LinTech in ASEAN The Next Wave of Growth





Foreword

For financial technology (FinTech) firms to grow, they must find opportunities to increase their customer base, to connect with partners and investors and to expand into new markets.

Within the Association of Southeast Asian Nations (ASEAN), the region's favourable demographics, an expanding middle class and strong economic growth has attracted an increasing number of FinTech firms to set up in the region.

Over the past two years, we have seen many FinTech firms work with large financial institutions as they test innovative solutions, from the development of early proofs-of-concept and pilots to full-scale adoption and implementation of these solutions. However, working with large organisations may present its own challenges, ranging from the need for multiple approvals (such as internal and regulatory approvals) to ensuring integration with legacy systems.

While the focus has been on working with large corporations and financial institutions, we wondered if FinTech firms were missing an opportunity to connect with small- and medium-sized enterprises (SMEs) as potential customers.

The opportunity for FinTech firms to expand their customer base to include more SMEs is a timely one. ASEAN's SMEs, known to be the backbone of local economies, face the pressing need to digitalise their business to enable them to participate in the new digital economy. FinTech firms can help in this regard.

To understand the openness of SMEs to adopt FinTech and digital solutions, we conducted a survey with more than 400 businesses in Singapore. A key takeaway that we gained from the survey was the amount that SMEs would be comfortable paying for digital solutions. This provides FinTech firms with insight for pricing their solutions to SMEs.

To help guide FinTech firms on potential opportunities in ASEAN, United Overseas Bank (UOB) and the Singapore FinTech Association (SFA) have collaborated on this report, **FinTech in ASEAN: The Next Wave of Growth**. We trust that it will provide the FinTech community with a handy reference as they pursue their next wave of growth.

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Executive Summary

ASEAN - an economic bloc of ten countries – is a region of diverse cultures, languages, business norms and regulatory frameworks. This diversity poses challenges when navigating its complexity, but also opportunities for those who can do so successfully.

It is also a region with a growing base of digitally-savvy and increasingly affluent consumers, an appealing proposition for those with innovative ideas and solutions to serve ASEAN's consumer base.

Given the region's strong economic growth potential and favourable demographics, it is not surprising that ASEAN is attracting significant investor and FinTech interest. According to data platform Tracxn, US\$458 million had been invested into FinTech firms as at 26 October 2018, up 25 per cent from end-2017.

This report aims to highlight potential business opportunities and key FinTech trends in ASEAN, including:



Financial inclusion picking up pace

Alternative lending FinTech firms, which focus on serving the needs of ASEAN's underbanked population, received the most funding (58 per cent of total) as at 26 October 2018 (source: Tracxn).

With the rise in peer-to-peer (P2P) lending and new ways to assess credit worthiness, alternative credit providers are able to offer greater access to credit with more certainty and less risk.



There are nuanced differences in the FinTech landscape across the region.

In Singapore, a key trade and wealth hub in the region, FinTech firms in the SME financing and wealth management categories experienced the highest growth in terms of funding. Alternative lending grew the most in Indonesia and the Philippines, where the push for financial inclusion was the strongest. Thailand experienced strong growth in payments while Malaysia favoured innovation to improve the performance of incumbent banks. In Vietnam the highest growth was in cryptocurrencies.



As the backbone of ASEAN's economies, SMEs face the need to digitalise their business to succeed in the age of Industry 4.0 – where next-generation technology is fostering industrial growth. As such, SMEs are on the lookout for digital solutions that can help them remain relevant and overcome limited resources.

While SMEs may not seem like an obvious customer base for FinTech firms, they are a ready market needing more support.

In a survey we conducted among 406 SMEs in Singapore, we found that more than 60 per cent of respondents intend to use digital payment solutions such as e-payment gateways'. Close to 40 per cent of respondents were willing to pay between \$\$5,000 and \$\$10,000 for such front-end solutions, while 27 per cent indicated that they would set aside more than \$\$10,000.

An advantage of working with SMEs is that there are fewer decision-making layers and departments to navigate. However, FinTech firms will need to consider developing a "lite" version of their solutions given resource constraints in SMEs.



Funding and resources for expansion

FinTech firms looking to grow and to expand their business can consider reaching out to angel investors and venture capital (VC) firms. As at December 2017, they make up 55 per cent of funding into FinTech firms in the region (source: *ASEAN FinTech Census 2018*).

For FinTech firms looking to expand across borders, local industry associations and government agencies can help ease entry into a new market. At the same time, local co-working spaces offer a low-cost and efficient alternative to setting up a physical premise from scratch. In addition, these co-working spaces can offer an invaluable network of contacts and knowledge to navigate the local business environment.

Calling all FinTech firms in ASEAN, the next wave of growth awaits you.

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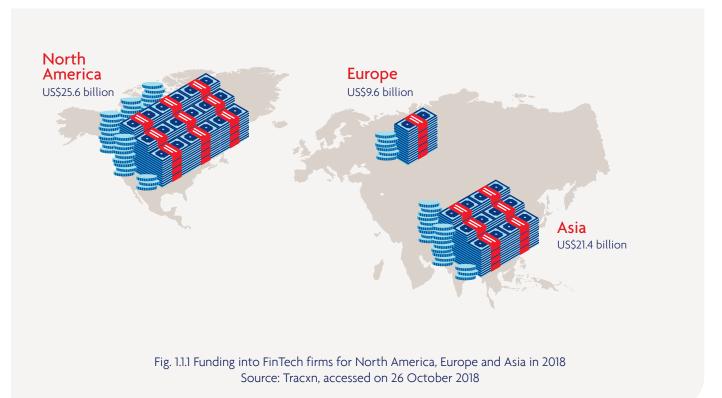
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1.1 FinTech firms attract more funding²

Funding for FinTech firms in Asia grew significantly in 2018 and is now the second highest in the world, just after North America.

According to data from Tracxn, investors have poured US\$21.4 billion of funds into FinTech firms across Asia in 2018 to-date, a 145 per cent increase from US\$8.7 billion in 2017. In comparison, while funding for FinTech firms in North America reached a record high of US\$25.6 billion, the growth was lower at 71 per cent over the same period.



The increase in global FinTech funding in 2018 is largely due to an increase in deal sizes. There were fewer – but larger – deal sizes, a possible indicator of a maturing FinTech market. The average ticket size for each round of funding increased by more than two-fold to reach a record US\$37.3 million this year.

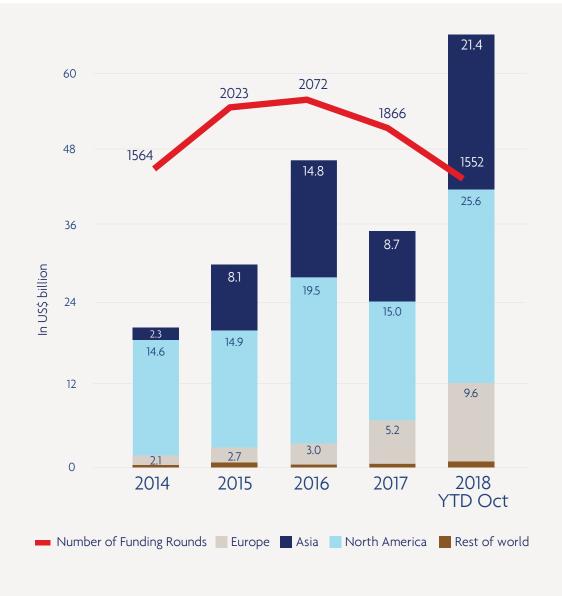


Fig. 1.1.2 Global funding into FinTech firms by region Source: Tracxn, accessed on 26 October 2018

2017 - Funding amount: US\$29.5 billion; Number of rounds: 1866; Average funding size: US\$15.8M 2018 (YTD Oct) - Funding amount: US\$57.9 billion; Number of rounds: 1552, Average funding size: US\$37.3M

1.2 ASEAN FinTech firms ride the rising tide

Like the rest of the world, the six core markets of ASEAN or ASEAN-6 (Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam) witnessed an active FinTech funding scene in 2018. Investors poured in US\$458 million of funds in the first ten months of 2018. This is a 25 per cent increase over full year 2017 and 19 times from five years ago.

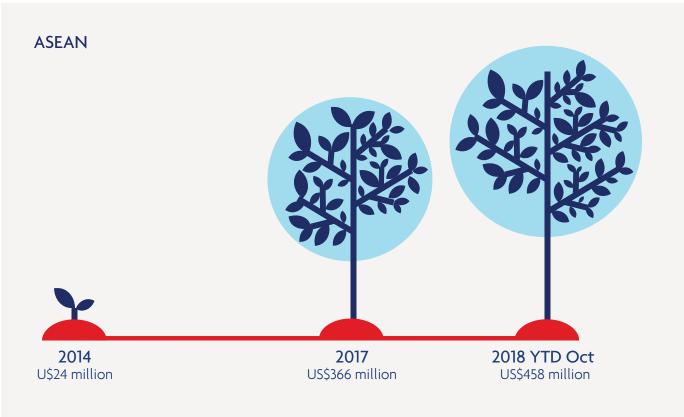


Fig. 1.2.1 Funding into FinTech firms has grown in ASEAN Sources: *ASEAN FinTech Census 2018*, Tracxn, accessed 26 October 2018 Data from Tracxn shows that FinTech firms in Singapore continue to attract the most funding within ASEAN. The country achieved a record high of US\$222 million in FinTech funding in the first 10 months of 2018.

Indonesia is also high on the list of FinTech investors. Its growing economy, coupled with a rising middle class and large population of digitally savvy young people, helped to attract US\$185 million in FinTech funding in the first 10 months of 2018.



The number of FinTech firms headquartered in ASEAN-6 is also on the rise. As at end-October 2018, there were 1,757 FinTech firms in the six countries, a 43 per cent increase from 2017.

The home base or headquarters location of FinTech firms in ASEAN-6 has remained largely the same, with the slight exception of Singapore. Currently, the island state houses 43 per cent of all FinTech firms in ASEAN-6, up from 39 per cent in 2017.



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The other four ASEAN economies – Brunei Darussalam, Cambodia, Laos and Myanmar – are excluded from the analysis, given the relatively low number of FinTech firms headquartered in these countries.

As of October 2018, there are only 40 FinTech firms based and/or headquartered in these four economies³, with Cambodia leading the pack at 25 FinTech firms. According to Eddie Lee, Vice President of the Cambodian FinTech Association, there may be growing receptiveness among Cambodian banks to working with FinTech firms.

While still nascent, the FinTech scene in Brunei, Cambodia, Laos and Myanmar is a space to watch in the near future. As at 2016, fewer than 25 per cent of the combined population of Cambodia, Laos and Myanmar have bank accounts⁴. This presents a host of opportunities for FinTech firms to roll out relevant financial products and services.

1.3 FinTech funding: Alternative lending sees the highest funding

Alternative lenders, or non-traditional lending channels such as peer-to-peer (P2P) lending platforms, serve unbanked and underbanked customers across the region. According to *e-conomy SEA 2016*, a research report by Google and Temasek Holdings, Southeast Asia has more than 150 million adults who remain unbanked⁵.

It is therefore not surprising that alternative lending FinTech firms received the lion's share of funding in the first 10 months of 2018, receiving 58 per cent of all FinTech funding in ASEAN-6 (see Fig. 1.3).

FinTech Categories	% 2018 YTD Oct
Alternative Lending	58.0
Mobile Payments	9.1
Artificial Intelligence (AI) in Financial Services	5.9
Finance & Accounting Tech	5.1
Robo Advisers	4.1
Payments	4.0
Banking Tech	3.7
Consumer Finance	3.1
Investment Tech	2.6
Insurance Tech	1.9
Blockchain Tech Related	1.9
Crowdfunding	0.5
Remittance	0.1

Fig. 1.3 Funding into ASEAN FinTech firms by categories in 2018 Source: Tracxn, accessed 26 October 2018

Glossary (as adapted from Tracxn's taxonomy)

Catogories	Focus	Notable Examples in ASEAN
Artificial Intelligence (AI) in Financial Services	Companies providing AI-enabled solutions and services for the financial services industry.	CashRun (SG) Aida Technologies (SG)
Alternative Lending	Online lending platforms (including balance sheet lenders, marketplaces, P2P lenders and lead generators) and companies that enable online lending.	Modalku (ID) First Circle (PH)
Banking Tech	Companies that provide technology solutions primarily for the banking industry including software, innovative hardware, and technology-enabled services.	Jirnexu (MY) Tagit (SG)
Blockchain Tech Related	Companies that provide decentralised ledger technology to verify and secure transactions. These include digital currencies and smart contracts.	Bluzelle (SG) Coins.PH (PH)
Consumer Finance	Companies that offer technology-enabled assistance to consumers to manage their personal expenses, debt and savings, to track investment portfolios, to plan finances and to compare third-party financial products.	CekAja (ID) GoBear (SG, MY, TH, PH)
Crowdfunding	Online platforms where people and organisations can raise money for various projects and causes.	Fundnel (SG) FundedHere (SG)
Finance and Accounting Tech	Tools or software for automating the functions of finance and accounting department of an organisation.	Jurnal (ID) Salarium (PH)
Insurance Tech	Companies that provide technology-enabled insurance products and services to consumers or provide software solutions and data to insurers and intermediaries.	PolicyPal (SG) Claim Di (TH)
Investment Tech	Companies offering platforms for retail and institutional investors to research and to invest in multiple financial assets. Also includes companies offering solutions to financial institutions providing investment-related services.	M-DAQ (SG) SmartKarna (SG)
Mobile Payments	Companies offering solutions to make and ⁄or to accept payments via mobile.	TrueMoney (TH) Momo (VN)
Payments	Companies that participate in traditional web-based and offline payment cycles. Also includes companies which provide alternative modes of payment and companies that support payment solutions.	Omise (TH) CodaPay (SG)
Remittance	Companies providing cross-border money transfer solutions and services to consumers and enterprises.	Instarem (SG) Ayannah (PH)
Robo Advisers	Companies that provide automated, low-cost investment services to retail investors. Also includes companies that provide technological solutions for automated investments to financial advisers.	Smartly (SG) StashAway (SG)

ID - Indonesia, MY - Malaysia, PH - Philippines, SG - Singapore, TH - Thailand, VN - Vietnam * Companies may be classified under more than one category

1.4 Diversity in ASEAN's FinTech landscape

The Blockchain Tech Related category currently makes up the largest number of FinTech firms in ASEAN (18 per cent). This is followed closely by FinTech firms in four categories: Investment Tech (11 per cent), Alternative Lending (10 per cent), Consumer Finance (10 per cent) and Payments (10 per cent).

FinTech Categories	% in 2018 YTD Oct
Blockchain Tech Related	18
Investment Tech	11
Alternative Lending	10
Consumer Finance	10
Payments	10
Mobile Payments	9
Finance and Accounting Tech	7
Insurance Tech	5
Crowdfunding	5
Remittance	4
AI in Financial Services	3
Banking Tech	3
Robo Advisers	1

Fig. 1.4 Distribution of ASEAN FinTech firms by categories in 2018 Source: Tracxn, accessed 26 October 2018

While FinTech firms in ASEAN are fairly spread out across all categories, some important ASEAN trends will affect the future of FinTech firms in the region – these are explored in the next section.

As a regional trade bloc, ASEAN is the fifth largest economy in the world. Its gross domestic product (GDP) growth is at least two percentage points higher than that of the world and other advanced economies (Fig. 2)⁶.

The economic growth potential of the region continues to create a conducive environment for FinTech firms to flourish.

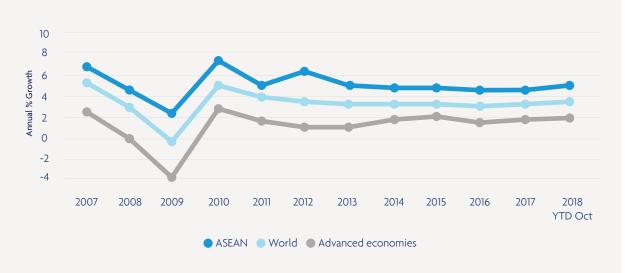


Fig. 2 GDP growth in ASEAN is ahead of other regions Source: ASEAN Economic Integration Brief (2nd Edition), November 2017

This economic optimism can be attributed to rising consumption levels, a stable macroeconomic environment and increasing cross-border trade within ASEAN.

For example, intra-ASEAN trade made up 23 per cent of total trade activity in ASEAN in 2017⁷. It exceeded trade between ASEAN and China (17 per cent) and between ASEAN and the European Union (10 per cent), indicating growing economic activity generated in ASEAN for ASEAN.

However, ASEAN is marked by a large, though narrowing, economic development gap. In October 2018, the average GDP per capita of the ASEAN-6 is US\$13,935, which is 1.6 times higher than the average GDP per capita of the remaining four member-states⁸.

ASEAN's uneven development, coupled with a large unbanked and underbanked population, opens a host of opportunities for FinTech firms to provide their solutions. This section highlights some important developments in ASEAN that could affect how FinTech firms can build their businesses in the region.

2.1 Smartphones are levelling the playing field

Today, ASEAN is one of the world's fastest-growing smartphone markets with the number of smartphone users expected to reach 432 million by 2020⁹. ASEAN's rapid rate of smartphone adoption has also led to a demand for mobile money, e-commerce and mobile banking services.

Improvements in mobile connectivity have enabled many areas in ASEAN to leapfrog infrastructural limitations such as the lack of landline networks to access the digital economy. In fact, many parts of ASEAN are positioned to bypass traditional banking systems to achieve greater financial inclusion with the aid of smartphones.

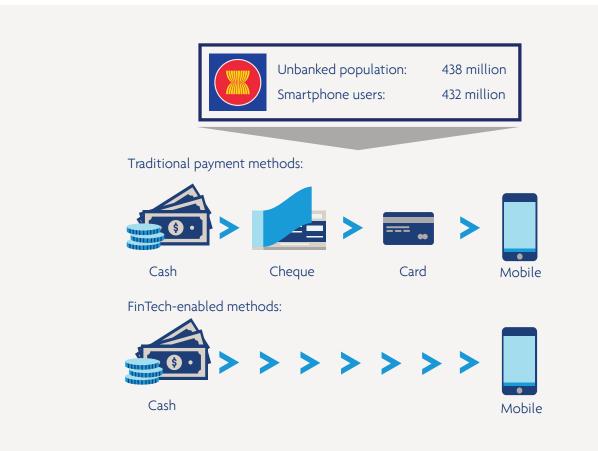


Fig. 2.1 Changes in the evolution of financial transactions, enabled by FinTech solutions This view has also been echoed by Eddie Lee, Vice President of the Cambodian FinTech Association, who points to Cambodia as a case study for a country that has leapfrogged legacy systems.

Cambodia is a young country with 70 per cent of the population under 35 years old, an average GDP growth of seven per cent for the past seven years and strong mobile and internet penetration¹⁰. As at October 2018, seven in 10 residents in Cambodia have an internet subscription. The country also has 118.2 mobile phone users per 100 people.

Banking the unbanked in Indonesia: Payfazz

Founded in 2016, Payfazz harnesses mobile technology to serve the unbanked population in Indonesia. Payfazz users first top up their mobile wallet by giving cash to Payfazz's network of bank agents.

Through Payfazz's mobile app, users can then purchase and pay for a wide variety of items such as prepaid phone credits, electricity and TV subscriptions through their mobile phones.

2.2 Growing pool of tech-savvy consumers

ASEAN consumers are young. Across the region, close to half of the population are below 30 years of age¹¹.

As more of ASEAN's young population come of age and join the workforce, and as the population as a whole becomes increasingly affluent, we are seeing an increase in consumption in four key areas: apparel (衣), food (食), accommodation (住) and transport (行) - four pillars that are part of a Chinese idiom that refers to the basic necessities in life.

Given the rising popularity of digital, internet and mobile technologies, connectivity (通) has since emerged as a 'new' pillar underpinning consumption.

Organisations that facilitate monetary transactions, such as banks and FinTech firms, are in the enviable position to be able to connect all pillars as they facilitate consumption in the region.



Eager to capture consumption across markets, industries and borders, technology companies in ASEAN have also increased their offerings to introduce 'super apps'.

FavePay, an e-wallet founded in Singapore and formerly known as Groupon, is a case in point. Since its introduction in September 2017, FavePay has expanded into three ASEAN countries.

By leveraging the FavePay platform, customers enjoy a quick and convenient way to transact across a wide range of products and services, from food and retail to travel and wellness. In this respect, FavePay shows how a FinTech solution enables connectivity across consumption pillars. Today, FavePay is well-positioned to emerge as a 'super app' – a one-stop platform where users can access numerous third-party services.

2.3 Mobile payments – TechFin firms vs. FinTech firms

ASEAN's FinTech landscape is becoming more crowded as large technology companies expand their offerings to include digital financial services. These firms – loosely known as 'TechFins' – are technology players that leverage their capabilities and large customer base to enter the financial services industry globally.

Recognising the opportunities in ASEAN, large TechFin firms from other Asian markets have entered the region. They are acquiring or launching FinTech solutions most commonly in the area of mobile payments and e-wallets. A case in point is Alibaba Group's Ant Financial, which has rolled out Alipay in many ASEAN markets through its joint venture with Philippines' Globe Telecom, investment in Thailand's Ascend Money and the acquisition of regional player, HelloPay.

South Korea's Samsung Group too has entered the region through the roll-out of its mobile payments app, SamsungPay in all the ASEAN-6 economies. The conglomerate has been enhancing the features of its mobile payments app to increase adoption among ASEAN's consumers.

Within ASEAN, technology unicorns (with billion-dollar valuations) such as Grab and Go-Jek have also jumped onto the digital financial services bandwagon. With the launch of their respective digital wallets GrabPay and GoPay, these firms are riding on their large existing customer base to transform how consumers transact. Beyond transportation, Grab and Go-Jek have expanded into other key consumption pillars, such as food, by enabling consumers to pay with their digital wallets.

The expansion and acquisition of payments-related solutions by TechFin players has huge implications for ASEAN's payment FinTech firms. Data from Tracxn suggests that ASEAN's mobile payments landscape is becoming more competitive as larger amounts of FinTech funding are channelled into fewer mobile payments FinTech firms.

Funding for mobile payments FinTech firms increased by 65.7 per cent over the past year, with a 50 per cent decrease in the number of funding rounds (see Fig. 2.3).

In addition, only three mobile payment start-ups were formed in 2018, compared with 15 in 2017 and 36 in 2016.



Fig. 2.3 Changes in funding for ASEAN's mobile payments landscape Source: Tracxn, accessed 26 October 2018

To stay ahead of the game, ASEAN's homegrown mobile payments FinTech firms will need to capitalise on their local market knowledge, build cross-country alliances and identify innovative ways of retaining or building customer loyalty.

2.4 Regulators up to speed with FinTech development

Recognising the value of technology innovation, regulators in Indonesia, Malaysia, the Philippines, Singapore and Thailand have introduced regulatory sandboxes. These sandboxes test FinTech innovations and encourage FinTech firms to innovate faster and at lower costs. A regulatory sandbox framework could also be well on the way in Vietnam, given the growing demand from FinTech firms for guidance and mentorship from financial institutions¹².

The growing adoption of e-money in ASEAN has prompted regulators to introduce more robust protection for consumers and e-money companies. Earlier this year, Bank Indonesia issued tighter regulations on e-money operators, a move long-anticipated given the rapid growth of e-money in the archipelago. The value of e-money transactions in Indonesia more than quadrupled to US\$231.6 million from September 2017 to September 2018, while the number of e-money transactions tripled from 67 million to 207 million in the same time period¹³.

The following infographic (Fig. 2.4) provides a snapshot of key FinTech regulatory initiatives planned and rolled out across ASEAN in 2018.

2018 FinTech regulations in ASEAN



2018

- Changed the recognition and measurement of allowance of credit losses in the Singapore Financial Reporting Standards – 1 January 2018
- Introduced regulations to require over-the-counter (OTC) derivatives to be cleared on central counterparties (CCPs) – 1 October 2018
- Issued e-payment guidelines to protect users from fraud and errors – September 2018
- Rolled out a unified Singapore Quick Response Code (SGQR) to simplify QR payments for consumers and businesses – September 2018

In progress

- Seeking feedback on proposed revisions to the regulatory framework for large exposures of Singaporeincorporated banks – expected to be implemented from 1 January 2019
- Drafting a Payment Services Bill, which will impact businesses in different ways across the payments ecosystem – time frame not specified
- Implementation of the E-Payments
 User Protection Guidelines –
 effective from 31 January 2019
 - Planning to open up Singapore's Fast and Secure Transfers (FAST) system to FinTech firms – by 2019



2018

- Announced the establishment of an Application Program Interface (API) implementation group to pursue the standardisation of open APIs and to enhance third-party developers' access to open data – first quarter 2018
- Released an Exposure Draft on publishing open data using open APIs to provide guidance on open data API specifications – September 2018
- Opened up applications for parties interested in operating equity crowdfunding and peer-to-peer lending platforms – July 2018
- Issued the Interoperable Credit Transfer
 Framework to foster an efficient and vibrant payments landscape – March 2018

In progress

The Inland Revenue Board is studying the tax implications of cryptocurrencies in Malaysia – time frame not specified



2018

- Implemented the Payment System Act to unify payment regulations and synchronise certain requirements with international standards – April 2018
- Issued the Royal Decree on Digital Asset Businesses which regulates and supervises the offering of digital tokens and digital assets businesses –14 May 2018
- Initiated an initiative using QR code technology in collaboration with Cambodia, Laos, Myanmar and Vietnam – October 2018

In progress

• The National Legislative Assembly is drafting the FinTech Act which is expected to strengthen confidence in electronic transactions, to support digital trade and to facilitate all parties to access information rapidly – time frame not specified

Fig. 2.4 New and proposed regulatory developments across ASEAN in 2018

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2018

- Organised the FinTech Vietnam Forum 2018 and FinTech Challenge Vietnam Finals in collaboration with the Asian Development Bank – May 2018
- Proposed issuing detailed regulations on foreign shareholding limits in Vietnam-based FinTech firms as foreign investors currently hold dominant stakes in many local FinTech firms – September 2018

In progress

- New legislation on virtual assets to regulate blockchain technology, cryptocurrencies and ICOs – expected to finalise by end 2018
- Regulatory sandbox framework for start-ups to conduct proofs-ofconcept – slated for roll-out by end 2018



2018

- Launched InstaPay, the latest automated clearing house (ACH) under the National Retail Payment System (NRPS) Framework – April 2018
- Enacted R.A. No. 11055 (Philippine Identification System Act) to promote the seamless delivery of financial services – August 2018
- Enacted the Personal Property Security Act, which helps establish a unified and modern legal framework for securing obligations with personal property, thus enhancing access to least cost credit (particularly for micro-, small- and mediumsized enterprises) – August 2018

In progress

- The Bangko Sentral ng Pilipinas (BSP) and Securities and Exchange Commission (SEC) are exploring regulations for cryptocurrencies and InsurTech
- Dedicated area in the Cagayan Special Economic Zone and Free Port to promote the growth of FinTech and blockchain companies
- Issued draft rules on ICOs in August 2018 for industry feedback – expected to be finalised by end 2018



2018

- Launched 'OJK Infinity', which functions as an innovation hub and regulatory sandbox for FinTech innovation – August 2018
- Issued an amendment to restructure the e-money industry and to mitigate potential risks by implementing risk management and security standards, and to increase supervision over e-money business players – May 2018
- New biometric verification regulation signed by the Ministry of Communications and Information Technology (Kominfo) to aid in e-KYC (Know Your Customer) and digital signatures

In progress

(time frame not specified):

- OJK has plans to issue guidelines on risk management for technological implementation of P2P lending
- OJK is set to issue regulations on equity crowdfunding, following the rise of such platforms in Indonesia
- Bl is starting a discussion to review existing rules on payment gateways and e-wallets
- Electronic Information and Transaction (EIT) laws are currently under revision, particularly in the area of data localisation

2.5 Greater collaboration between banks and FinTech firms

Banks are increasingly seeing FinTech firms as 'enablers' instead of 'disrupters'. The breadth of technological innovation, from blockchain-based corporate lending to lifestyle-based insurance, has seen banks and FinTech firms collaborate to deliver more value to the end-consumer.

Across ASEAN, we see banks and FinTech firms coming together to engage and to bank ASEAN consumers and corporates in new ways. From initial collaborations to commercialising innovative solutions, the bank-FinTech collaboration landscape in ASEAN is vibrant.

Fig. 2.5 provides a snapshot of the different types of activities between banks and FinTech firms across ASEAN in the areas of payments, savings, lending, investment and back-end operations.

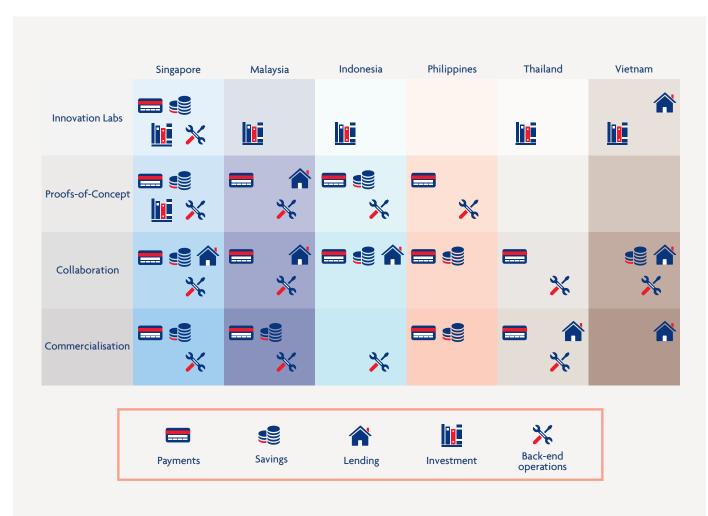


Fig. 2.5 Snapshot of activities between banks and FinTech firms across ASEAN

Innovation labs host innovation programmes and include venture funding Proofs-of-concept evaluate feasibility of ideas with pilot projects Collaboration covers joint ventures and partnerships between banks and FinTech firms Commercialisation involves launching a product/service to market

Machine learning combats money laundering - the UOB and Tookitaki way

UOB partnered Tookitaki, a Singapore-based regulatory technology company, to enhance anti-money laundering surveillance activities. The collaboration with Tookitaki was initiated in The FinLab, UOB's FinTech and innovation accelerator.

After participating in a three-month acceleration programme in 2017, Tookitaki secured a proof-ofconcept (POC) with UOB to apply machine learning technology in anti-money laundering efforts. UOB worked with Tookitaki to co-create machine-learning features in the Anti-Money Laundering Suite for name screening and transaction monitoring – two key anti-money laundering processes.

The six-month POC has reaped positive results, enabling UOB to draw out faster and more precise information to prevent and to detect suspicious money laundering activities. UOB will continue to work with Tookitaki to optimise machine learning algorithms with new transactional data and to implement its solution across the AML framework.

While there is no single answer as to how banks and FinTech firms can best collaborate, a successful collaboration hinges on the ability of involved parties to harness one another's strengths to provide fast, personalised and seamless services to ASEAN consumers and corporates. Ultimately, banks and FinTech firms share a common vision to introduce financial services and products that create value for customers.

This section provides a snapshot of current FinTech developments and trends in the ASEAN-6 economies: Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.



3.1 Indonesia: Serious investment in alternative lending

Indonesia's low bank account ownership (40 per cent) and high informal borrowing (77 per cent) are driving growth in the alternative lending sector³⁰. The large unbanked and underbanked population also make Indonesia an attractive market for FinTech firms to develop and offer alternative lending solutions.

In line with the market potential, there is significant funding available for Indonesia-based FinTech firms in the alternative lending space.

As at October 2018, more than 40 per cent of the total investment dollars in Indonesia went to alternative lending providers (source: Tracxn). Akulaku, FinAccel and C88 Financial Technologies attracted the most funding in this category.

"There is an immediate need to create a strong credit infrastructure, given an exponentially growing lending market. We have recently passed a Code of Conduct to promote responsible lending, which has been approved by the Financial Services Authority."

- FinTech Association Indonesia (AFTECH)

FinTech firms have also sought alternative methods to assess credit worthiness. Non-traditional data is used to build algorithms to determine an individual's credit profile with greater accuracy. With technology-based credit assessment models, some FinTech firms have also started working with financial institutions to reach a wider set of customers.

FinTech firms partner banks to serve the underbanked and unbanked

Given the sizeable unbanked and underbanked population in several ASEAN countries, banks are partnering with FinTech firms to offer more inclusive risk assessment, credit rating and banking services to individuals, as well as micro-, small- and medium-sized enterprises (MSMEs).

Avatec.ai - UOB and PINTEC Technology Holdings deploy next generation digital credit assessment solution

Avatec.ai (Avatec) uses a broader set of non-traditional data beyond traditionally available information to determine creditworthiness with greater accuracy.

Avatec was formed in 2018 as a joint venture between UOB and Beijing-based PINTEC Technology Holdings (PINTEC). PINTEC's flagship product is Dumiao, a digital lending solution that uses third-party credit information and e-commerce transactions to generate credit decisions based on artificial intelligence and machine learning.

With Avatec, companies are now able to access about ten times the traditional number of data points used in credit assessments. This means that companies can extend loans to a broader base of customers and at lower loss rates.

Avatec plans to first roll out its solution in Indonesia, followed by other Southeast Asian markets over the coming years.



3.2 Malaysia: Empowering financial institutions

Banking tech – technological solutions that enable banks to enhance their service offerings – led FinTech funding in Malaysia at 85 per cent of funds raised, as at October 2018. This was also the case in 2017, when banking tech led funding volumes at 49 per cent of investments.

Malaysia-based Jirnexu, with a solution that automates marketing, sales and delivery of banking and insurance products for banks, has raised a total funding round of US\$17 million this year.

Malaysian banks are embracing FinTech firms as partners and co-creators by setting up innovation labs and sandboxes to explore collaboration opportunities.

The payments sector has also seen new developments, with the launch of JomPAY to SMEs in May 2018 and the expected launch of DuitNow in December 2018, which enables fund transfers through personal identifiers such as a mobile phone number or passport number.



3.3 The Philippines: From overseas remittance to domestic consumption

The Philippines' large overseas diaspora has made the country one of the top three remittance recipients globally, in 2017. Total remittance inflows to the Philippines for 2017 was US\$29.7 billion, just behind India and China³¹.

According to the World Bank, remittance recipients tend to be underbanked by traditional financial institutions. Moves are under way to offer a broader range of financial products³².

Yet, there remains an estimated credit gap of 50 per cent in the Philippines due to loan demands from the micro-business segment, which presents an opportunity for FinTech firms to address³³.

According to the Fintech Philippines Association, alternative lending will see explosive growth in the next 18 months as FinTech firms target the underbanked and unbanked population in the Philippines.

In fact, alternative lending was the most funded category in the Philippines at US\$23.2 million in 2017, showing that investors see the potential for FinTech firms to serve growing domestic consumption needs.

In 2018, Philippines-based alternative lending FinTech firm First Circle raised US\$26 million to provide short-term business loans for SMEs.

"Alternative lending will soon see an explosion of growth over the next 18 months as numerous FinTech firms establish themselves and target the underbanked and unbanked population in Philippines."

- FinTech Philippines Association



SMEs are an essential part of Singapore's business landscape, accounting for 99 per cent of all businesses and 65 per cent of employment in 2017³⁴.

However, in the SME Financing Survey released by SPRING Singapore (now known as Enterprise Singapore) in December 2017, 64 per cent of SMEs surveyed said that they faced cash flow and liquidity issues as a result of delayed payments from customers³⁵.

Incidentally, FinTech firms that specialise in helping SMEs access financing and manage their cash flow have received positive investor response. Data from Tracxn shows that the bulk of FinTech funding in Singapore from January to October 2018 went to two categories: SME financing (34.2 per cent) and wealth management (32 per cent).

One example is Funding Societies – the recipient of Singapore's biggest FinTech funding amount in 2018.

Funding Societies is a Singapore-based P2P lender that helps SMEs access financing with crowdfunding or P2P lending, with operations in Singapore, Malaysia and Indonesia. It received US\$25 million in Series B funding in April 2018 – led by Softbank Ventures Korea (source: Tracxn).

More growth is expected in the aspect of SME financing by FinTech firms. Another recent example is early-stage Singapore-based FinTech firm Aspire Capital, which raised US\$9 million in seed funding within seven months of business. Aspire Capital provides fast and affordable loans to small businesses.

FinTech firms offering innovative solutions and technologies to support SMEs' working capital needs

CardUp - Use of credit card to extend business payables

CardUp's solution helps to extend a business owner's credit cycle by enabling the owner to use his/her credit card facility to pay for expenses – even when the merchant or recipient does not accept this form of payment³⁶.

The company has seen its user base grow by 41 per cent every month since its launch in 2016³⁷. It has tied up with UOB, Visa and MasterCard and enables business owners to extend business payables by up to 55 days without interest. This frees up cash for the business owner and allows the owner to take advantage of card facilities such as reward points and extended credit.

Besides SME financing, a large proportion (32 per cent) of FinTech funding has flowed into FinTech firms providing wealth management solutions. Here, wealth management refers to investment advisory, which includes financial planning, investment portfolio management and financial services offered by robo- and/or hybrid advisers.

Against the backdrop of Singapore's high wealth per capita, financial institutions are turning to technology to serve their clients better. For instance, Schroders, a London-based international asset management firm, acquired a minority stake in Welnvest, a Singapore-based FinTech firm that provides a web-based platform for wealth managers for operations, execution and custody of investment strategies.

Young, tech-savvy wealth clients have also fuelled the growth of FinTech funding in wealth solutions, such as robo-advisers. According to Statista data, cumulative assets under management held by robo-advisers in Singapore reached US\$1.75 billion in October 2018 and is expected to grow by 44 per cent annually to reach US\$7.61 billion by 2022.

Although modes of collaboration may vary, financial institutions are seeing the benefits of partnering FinTech firms that offer tech-augmented wealth management solutions to replace error-prone and costly manual processes, and to connect with younger, tech-savvy investors.

The growing wealth in the region, coupled with an increasing preference for self-directed investment, will continue to present growth opportunities in this space.



3.5 Thailand: Pay and play

Thailand is the fourth most popular destination for Chinese tourists outside the mainland, prompting Thai retailers to adopt e-payment solutions popular among the Chinese, such as WeChat Pay and Alipay³⁸. Not surprisingly, the payments category received the most funding from January to October 2018 and continues to attract new entrants.

In addition, government efforts such as the Thailand 4.0 initiative, which seeks to transform the kingdom into a technology- and innovation-driven nation, have also led to the launch of the national e-payment scheme, PromptPay, in 2017.

PromptPay enables Thai residents to send money to one another through their mobile banking app with just the recipients' mobile phone number or citizen ID number. As at February 2018, 97 million PromptPay transactions have been made³⁹.

The Thai government is also regularly updating regulations to facilitate e-payments and domestic FinTech development.

Such developments are also attracting Thai conglomerates as they expand into payments to extend their share of the customer's wallet. TrueMoney, which is linked with Thailand's largest private company Charoen Pokphand (CP) Group, has 6,000,000 active users in Thailand (as at September 2017). By collaborating within the CP Group, customers can top up their mobile phone credit, pay their bills, shop at 7-Eleven convenience stores and transfer cash to Myanmar and Cambodia from Thailand – all through their mobile wallet.



As emerging markets tend to have a large unbanked population and an underdeveloped financial infrastructure, cryptocurrencies can contribute to financial inclusion by facilitating payments in rural areas.

According to United Nations data, only one in three adults (30 per cent) in Vietnam has transacted with a financial provider, lower than the ASEAN average of 69 per cent⁴⁰.

Limited access to banking services may have led to the demand for cryptocurrency in Vietnam from late 2017 to mid-2018.

According to the *Global Cryptocurrency Benchmarking Study*, the Vietnamese Dong was used by 15 per cent of surveyed cryptocurrency payment companies worldwide in 2017 – indicating the presence of local demand. In comparison, the Singapore Dollar and Indonesian Rupiah were only used by six per cent and 10 per cent of cryptocurrency payment companies respectively⁴¹.

However, in the third quarter of 2018, the State Securities Commission of Vietnam issued a ban on all cryptocurrency-related activities in Vietnam, following a fraudulent initial coin offering that resulted in 32,000 investors losing a total of US\$658 million⁴².

Nevertheless, demand for an alternative currency will continue to exist if the unbanked population remains high.

"[When enacted], the FinTech Act will strengthen confidence in electronic transactions, facilitate access to information from government agencies to improve KYC/customer due diligence, support non-face-to-face identity verification, and allow anonymised data requests from government agencies. Once in place, this Act will help accelerate the FinTech industry's growth in Thailand."

- Thai FinTech Association (TFTA)

4.1 Small businesses prepare for Industry 4.0

The world is in the midst of the fourth industrial revolution or Industry 4.0 – where innovative technologies digitalise physical assets and businesses are integrated into digital ecosystems to create and to exchange information with little human intervention.

To help businesses succeed in the age of Industry 4.0, initiatives such as the ASEAN Agreement on E-Commerce and the ASEAN Single Window, introduced in 2018, are streamlining regulations and expediting cross-border customs clearance. This enables businesses to market and to sell their products more easily within ASEAN.

The digitalisation of SMEs will also be an important pillar for regional economic integration. Through digitalisation, SMEs can enjoy improved operational efficiencies, reduced costs and will be able to offer relevant products and services for the growing pool of digital consumers across ASEAN.

"ASEAN is committed to further economic integration. This is an important condition for the Fourth Industrial Revolution, because it is about building networks, creating new synergies and staying connected... It is important [in the Fourth Industrial Revolution] to involve the businesses because the private sector, especially the small and medium enterprises, is the backbone of our economies and source of entrepreneurship." ⁴³

- Singapore Prime Minister Lee Hsien Loong at the 27th World Economic Forum on ASEAN, 28 September 2018

Research has shown that SMEs across ASEAN are already *en route* to digitalisation. In the 2018 *ASEAN SME Transformation Survey*, 60 per cent of SMEs surveyed said they were keen to invest in technology solutions to drive business performance, with more prioritising this over conventional fixed asset spending.

The same survey also showed that about one-third of SMEs are already investing in digital expertise, indicating their interest and commitment to digital transformation⁴⁴.

4.2 FinTech firms tapping the SME market

FinTech firms in ASEAN are rolling out digital financial services specifically for SME customers. According to the ASEAN FinTech Census 2018, 45 per cent of FinTech firms surveyed have micro-, small- and medium-sized enterprises (MSMEs) as their customers⁴⁵.

FinTech firms have helped SMEs in ASEAN digitalise in the following areas:

4.2.1 Payments

Payment solutions for SMEs are categorised into three main areas: e-payment gateways, crossborder payments and customer data analytics.

With Southeast Asian e-commerce sales increasing at a compound annual growth rate of 41 per cent, FinTech firms have capitalised on this trend to help SMEs with e-commerce and cashless payments⁴⁶.

Active players in the payments space include iPay88 and 2C2P, which are headquartered in Malaysia and Singapore respectively. Both FinTech firms have developed e-payment gateways for SMEs to process online payments in a fast and secure manner.

The rise in e-commerce sales, coupled with high remittance flows, have also created demand for faster and smoother cross-border payments. Traditional cross-border payment methods, which involve cheques, letters of credit and overdraft facilities, pose certain challenges such as exchange rate fluctuations and payment delays.

FinTech firms such as Instarem (headquartered in Singapore) have emerged to smoothen the payments process for SMEs by providing greater transparency in foreign exchange rates and quicker turnaround time.

As payments within and across ASEAN economies increase in quantity and volume, FinTech firms have also rolled out solutions to help SMEs collect and analyse transaction data and to generate customer analytics.

For example, Singapore-based Aimazing focuses on generating itemised customer purchase data for SMEs by digitising offline receipts in real-time during the checkout process. The data can then be analysed to provide SMEs with insights on buying patterns.



4.2.2 Payables Financing

SMEs often face the challenge of liquidity and cash flow management.

Based on the 2017 SME Financing Survey, 64 per cent said they experienced delayed payments from customers⁴⁷. Innovative payables financing solutions have helped SMEs address the issue by extending supplier payment terms or passing on supply chain risks to a third party.

Procure-to-Pay automation: EzyProcure

SGeBiz's EzyProcure is an e-procurement platform that simplifies the purchasing process for buyers and suppliers. Designed initially for the fast-moving food and beverage (F&B) industry, users reported up to 70 per cent in time saved from using the solution, thanks to its ability to integrate with back-office accounting, inventory and enterprise resource planning (ERP) systems to speed up processes.

EzyProcure also streamlines the complex procure-to-pay process. By using a 16-digit virtual payment account, buyers can enjoy a credit term of up to 60 days and potential discounts off purchases. Likewise, suppliers benefit by receiving payments within five days from buyers. This payables financing arrangement frees up operating cash flow for SMEs and creates a win-win situation for both parties.

EzyProcure has since been rolled out for the retail sector and is available in Singapore and Malaysia, with plans in the pipeline for Thailand in the next 18 months.



4.2.3 Alternative Lending

Alternative lending platforms, such as P2P lending and crowdfunding, appeal to SMEs as they offer faster service and paperless loan applications.

According to the 2018 ASEAN SMEs Transformation Survey, 67.8 per cent of SMEs surveyed indicated alternative lending options as a preferred financing source⁴⁸.

Faster loan approval processes may help SMEs facing tight liquidity. Many alternative lenders can carry out credit underwriting processes and approve loan applications based on borrowers' risk scores in near real-time. Requirements to obtain loans are also more flexible, typically without the need for guarantors, asset security or detailed financial plans, reducing processing time.

Transforming SME lending: Validus Capital

Headquartered in Singapore, Validus Capital helps SMEs solve cash flow issues by providing them with speedy access to funding.

It uses a proprietary algorithm, powered by artificial intelligence, machine learning and data analytics capabilities, to assess the creditworthiness of SMEs on behalf of prospective lenders. Lenders must be accredited investors under Singapore law.

Since inception in July 2015, Validus has disbursed more than 1,400 loans, amounting to more than \$\$100 million, and raised \$\$4 million in Series A funding from Vertex Ventures.

In 2017, Validus collaborated with payments technology company, Visa, to issue SMEs with virtual cards to facilitate invoice payments. To provide SMEs with more access to capital for business expansion, Validus partnered independent asset manager Lighthouse Canton Group in May 2018 to launch a S\$20 million fund to finance SMEs in Singapore⁴⁹.

4.2.4 Finance and Accounting Tech

The single-entry accounting systems used by many SMEs are often insufficient to generate business plans required for traditional loan applications. These systems are also not designed to scale and to manage large transaction volumes – a challenge for growing SMEs.



Across ASEAN, FinTech firms and banks have rolled out finance and accounting solutions to help SMEs that may be too resource-strapped to hire accounting specialists to balance the books. For example, OnlinePajak (based in Indonesia), FlowAccount (based in Thailand) and PayrollPanda (based in Malaysia) are helping SMEs overcome these challenges.

Instead of offering only bookkeeping functions, which is often the case for single-entry accounting systems, these solutions provide an 'all-in-one' solution with accounting, taxes and payroll functions. They are usually based on cloud servers for SME owners and/or managers to access data anytime and anywhere.

UOB BizSmart, a cloud-based integrated business solution is an example of such a solution which enables SMEs to integrate and to manage their operational processes such as payroll, invoicing and inventory management in a simple and cost-effective way. UOB BizSmart is currently available in Singapore, Malaysia (known locally as SmartBusiness) and Thailand.

4.3 FinTech/digital solutions are ripe for adoption by SMEs

To understand the readiness of SMEs to adopt FinTech and digital solutions in Singapore and their budget for such solutions, SFA and UOB commissioned a survey in October 2018⁵⁰.

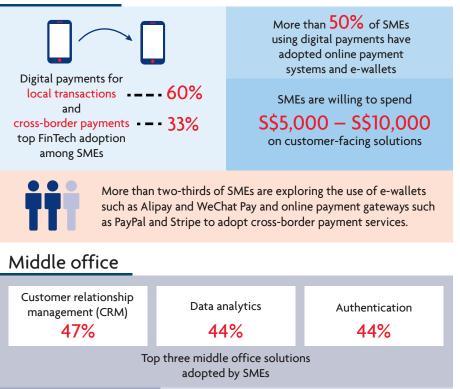
The FinTech and digital solutions included were:

(1) Front office: Solutions that serve customers directly, such as e-wallets, digital payment gateways and chatbots/virtual assistants.

(2) Middle office: Solutions that enable companies to make better business decisions, such as financing options, data analytics and Internet of Things (IoT).

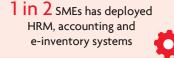
(3) Back office: Solutions that provide functionality for internal operations, such as finance and accounting tech.

Front office



23% of SMEs are interested to adopt data analytics/business intelligence

Back office



1 in 4 SMEs is looking to adopt process automation and e-procurement Smaller SMEs (annual turnover of between

Medium-sized companies

(annual turnover of between

\$10 million and S\$50 million)

are more keen to explore

alternative financing

(annual turnover of between \$\$5 million and \$\$10 million) are more keen to adopt e-procurement systems

Fig. 4.1 Key findings from SFA-UOB SME FinTech & Digital Adoption Survey, n = 406 respondents in Singapore, October 2018

Distribution of SMEs:

(1) Services [80 per cent]: Automotive and transportation; banking and finance; consumer goods and retail; energy and natural resources (utilities); food and beverage; healthcare and pharmaceuticals; IT and telecommunications; tourism; hospitality and entertainment; and

(2) Production [20 per cent]: Construction and real estate; electronics; logistics and distribution.

Key Insights – Front office

Digital payments for local transactions top current FinTech/digital adoption among SMEs at 60 per cent. Digital payments encompass e-wallets, online payment systems and Corporate PayNow.

For respondents who have yet to adopt digital payments, the intent to do so is also the highest for e-payment gateways at 62 per cent.

The next focus area is **cross-border payment services**. Among respondents who use cross-border payment services, 76 per cent use online payment gateways such as PayPal and Stripe; 59 per cent use e-wallets including Alipay and WeChat Pay; while 55 per cent use remittance solutions.

A similar trend can be seen among respondents who have not used cross-border payment services but intend to. The intent to adopt online payment gateways was ranked the highest, followed by e-wallets and lastly, remittance solutions.

The willingness to use digital payments and cross-border payment services indicates that SMEs recognise the importance of improving their digital payment capabilities to power the sale of goods and services domestically and across the region.

For front office solutions, most SMEs are willing to invest between \$\$5,000 to \$\$10,000 with the Services sector having the highest appetite in spending.

Key Insights - Middle office

Customer experience is also a focus area of technology investment among survey respondents.

Customer relationship management software (CRM), **data analytics** and **authentication** were the top three middle office solutions adopted by the survey respondents.

Among SMEs who intend to adopt new middle office solutions, data analytics continues to see the most interest from SMEs (23 per cent). SMEs deem the ability to capture and to analyse relevant data for business insights as important.

SMEs with larger annual turnovers (i.e. more than S\$5 million to S\$50 million) also indicated a greater interest for alternative financing solutions.

For middle office solutions, most SMEs are willing to pay between S\$5,000 to \$10,000 for these solutions and close to half of them are looking to implement them in the next six to 12 months.

Key Insights - Back office

Operationally, one in two survey respondents are already using some form of back-office digital solution – deploying either human resource (HR), accounting or inventory systems to improve operational efficiency.

The survey also showed that **process automation** (defined as the use of digital technology to manage workflow) and **e-procurement solutions** had the highest interest among SMEs, at 25 per cent and 23 per cent, respectively.

For back office solutions, most SMEs were willing to pay between \$\$5,000 to \$\$10,000 to boost operational efficiencies.

Concluding Insights - Helping SMEs adopt FinTech solutions more effectively

While this survey only captured the sentiments of SMEs in Singapore, it serves as a good starting point to uncover some of the areas where ASEAN SMEs are keen to adopt FinTech and digital solutions.

The survey results show that SMEs are especially keen to adopt FinTech and digital solutions in these areas: digital payments, data analytics and process automation. In fact, a sizeable number of SMEs surveyed are already deploying some form of these solutions.

The willingness to adopt these solutions indicate that SMEs are either looking to scale up their usage or are seeking solutions with improved functionalities.

These findings hold great prospects for FinTech and digital solutions that can help SMEs increase customer engagement, obtain actionable insights from data and integrate seamlessly across systems.

4.4 FinTech in ASEAN: A symbiotic future

FinTech firms in ASEAN are poised for growth with the region's promising economic outlook and a large consumer market with rising affluence.

However, success does not just rest on cutting-edge technology and innovation to provide a superior solution. FinTech firms need to respond to realities on the ground and seek to understand local market dynamics and challenges that vary across ASEAN markets.

To benefit from ASEAN's growth story, FinTech firms will need strategies to address the challenges they will face – from uneven economic development to customer expectations – with their technological innovation. In this respect, it would be useful to have a regional network of contacts within ASEAN to better understand local conditions (see Starter Guide).

As ASEAN continues to achieve greater economic integration, there will be numerous opportunities for FinTech firms to flourish with the rising tide of prosperity.

FinTech Firms, Let's Hit the Road

This starter guide offers broad tips for FinTech firms looking to scale their business and/or to expand into ASEAN.

5.1 Quick tips on venture capital funding

Funding is an essential element for FinTech firms to grow an idea into a viable business.

Among the different sources of funding, such as grants, crowdfunding and venture debt, venture capital (VC) is a popular way for FinTech firms to raise capital.

According to the ASEAN Fintech Census 2018, angel investors and VC firms make up 55 per cent of funding for FinTech firms in the region, ahead of government funding (five per cent) and debt funding (three per cent)⁵¹.

In VC funding, investors typically inject capital in exchange for equity or ownership of the company. The capital they provide will enable FinTech firms to take care of their operational expenses.

Through their stake in the company, VC firms also participate in the FinTech firm's growth by offering their industry expertise and connections to other networks of investors, partners or customers.

"The best VCs do not just hand over cash – they help companies in their portfolio plan and pace themselves like marathon runners. They also help companies make sound decisions, [foster] teamwork and tap on their networks to strengthen each entrepreneur's team."

- Tan Yinglan, Founding Managing Partner of Insignia Ventures Partners and author of The Way of the VC: Having Top Venture Capitalists on Your Board Here are five tips that every FinTech firm should note before meeting a potential VC investor:

Five Practical Tips To Secure VC Funding

Have enough cash flow

1) Ensure enough cash flow to sustain the business for 18 months. An 18-month runway provides a good buffer as FinTech founders go through the process of meeting the right funding partners and negotiating the terms of the agreement. A typical VC fundraising round takes at least six months – so it is important to plan early.

Know the VC's partners and their strengths

3) Find out who the VC's network of partners are as they can potentially help open more doors to much-needed resources and connections in the early stages. What are the VC's strengths and how can they help with growth? Can the VC and its partners help fill key management positions? How can they assist with business strategy and potential leads?

From start-up to scale up

5) Be prepared with market facts and figures. What is the market size and growth potential? How is the competition and what are the entry barriers? Demonstrating an ability to scale is paramount to securing VC funding.

Understand the VC's investment philosophy

2) Research and understand the VC's investment philosophy. Find out if its approach is aligned with the company's business objectives. What is the VC's investment mandate? What other companies are in their portfolio? At which stage does the VC typically invest in and why? These are some of the questions that should be asked early to minimise disagreements or issues later.

Prepare the pitch

4) Preparation is key – prepare a pitch prior to the initial meeting. Personalise the main message and sell at a strategic level. Share the company's vision and business model, articulate how it will be executed to gain an edge in the market and over competitors. Be receptive to feedback and nurture relationships with the investment community on an ongoing basis.

For more information on funding and business opportunities to propel your FinTech firm to the next stage of growth, visit UOB's Tech Start-up Ecosystem website at www.uobgroup.com/techecosystem

5.2 Co-working spaces ease market entry

Co-working spaces – where individuals and businesses work independently or collaboratively in shared office spaces – can ease new market entry for FinTech firms.

According to the ASEAN FinTech Census 2018, 73 per cent of FinTech firms in ASEAN believe that co-working spaces are beneficial⁵².

High initial costs and long lease contracts make co-working spaces, which offer flexible hourly to monthly rental, an attractive alternative to setting up an office from scratch. Setting up in a co-working space also enables founders to tap the community of like-minded companies for potential collaboration and market insights offered by the network.

Case study: CoHive

Co-working space provider CoHive (formerly known as EVHive and COCOWORK) has a network of 22 offices and more than 5,000 members across Indonesia. This extensive network provides great accessibility for FinTech firms looking to enter the fourth most populous nation in the world.

CoHive's customer network also presents opportunities for FinTech firms to connect with one another for collaboration. Having a local partner that understands these issues can ease market entry.

"Every city in Indonesia is different and it is important to adapt your strategy to match consumers in different cities. At the same time, consumer purchasing habits are driven by their peers; products with a great product-market fit can be adopted very quickly. Finding a good local partner who can help navigate the local markets and regulatory systems will help scale the business quickly and smoothly."

- Carlson Lau, CEO and co-founder of CoHive

Government agencies and financial institutions such as UOB are either setting up or partnering with co-working spaces, as they seek to create ecosystems of partners to help FinTech firms scale quickly.



UOB offers access to co-working spaces across ASEAN

Fig. 5.2 Co-working spaces for FinTech firms across ASEAN

For more information about these co-working spaces, please visit www.uobgroup.com/techecosystem

5.3 Regional resources

This section provides information on the various organisations that FinTech firms can approach for various needs as they seek to expand into the ASEAN countries.

5.3.1 Snapshot of public agencies and resources

Country	Regulators (involving FinTech)	Company registration	Government funding	Visa schemes
Indonesia	Bank Indonesia Otoritas Jasa Keuangan (OJK)	Badan Koordinasi Penamaan Modal (BKPM)	Kredit Usaha Rakyat; Ministry of Cooperative and SME	No publicly available information
Malaysia	Bank Negara Malaysia (BNM) Securities Commission (SC)	Suruhanjaya Syarikat Malaysia (SSM)	Malaysian Technology Development Corporation (MTDC)	Malaysia Tech Entrepreneur Programme
Philippines	Bangko Sentral ng Pilipinas (BSP)	Securities and Exchange Commission, Philippines	Department of Trade and Industry (DTI)	No publicly available information
Singapore	Monetary Authority of Singapore (MAS)	Accounting and Corporate Regulatory Authority (ACRA)	Enterprise Singapore; Economic Development Board (EDB)	EntrePass
Thailand	Bank of Thailand (BOT)	Department of Business Development, Ministry of Commerce	Start-up Thailand	SMART Visa
Vietnam	State Bank of Vietnam (SBV)	Ministry of Planning and Investment (MPI)	SME Development Fund	No publicly available information

5.3.2 FinTech associations

FinTech associations offer varying degrees of support, from providing co-working spaces for budding FinTech firms to offering connections with local businesses and regulatory networks.

Associations also act as industry champions – providing active feedback to regulators and other industry partners to facilitate FinTech growth in their respective markets.



Cambodia

The Cambodia FinTech Association is a non-profit organisation established for the benefit of members across Cambodia, which include FinTech start-ups, hubs, accelerators and VCs.

The Association aspires to build Cambodia into the leading Indochina country for FinTech innovation and investment in the region. We do this by collaborating with regulators and stakeholders to create a vibrant and safe environment. In so doing, we aspire to build an ecosystem of supportive partners and FinTech companies to thrive and grow in the kingdom of Cambodia.

Website: http://cambodiafintech.org



Indonesia

The FinTech Association Indonesia (AFTECH) is an independent non-profit organisation with a vision to drive financial inclusion through digital financial services. Incorporated in March 2016, AFTECH brings together companies and institutions in the financial services sector that apply technology in their businesses.

AFTECH has more than 200 members, comprising 167 FinTech firms, 26 financial institutions, seven knowledge partners and two technology partners. AFTECH supports its members in policy advocacy, collaboration and community, literacy and education, and knowledge and intelligence.

Website: https://fintech.id



Malaysia

The FinTech Association of Malaysia (FAOM) aspires to be the key enabler in helping Malaysia to become the leading hub for FinTech innovation and investment in the region. FAOM facilitates ecosystem collaboration between FinTech stakeholders in Malaysia with the key objectives to support the FinTech community, to build awareness and trust in FinTech start-ups and to advocate for better policy on behalf of its members.

Website: http://www.fintechmalaysia.org

Philippines

The FinTech Philippines Association (FinTech PH) is an independent industry association representing the interests and growth of the FinTech community in the Philippines. FinTech PH aims to position the Philippines as a hub for technological innovation in financial services.

As the representative voice of the burgeoning FinTech community in the Philippines, FinTech PH seeks to accelerate the growth and success of its members by attracting investment and partnerships domestically and abroad and advocating for effective and future-focused regulation. It also aims to cultivate interest and technical skills to promote innovation, to organise an inclusive community of start-ups and institutions and to promote the goals of the industry.

Website: http://www.fintechph.org

Singapore

The Singapore Fintech Association (SFA) is a cross-industry, non-profit initiative designed to facilitate collaboration among all market participants and stakeholders in the FinTech ecosystem. It is designed to be an effective platform for members to engage with multiple stakeholders to find solutions to issues.

SFA represents the FinTech industry by upholding the integrity of its members, supporting the building of relationships within the FinTech community and collaborating with regional and international FinTech organisations.

Website: https://singaporefintech.org

Thailand

The Thai Fintech Association (TFTA) launched as a club in July 2016 and was later registered as an association on 2 November 2016.

Acting as the centre of the Thai FinTech community, TFTA's mission is to increase accessibility to financial products and services for Thai people, to reduce the cost of financial transactions in Thailand, to promote fair and transparent competition and to support the Thai FinTech start-up and ecosystem development in order to compete and expand to global markets.

Website: https://thaifintech.org

Vietnam

The Vietnam FinTech Association's mission is to create an ecosystem that enables Vietnam to leverage its potential to be a world-class FinTech hub by creating, connecting, advocating and promoting FinTech activities in Vietnam.

Website: http://www.vietfintech.vn







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UOB Tech Start-up Ecosystem Information, Insights and Events: www.uobgroup.com/techecosystem

UOB General FinTech Enquiries: digital.engagement@uobgroup.com

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- Thai FinTech Association (TFTA)

Singapore FinTech Association

Chua Hock Lai President

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Appendix

Executive Summary

¹SFA and UOB commissioned BlackBox Research Pte Ltd to conduct an online survey with 406 SME business decision makers on their use of FinTech and digital solutions within their business. The survey was conducted in October 2018.

Section 1: The Continued Rise of Fintech Firms in 2018

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⁵ e-conomy SEA: Unlocking the \$200 billion digital opportunity in Southeast Asia, Google and Temasek Holdings, May 2016

Section 2: Five Important ASEAN Trends for FinTech Firms

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¹⁰ GDP Growth (annual percent), World Bank, October 2018

¹¹ Rediscover ASEAN, EY, May 2017

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²⁷ FinTech Philippines Association (FinTech PH) (via e-mail), October 2018

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²⁸ FinTech Association Indonesia (AFTECH) (via e-mail), October 2018

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Section 3: Country Snapshots

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³¹ Migration and Remittances for Development in Asia, World Bank, May 2018

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Singapore sources: ³⁴ Singapore Economy, Department of Statistics Singapore, accessed October 2018

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⁴⁶ e-Conomy SEA Spotlight 2017: Unprecedented growth for Southeast Asia's \$50B internet economy, Google and Temasek Holdings, December 2017 ⁴⁷ SME Financing Survey 2017, SPRING Singapore (now Enterprise Singapore), December 2017

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⁵⁰ A total of 406 responses were received from leaders and decision makers in SMEs headquartered in Singapore. These SMEs have annual revenues of between S\$1 million and S\$50 million.

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