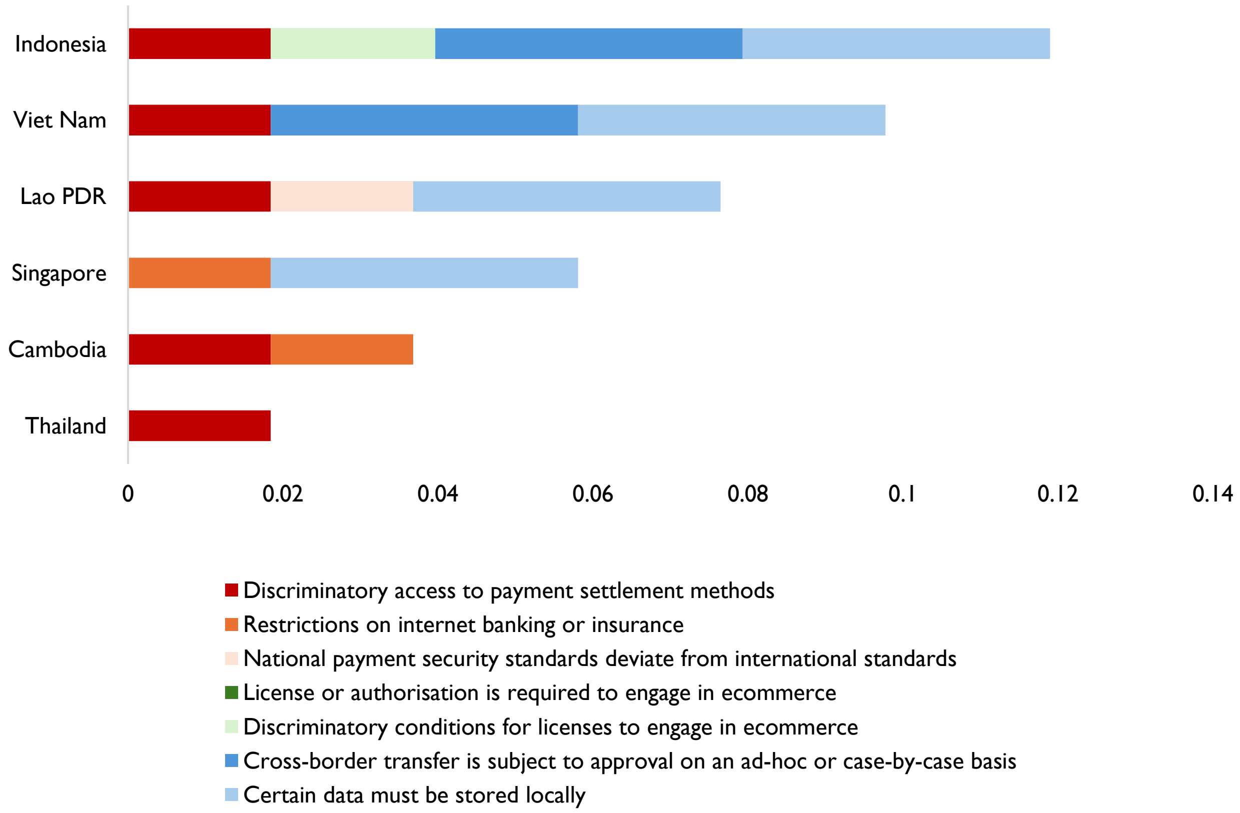
- **Differences across ASEAN economies' payments-related rules** (such as in licensing, data privacy, consumer protection, and AML/CFT) that raise costs for payment providers to seek to meet rules in several markets.

This section reviews these challenges in turn.

a. Restrictive payment licensing and data policies

According to the OECD's Digital Services Restrictiveness Index (DSTRI), almost all ASEAN economies have at least some restrictions on payments settlement and internet banking, and insurance (figure 11).

Figure 11 – Selected scores of the OECD's Digital Services Restrictiveness Index (DSTRI) in Southeast Asia



Source: OECD's Digital Services Restrictiveness Index (DSTRI); https://sim.oecd.org/Simulator.ashx?lang=en

To detail some of these restrictions further (table 2):

- **Payment licensing and capital requirements.** ASEAN economies have their respective and, at times, restrictive rules regarding licensing payment service providers (table 2). For example, Malaysia requires electronic money institutions (EMIs) to have a market share of at least five percent of the total e-money transaction volume in Malaysia for a given year and at least 500,000 active users for six consecutive months.[15] In Singapore, a standard payment institution license can be applied if the service covers at least $2.3 million in monthly transactions.[16] There are also capital requirements. For example, the paid-up capital in Thailand is about THB 100 million (about US$3 million), while in Cambodia, PSPs must deposit five percent of their paid-up capital with the central bank.[17] Minimum authorized capital in Singapore it is about $75,000, in Indonesia about $185,000, and in Vietnam about $2 million.[18] Fintechs interviewed for this study mentioned that the licensing processes are also somewhat arbitrary: meeting the requirements is just a start to obtaining a license and is followed by a lengthy dialogue with a given central bank.

- **Local presence and ownership requirements.** Local presence requirements for PSPs vary across ASEAN. For example, in Cambodia[19], Lao PDR[20], Malaysia[21], the Philippines[22], Thailand[23], Singapore[24], and Vietnam[25], a registered office must be in-country, and at least one director must be a resident of the country. In Indonesia, a non-bank payment services infrastructure provider, including a provider of clearing and settlement services, must, as of 2021, have a minimum of 80 percent Indonesian shareholding, with 80 percent of the voting rights to be held by Indonesian investors.[26] Another Indonesian regulation entails an 85 percent cap on foreign ownership for non-bank payment services – but foreign investors may only hold 49 percent of voting shares.[27]

- **Data transfer limitations.** Per OECD data, Indonesia, Lao PDR, Singapore, and Vietnam require at least some data to be stored locally.[28] In Indonesia's case, banks and non-bank financial service institutions that have data centers and/or disaster recovery centers are required to place electronic systems in these data centers in the territory of Indonesia and process transactions in Indonesia.[29] In Vietnam, Decree 53/2022/ND-CP mandates that domestic and foreign enterprises providing certain online services, including those involving data collection, exploitation, analysis, and processing, must store user data within Vietnam and retain this data for a minimum of 24 months.[30] Vietnam, like Singapore, requires accounting records to be stored locally.[31] In the Lao PDR, the equipment assembling the system to store data must be located in-country.[32] Asia Competitiveness Institute's research shows that existing mechanisms, such as the ASEAN Model Contractual Clauses (MCC), fail to address this fragmentation in data transfer rules, as Member states can customize MCCs.[33]

All in all, these requirements raise the costs for payment providers to deploy and operate in multiple markets and require a more staged market entry process.

Table 2 – Payment licensing requirements in Southeast Asian economies

Economy	License Types	Paid-Up Capital	Requirements	Local director required	Local presence required	JV with local company required
Brunei	Money changing, remittance[34]	• $75,000[35]	• Permanent place of business or registered office located in country	Yes	Yes	No
Cambodia	Payment Service Provider (PSP) License, Third-Party Processor License[36]	• $ 2 million deposit, 5 percent of paid-up capital with NBC[37]	• Permanent place of business or registered office located in country. • International settlements can be done through authorized intermediaries which are banks permanently established in Cambodia.[38]	Yes	Yes	Encouraged
Indonesia	PJP Licenses: Category 1, 2, 3[39]	• Category 1: $915,000 • Category 2: $305,000 • Category 3: $30,500 - $61,000[40]	• Only companies covering at least 300,000 users are required to get e-wallet license[41] • At least 51 percent of company voting rights must be held by Indonesian residents or legal entities[42]	Implicitly	Yes	Encouraged
Lao PDR	Payment Service Provider License[43]	• $46,000-$920,000	• In 2019, Bank of Lao issued the Decision No. 293/BOL which requires 10% Lao shareholdings, the appointment of a Lao director.[44]	Yes	Yes	Yes
Malaysia	E-Money Issuer, Merchant Acquirer, Remittance Service Provider[45]	• E-Money Issuer: $1.22m • Merchant Acquirer or Remittance Service Provider: $488,000	• At least 500,000 active users for a consecutive period of six months[46] • Market share of at least 5 percent of total transaction volume in Malaysia for a given year • AML and Fraud due diligence	Yes	Yes	No
Myanmar	Mobile Financial Services (MFS) License, Payment Service Provider License[47]	• $75 million-$100 million[48]	• A scheduled institution exempted under section 19[49]	N/A	Yes	Encouraged

Economy	License Types	Paid-Up Capital	Requirements	Local director required	Local presence required	JV with local company required
Philippines	Electronic Money Issuer (EMI), Remittance Agent, Payment System Operator (PSO)[50]	• Non-Banks with and without Quasi-Banking Functions as EMIs: ~$1.735m[51]	• Sufficient liquid assets • Maintain records and submit required reports to the BSP • Must meet the higher of the required minimum capitalization for banks or minimum capitalization based on the EMI category[52]	Yes	Yes	No
Singapore	Money-Changing License, Standard Payment Institution (SPI) License, Major Payment Institution (MPI) License[53]	• SPI License: $73,000 • MPI License : $182,500[54]	• Be a Singapore-incorporated company or a Singapore branch of a foreign corporation[55] • Have a permanent place of business or a registered office where books and records can be securely held	Yes	Yes	No
Thailand	E-Payment License (E-Money Issuance, Merchant Acquiring, Payment Facilitating, Funds Transfer)[56]	• E-Money Issuance:~ $3m • Merchant Acquiring: $1.53m • Payment facilitating or funds transfer: $305,000[57]	• Must have at least 1 Thai director of at least 20 years old	Yes	Yes	No
Vietnam	Payment Intermediary Service License (E-Wallet Services, Payment Gateway Services, Support Services for Collection and Payment)[58]	$2.2 million	• Valid establishment license or registration certificate • Approved business plan • Legal representative and Director must hold a university degree or higher, and have at least three years of direct experience. • Since 2019, only firms that are duly established and operate under the Vietnamese Law can open a local payment account.[59] Only Vietnamese and foreigners who have a resident permit for more than 6 months can open a local term account. Only Vietnamese can open a local savings account.[60]	Yes	Yes	No

b. Regulatory fragmentation affecting payment providers

Another friction for PSPs to operate across the region stems from the differences in ASEAN Member States' payments-related rules. This fragmented regulatory landscape essentially requires payment providers to adjust to distinct rules in each market. The main areas with fragmented rules are as follows (table 3):

- **Anti-money laundering and countering the financing of terrorism (AML/CFT).** All economies across the region have taken steps to implement AML/CFT frameworks that are, to an extent, aligned with the Financial Action Task Force (FATF) recommendations. However, there are varying levels of rigor in the implementation of these frameworks (table 3; appendix 1). The areas with the highest alignment with FATF recommendations include defining the responsibilities of law enforcement and investigative authorities (70 percent of economies have implemented this) and establishing financial intelligence units (50 percent). Singapore and Malaysia have especially strong readiness on AML/CFT, while the Lao PDR and Vietnam lag behind. As of October 2024, Myanmar is on the FATF's "blacklist", which indicates serious deficiencies.

- **APIs.** Harmonized open APIs enable different payment systems and software to "speak the same language" and thereby promote interoperability.[61] The progress toward open APIs is uneven in Southeast Asia. Singapore, Malaysia, Thailand, Indonesia, and the Philippines have made strides in open APIs, with Singapore leading through its Financial Industry API Register, which is updated on an ongoing basis as financial institutions make their open APIs available.[62] Malaysia and Thailand have encouraged API adoption, while Indonesia has outlined a roadmap for open banking by 2025.[63] The Philippines launched its Open Finance Framework in 2021.[64] In Vietnam, banks have launched APIs, but there is no formal regulatory framework.

- **ISO 20022.** The ISO 20022 standard is the international messaging standard for electronic data interchange between financial institutions. Nine of the mapped economies are in different stages of adopting ISO 20022, while Myanmar has not adopted ISO 20022 yet. The implementation of ISO 20022 is still a work in progress in the region.

- **Cybersecurity laws and strategies.** Nine economies have developed regulations and laws to address cyber threats, while nine have a cyber strategy or policy. However, the regional economies vary significantly in their actual cybersecurity readiness, with Malaysia and Singapore leading and Myanmar, Lao, and Cambodia trailing far behind.

- **Risk-based payments regulation.** Seven of the ten economies also have a risk-based approach to regulating payments services. For example, Singapore's Payment Services Act (PSA), implemented in 2020, classifies payment services into seven categories, such as digital payment token services, merchant acquisition, and money transfer services.[65] Each of these has its respective licensing requirements and risk management obligations.

- **Innovation.** Seven of the economies have implemented a regulatory sandbox to test innovative fintech and payment solutions. In 2016, Malaysia introduced the Regulatory Sandbox to encourage innovation and the delivery of financial services by granting regulatory flexibilities for fintech solutions to be experimented in a production or live environment.[66]

- **Consumer protection policies related to payments.** Consumer protection rules enable intra-regional ecommerce and transactions. All ASEAN Member States have consumer protection laws pertinent to ecommerce – but in some key areas, consumer protection rules related to payments differ across the ASEAN (see for greater detail in appendix 1). For example, the Philippines' Financial Products and Services Consumer Protection Act establishes regulations to safeguard financial consumers by empowering financial regulators to enforce rules, handle disputes, and ensure transparency in financial products and services, including payments and digital finance products.[67] In Indonesia, the Financial Services Authority (OJK) ensures consumer protection by enforcing regulations that promote transparency and fair practices among financial services providers.[68] There are further important elements in consumer protection laws that are more fragmented in the region (appendix 2).

There are also frictions caused by the lack of interoperability between private solutions and real-time payments, which leads to inefficiencies, delays, and increased transaction processing costs.[69]

Table 3 – Coverage and convergence of digital payments-related regulations and policies in ASEAN economies

		Brunei Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Level of Convergence
AML/CFT, financial risk	Money laundering offence compliance	🟡	🟡	🟢	🔴	🟡	🟢	🟡	🟢	🟡	🔴	🟡
	Targeted financial sanctions related to terrorism	🟡	🟡	🔴	🔴	🟢	🟡	🟡	🟡	🟡	🔴	🔴
	FATF compliance	🟢	🔴	🟢	🔴	🟢	🔴	🟢	🟢	🔴	🔴	🟡
	Applying a risk-based approach	🟢	🟢	🟢	🟡	🟢	🟢	🟢	🟢	🟢	🟡	🔴
Interoperability technology and standards	Open APIs	🟡	🔴	🟡	🔴	🟢	🔴	🟡	🟢	🟡	🟡	🟡
	ISO 20022	🟢	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🟢	🔴
Cybersecurity	Cybercrime law	🟢	🟡	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🔴
	Cybersecurity readiness	🔴	🔴	🟡	🔴	🔴	🔴	🟡	🟡	🟡	🔴	🟡
Consumer protection	Data privacy and protection	🔴	🔴	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🟡
	Consumer protection law	🟢	🟢	🟢	🔴	🟢	🟢	🟢	🟢	🔴	🟢	🟡
	Consumer protection in payments laws	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢	🟢
Innovation	Regulatory sandbox in place	🟢	🟢	🟢	🔴	🟢	🔴	🟢	🟢	🟢	🟡	🟡
	Fintech innovation hub in place	🔴	🔴	🟢	🔴	🟢	🔴	🟢	🟢	🟢	🔴	🟡

🟢 **In place, high**

🟡 **Draft, piloted, medium**

🔴 **Not in place, low**

What do the challenges to access payments licenses and the payments-related regulatory fragmentation cost ASEAN economies mean for ASEAN economies? One impact is on consumer choice. Another is on trade: if the region's various payments providers do not interoperate, importers and exporters using different systems may face difficulties in transacting. The following section estimates the impact of the fragmented payments landscape on ASEAN MSMEs that export.

4. How frictions in crossborder payments impact ASEAN MSMEs' ecommerce exports

Southeast Asia's fragmented payments-related regulatory landscape and complex national payment licensing rules undermine the regional PSPs' scalability and payments interoperability. Limited interoperability could be expected to be much like a non-tariff measure that increases MSMEs' trade costs. This section quantifies these payments-related frictions in crossborder payments in Southeast Asia through a survey with 800 MSMEs.

a. Payment frictions facing MSMEs in intra-ASEAN payments

A survey in 13-24 February 2025 with 800 Southeast Asian MSMEs across sectors tells a story of improved crossborder payment capabilities and significant pending frictions that undermine MSMEs' revenue (see appendix 1 for the sample). There are five main results, as follows:

1. Southeast Asian MSMEs have expanded their acceptance of digital payments and use of fintechs in the past few years. Debit and credit cards have become increasingly adopted in the past 1-5 years, and the acceptance of QR-code and mobile payments has been growing especially fast, with, respectively, 61 percent and 63 percent of the surveyed MSMEs adopting them over the past 1-5 years (figure 12). One-half of firms report using fintech solutions for accounting and bookkeeping, 45 percent for payroll management, and 39 percent for accessing working capital or supply chain finance (figure 13).

Figure 12 – Payment methods accepted by MSMEs in 2025, by frequency

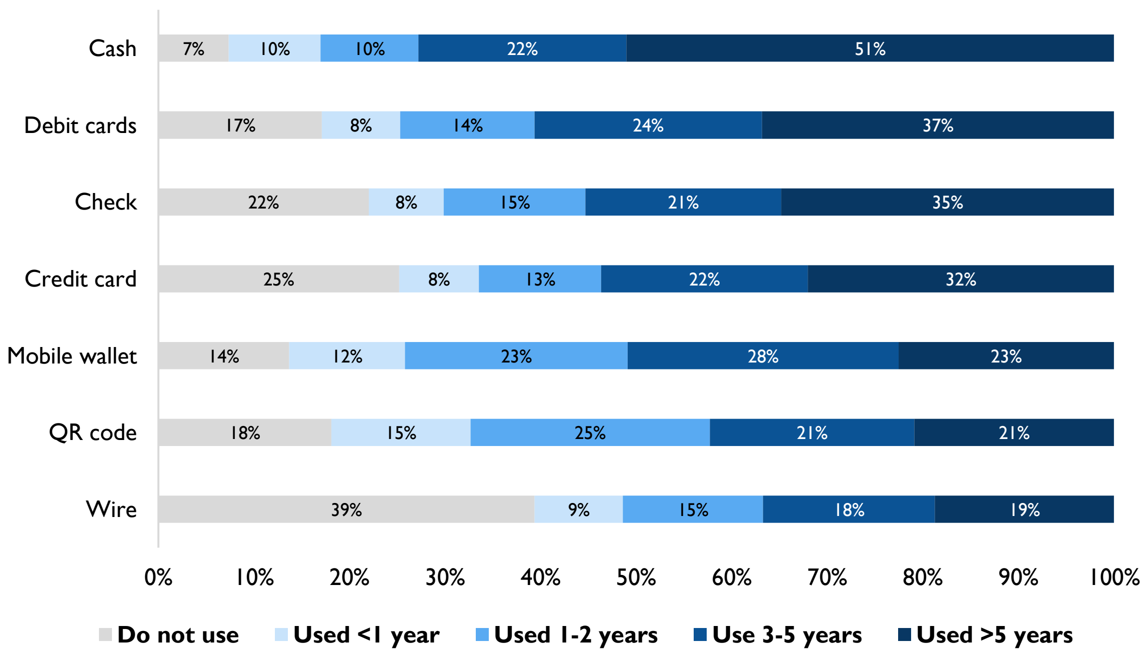
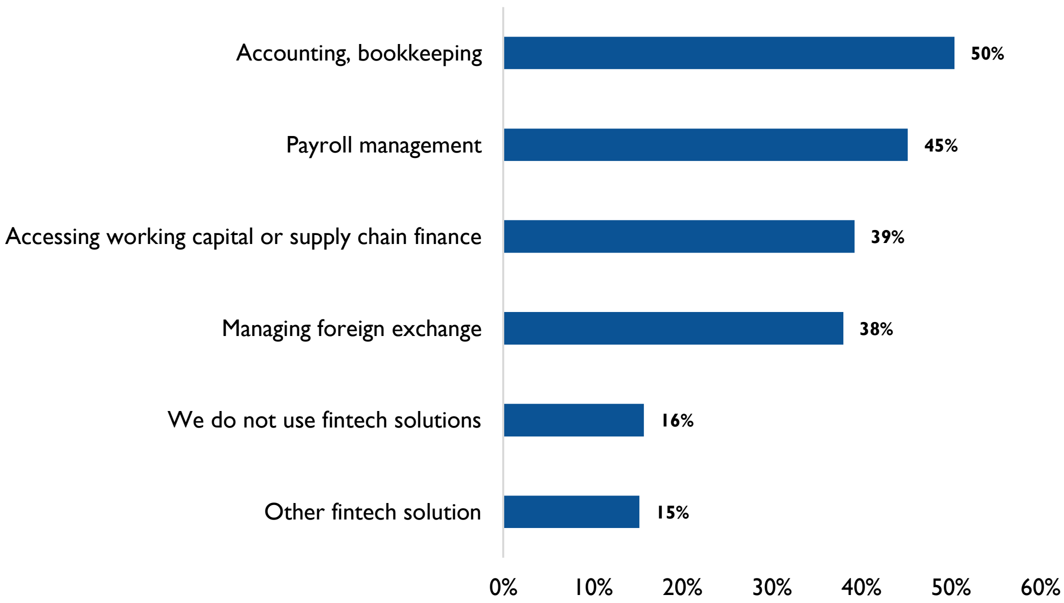


Figure 13 – Share of ASEAN MSMEs using fintech solutions in 2025



2. Acceptance of crossborder payments has become easier in Southeast Asia. The surveyed firms reported improvements in the ease of accepting domestic and cross-border payments in intra-regional trade. Of the diversified exporters – firms that export to three or more markets – 27 percent reported improved capacities to accept domestic payments, and 22 percent reported significant improvements in accepting payments from other Southeast Asian markets (figure 14). Some 15 percent of the undiversified exporters (that export to 1-2 markets) also report significant improvements in accepting crossborder payments. The surveyed firms find mobile wallets, credit cards, and QR codes as especially conducive to crossborder payments acceptance (figure 15).

Figure 14 – Ease of accepting payments in the past three years domestically and from Southeast Asia

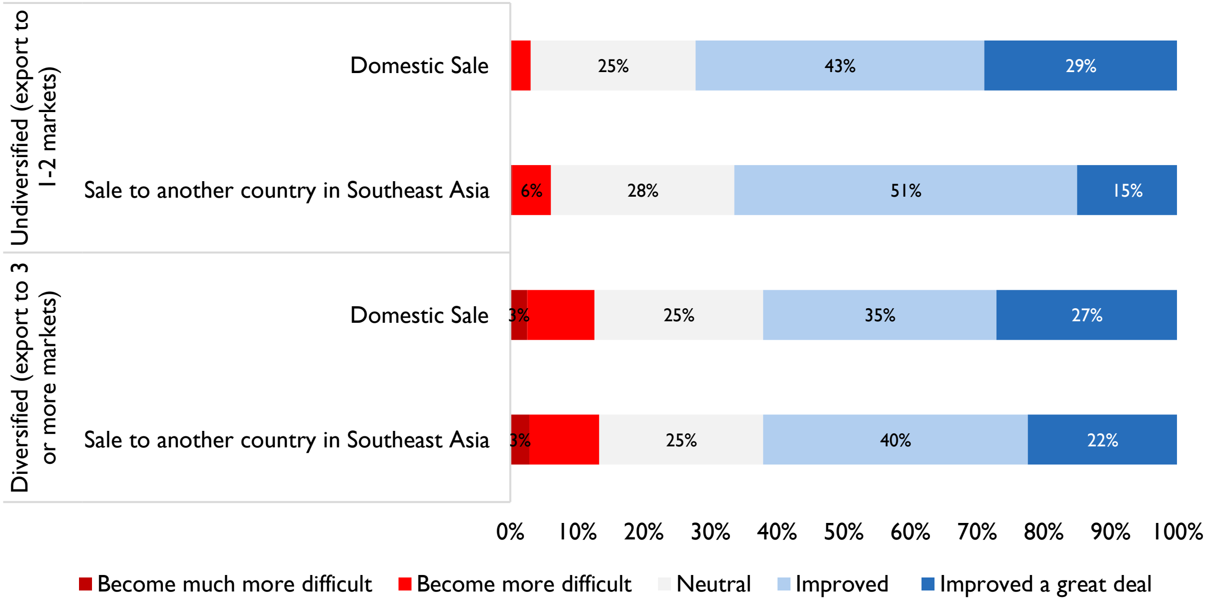
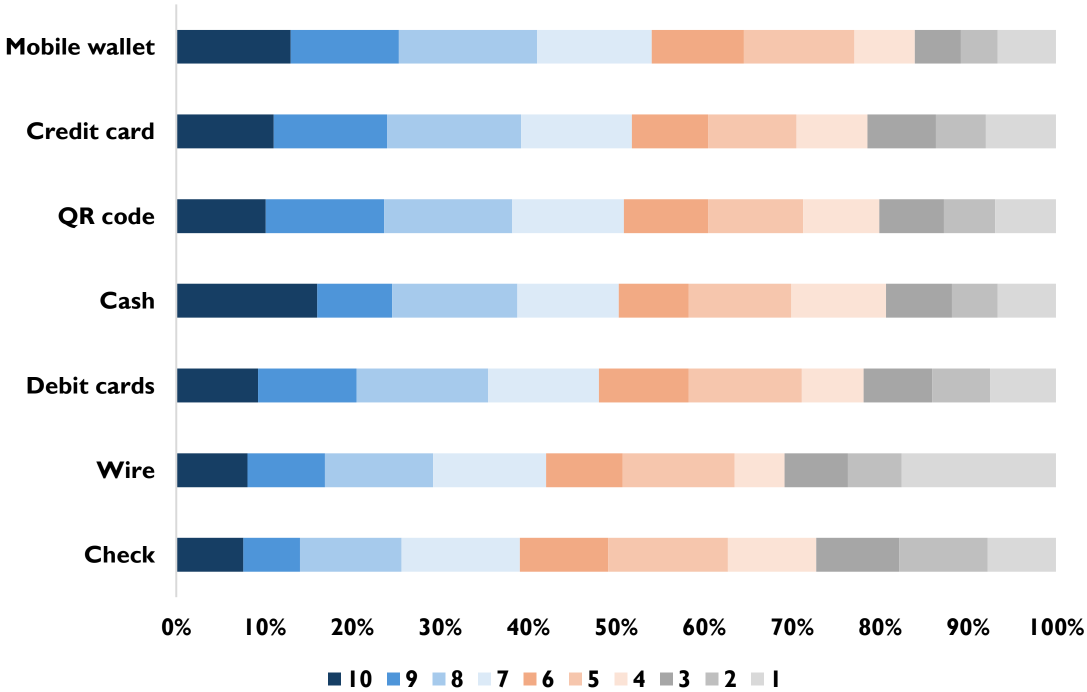
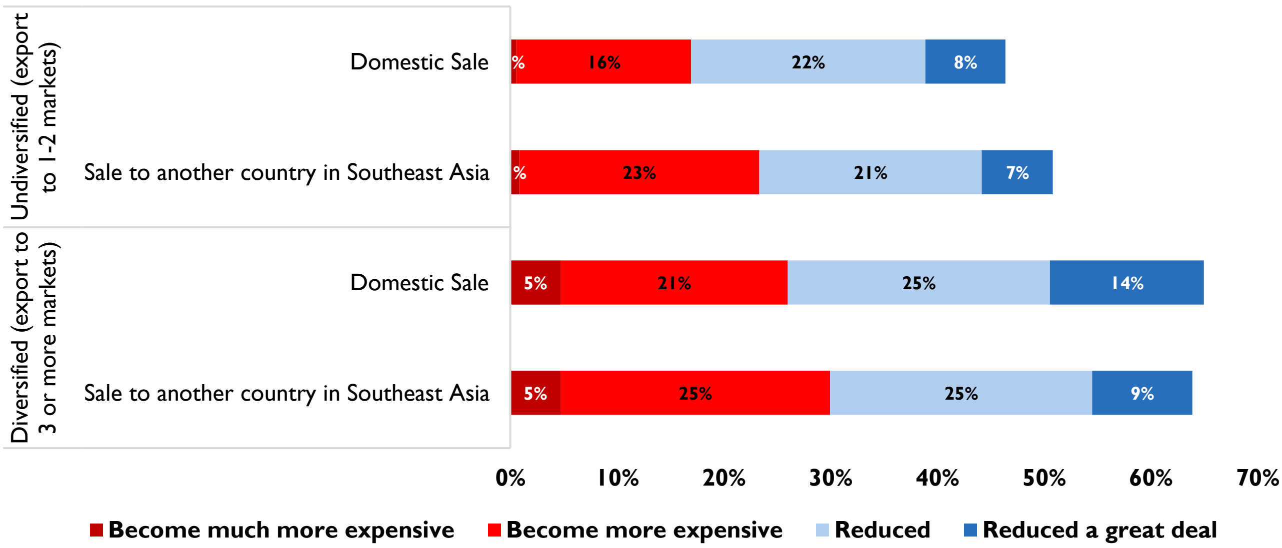


Figure 15 – Ease of accepting crossborder payments from Southeast Asia, by method (10=easiest)



The cost of crossborder payments has not necessarily declined. The share of firms reporting cost reductions for accepting payments since 2022 is only slightly higher than the share of firms that report cost increases. Of diversified exporters, 34 percent stated that the costs to accept payments for sales made within Southeast Asia came down, compared to 30 percent who found that they increased (figure 16). Of the undiversified sellers, 28 percent found that costs decreased when selling to other economies in Southeast Asia, while 24 percent found that costs increased.

Figure 16 – Costs of accepting payments in the last 3 years domestically and from Southeast Asia



3. Almost a third of Southeast Asian MSMEs have outright lost export sales due to crossborder payments frictions. Despite reported improvements in crossborder payments, 29 percent of diversified Southeast Asian exporters and 30 percent of undiversified exporters report that the difficulties of accepting payments from other countries in the region have completely prevented them from completing at least one export sale (figure 17). In addition, Some 84 percent of diversified exporters and 72 percent of undiversified exporters reported that a foreign customer could not pay the way the exporter wanted at least once over the past two years; and 53 percent and 25 percent, respectively, report facing such challenges three or more times in the past two years (figure 18).

Figure 17 – Obstacles that have stopped an ASEAN intra-regional sale

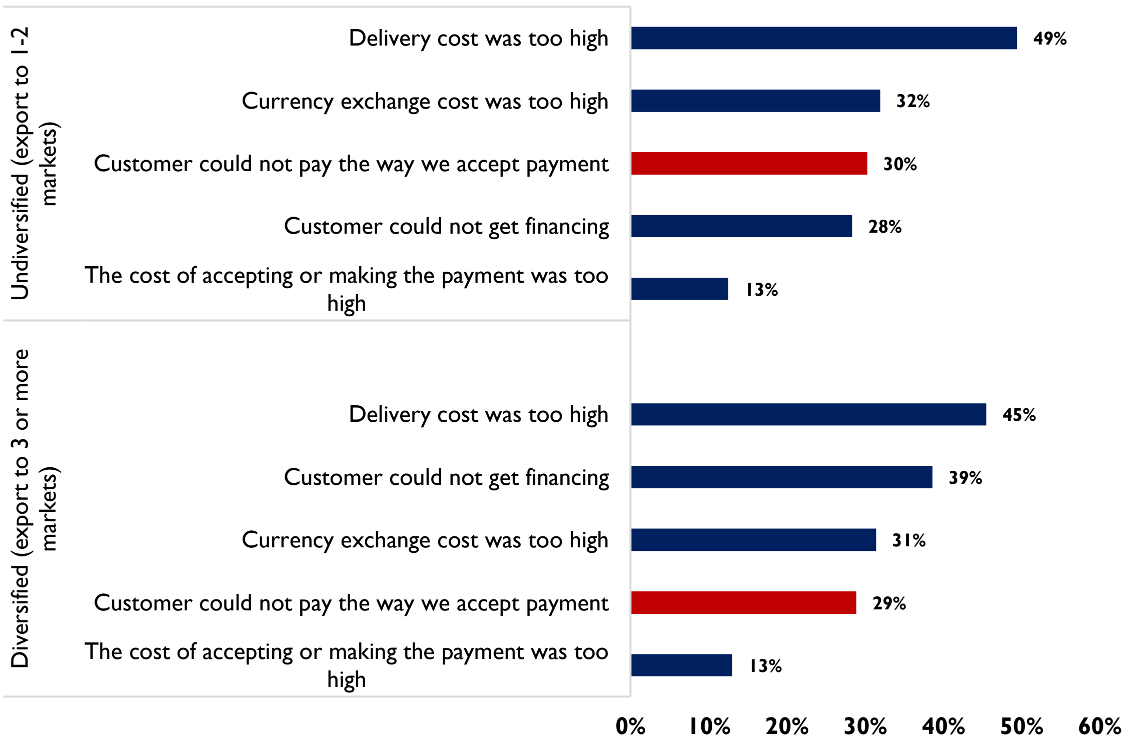
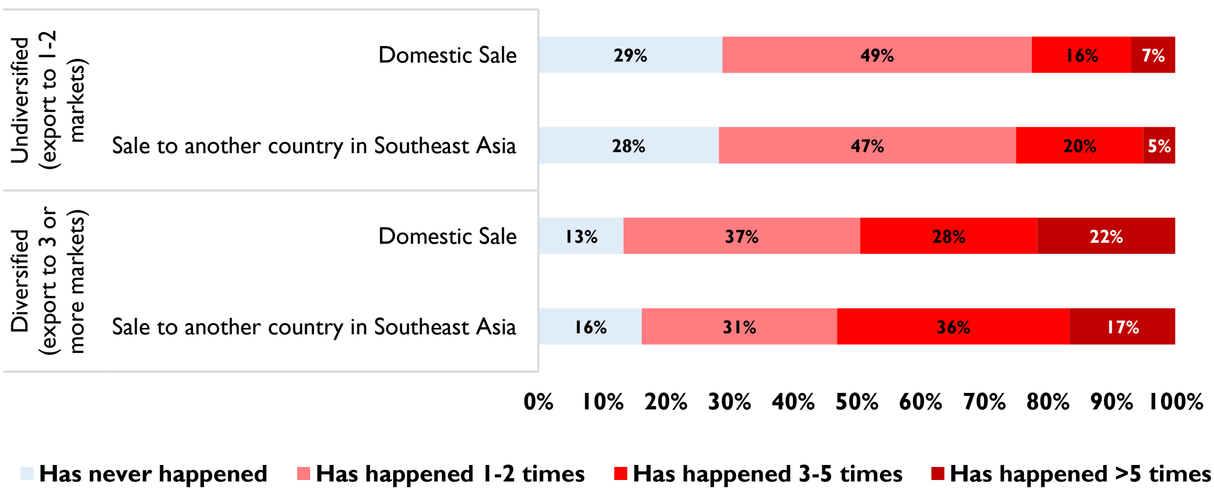


Figure 18 – Customers have not been able to pay with acceptable method in the past two years



4. Payment frictions waste firms time and make them forego 3-10 percent export revenue.
Crossborder payment frictions create various cost for Southeast Asian MSMEs. For one, most firms spend time and effort devising workarounds to accept payments from customers in other Southeast Asian economies, such as selling in bulk or accepting a check. In 2024, 94 percent of the diversified exporters and 76 percent of the undiversified exporters used some kind of workaround at least once

(figure 19). In addition, firms have lost export revenue to the payment frictions. Of the diversified exporters, 56 percent reported losses of 1-10 percent of their export revenue in 2024 due to not being able to accept payments from other Southeast Asian economies, and 40 percent reported even greater losses (figure 20).

Figure 19 – Frequency of having to use workarounds to accept payment from a customer in another economy in Southeast Asia in 2024

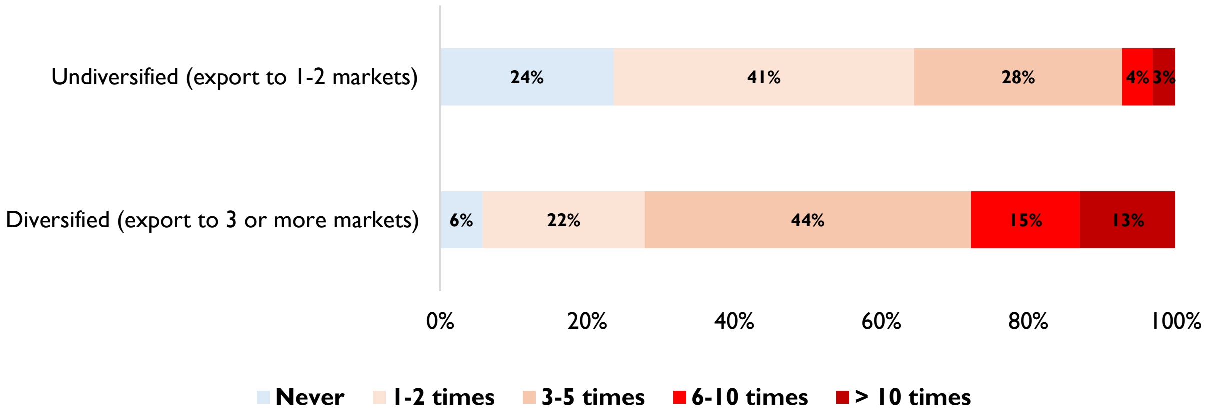
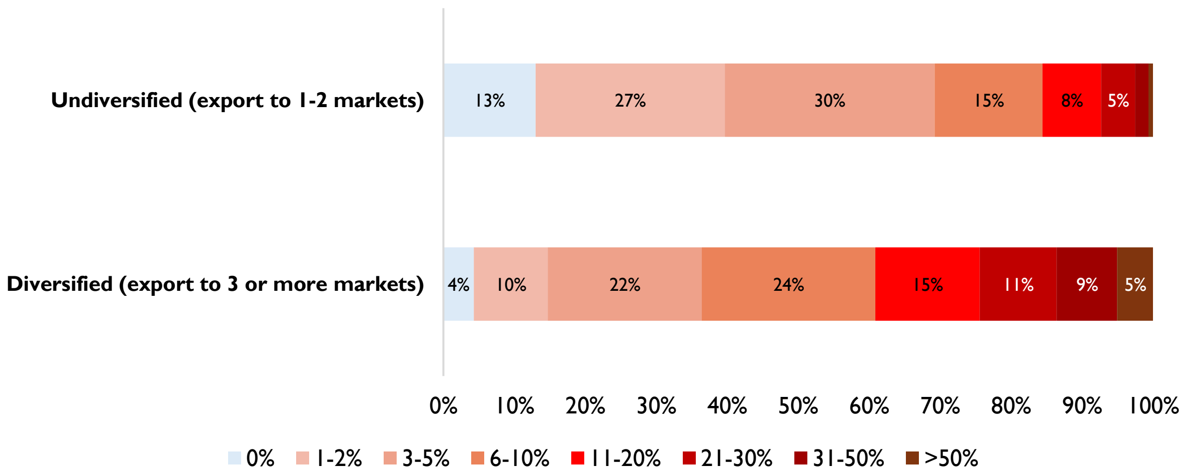
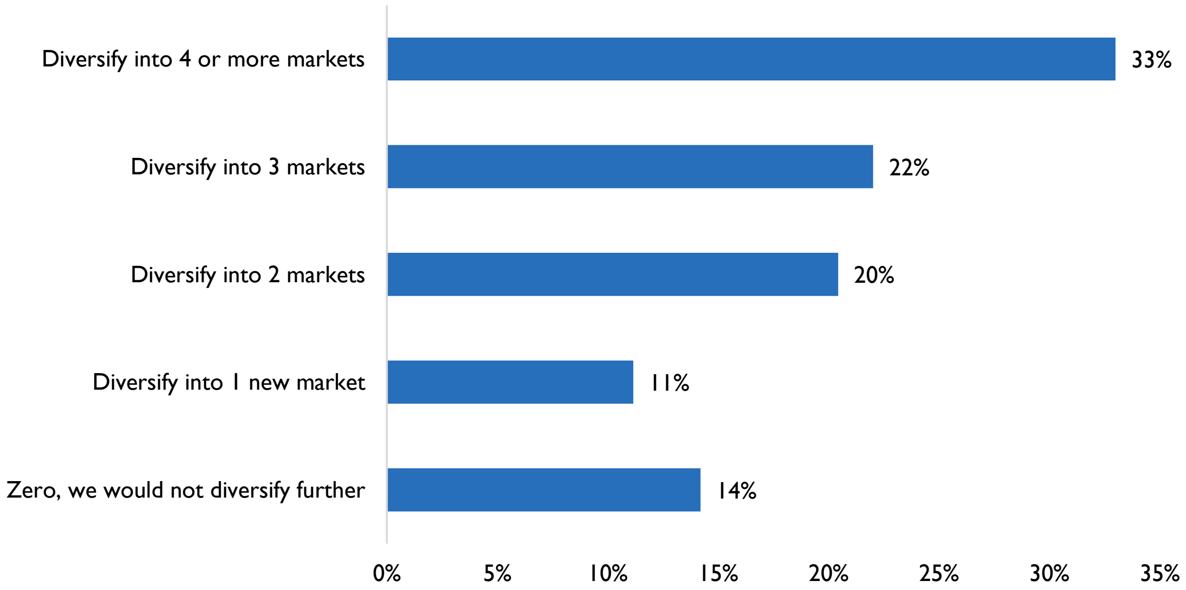


Figure 20 – Share of export revenue lost in 2024 because customers could not pay with acceptable method



5. Southeast Asian MSMEs would diversify into new export markets if payment frictions were undone. Most exporters would diversify into new markets if payments were interoperable, and as many as 55 percent would diversify into three of more new markets (figure 21).

Figure 21 – Number of additional markets Southeast Asian exporters would diversify into if payments were fully interoperable



b. "Missing trade": in Southeast Asia due to crossborder payment frictions

A share of intra-regional trade in Southeast Asia is "missing" as a result of these frictions. Removing them could unlock immediate gains, such as enable current exporters to increase their export sales and diversify their export markets. Payments interoperability could also encourage some non-exporters and sporadic exporters to become regular exporters. In addition, by boosting their export revenues, payments interoperability could also enable Southeast Asian MSMEs to hire new workers and contract new service providers.

What is magnitude of these potential gains be? To explore them, we start with the following data:

- There are nearly 76 million MSMEs in the region, employing over 175 million employees, with the bulk of them in Indonesia.

- Overall, MSMEs make up $1.3 trillion or 34 percent of the region's GDP.

- Assuming conservatively that about 30 percent of MSMEs export at least once a year, a total of 22.8 million MSMEs export each year, and that exports make up 20 percent of their revenue. Assuming further that about 70 percent of the exporters export to the ASEAN market, MSMEs' total export revenues from Southeast Asia are conservatively $54 billion, which is about 11 percent of ASEAN's intra-regional exports of goods and services.

- Over 90 percent of exporter MSMEs cite challenges accepting payments from foreign buyers and the average export revenue loss is 3-10 percent.

Using these assumptions, payments interoperability could unlock notable trade and revenue growth for ASEAN MSMEs, as follows:

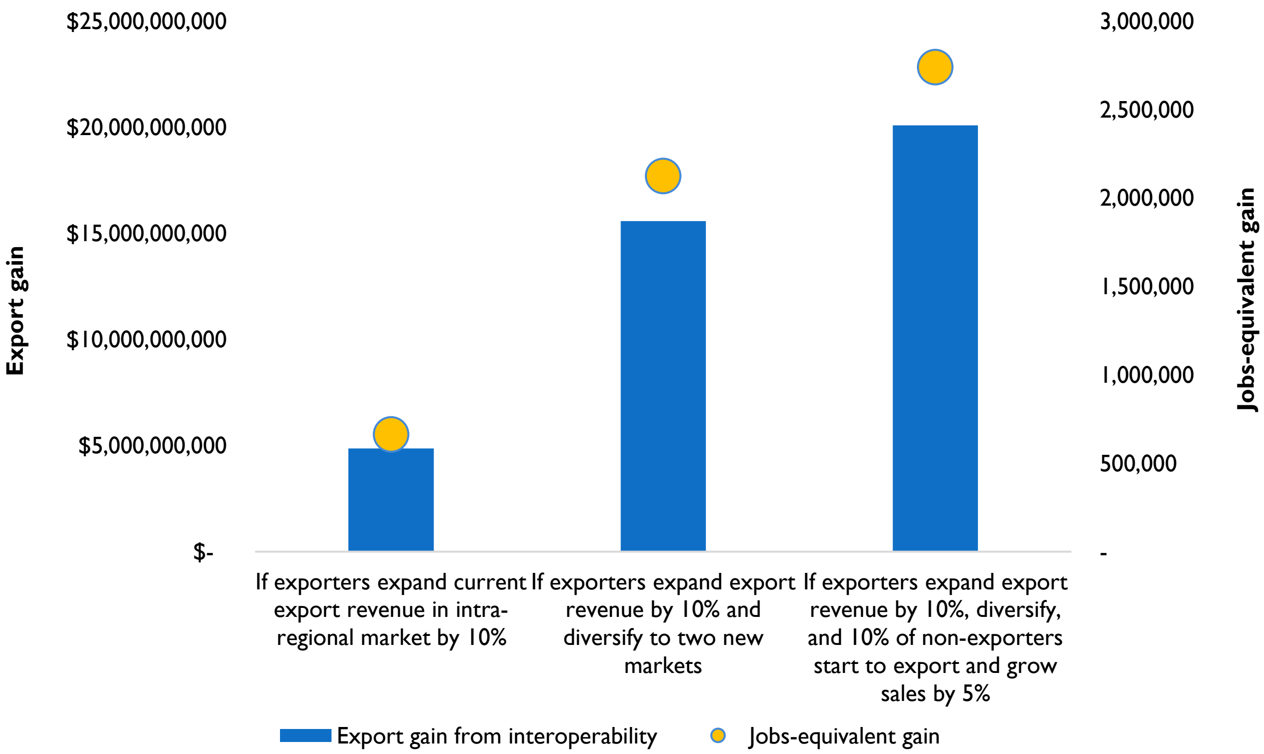
- If intra-regional payments interoperability enabled 90 percent of MSMEs that export to the ASEAN to increase their intra-regional exports by just five percent, there would be $2.44 billion in new MSME exports. If payments interoperability unlocked an additional 10 percent in MSME exports, to overall trade gain would be $4.9 billion (figure 22).

- If, furthermore, payments interoperability helped MSME exporters to sell to two new ASEAN markets and each new market boosted exporter MSMEs' intra-regional export revenues by another 10 percent, the additional gain would be $10.8 billion and, with the export growth calculated above, the total export revenue gain would be $15.7 billion, equivalent to 2.1 million MSME jobs.

- If payments interoperability enabled just 10 percent of Southeast Asian non-exporters to start to export and if these new exporters their total sales by just five percent, the total export gains would grow by another $4.5 billion.

- Putting these estimates together, payments interoperability could unlock $20.1 billion in new intra-regional exports in the ASEAN, equivalent to 2.8 million MSME jobs.

Figure 22 – ASEAN MSMEs' export jobs gains under different scenarios



5. How could DEFA promote crossborder payments?

ASEAN has long sought to address payments interoperability challenges and is now, through the DEFA, seeking to promote common payment policies as well as common rules around data privacy, cybersecurity, cross-border data flows, and consumer protection. ASEAN Member States should use the DEFA to adopt bold, groundbreaking measures conducive to payments interoperability, such as:

- **Passporting for payment providers and fintechs.** ASEAN economies' rules and especially processes to license payment providers are arcane. To enable PSPs' quick deployment across multiple markets, ASEAN economies should encourage mutual recognition of payments licenses. This could be accomplished through "passporting", a practice used in Europe that allows financial institutions to provide services across the EU with minimal additional authorization. The system is based on the principle of mutual recognition and harmonized prudential measures.

- **Relaxing local presence and ownership requirements.** For payments providers, the requirement to establish local offices, have local directors, and even to form joint ventures with local companies entails costs and delays in deployments in each new market. The DEFA could promote exceptions to these rules and loosen local ownership requirements, in order to enable payment service providers to access markets quickly and cost-effectively.

- **Easing and converging cross-border data transfer rules.** Currently, there are restrictions in many ASEAN markets to crossborder transfer of data, and notable variations as to where user data has to be stored and where payment processing can take place. This too raises PSPs' costs of operating across markets. The DEFA can support a regional data privacy and transfer framework that allows payment providers to apply the same template when using customer data and transferring data for processing.

- **Aligning AML/CFT Standards.** ASEAN economies have made differing degrees of progress with FATF guidelines that help ensure uniform compliance to prevent regulatory arbitrage and facilitate cross-border investigations of suspicious transactions. Most ASEAN economies should further strengthen real-time AML monitoring for digital payments to prevent illicit financial flows. The DEFA could promote greater alignment with FATF recommendations and AML/CFT rules.

- **Ensuring open APIs.** The progress on open APIs that enable different payment systems and software to "speak the same language" and promote interoperability is uneven in Southeast Asia.[70] Singapore, Malaysia, Thailand, Indonesia, and the Philippines have made strides in open APIs, but other economies lag behind.

- **Implementing ISO 20022.** Nine ASEAN economies are in different stages of adopting ISO 20022, standard is the international messaging standard for electronic data interchange between financial institutions, while Myanmar has yet to adopt it.

- **Aligning consumer protection regulations:** Most ASEAN member states have consumer protection policies and laws that ensure the transparency and accuracy in product descriptions and pricing, and that prohibit unfair and deceptive advertising. However, ASEAN economies could still align on rules for issuance of complaints and promote a regional online dispute resolution mechanism. They should also consider a common refund mechanisms that include "cooling off" periods whereby a consumer can return a good and access a refund within the same specified time without justification.

Many of these recommendations have already been encapsulated in the Singapore-Australia Digital Economy Agreement (SADEA). SADEA calls for the parties to make regulations on regulatory approval, licensing requirements, and procedures and technical standards publicly available; prevent discrimination between financial institutions and non-financial institutions in relation to access to services and infrastructure in operating electronic payment systems; and adopt international standards for electronic payment messaging, especially ISO 20022 (case 3).[71] ASEAN economies could readily use the SADEA blueprint for the DEFA.

In addition, ASEAN's journey to interoperable regional payments should continue well after the DEFA is finalized. To ensure implementation and to drive payments interoperability further, the DEFA could:

- **Set out to develop a roadmap for ASEAN Digital Payments Area** like the European Single Euro Payments Area Framework (SEPA), which makes cross-border euro transactions as simple and cost-effective as domestic transactions, by standardizing the format and processing of both credit transfers and direct debits across Europe (case 4). Before SEPA, international transfers within Europe were expensive and slow; SEPA has significantly lowered costs, making it more affordable and attractive for small businesses to sell across borders.

- **Promote the measurement and public-private dialogue on payments interoperability.** ASEAN economies should regularly analyze the state of payments interoperability as well as promote dialogue among regional governments, central banks, and the private sector to ensure that digital payment regulations are practical and conducive to innovation.

- **Promote regional payments innovation through a regional regulatory sandbox.** Southeast Asian economies could also create a regional fintech sandbox specifically focused on scalable payment innovations and together test cross-border digital payment solutions in a controlled environment. This would enable regulators to share ideas and approaches, and learn from each other when considering optimal regulations that support the participating fintechs' regionalization.

Case 3: SADEA Payment Provisions

The 2020 Singapore-Australia Digital Economy Agreement (SADEA) has useful payment provisions that the DEFA could adopt. SADEA states: "To this end, each Party shall:

(a) make regulations on electronic payments, including in relation to regulatory approval, licensing requirements, procedures, and technical standards, publicly available;

(b) endeavour to finalise decisions on regulatory or licensing approvals in a timely manner;

(c) not arbitrarily or unjustifiably discriminate between financial institutions and non-financial institutions in relation to access to services and infrastructure necessary for the operation of electronic payment systems;

(d) adopt, for relevant electronic payment systems, international standards for electronic payment messaging, such as the International Organization for Standardization Standard ISO 20022 Universal Financial Industry Message Scheme, for electronic data exchange between financial institutions and services suppliers to enable greater interoperability between electronic payment systems;

(e) facilitate the use of open platforms and architectures, such as tools and protocols provided through Application Programming Interfaces ("APIs"), and encourage payment service providers to safely and securely

make APIs for their products and services available to third parties, where possible, to facilitate greater interoperability, innovation, and competition in electronic payments; and

(f) facilitate innovation and competition and the introduction of new financial and electronic payment products and services in a timely manner, such as through adopting regulatory and industry sandboxes."

Case 4: Single Euro Payments Area (SEPA)

The Single Euro Payments Area (SEPA) is a European Union initiative aimed at streamlining bank transfers across Europe. Its primary objective is to make cross-border euro transactions as simple and cost-effective as domestic ones by standardizing the format and processing of both credit transfers and direct debits across Europe. SEPA was first launched for credit transfers in 2008 and direct debits in 2009. SEPA was fully implemented in the euro area by 2014 and extended to non-euro area economies by 2016.

SEPA includes 38 European economies, including all EU member states, along with several economies not part of the EU or euro area.[72] It is overseen by the European Payments Council and the European Central Bank, which are responsible for its governance, administration, and regulatory framework to ensure smooth financial operations within the SEPA region.

SEPA transactions are processed by using the International Bank Account Number (IBAN) and Business Identifier Code (BIC) to accurately identify and verify the bank accounts and financial institutions involved in the transaction.[73] A customer authorizes a SEPA Direct Debit to allow a business, either within their own economy or another SEPA region, to withdraw payments. This authorization specifies key details such as the payment amount and frequency. Once initiated, the customer's bank verifies the transaction details, including the IBAN and BIC, to ensure accuracy and compliance. After verification, the payment is processed through the SEPA network and transferred to the recipient's bank account, with funds usually becoming available within one to two business days.

SEPA offers numerous benefits for businesses by reducing transaction costs, speeding up payments, enhancing security, and facilitating cross-border trade. Before SEPA, international transfers within Europe were expensive and slow, but the system now significantly lowers costs, making it more affordable for small businesses to expand across borders. Payments are also processed faster, with SEPA Credit Transfers typically completed within one business day, improving cash flow management and ensuring timely transactions with suppliers and employees.

SEPA also enhances transparency and security through strict regulations that prevent fraud and ensure compliance with AML/CFT measures, giving businesses confidence in their financial transactions. The system also simplifies access to international markets by eliminating payment complexities, making it easier for businesses to expand into new markets and attract and serve customers in different European economies. With the rise of e-commerce, SEPA further supports online businesses by enabling smooth and consistent euro transactions, allowing them to offer seamless payment experience to customers across the SEPA region.

In addition to ecommerce, SEPA Direct Debits have become a widely used payment method for recurring transactions. Their adoption has grown significantly across various sectors, such as rental payments, and other automated recurring payments like gym memberships, loan repayments, and household bills, making them a convenient and reliable option for both businesses and consumers.

6. Conclusion

This paper has assessed the growth of the digital payments ecosystem in ASEAN and analyzed the pending gaps in crossborder payments interoperability. The paper has found that these gaps have resulted in billions of dollars in missed trade opportunities for ASEAN MSMEs. Depending on assumptions, the export losses are $5 billion-$20 billion in exports, tantamount to 1 million-2.7 million MSME jobs.

These gaps in interoperability are traceable to ASEAN economies' restrictive licensing regimes for payments providers and the fragmented payments-related regulatory landscape, both of which increase the costs for payment service providers to diversify across the regional market.

This paper has called for the DEFA to unlock payments interoperability through, for example:

- Passporting of PSP and fintech licenses across the region.
- Relaxing PSPs' local presence and ownership requirements.
- Easing and converging cross-border data transfer rules.
- Harmonization of consumer protection regulations.
- Implementation of ISO 20022 standards.
- Aligning and implementing robust AML/CFT standards.
- Using the template of the Singapore-Australia Digital Economy Agreement (SADEA) payment rules for the DEFA as a baseline.
- Creating a regional regulatory sandbox, for Southeast Asian regulators to consider common regional policies for payment innovations.
- Creating a roadmap for an "ASEAN Digital Payments Area" similar to the European Single Euro Payments Area Framework.

As they fashion a more regionally interoperable payment system, ASEAN economies should pursue regular dialogues with the private sector to ensure that digital payment regulations promote interoperability and fuel the growth of trade, ecommerce and jobs in the region.

The next paper in this series turns to DEFA's opportunities to create a new template for AI provisions.

Appendix 1 - Sample

This report presents original data and insights gathered through an online survey conducted by Nextrade Group via the Pollfish platform on13-24 February 2025. The survey was fielded as a random sample with 800 micro, small, and medium enterprises (MSMEs) in Indonesia, Malaysia, the Philippines, Singapore, Thailand, and Vietnam (figure 1-1). Most of the firms were in digitally deliverable services sectors and in or in the vicinity of large cities (figure 1-2).

The survey captured such firm characteristics as the gender of the CEO, geolocation, export orientation, and revenue growth. It had a confidence level of 95% and a margin of error of 7-10 percent, depending on the economy. Unlike in a traditional survey process where we would first draw up a sample frame of firms in a country and then randomly select firms for it for computer-assisted telephone interviews (CATIs) or in-person meetings, the method here was based on online surveys relying on Pollfish's proprietary panel of respondents. The survey takers take the survey on their laptops or computers, online, on their own time. The online survey method is scalable and saves considerable amount of time and resources. Several prior surveys utilizing both CATI and online surveys in a country simultaneously that online surveys as executed as here have minimal tradeoffs: they produce very similar patterns as CATI surveys, and, even if the surveys are unsupervised, produce robust, high-quality responses by serious survey takers. A mix of further solutions ensure that even users that may have multiple accounts and devices attempt a specific survey only once.

Figure 1-1 - Sample by economy and firm size

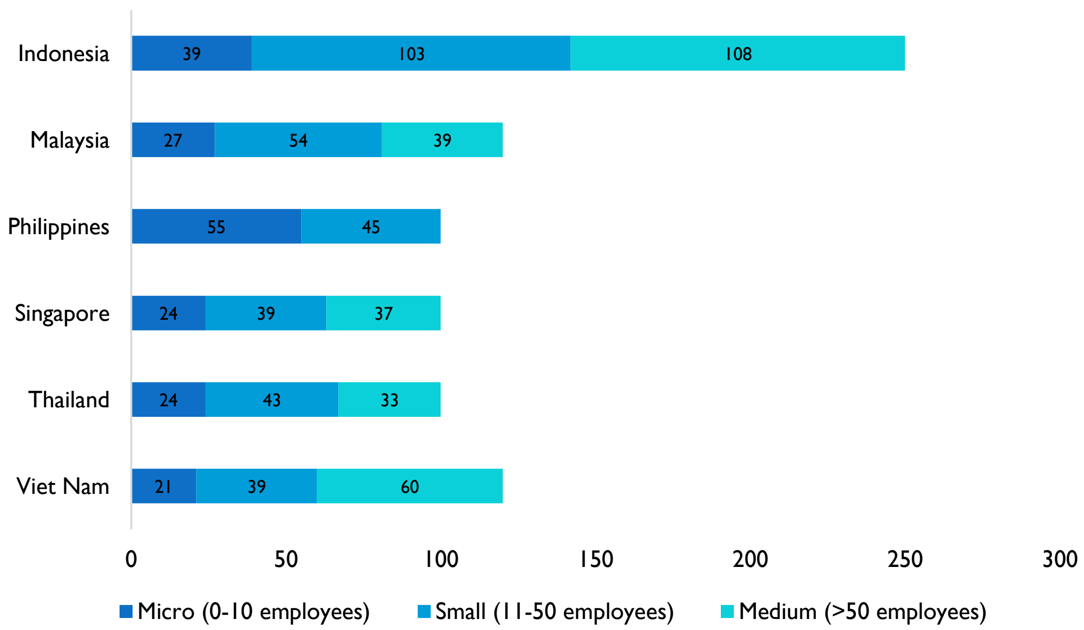
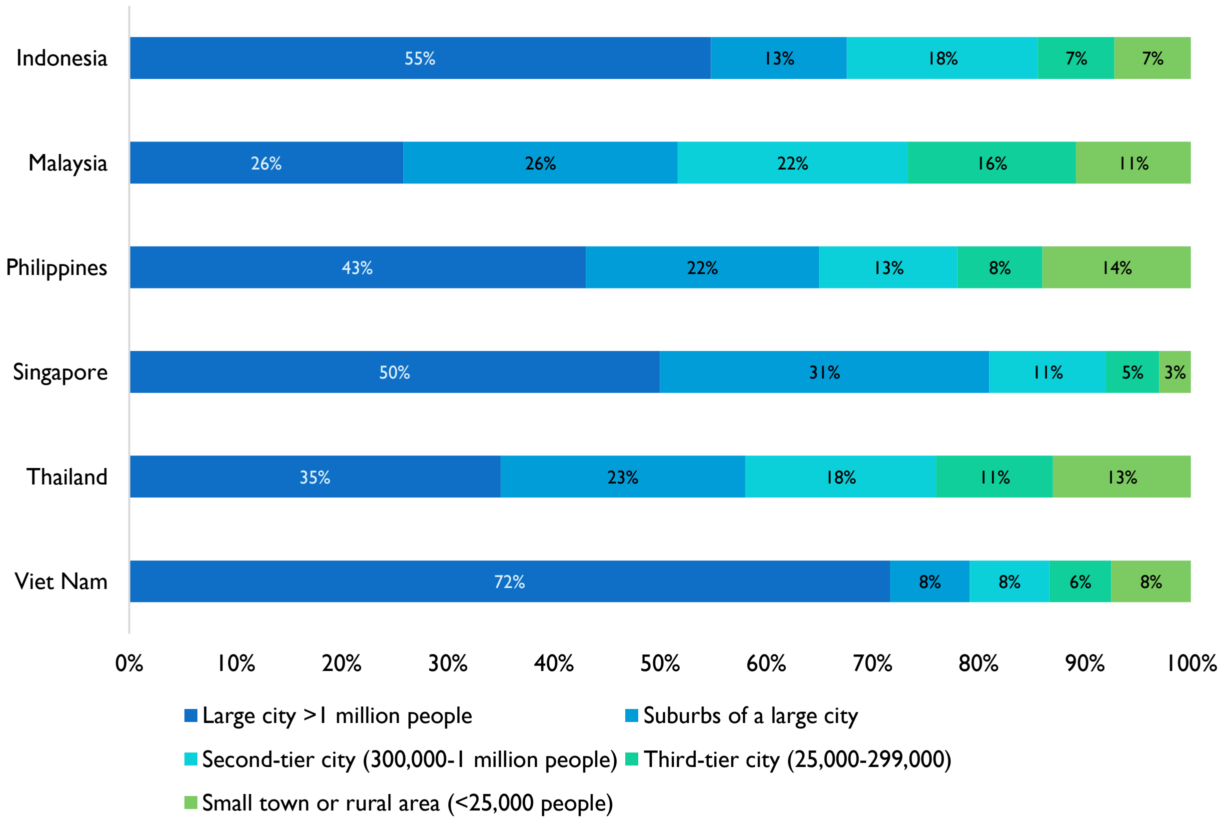


Figure 1-2 – Surveyed firms, by location



Appendix 2

Table 2-1 - Implementation of the technical requirements of the FATF Recommendations to combat money laundering and terrorist financing (4 = full compliance; 1= not compliant)

	Brunei-Darussalam	Cambodia	Indonesia	Laos	Malaysia	Myanmar	Philippines	Singapore	Thailand	Vietnam	Average adoption
Assessing risks and qpplying a risk-based approach	3	3	3	2	3	3	3	3	3	2	2.8
National cooperation and coordination	3	3	3	3	4	3	4	4	4	3	3.4
Money laundering offence	3	3	4	2	3	4	3	4	3	2	3.1
Confiscation and provisional measures	4	3	3	2	3	3	3	4	3	3	3.1
Terrorist financing offence	3	3	3	1	4	3	3	3	3	3	2.9
Targeted financial sanctions related to terrorism/terrorist financing	3	3	2	2	4	3	3	3	3	2	2.8
Targeted financial sanctions related to proliferation	1	3	2	2	4	1	3	3	3	1	2.3
Non-profit organisations	3	2	2	1	3	2	3	3	2	3	2.4
Financial institution secrecy laws	4	4	3	3	3	4	3	4	3	3	3.4
Customer due diligence	3	3	3	2	4	3	3	4	3	2	3.0
Record keeping	3	3	3	2	3	4	4	4	3	2	3.1
Politically exposed persons	3	3	3	1	3	3	3	4	3	1	2.7
Correspondent banking	3	4	3	3	3	3	4	4	3	3	3.3
Money or value transfer services	3	3	4	2	4	3	3	3	3	2	3.0
New technologies	2	1	3	1	4	2	2	4	3	1	2.3
Wire transfers	3	3	3	2	4	3	3	4	3	2	3.0
Reliance on third parties	3	3	3	N/A	3	4	4	4	4	2	3.3
Internal controls and foreign branches and subsidiaries	4	3	4	3	4	3	3	4	3	2	3.3
Higher-risk countries	3	3	3	2	4	4	3	3	3	2	3.0
Reporting of suspicious transactions	3	3	4	2	4	4	3	3	3	2	3.1
Tipping-off and confidentiality	3	3	3	2	4	3	4	4	3	2	3.1
DNFBPs: Customer due diligence	3	3	3	2	3	3	3	2	1	2	2.5
DNFBPs: Other measures	3	3	3	1	3	3	3	3	2	2	2.6
Transparency and beneficial ownership of legal persons	2	2	3	1	2	2	3	3	2	2	2.2
Transparency and beneficial ownership of legal arrangements	1	2	2	1	2	1	2	4	2	2	1.9
Regulation and supervision of financial institutions	3	2	3	2	4	3	3	3	3	2	2.8
Powers of supervisors	4	3	3	3	4	4	3	4	3	2	3.3
Regulation and supervision of DNFBPs	3	2	2	1	3	2	3	2	2	2	2.2
Financial intelligence units	4	3	4	2	4	2	4	4	3	2	3.2
Responsibilities of law enforcement and investigative authorities	4	3	4	3	4	3	4	4	4	4	3.7
Powers of law enforcement and investigative authorities	3	3	3	2	4	3	3	4	3	3	3.1
Cash couriers	4	3	3	3	4	2	3	4	3	3	3.2
Statistics	3	3	3	2	4	3	3	3	3	4	3.1
Guidance and feedback	3	3	3	1	4	2	3	3	3	2	2.7
Sanctions	3	3	3	2	3	2	3	2	2	1	2.4
International instruments	3	3	3	2	3	2	3	4	3	3	2.9
Mutual legal assistance	3	3	3	3	3	2	3	3	3	3	2.9
Mutual legal assistance: freezing and confiscation	3	3	3	2	3	2	4	3	4	2	2.9
Extradition	3	3	3	2	3	2	2	3	3	3	2.7
Other forms of international cooperation	3	2	3	2	3	3	3	3	3	3	2.8
Average	3.0	2.9	3.0	2.0	3.5	2.8	3.1	3.4	2.9	2.3	2.9

Consumer protection regulations in Southeast Asia

There are some gaps in the ASEAN region in consumer protection rules conducive to crossborder ecommerce (table 2-2):

- **Promote consumers' rights to refunds.** Many of the economies have incorporated the consumer's right to a refund for defective products. Thailand and Cambodia have also implemented "cooling-off periods", influenced by the EU's policy, where consumers have a certain number of days to return goods without justification.

- **Transparency and accuracy in product descriptions and pricing**. All ASEAN economies require transparent and accurate product descriptions. For example, Lao PDR' Law on Consumer Protection from 2010 states that consumers have the right "to know precise information and advisory about the quality, the price, the place of manufacture, the producer, usage or user manual special feature, ingredients, date of manufacture and expiry date, certificate of product, after sales services and other necessary information."[74] All mapped economies have similar provisions.

- **Protection of consumers from misleading advertisements and deceptive practices.** All mapped economies have provisions that prohibit misleading and deceptive conduct, including in advertisements.[75]

- **Anti-spam laws against unsolicited advertisements and emails.** Seven of the mapped economies have laws to prevent spam. For example, Singapore's Spam Control Act provides a framework in which email and mobile phone spammers must include the use of labels <ADV> to mark a message as spam, and to offer an unsubscribe option.[76]

- **Consumer awareness about product safety and quality standards.** Most economies' laws discuss the consumer's right to safety. Singapore has standalone Consumer Protection (Safety Requirements) Regulations (CPSR) which require 33 categories of household electrical, electronic, and gas appliances and accessories (Controlled Goods) to be tested to specified safety standards, registered with the authority, and affixed with the SAFETY Mark before they can be sold.[77]

- **Online portals or other alternative dispute resolution (ADR) mechanisms for consumers to submit complaints online.** Eight of the mapped economies provide a portal for consumers to submit complaints online. For example, Malaysia's e-Tribunal system allows consumers to submit claims online for compensation for losses related to purchasing goods or obtaining services, while the Philippines has implemented an Online Dispute Resolution platform that enables consumers to electronically file complaints and also to resolve the dispute with the merchant online, without the need for physical presence during the proceedings.[78]

- **Promoting awareness-building among consumers.** Indonesia, Malaysia, Thailand, and Vietnam have National Consumer Day public holidays each year, while the Philippines has a Consumer Welfare Month. The Philippines has also launched "Consumer Corners" to further the agency's mandate to protect consumers and establish a standard of conduct for business and industry by providing readily accessible consumer-related information materials. Thailand and Singapore have joined initiatives to educate consumers on scams.

Table 1-2 Consumer protection regulations in Southeast Asia

	Brunei-Darussalam	Cambodia	Indonesia	Lao PDR	Malaysia	Myanmar	Philippines	Singapore	Thailand	Viet Nam	Level of Convergence
Consumer protection policies related to payments	Low	High	High	High	High	High	High	High	High	High	High
Protection from misleading advertisements and deceptive practices	High	High	High	High	High	High	High	High	High	High	High
Rights to product safety and quality standards	Low	High	High	High	High	High	High	High	High	High	High
Anti-spam laws against unsolicited advertisement and emails	Low	High	High	Low	Low	High	High	High	High	High	Medium
"Cooling-off periods" that allow consumers to return goods without justification	Low	High	Low	Low	Low	Low	Low	Low	High	Low	Low
Innovative practices in consumer protection i.e. online complaint systems	Low	High	High	Low	High	High	High	High	High	High	Medium
Online Dispute Resolution (ODR) for consumers	Low	Low	Low	Low	Low	Low	High	Low	Low	Low	Low
Initiatives to promote awareness among consumers	High	Low	High	Low	High	Low	High	High	High	High	Medium
Consumer protection for financial and payments services	High	High	High	High	High	High	High	High	High	High	High

- In place, high
- Draft, piloted, medium
- Not in place, low

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(a) make regulations on electronic payments, including in relation to regulatory approval, licensing requirements, procedures and technical standards, publicly available;
(b) endeavour to finalise decisions on regulatory or licensing approvals in a timely manner;
(c) not arbitrarily or unjustifiably discriminate between financial institutions and non-financial institutions in relation to access to services and infrastructure necessary for the operation of electronic payment systems;
(d) adopt, for relevant electronic payment systems, international standards for electronic payment messaging, such as the International Organization for Standardization Standard ISO 20022 Universal Financial Industry Message
Scheme, for electronic data exchange between financial institutions and services suppliers to enable greater interoperability between electronic payment systems;
(e) facilitate the use of open platforms and architectures such as tools and protocols provided for through Application Programming Interfaces ("APIs") and encourage payment service providers to safely and securely
make APIs for their products and services available to third parties, where possible, to facilitate greater interoperability, innovation and competition in electronic payments; and
(f) facilitate innovation and competition and the introduction of new financial and electronic payment products and services in a timely manner, such as through adopting regulatory and industry sandboxes"
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