ecosystm

Fintech Market Opportunities in SE Asia

PREPARED FOR

NEW ZEALAND TRADE & ENTERPRISE
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Contents

Fintech in SE Asia: An Overview

Southeast Asia has immense potential for Fintech investments, given the population base and the overall digital maturity of the region. The potential is further heightened by a number of factors:

- **Proximity to China.** China emerges as the global leader in Fintech, driven by a population that is technologically-savvy, a high percentage of underbanked population, and the relatively liberal compliance environment. China is proximally and culturally close to several countries in Southeast Asia and several Chinese firms look at the region as a logical step in their market expansion plans. There are several collaborative Fintech ventures between China and the countries in the region.
- **Economic Needs of Individual Countries.** The countries in Southeast Asia are not homogeneous and have their own distinct economic requirements. While Singapore's Fintech market is driven by the country's focus on innovation, in countries such as Indonesia and Thailand Fintech is a way to build a more inclusive economy bringing in the unbanked population. However, Fintech is an integral part of the digital economy goals of every country in the region. The technology requirements in the region range from payment systems to more sophisticated Regtech and Insuretech solutions.
- **Collaborative Efforts led by Singapore.** Singapore is one of the global leaders in Fintech and leads Southeast Asia's Fintech initiatives - through regulations, a robust ecosystem and innovation. It also collaborates with the countries in the region empowering them with talent development and co-creation of Fintech solutions. Initiatives such as the ASEAN Financial Innovation Network (AFIN) further promote Fintech adoption in the region through its open-architecture platform.

The Fintech Market at A Glance - SE Asia

Size of Bubble represents the Fintech market size in 2018 (Source:Statista)
Market Growth represents the CAGR for the Fintech market till 2023 (Source:Statista)
Market Maturity represents country's Fintech opportunities based on the push factors, the business environment and the catalysts for market growth (Source: Ecosystm, 2019)

All countries in the region show a robust growth in their Fintech markets. Singapore has a sizeable Fintech market which is not showing any signs of slowing down as the Government pushes for more financial innovation. Thailand and Malaysia are steadily growing their Fintech markets in niche domains. Indonesia is clearly the largest market in SE Asia and as the country develops its infrastructure it has the potential to be a mature Fintech market, especially for technology that can promote financial inclusion. Vietnam and the Philippines are actively exploring Fintech as a transformative technology, but the markets in these countries are much smaller than their neighbours'.

The Fintech Domain Market at a Glance - SE Asia

	SINGAPORE	MALAYSIA	THAILAND	INDONESIA	PHILIPPINES	VIETNAM
Personal Finance	●	●	●	●	◕	●
Blockchain & Cryptocurrency	●	◕	●	◑	●	◔
Insuretech	●	◕	◑	◑	◔	◑
Regtech	●	◑	◑	◕	◑	◔
Digital Banks	●	◑	◕	◕	◑	◕
Alternative Finance	◕	●	◑	●	●	◑
Payments & Remittances	◕	◕	●	●	●	●

Market opportunity takes into consideration multiple factors including drivers, recent initiatives, funding, regulations and competitor landscape.
Source: Ecosystm, 2019

Global Fintech organisations looking to enter the SE Asia market should not restrict their go-to-market plans to a single country alone. Once they have selected a base in the region, there will be expansion opportunities in other countries depending on the domain. While Singapore has a strong market across all Fintech domains, the other countries in the region have their core strengths and technology priorities.

Demographic & Economic Indicators - SE Asia

	SINGAPORE	MALAYSIA	THAILAND	INDONESIA	PHILIPPINES	VIETNAM
Population *(in Millions)*	5.64	31.53	69.43	267.66	106.65	95.54
GDP *(in Billions)*	364.2	354.4	505	1,040	330.9	245
GDP per capita	87,760	27,272	16,286	11,161	7,581	6,233
Annual GDP growth	3.1%	4.7%	4.1%	5.2%	6.0%	7.1%
Inflation % *(Consumer prices)*	0.4%	0.9%	1.1%	3.2%	5.2%	3.5%
FDI inflow *(% of GDP)*	22.5%	3.0% *	2.6%	1.9%	3.0%	6.3%
FDI inflow *(% of GDP)*	82	8.6	13.2	20	9.8	15.5
Human Capital Index *(HCI)*	0.88	0.62	0.60	0.54	0.55	0.67
Global Competitiveness Index Ranking**	1	27	40	50	64	67

**Data from 2017*

***World Economic Forum, 2019 (Out of 141 economies)*

Factors Contributing to Market Maturity

While determining the market opportunity in each country, the following questions were explored:

THE PUSH FACTORS - IS THERE A DEMAND FOR FINTECH?

- **Consumers.** How tech-savvy are the consumers? Do they have an appetite for technology-driven commercial services? Do they expect prompt and personalised services?
- **SMEs.** Is the market competitive for SMEs? Do SMEs have online presence? Do they leverage tech start-ups?
- **Financial Institutions.** Are the Banking and Financial Services industries mature? Are they adopting Fintech? Do they partner with Fintech organisations?

THE BUSINESS ENVIRONMENT - DOES THE ECONOMY HAVE A SUPPORTIVE FINTECH ECOSYSTEM?

- **Economic Health.** Is the government investing in infrastructure? Is the economy attractive to foreign investors? Does the government have a strong industry focus?
- **Regulatory Environment.** Are financial institutions closely aligned to international regulations? Are the consumer laws robust? Is there a regulatory sandbox to promote Fintech experimentation?

- **Tech Landscape.** Does the government's digital vision include financial innovations? Is there a robust local tech vendor community? Is the economy promoting tech start-ups?
- **Funding.** Is there availability of both seed and late-stage funding? Are there several local funds? Does the government incentivise start-ups?

CATALYSTS – ARE THERE FACTORS THAT WILL GROW THE FINTECH MARKET EXPONENTIALLY?

- **Government Examples.** Is the government promoting Fintech through its policies? Are government agencies adopting Fintech?
- **Availability of Talent.** Do organisations have ready access to tech talent? Is it easy for overseas talent to get visa and work permit? Do universities offer Fintech courses?
- **Global Presence.** Does the economy have a sizeable presence in the global market? Do overseas organisations have offices in the country? Is it considered a hub for a particular economic or financial activity?

Singapore

Executive Summary

- **The Digital Government Vision.** The Singapore Government often sets the pace as it proactively adopts emerging technologies and sets future goals, creating a ripple effect across industries. By 2023, the Government aims to accept digital payments for all services and run 30-50 transformative digital projects. Tech vendors often bid for these projects as consortia to address all the project requirements. These consortia include vendors with niche capabilities. Moreover, as the country focuses on being an Innovation Hub it strives to provide a mature infrastructure and funding ecosystem. It is a good entry point to SE Asia for Fintech providers, especially as a deployment in Singapore carries weight across the region.

- **The Maturity of the Banking Industry.** Singapore is the fastest growing wealth hub in the world and collaborative digital technologies are the key focus of the banking industry. Banks are actively collaborating with Fintech organisations especially for eKYC, AML and Regtech. The Government promotes this collaboration through initiatives such as the FAST network (giving Fintech and non-banking organisations access to the real-time payments network) and Project Ubin (focusing on inter-bank funds transfer using Blockchain). The five Digital Bank licenses that the Government is about to issue have non-traditional contenders such as digital payments and funds transfer Fintech organisations such as Grab and InstaREM and lending platforms such as Validus. This bodes well for Fintech organisations as it creates trust and acceptance of Fintech in consumers.

- **Insurance Industry Transformation.** The insurance industry in Singapore has traditionally been over-reliant on agents. As customers expect more self-service especially for microinsurance policies and as Insuretech evolves, insurance providers will deploy robo-advisory and virtual assistants especially in departments such as Sales and Claims. With Singapore's smartphone (and app) penetration the market will eventually open up to online-only insurance providers. Moreover, insurance compliance requirements in other mature economies - such as restrictions on giving personal advice and assessment of broker commissions - will provide more opportunities for Insuretech providers. It is estimated that Insuretech start-ups receive nearly 20% of the funding available and Insuretech uptake in Singapore is set to increase.

- **Mature and Competitive Market.** Singapore is undoubtedly a good entry point into the SE Asian market. However, it is important to evaluate whether a product can compete in this market where there are already a number of established players. As an example, it is estimated that over 75% of Fintech transactions in Singapore are digital payments and it receives over a quarter of Fintech funding. However, beyond the Government initiatives such as FAST and SGQR, Singapore has established players such as Scoot, JPM Coin and Ripple and more established names are vying for the market. Fintech organisations must evaluate the competition and the expected benefit from a Singapore implementation before entering the market.

Country Overview

Tech Landscape

Singapore's ICT infrastructure and connectivity have attracted several global ICT giants to set up their regional headquarters in the country. This has not only promoted a greater technology awareness but has also seen several examples of co-creation between tech vendors and the Government that has fuelled ICT innovations in the country. Singapore's greatest strength is their holistic approach to their digital roadmap, to achieve their goals.

The Infocomm Media Development Authority (IMDA) sets out the **main goals** for Singapore as a Digital Economy with a view to promoting innovation and bringing concepts to market faster and more seamlessly:

- Realising Singapore's Services 4.0 vision
- Building a competitive, technology-enabled workforce
- Establishing a robust Infocomm and Media ecosystem that delivers Cloud Native solutions

This goal is further strengthened by the creation of the office of Digital Industry Singapore (DISG) to support the IMDA's goals. 45 officers from the Economic Development Board (EDB), Enterprise Singapore and the IMDA, create a joint office and the first port of call for all businesses needing assistance with digitalisation and emerging technologies such as AI. This is in line with the Government's emphasis on private-public partnerships (PPPs).

The Digital Government Masterplan for 2023 shows that Singapore not only aspires to be a Digital Economy but also a Digital Government with objectives such as integrating services around citizen and business needs; building common digital and data platforms; operating reliable, resilient and secure systems; and co-creating with citizens and businesses to facilitate adoption of technology.

Key KPIs for the Digital Government by 2023

70-80%
'VERY SATISFIED'
Target rating for Citizen and Business Satisfaction with Digital Services

100%
Services that offer ePayments options

20,000
Number of public officers trained in data analytics and data science

30-50
Number of Transformative Digital Projects

> 10 DAYS
Time needed to fuse data for cross-agency projects

Source: Digital Government Blueprint

Digital Maturity: Singapore

WORLD DIGITAL COMPETITIVENESS RANKING			
2	3 ↓	1	11 ↑
Overall	Knowledge	Technology	Future Readiness

Source: IMD 2019 (Rank out of 63 Economies)

148.2%
Mobile/cellular subscription

84.5%
Internet users

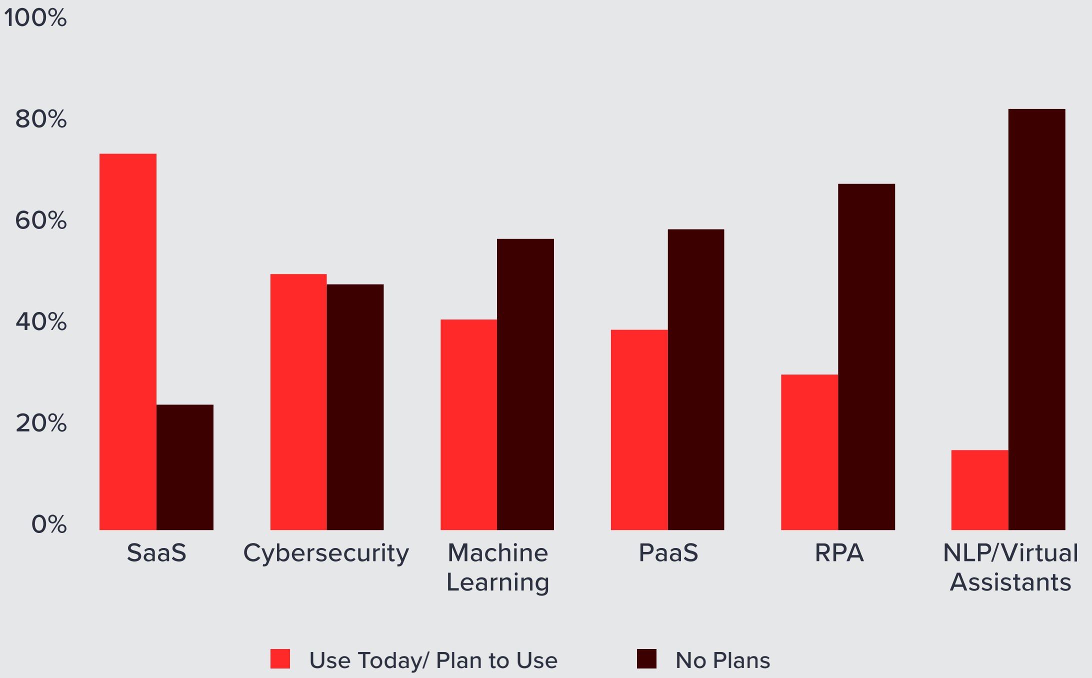
76%*
Smartphone penetration

5.6/7
Score on legal framework for Digital businesses

5.7/7
Score on Digital skills

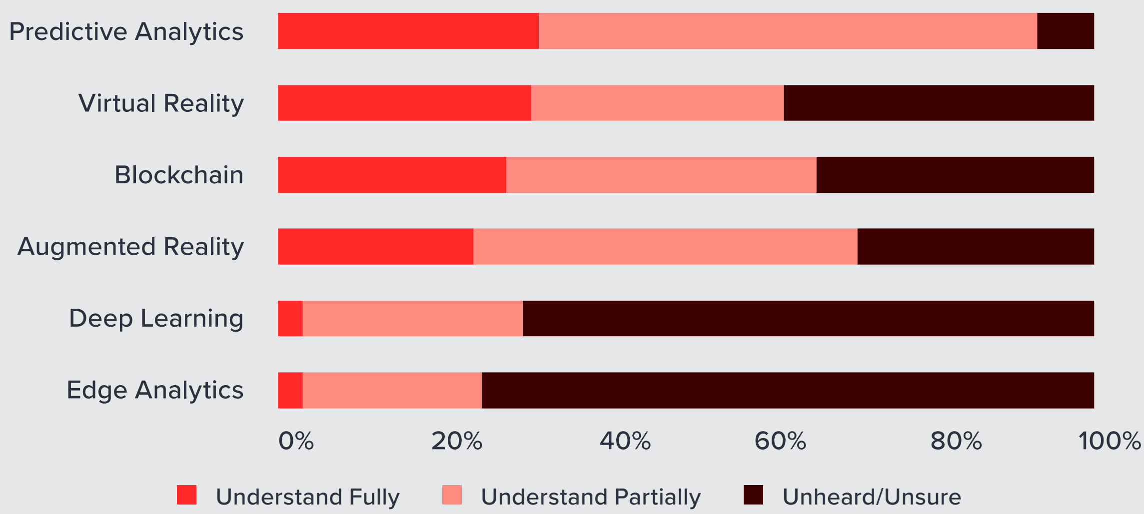
Source: World Economic Forum 2018
**Source: Statistica*

ENTERPRISE READINESS TO ADOPT TECHNOLOGIES - SINGAPORE



Source: Ecosystm, 2019 ^

ENTERPRISE PERCEPTION OF EMERGING TECHNOLOGIES - SINGAPORE



Source: Ecosystm, 2019 ^

ICT adoption is mature for both consumers and enterprises in Singapore. It ranks high on the ladder when it comes to digital competitiveness. What is significant is that the right investments are made in the enabling infrastructure; such as legal framework for digital businesses and cybersecurity compliance requirements.

Enterprises are open to adopting SaaS solutions and are evaluating emerging technologies such as predictive analytics and Blockchain, which bodes well for Fintech organisations looking to partner with local enterprises.

Banking & Financial Industry Landscape

According to the International Monetary Fund (IMF) Singapore's financial system is well integrated into international financial markets and it acts as an important regional financial hub. Singapore has a long-term financial vision keeping in view its aging population and considers emerging technologies as a means to transform the economy. It has emerged at the forefront of the world's Fintech revolution.

One of the main reasons for the strength of Singapore's banking system is the liberalisation of the domestic banking system that started in 1999 (and has been an ongoing exercise). Further, the system is anchored by local banks that have consolidated their presence through mergers and acquisitions. It continues to evolve and expand - examples include issuing Qualifying Full Bank (QFB) licenses to 6 foreign banks operating in Singapore and the 2018 initiative where Fintechs and other non-banking financial institutions were given access to the Fast and Secure Transfers (FAST) network for real-time payments.

The Banking sector is mature with a presence of over 200 banks - 6 local banks, 117 major foreign banks. Singapore has evolved into one of the fastest growing private wealth hubs in the world and the banks are actively expanding their wealth management businesses.

The current focus of the Banking and the Financial sector is on:

- Financing the growth in small and medium enterprises (SMEs)
- Enabling more convenient and cheaper payment systems for consumers, built on the FAST infrastructure
- Providing financial advice to augment personal savings beyond the Central Provident Fund (CPF)

Initiatives to promote the banking industry continue. Examples include:

- **Easier KYC.** The MyInfo platform (a collaboration between MAS, the Ministry of Finance and GovTech) that has made KYC procedures easier for banking and financial institutions
- **Singapore FinTech Festival.** Annual Fintech event that brings together stakeholders from the industry - both from the financial and the technology sectors
- **Digital Banks.** Promoting Digital Banks in overseas markets to tap the unbanked population and issuing 5 Digital Bank licenses within Singapore - providing services for retail, SME and non-retail customers

FINANCIAL INDUSTRY MATURITY: SINGAPORE	
Domestic credit provided by the financial sector *(% of GDP)*	**136.6%**
Banking Penetration	**98%**
Commercial bank branches *(per 100k adults)*	**8.5**
Online payments	**57%**
Debit card ownership	**92%**
Credit card ownership	**49%**
Score on Financing of SMEs	**5.2/7**
Score on VC Availability	**4.7/7**

Sources: World Economic Forum, 2018
The World Bank, 2018

Singapore has high banking penetration and an equally high utilisation of digital and mobile financial services. The focus of organisations when investing in Fintech solutions are product & service innovation and enhancing the customer experience (CX).

Regulatory Landscape

Singapore's regulatory landscape is well-regarded internationally. Several international regulations form the basis of country-level regulatory standards. External risks like breach of cybersecurity has its own financial conduct compliance regulations. Moreover, the financial industry is also regulated by consumer protection laws protecting customers from unfair practices, that cover multiple aspects of the business from improper branding to unfair sales practices.

The MAS is Singapore's central bank and regulates all financial institutions.

Several international regulatory bodies influence MAS to formulate regulations that follow global standards such as the IMF, the World Bank, the Financial Stability Board (FSB), the Basel Committee on Banking Supervision (BCBS), the International Organisation of Securities Commissions and the Financial Action Task Force (FATF).

There are several other guidelines and regulations that financial institutions are required to comply with in Singapore - the Association of Banks in Singapore (ABS), the Singapore Foreign Exchange Market Committee (SFEMC) and so on.

The main reason why Singapore's regulatory landscape is well-regarded is because it keeps evolving proactively. The Fintech Regulatory Sandbox was introduced in 2016 to foster innovations in financial services and business models within regulatory boundaries. Organisations that intend to conduct experiments in activities that are already regulated by MAS, can now apply under Sandbox Express, allowing them to bring services and products to market sooner.

Moreover, regulations are introduced and evolved constantly in Singapore. The Variable Capital Companies Bill introduced in 2018 is a case in point. It aims to be a gamechanger in the investment fund regime space and further bolsters Singapore's strength in fund management. The Payment Services Act of 2019 is another example - it aims to provide for the licensing and regulation of payment service providers, the oversight of payment systems, and connected matters. It is a cutting-edge piece of legislation that is meant to encourage innovation in the financial sector.

Singapore as a Fintech Hub

✓	48.5%*	2**
Regulatory Sandbox	Share of Fintech Funding (within SE Asia)	Ease of Doing Business Ranking

*Cited by Singapore Business Review, 2018
**The World Bank 2018 (Rank out of 190 Economies)

Funding and Incentives for Start-ups

Singapore is the top destination for VC and Private Equity investments in Southeast Asia. Besides, the Government incentivises the start-up and SME community for various business activities and innovation.

LEADING FINTECH FUNDS WITH A PRESENCE IN SINGAPORE

LEADING CROSS-SECTOR FUNDS WITH A PRESENCE IN SINGAPORE

There are several start-up accelerator and incubator programs in Singapore. What is also significant are the number of government initiatives to support start-ups and SMEs at every stage of their growth.

Government Grants for Innovation

HIRING TALENT	Startup SG SME Talent Programme
	Workforce Singapore and NTUC e2i Career Support Programme
	Workforce Singapore Professional Conversion Programme
GETTING INVESTMENTS	Startup SG Equity
	Startup SG Founder
GETTING SUPPORT FOR BUSINESS DEVELOPMENT	Enterprise Singapore Enterprise Development Grant
	MTI Productivity Solutions Grant
ADOPTING TECHNOLOGY	MAS Artificial Intelligence and Data Analytics Grant
	MAS FSTI POC Scheme
	Startup SG Tech POC/POV
	MAS Cybersecurity Capability Grant
SETTING UP INNOVATION CENTRES	MAS FSTI Innovation Centre Grant
COLLABORATING WITH INDUSTRY	MAS FSTI Institution-level Project Grant
	MAS FSTI Industry-wide Technological Infrastructure or Utility Project Grant
GETTING LISTED	MAS Grant for Equity Market Singapore
	Enterprise Singapore International Marketing Activities Programme
EXPANDING OVERSEAS	Enterprise Singapore Market Readiness Assistance Grant

Source: MAS

Fintech Initiatives

SMART FINANCIAL CENTRE

The financial sector is an integral part of Singapore's Smart Nation vision and MAS has created the **Smart Financial Centre** to promote Fintech and innovation initiatives in Banking, Insurance, Financial Markets and Payments. The centre promotes Fintech initiatives such as Regtech, e-KYC, Distributed Ledger Technology (DLT) and APIs and assists the government in cross-border collaboration.

PROJECT UBIN

The ABS supported by MAS are working on a DLT prototype for a gross settlement process, aimed at real-time inter-bank funds transfers and reduction of transaction fees. They have partnered with R3 and are innovating on their open source Blockchain platform in **Project Ubin**. Government initiatives such as these act as an accelerator for the adoption of Fintech.

INNOVATION HUB CENTRE

The Bank for International Settlements (BIS) has selected Singapore for its **Innovation Hub Centre** - along with Basel and Hong Kong. The objective of the Hub is to enable an efficient and secure architecture that will help develop a global financial system, especially in the area of Regtech.

SINGAPORE FINTECH ASSOCIATION

The presence of a non-profit organisation, **Singapore Fintech Association**, that brings in multiple industry stakeholders to innovate and co-create around Fintech, will accelerate real-life cross-industry adoption of Fintech. The partners in this collaborative effort range from global Fintech organisations to educational institutions.

BANK INITIATIVES

Fintech is also being promoted by banking institutions in Singapore that hope to leverage the technology for better customer experience and productivity. MAS has encouraged several banks, financial institutions and technology vendors to set up Innovation Labs. **The Open Vault** is OCBC's collaboration with external stakeholders to promote experimentation. UOB's **FinLab** focuses on innovation and digitalisation in SMEs and has helped multiple SMEs in SE Asia. Their focus country for 2019 is Thailand.

Fintech Talent Development

Several organisations have their regional and global headquarters in Singapore and the country attracts global talent in both finance and technology. There is also a focus on training and upskilling Singaporeans to help them ride the Fintech wave. Not only are educational institutions and industry bodies in Singapore introducing bridging and regular courses in Fintech and innovation in the financial services industry, they are also collaborating with institutions in other Southeast Asian countries. There are ample examples of course modules for those currently pursuing a professional degree, as well as those who wish to upskill (entrepreneurs and mid-career financial professionals). Examples include:

SUSS SINGAPORE UNIVERSITY OF SOCIAL SCIENCES

- The Graduate Certificate in Financial Technology (GCFT) offered by Singapore University of Social Sciences (SUSS) earns credits toward the Master of Finance program. This is a clear shift away from a traditional finance program and is targeted at entrepreneurs and mid-career financial professionals.

NUS BUSINESS SCHOOL

- NUS Business School offers a 3-day course, ‘Leveraging Fintech for Business’ aimed at leaders and managers, to explore the business impact of Fintech.

- SMU Academy offers a module on Fintech & Innovation that is part of the SMU-CPA Australia Finance Game Changer Series. The target audience for the module is front office and back office employees and IT managers from banks, in anticipation of how Fintech will transform the entire banking practice.

- SMU and Citi Ventures has partnered to offer experiential learning on financial technology to its undergraduates through the Citi University Partnerships in Innovation and Discovery (CUPID) program. This helps students realise the real-life application of emerging financial technology.

- In another example of industry-education collaboration PayPal has launched its Fintech program in partnership with five polytechnics in Singapore and the Institute of Technical Education (ITE), with an aim to train an estimated 1,700 students enrolled in their ICT courses with skills relevant for the industry.

Notable Fintech Organisations

There are several Fintech organisations in Singapore and the following are some diverse, success stories from the country that demonstrate the areas of Fintech that is seeing higher uptake.

	FINTECH AREA	PARTNERS	FUNDING TYPE
BTO	Insuretech, Financial planning	Salt Edge, KPMG Digital Village, Microsoft for Startups	Non-equity Assistance Estimated USD 2.5 M
SILENT EIGHT	Regtech, Financial Crimes	Standard Chartered Bank	Venture – Series Unknown
Grab	Digital Payments	BreadTalk, Subway, Decathlon, Miniso	Venture - Series H
INSTAREM	Cross-border transfers	CompareRemit, Finder, Monito, Plus!, Funding Societies	Estimated USD 18 M
SingaporeLife	Insuretech	DBS, AON, UBS	Estimated USD 90 M
VALIDUS	Peer-to-Business Lending	VISA, Vertex Ventures, Vistra, Salesforce, FMO, foodpanda	Venture - Series B Estimated USD 14.8 M

This report is based on Ecosystm analysts' subject matter expertise in addition to specific research based on interactions with technology buyers across industries and tech vendors, industry events, and secondary research.

^ The data findings mentioned in all Ecosystm reports are drawn from Ecosystm's live and on-going studies on the Ecosystm research platform. This report refers to data from multiple Ecosystm studies (Cloud, AI, Cybersecurity and IoT) and the number of participating organisations in Singapore range from 110 - 156 depending on the study. Participants include decision-makers from IT and other Lines of Business, from small, medium and large enterprises.

Malaysia

Executive Summary

- **Promoting Malaysia as a SE Asia Innovation Hub.** The vision of a Digital Economy includes the Malaysia Tech Entrepreneur Programme (MTEP), which targets global tech founders based out of Malaysia, allowing either a one-year or a five-year stay in the country. This provides tremendous opportunities for Fintech organisations that want a local base to capture the SE Asian market. Specifically, the Government aims to create a vibrant ecosystem of global start-ups, investors and innovators for Fintech. Malaysia's Fintech priorities are financial inclusion and empowering the small and medium enterprises (SMEs) with funding and digital payment services. They are one of the leaders in peer-to-peer financing and equity crowdfunding in the region and the market is expected to grow in the near future. Global organisations will benefit from partnerships with the country's established financial institutions to ease their way into the country's Fintech market.

- **Fintech for Financial Inclusion.** The Government aims to create a cashless society, lower transaction costs and provide access to the underserved customers. There are two kinds of financial inclusion - for the lower income group as well as for the SMEs - and Malaysia is committed to both. Digital payments and eWallets aimed at the lower income group, receives an estimated 36% of Fintech funding. The stumbling block is that about a third of the country's population does not have smartphones, so funds transfer using mobile phone messages is still relevant in the country. Development of the SME sector and eCommerce are twin focus areas for the Digital Economy vision. This provides a ready market for digital payments. Also, while the SME community will still have access to traditional funding, there is expected to be a greater push towards crowdfunding and peer-to-peer financing. It is expected that the share of Fintech investment in alternative funding will grow beyond the estimated 6% that it receives now.

- **An Islamic Banking Hub.** Malaysia has shown a longstanding commitment to becoming the global Islamic Banking Hub and Fintech is enhancing its position in the global market. While it is a niche area requiring specific knowledge of Sharia law, organisations that wish to capture a share of the Islamic Fintech market should focus on value-based intermediation. Islamic financial institutions are required to show innovation in their financial products and demonstrate a role in social betterment. Fintech products and services that can show demonstrable commitment to the "triple bottom line" - people, planet and profit - have an edge in the Islamic Fintech market.

- **Evolving Fintech Maturity.** The country's commitment to Fintech as an enabling technology area for its Digital Transformation vision cannot be disputed. However, the Fintech infrastructure in the country is still evolving - especially when it comes to Fintech-focused local funds and skills creation. As an example, even though cryptocurrency start-ups receive an estimated 12% of Fintech funding, only three cryptocurrency exchanges have been given conditional approval by the Securities Commission till now. While the initiatives to create a Fintech ecosystem is gaining steam, it is not likely to be achieved by 2020, as targeted.

Country Overview

Tech Landscape

Malaysia has evolved as the low-cost alternative to Singapore for organisations that wish to enter the SE Asian market. The Government's continued focus on IT-enabled transformation such as Industry 4.0 and Smart City initiatives has further encouraged IT vendors to establish a presence in the market. Although the vision to be a mature economy by 2020 has not been fully realised, the vision has by no means been abandoned - but has been strengthened by policies to give way to Vision 2025.

Malaysia's **objectives** for the tech industry include:

- Widespread adoption of emerging technologies such as AI, IoT and Fintech
- Robust cybersecurity measures and local tech products and services (including tech start-ups)
- A R&D and innovation ecosystem involving research institutes, higher education institutions and industries that will lead to monetisation of the innovations

Malaysia has actively focused on improving their ICT infrastructure and it is paying off. They regularly rank in the top 10 global countries in the Global Cybersecurity Index. Improvements in telecommunications and network infrastructure has made Malaysia a competitive destination for global data centres and the country is one of the leaders in the Asia Pacific market. The Government actively promotes strategic partnerships between global and local data centre vendors to promote Digital Transformation. The highest demand for data centre services comes from the government and the financial services sectors.

The Malaysia Digital Economy Corporation (MDEC) estimates that the country's Digital Economy is worth USD3 trillion. The initiatives include:

- **Malaysia Tech Entrepreneur Programme (MTEP)** aimed at tech founders who want to capture the SE Asian market based out of Malaysia, through either a one-year or a five-year stay in the country
- **Malaysia Innovation Policy Council** that is tasked with industry collaboration on digital technology initiatives and streamlining policy/regulatory issues to support innovation
- Digitising transactions through **Fintech adoption** by creating a vibrant ecosystem of global start-ups, investors and innovators, especially to become a hub for Islamic Finance
- **National eCommerce Roadmap** aimed at SMEs and lifting non-tariff barriers by enabling services such as eFulfillment, ePayment and consumer protection, to promote cross-border eCommerce

Digital Maturity: Malaysia

WORLD DIGITAL COMPETITIVENESS RANKING

26↑	19↓	19↑	28↑
Overall	Knowledge	Technology	Future Readiness

Source: IMD 2019 (Rank out of 63 Economies)

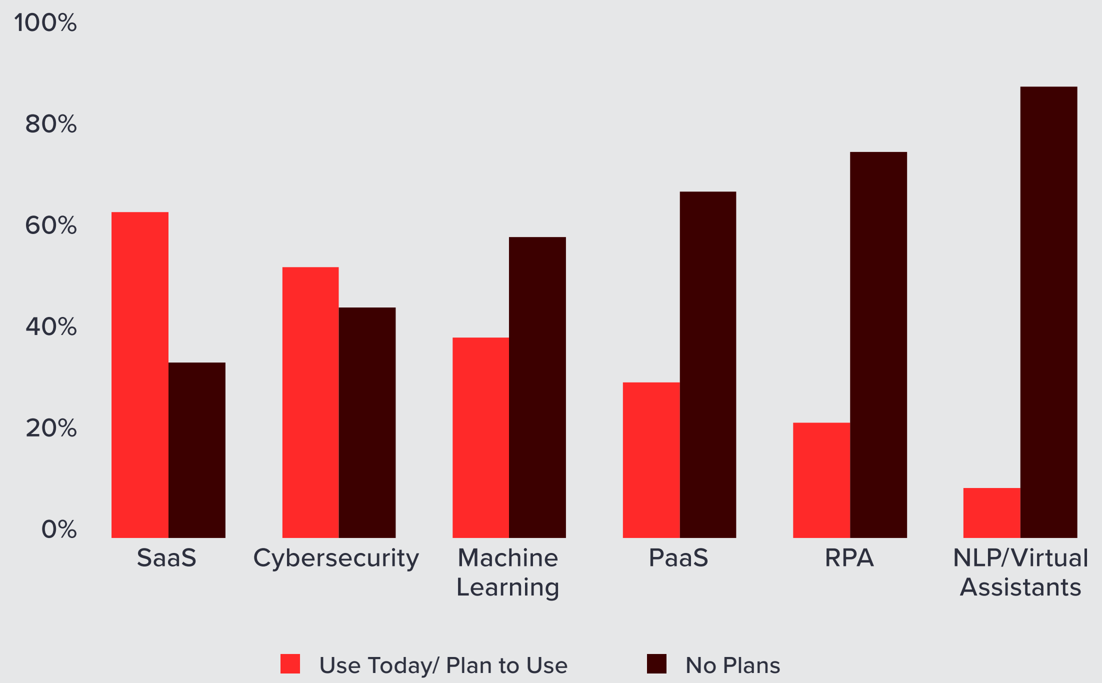
133.9%	78.8%	57.5%*	5.2/7	5.4/7
Mobile/cellular subscription	Internet users	Smartphone penetration	Score on legal framework for Digital businesses	Score on Digital skills

Source: World Economic Forum 2018
**Source: Newzoo*

Malaysia's ICT adoption is second only to Singapore in SE Asia. Its global digital competitiveness has gone up especially in future readiness and technology adoption. It has been actively working on regulatory frameworks to drive technology adoption.

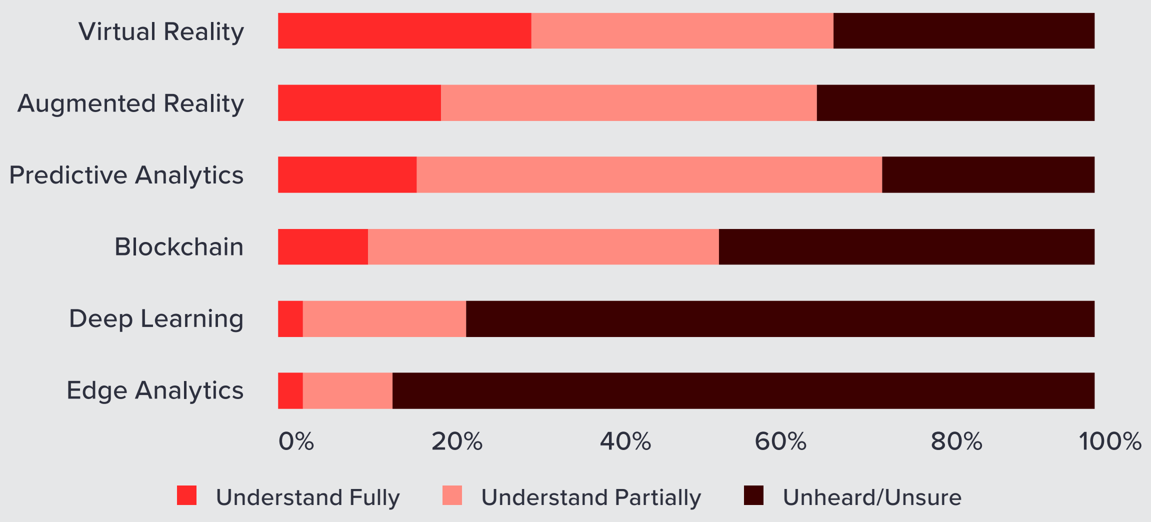
Enterprises looking to adopt Artificial Intelligence are focusing more on automation than on machine learning. Awareness of technologies such as Blockchain and predictive analytics is still evolving.

ENTERPRISE READINESS TO ADOPT TECHNOLOGIES - MALAYSIA



*Source: Ecosystm, 2019^*

ENTERPRISE PERCEPTION OF EMERGING TECHNOLOGIES - MALAYSIA



*Source: Ecosystm, 2019^*

Banking & Financial Industry Landscape

Malaysia's banking industry went through a transformation after the financial crisis in the 1990s and has since gone through a process of consolidation. The central bank, Bank Negara Malaysia (BNM) licenses and regulates banking activities such as commercial banking, investment banking, Islamic banking and money brokering. Following the BNM's directives the local banking institutions have merged to form 8 anchor banks over the years.

The Malaysian banking industry includes 27 commercial banks (8 local banks and 19 licensed foreign banks), 11 investment banks, 18 Islamic banks as well as non-banking financial institutions.

Malaysia's position as a leader in Islamic banking has been honed by the Government through licensing and policies over the last 35 years. While initially the market was protected by solo licenses in Islamic banking and insurance, the Government has since opened up the market and encouraged local banks to enter the Islamic finance market. It has also allowed foreign Islamic banks to operate in Malaysia. There are about 18 Islamic local and foreign banks operating in Malaysia. Islamic banking is based on Sharia law that does not allow charging interest and in order to evaluate the performance of these institutions, the value-based intermediation was initiated in 2017. Now Islamic financial institutions are required to show innovation in their financial products development and demonstrate a

role in social betterment. They are required to show commitment to the “triple bottom line” - people, planet and profit.

A key focus for Malaysia’s financial policies is promoting financial inclusion through digital technologies. Institutions are being pushed into digitalisation to fulfill the Government’s goals of creating a cashless society, lowering transaction costs and providing access to underserved customers. The approach to financial reforms is holistic and the country intends to promote green financing and become a regional, sustainable and responsible investment centre. The focus is not only on retail banking and includes growth in private investments – venture capital and private equity funds as well as alternative investments.

FINANCIAL INDUSTRY MATURITY	
Domestic credit provided by the financial sector *(% of GDP)*	**143.1%**
Banking Penetration	**85%**
Commercial bank branches *(per 100k adults)*	**10.1**
Online payments	**39%**
Debit card ownership	**74%**
Credit card ownership	**21%**
Score on Financing of SMEs	**5.2/7**
Score on VC Availability	**4.7/7**

Sources: World Economic Forum, 2018
The World Bank, 2018

While banking penetration is fairly high, online payments is still evolving, as the eCommerce market evolves. While SME funding is rated well, there is still a shortage of Fintech funds in Malaysia.

Regulatory Landscape

The key regulatory authority in Malaysia is the central bank, BNM and it regulates all banking, investments, insurance, remittance and payment systems. Malaysia's dual banking system requires it to have 2 statutes - The Financial Services Act 2013 (FSA governs the conventional finance industry) and the Islamic Financial Services Act 2013 (IFSA governs the Islamic finance industry). Malaysia is also a member of global bodies such as the FATF and the Asia Pacific Group on Money Laundering.

BNM and the Securities Commission of Malaysia (SC) jointly regulate the capital market. This includes Fintech organisations that are into equity crowdfunding and peer-to-peer (P2P) financing. While BNM is responsible for the prudential regulation of investment banks, the SC is responsible for their business and market conduct, to promote a transparent securities and derivatives market. Organisations operating in Malaysia are also mandated by the Companies Commission of Malaysia and personal data is protected by the Personal Data Protection Act (PDPA).

In 2016 the BNM launched the Financial Technology Sandbox Framework to promote innovation in financial products, services or solutions that are aimed at improving the quality and accessibility to financial services, improving the risk management capabilities of the existing financial institutions, and for new financing/investments opportunities in the economy. BNM encourages Fintech organisations to collaborate with established financial institutions and those that are capable of creating high value-added jobs in Malaysia.

Malaysia is also in the process of implementing Digital Tax that comes into effect on 1 January 2020 - a service tax at a rate of 6%, specifically for B2C digital service providers.

Malaysia as a Fintech Hub

✓	2.8%*	15**
Regulatory Sandbox	Share of Fintech Funding (within SE Asia)	Ease of Doing Business Ranking

*Cited by Singapore Business Review, 2018
**The World Bank 2018 (Rank out of 190 Economies)

Funding and Incentives for Start-ups

Malaysia has fewer Fintech focused funds than the other countries in the region. However, Fintech based innovation receives financial incentives from the Government.

GLOBAL FUNDS WITH A PRESENCE IN MALAYSIA

GOBI PARTNERS · jungle ventures · REBRIGHT PARTNERS · EXPARA™ · NETROVE · 500 STARTUPS

LEADING LOCAL FUNDS

NEXEA · Cradle — Creating. Leading. Startups. — · mavcap investing in tomorrow · TH CAPITAL

Accelerator Programs

		PROGRAM NAME	PROGRAM FOCUS
Government Initiatives	SITEC	Selangor Accelerator Programme (SAP)	
	New Entrepreneurs Foundation	RAVe Accelerator	
	MaGIC	Global Accelerator Programme	
Fund Initiatives	NEXEA	Startup Accelerator Program	Tech start-ups
	Cyberview Tech Hub Enabler	CLLA - IV	Retail, Financial Services, eGovernment and Education
	1337 VENTURES	1337 Accelerator	Fintech
Corporate Initiatives	SUNWAY	Sunway iLabs	Proptech, Edutech, Digital Health, Cybersecurity and eCommerce
	Tune Labs	TuneLab Startup Accelerator	Mobile, Travel, eCommerce and Fintech
	HongLeong Bank	HLB LaunchPad	Fintechs and Tech start-ups
	PETRONAS	Petronas FutureTech	IoT, eCommerce, Cybersecurity, B2B/B2C Service Innovation, New Business Models

Fintech Initiatives

DIGITAL FINANCE INNOVATION HUB

Fintech has a significant role in Malaysia's Digital Economy vision. In 2018, the United Nations Capital Development Fund (UNCDF), BNM and MDEC collaboratively initiated the **Digital Finance Innovation Hub** to promote innovation in digital financial services aimed particularly at financial inclusion of the middle and low-income groups. Part of the larger initiative is to have a community of developers. While Malaysia appears to be strong in P2P financing and crowdfunding, the country still has a way to go when it comes to Fintech for the underserved.

FINTECH EVENTS

Malaysia is committed to creating a sustainable Fintech ecosystem that involves both local as well as overseas talent. Since 2014, the **SCxSC** organised by the SC, has had an annual event to increase awareness on Fintech trends, bringing together the entire ecosystem of policymakers, innovators, investors and financial services providers. In the 2019 edition, the discussion topics included eKYC and digital identity, cryptocurrency/ digital assets and Islamic Fintech. The inaugural **MyFW2019** - Malaysia's flagship Fintech event, organised by MDEC and BNM - focused on financial inclusion, the Digital Economy, Insuretech, Islamic Finance and Cybersecurity.

SME EMPOWERMENT

The BNM is also promoting Fintech as a means to finance **SMEs.** To realise the country's 2025 vision, the financing is set to shift towards more non-traditional financing avenues and platforms. Initiatives such as the Leading Entrepreneur Accelerator Platform (Leap) Market (set up in 2017 to bridge the funding gap for SMEs), and the Investment Account Platform (IAP) for Islamic crowdfunding already exist. Going forward, while the SME community will still have access to government funding, venture capitalists and angel investors, there will also be a push towards crowdfunding and P2P financing.

ISLAMIC BANKING INDUSTRY

The **Islamic Banking industry** in Malaysia is also promoting Fintech. **Bank Islam** has partnered with BerryPay targeting the underserved segment of foreign workers through mobile remittance services. They have also partnered with KiplePay to introduce a new payment channel using QR codes targeted at the higher education and the eCommerce industries. The first Islamic Fintech initiative in the country, Singapore-based **Ethis Crowd** - a real estate crowdfunding platform - is providing affordable housing to the lower income group in Malaysia.

FINTECH IN BANKS

Several banks in Malaysia are also promoting Fintech. **MayBank** appears most committed, having introduced a Fintech sandbox in 2017. Recently Maybank introduced Tap2Phone, a phone payment app equipped with NFC and a Trusted Execution Environment (TEE). Aimed at SMEs, this solution removes the need for them to invest in point-of-sale terminals. **OCBC Malaysia** has collaborated with Ondot to enhance the customer experience allowing customers to control and customise payment cards and preferences through a mobile app.

Fintech Talent Development

Prompted by the vision of a Digital Economy, MDEC estimates that the demand for technology-based jobs will increase by 15% annually. There will be a surge in jobs for data scientists, transformational technology (cloud, network, AI) specialists, cybersecurity specialists and software developers as a whole. Financial institutions are dealing with the shortage by attracting talent from other fields and providing them with industry and technological training. While this shortage has opened up opportunities for Malaysians living overseas who have the requisite skills to return to the country, the country needs a longer-term strategy to bridge this shortage. MDEC is collaborating with higher learning institutions to deliver lectures and modules on FinTech. They have also partnered with the national regulators, BNM and SC to conduct regulatory bootcamps on a quarterly basis, aimed at the Fintech industry. Other initiatives include:

A · P · U
ASIA PACIFIC UNIVERSITY OF TECHNOLOGY & INNOVATION

SUPERCHARGER

CFTE Centre for Finance, Technology and Entrepreneurship

- At the SCxSC this year, SuperCharger, Asia Pacific University of Technology & Innovation (APU) and the Centre for Finance Technology and Entrepreneurship (CFTE) collaborated to create multiple Fintech modules as part of the bachelor's degree in Banking and Finance. The Fintech modules

- include areas such as data mining and predictive analytics, digital currencies and Blockchain, virtual assistants, crowdfunding and alternative lending and FinTech GRC. The modules are set to be expanded to APU's bachelor's degree in Accounting and Information Technology. SuperCharger and APU has also announced the APU SuperCharger FinTech Academy, an on-campus Fintech research lab.

- iTrain Malaysia and 1337 Ventures formed the Fintech Academy Asia that incorporates a blended learning approach combining theory, intensive practice and industrial training for financial industry employees and aspiring entrepreneurs who wish to gain Fintech skills. These shorter courses cover a range of areas such as APIs, Python/Javascript, Blockchain and AI. The courses also provide an opportunity for curated internships in banks and Fintech start-ups.

Notable Fintech Organisations

There are several examples of success stories across different Fintech domains in Malaysia.

	FINTECH AREA	PARTNERS	FUNDING TYPE
Jirnexu	End-to-end digital acquisition tools and services for BFSI	Citibank, HSBC, Standard Chartered Bank, Alliance Bank, AEON, AIA, Zurich, Manulife, U4Life, BSN, RHB, U Mobile	Venture - Series B Estimated USD 37 M
iMoney.my	Financial comparison portal	TM, Astro, Citibank, HSBC, Standard Chartered Bank, AmBank Group, OCBC Bank, Maybank, AIA, ANZ Bank, CIMB Bank, BPI	Venture - Series Unknown Estimated USD 10.8 M
SOFTSPACE	Digital payments	Kbank, Standard Chartered Bank, CIMB, Maybank	Venture - Series B Estimated USD 5 M
KATSANA	Insuretech	Etiqa Insurance, Etiqa Takaful and Allianz Malaysia	Venture - Series Unknown Estimated USD 1.1 M
fundaztic P2P	P2P financing	AXA, CTOS, ImSME, EasyPay	Equity Crowdfunding Estimated USD 0.7 M
MONEYMATCH	Cross-border payments	Ripple, MSC Malaysia, Funding Societies	Seed Estimated USD 0.6 M

This report is based on Ecosystm analysts' subject matter expertise in addition to specific research based on interactions with technology buyers across industries and tech vendors, industry events, and secondary research.

^ The data findings mentioned in all Ecosystm reports are drawn from Ecosystm's live and on-going studies on the Ecosystm research platform. This report refers to data from multiple Ecosystm studies (Cloud, AI, Cybersecurity and IoT) and the number of participating organisations in Malaysia range from 50 - 77 depending on the study. Participants include decision-makers from IT and other Lines of Business, from small, medium and large enterprises.

Thailand

Executive Summary

- **Acceptance of Fintech.** Thailand's population is generally tech-savvy and is said to have the highest uptake of mobile banking in the region. This indicates an openness to adopt Fintech which makes it a lucrative market for global Fintech organisations. The regulatory environment is also conducive to widespread use of Fintech as it is the only country in the region with 4 regulatory sandboxes. It is estimated that FinTech start-ups account for only 17% of the total number of start-ups, but they receive higher funding - at about 40% of the available funds. While digital payment transactions account for only about 10% of all banking transactions, this only provides immense market opportunities for Fintech providers.

- **Banking Reforms.** The Bank of Thailand has brought about changes to the banking industry to safeguard economic and financial stability and improve overall efficiency of financial institutions. The launch of PromptPay, an ePayment system, in 2017 was supported by the Bank of Thailand to encourage cashless transactions and reduction in transaction fees. It had the desired effect with banks such as Siam Commercial Bank and KBank waiving all service fees on digital banking transactions in early 2018 and other banks following suit. The initiatives have not stopped, and the sandboxes see multiple use cases in QR payment and cross-border money transfer.

- **Cyrptocurrency Adoption.** Thailand has emerged as a significant player in cryptocurrency and cross border funds transfer. Project Inthanon started with a collaborative partnership between R3 and 8 local banks as a proof of concept for a wholesale Central Bank Digital Currency (CBDC). Subsequent phases have focused on further applications of distributed ledger technology (DLT) in interbank trading, repurchase transactions, regulatory compliance and data reconciliation. It is also exploring seamless cross-border funds transfer, including implementation of relevant foreign exchange regulations to reduce costs and enhance efficiency. The Securities Exchange Commission has legalised the trading of 7 approved digital currencies now while simultaneously incorporating cryptocurrency into the AML regime. Cryptocurrency policies and adoption are mature in Thailand and the technology will continue to see higher uptake.

- **Regional Collaboration.** There are several instances of collaboration between other countries and Thailand that bodes well for global Fintech providers. The digital payment system linkage between Thailand and Singapore will begin its bilateral payment operations in early 2020. Given Singapore's policies on Digital Banks, this is likely to open Thailand's market for Digital Bank initiatives. UOB's TMRW, the first mobile only bank in SE Asia, is an indication of how the market will shape. Thailand has also been fairly open when it comes to global Fintech organisations entering the domestic market - such as Singapore's Insuretech provider Vouch, China's eCommerce provider JD and South Korea's cryptocurrency exchange platform, Bithumb.

- **Socio-political milieu.** While Thailand is the second largest market in the SE Asian region, the market has not always moved in the right direction in spite of the Government's roadmap. Several international watchdogs have expressed concerns on the recently passed Cybersecurity laws in the country suspecting that it gives the Government the authority to search and seize without court orders, if deemed an issue of national emergency. Whether these concerns are justified is yet to be seen, but Government policies do tend to change based on the socio-political milieu.

Country Overview

Tech Landscape

Thailand aims to be an open, market-oriented economy to encourage foreign direct investments to promote economic and technology development. The Government's goal is to build a robust infrastructure and have local technological capabilities to make Thailand a competitive market. The Eastern Economic Corridor (EEC) Development Plan under Thailand 4.0 continues to focus on the country's development and to drive the country's investments in innovation and advanced technology.

Moving beyond Thailand 3.0 that saw intense industrialisation of the country and a surge in small and medium enterprises (SMEs), **Thailand 4.0** has a more holistic approach to development encompassing economic, social and environmental values - which aims for technology-driven social equality. The broad-based **strategies** include:

- Building a country-wide high-capacity digital infrastructure
- Boosting the economy with digital technology
- Creating a quality and equitable society through digital technology
- Transforming into digital government
- Developing workforce for the digital era
- Building trust and confidence in the use of digital technology

Promoted by the Digital Economy Promotion Agency (DEPA) initiatives will include improving digital software and robotics, providing a more comprehensive healthcare and to development of smart cities. The DEPA also has as its mandate a substantial increase in the number of digital workers by 2022 and setting up of a Digital Park Start-up Hub in the EEC.

Several bills have been passed this year to support Thailand 4.0. Notable amongst them are:

- **The Digital Identification bill** promotes the use of biometric authentication measures including facial recognition and is intended to reduce transaction costs in industries such as mobile banking. Amendments to the Electronic Transaction Act recognises contracts through automatic electronic data exchange systems and recognises valid e-signatures - promoting digital transactions.
- **The Personal Data Protection Act** which uses the EU's GDPR as its blueprint, including extraterritorial reach, appointment of data protection officers and consent requirements.

The Government continues to promote legislation that will help the country realise the goal of a digital sector that contributes to at least 25% of the GDP.

WORLD DIGITAL COMPETITIVENESS RANKING

40↓	43↑	27↑	50↓
Overall	Knowledge	Technology	Future Readiness

Source: IMD 2019 (Rank out of 63 Economies)

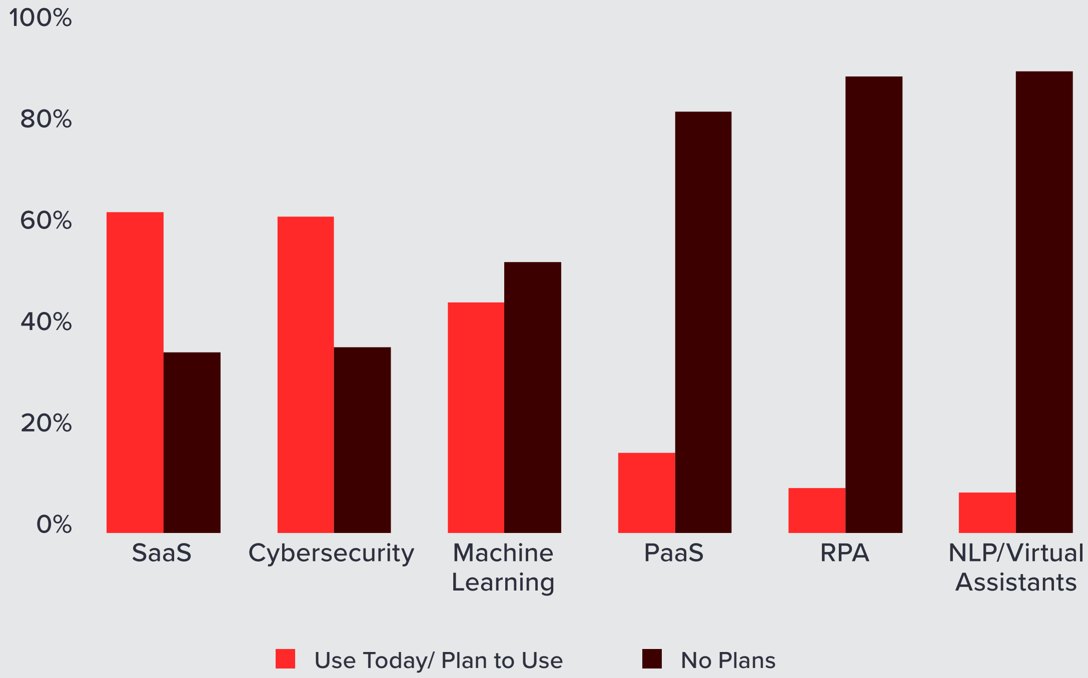
176%	47.5%	43.7%*	3.6 / 7	4.4/7
Mobile/cellular subscription	Internet users	Smartphone penetration	Score on legal framework for Digital businesses	Score on Digital skills

Source: World Economic Forum 2018
**Source: Newzoo*

Organisations in Thailand are increasing their investments in Cybersecurity solutions as the Government issues fresher legislation around it. Adoption of platform-as-a-service is higher than other countries in SE Asia, as Cloud adoption in the country rises steadily.

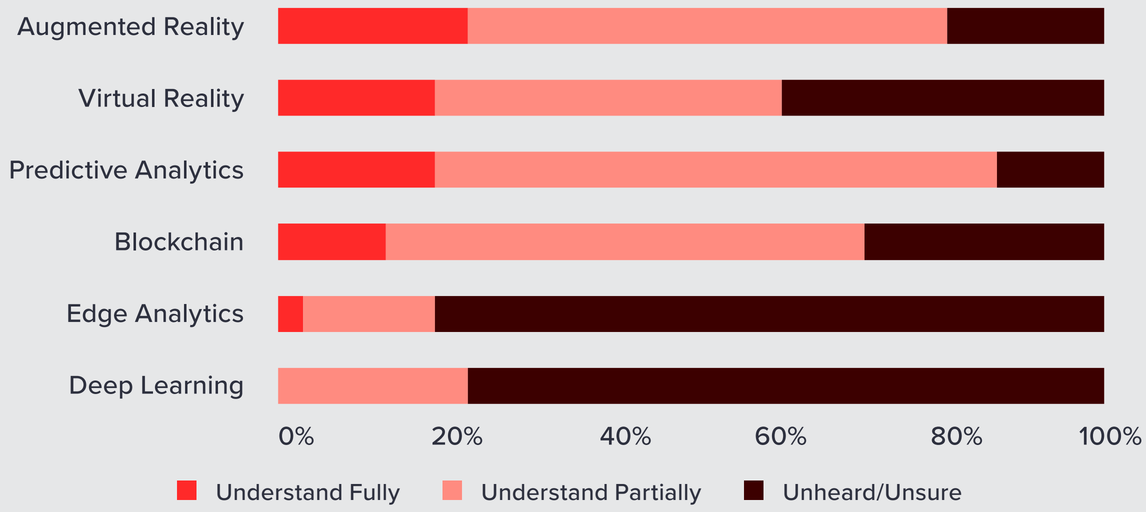
Awareness of technologies such as Blockchain and predictive analytics is still evolving within enterprises. Technology providers will also be responsible for raising awareness and acceptance of emerging technologies.

ENTERPRISE READINESS TO ADOPT TECHNOLOGIES - THAILAND



*Source: Ecosystm, 2019^*

ENTERPRISE PERCEPTION OF EMERGING TECHNOLOGIES - THAILAND



*Source: Ecosystm, 2019^*

Banking & Financial Industry Landscape

In the financial crisis in the late nineties, more than 100 financial institutions in Thailand went bankrupt and since then the industry has gone through reforms and consolidation. The central bank, the Bank of Thailand (BOT) is responsible for the macroprudential health of the financial system and has both regulatory and supervisory authority.

There are 14 commercial banks and 11 foreign banks with branches in Thailand. There are also several Government financial institutions that have specialised functions such as the Government Savings Bank, the Bank for Agriculture and Agricultural Cooperatives, the Government Housing Bank and the Industrial Finance Corporation of Thailand – mostly aimed at the underbanked segment. Foreign banks have a presence in Thailand, especially after the restrictions on foreign ownership was made lenient (though still subject to case by case consideration). MUFJ, Japan's largest bank, acquired 72% of Bank of Ayudhya in 2013, and since then the industry has seen consolidation through mergers and acquisitions. The recent merger of TMB Bank and Thanachart Bank is set to be the country's biggest deal in the banking industry.

The merger is said to have been partly prompted by regulations that offer tax deductions and exemptions to merged banks to encourage industry consolidation. The BOT has similarly brought about other

changes to the banking industry to safeguard economic and financial stability and improve overall efficiency of financial institutions. The launch of PromptPay, an ePayment system, in 2017 was also supported by the BOT to encourage banks to reduce their transaction fees. It had the desired effect with banks such as Siam Commercial Bank and KBank waiving all service fees on digital banking transactions in early 2018 and other banks following suit.

The BOT actively promotes the use of digital technology in the financial industry to:

- Promote financial innovation
- Protect consumer rights
- Contain acceptable risks

FINANCIAL INDUSTRY MATURITY	
Domestic credit provided by the financial sector *(% of GDP)*	**167%**
Banking Penetration	**82%**
Commercial bank branches *(per 100k adults)*	**11.9**
Online payments	**19%**
Debit card ownership	**60%**
Credit card ownership	**10%**
Score on Financing of SMEs	**4.5/7**
Score on VC Availability	**3.6/7**

Sources: World Economic Forum, 2018
The World Bank, 2018

While banking penetration is fairly high, online payments is still evolving. The low penetration of credit cards is partly because of the National ePayment Masterplan. Thailand has to actively promote venture capital funding if it wants to encourage more SMEs and tech start-ups.

Regulatory Landscape

The BOT oversees commercial banks and other financial institutions - that may be supervised by specific regulatory agencies such the Securities Exchange Commission (SEC) and the Office of Insurance Commission (OIC). It works in collaboration with other regulatory authorities.

While BOT is the main regulatory authority, Fintech businesses are regulated under specific laws depending on the domain. As an example, mobile and digital payments are regulated by the Payment Systems Act of 2017 and the Royal Decree on Digital Asset Businesses of 2018 regulates digital assets include cryptocurrency. Thailand is constantly evolving the laws pertaining to financial innovation and there is expected to be regulations on Insuretech issued by the OIC by 2020 and further regulations on cryptocurrency including extending the requirement of registration with SEC and KYC procedures for cryptocurrency operators.

There are several other regulations that global Fintech firms must comply with in Thailand. The Foreign Business Act also regulates foreign investment which is usually capped at 49% unless an exemption has been granted. The regulations are particularly strict for insurance providers where foreign companies cannot acquire new customers in Thailand unless through a licensed local insurance company or through a locally registered presence. While PDPA has been recently instituted, financial institutions are also subject to a separate data protection regulation - Financials Institutions Business Act of 2008.

The BOT established a regulatory sandbox in 2017 to promote innovation with in-built safety measures. The innovations are tested in the sandbox for 6 to 12 months and those considered successful in meeting the required criteria may apply for operating licenses. The sandbox has seen several successes such as PromptPay's QR Code payment. The innovations tested shift depending on the technology focus of the BOT like the recent focus on Blockchain-based cross-border money transfer systems. The SEC and the OIC have their own sandboxes.

Thailand as a Fintech Hub

✓	2%*	27**
Regulatory Sandbox	Share of Fintech Funding (within SE Asia)	Ease of Doing Business Ranking

**Cited by Singapore Business Review, 2018*
***The World Bank 2018 (Rank out of 190 Economies)*

Funding and Incentives for Start-ups

Several global funds active in SE Asia have a presence in Thailand. However, several of them are sector agnostic. While there are some local funds, most of the larger funding drives involve global funds.

GLOBAL FUNDS WITH A PRESENCE IN INDONESIA

SBI Holdings

500 STARTUPS

Golden Gate Ventures

CyberAgent Ventures

East Ventures

LEADING LOCAL FUNDS

เบญจจินดา

THE CAPITAL

dtac

The Thailand Government has introduced several initiatives to help start-ups get funding including announcing a USD 570M venture fund for local start-ups. There are also tax exemptions for venture capitalists and corporate funds for selected investments.

Accelerator Programs

		PROGRAM NAME	PROGRAM FOCUS
Fund and Corporate Initiatives	dtac	dtac Accelerate	Tech start-ups, Deep tech
	SPARK	SPARK Accelerator	Tech start-ups
	Bangkok Bank	Bangkok Bank InnoHub	Fintech
	SCB	Digital Venture DVA	Fintech
	krungsri กรุงศรี	Krungsri RISE	Fintech
	ธนาคารกสิกรไทย KASIKORNBANK	Kasikorn Vision	Fintech, eCommerce
	trueINCUBE	True Incube	AI/Big Data, IoT & Robotics, Fintech, Medtech, Agritech
	AIS THE StartUP	AIS The Startup	

Fintech Initiatives

THAI FINTECH ASSOCIATION

The **Thai Fintech Association** is the prime driver of the Fintech industry ecosystem in Thailand. The objectives of the association include reduction of financial transaction cost, increased accessibility to financial products and services and supporting Thai Fintech start-ups to compete and expand to global markets. The body holds regular hackathons to promote innovation and has also introduced its own sandbox F13 to promote more experimentation in the Fintech space in Thailand.

DIGITAL PAYMENTS

One of the earliest successes of the Thailand Fintech industry was the QR code payment services through **PromptPay** - which received the BOT's regulatory sandbox approval and was launched in 2017. It is estimated that PromptPay had nearly one million merchants using the services within the first six months. PromptPay is an interbank mobile payments system enabling mobile funds transfers, using only mobile number or identification number of the recipient. The initiative helped reduce bank transaction costs with several banks waiving off service charges for digital transactions.

NATIONAL E-PAYMENT MASTER PLAN

The **National e-Payment Master Plan** goes beyond PromptPay and initiatives include promoting debit card use and empowering merchants with Electronic Data Capture (EDC) machines. The eTax system also aims to create an integrated electronic tax system which will allow electronic submission of tax documents and where tax refunds can be processed through PromptPay. A social welfare and Government ePayment system also aims to make all social welfare payments electronically.

CRYPTOCURRENCY

BoT's **Project Inthanon** has recently entered Phase III. Phase I started with a collaborative partnership between R3 and 8 local banks as a POC for a wholesale Central Bank Digital Currency (CBDC). Phase II explored further applications of DLT in interbank trading and repurchase transactions, and regulatory compliance and data reconciliation. Phase III, announced earlier this year, will collaborate with the Hong Kong Monetary Authority to explore interoperability among ledgers to achieve cross-border funds transfer, including implementation of relevant foreign exchange regulations to reduce costs and enhance efficiency. The SEC is also incorporating cryptocurrency into the AML regime and has legalised the trading of 7 approved digital currencies now.

DIGITAL BANK

Thailand is also gearing towards Digital Banks with UOB's **TMRW,** the first mobile only bank in SE Asia. Features include a call function within its digital chat service which aims to give customers a seamless experience allowing them to continue to converse with the bank without having to exit or to toggle away from the app. To stay connected with the younger clientele, a pilot program has been launched to encourage better money management through gamification, helping customers meet their savings goals.

Fintech Talent Development

While Thailand has evolved into a robust outsourcing centre, the country has to pay more attention to talent development, especially as one of the key goals of Thailand 4.0 is developing workforce for the digital era. While there are several private courses on machine learning and other AI technologies, the formal ICT training courses are yet to consider Fintech a separate module. Global online courses are popular in Thailand for those who wish to upgrade their skills. There are isolated examples that is expected to become more mainstream, especially as Thailand collaborates extensively with the other countries in the region. There have been instances of seminars on tech start-ups in collaboration with Silicon Valley companies and courses on cryptocurrency in collaboration with companies from China and Japan. However, the instances are still isolated.

THAI FINTECH ASSOCIATION

- The Thai Fintech Association offers a course called 4 Pillars: Starting Your Great Startup which aims to empower tech start-ups with the basics. The course consists of 4 short modules on finance, law, technology and entrepreneurial skills, delivered by industry experts.

- To attract foreign talent to bridge the gap in IT skills the National Reform, Strategy and Reconciliation Committee (NRSRC) approved the ‘Smart Visa’, which fast tracks visas for foreign talent who fall under categories such as investors and start-up entrepreneurs. Senior executives and people with high technological skills also qualify for the visa.

Notable Fintech Organisations

	FINTECH AREA	PARTNERS	FUNDING TYPE
bitkub	Cryptocurrency exchange	SIX Network, CoinGecko	Seed Estimated USD 3.7 M
T2P	eWallet, Payment gateway, eKYC		Venture - Series Unknown Estimated USD 1.1 M
Jitta	Wealth management		Seed Estimated USD 6.5 M
omise	Mobile payments, Real-time fraud detection	TRUE, King Power, McDonald's, Minor International, Allianz Ayudha, Ananda Development, Eventpop, The Pizza Company	Venture - Series Unknown Estimated USD 20.4 M
FINNOMENA	Robo-advisory		Venture - Series A
Claim Di	Insuretech	AXA, Tokio Marine, LMG Insurance, Thasri, Allianz, AIG, KSK Insurance, Generali	Venture - Series Unknown Estimated USD 2 M
masii	Comparison platform		Venture - Series A Estimated USD 2 M
sunday	Insuretech	Grab, Skootar	Venture - Series A Estimated USD 10 M

This report is based on Ecosystm analysts' subject matter expertise in addition to specific research based on interactions with technology buyers across industries and tech vendors, industry events, and secondary research.

^The data findings mentioned in all Ecosystm reports are drawn from Ecosystm's live and on-going studies on the Ecosystm research platform. This report refers to data from multiple Ecosystm studies (Cloud, AI, Cybersecurity and IoT) and the number of participating organisations in Thailand range from 40 - 85 depending on the study. Participants include decision-makers from IT and other Lines of Business, from small, medium and large enterprises.

Indonesia

Executive Summary

- **Banking Industry Opportunities.** The banking and financial industry (BFSI) in Indonesia has a diverse range of banks and non-banking financial institutions, even as banking penetration is estimated to be about 49%. While there has been some consolidation in the banking industry, the financial sector in the country is ripe for further consolidation and disruption. Banks will increasingly partner with Fintech organisations to get a larger share of the fragmented rural market. This means that there is a huge untapped market that can be targeted by Fintech organisations, especially as connectivity improves. The penetration of bank cards is estimated to be a little over a third of the population, and most Indonesians prefer inter-bank transfers. The eWallet market has several key players, but there is still space in the market for more providers, especially those that partner with local establishments and social groups.

- **Government Focus on Infrastructure.** The opportunities in the digital economy is expected to increase exponentially as the Government continues to focus on strengthening the infrastructure. The Palapa Ring project which brings connectivity to remote areas especially in the underserved regions in the east will encourage the adoption of new services in the financial technology market and increase banking penetration. Government policies on Cloud and data centre location has not only strengthened the local telecommunications providers but also encouraged global public cloud providers such as Google, AWS and Alibaba to establish a presence in Indonesia. Indonesia is also taking cybersecurity very seriously and is expected to have the right infrastructure for global organisations to enter the market.

- **Role of SMEs and eCommerce in Vision Indonesia 2025.** The Government has set a goal to increase the value of small and medium enterprises (SMEs) in Indonesia by USD 10B by 2020. Enabling SMEs is one of the key drivers of the Government's ICT investments. Initiatives include increasing the accessibility of mobile Internet and strengthening the eCommerce sector through payment gateways. In 2018, Indonesia also announced income tax incentives for venture capital firms investing in tech start-ups, to boost investments in digital economy and eCommerce, especially for SMEs. The financial industry is showing the highest uptake of digital services. Not only will this see a growth in digital payments solutions but also peer-to-peer lending and crowdfunding.

- **Evolving Regulations Landscape and Maturity.** While Indonesia is regarded as the fastest growing market in SE Asia, global organisations may be discouraged by the evolving maturity and constantly changing regulations in the country. While the country's digitally native younger population is very active on social media, a much smaller percentage actually use digital services for commercial activities. Moreover, there is a digital divide based on region, age and socio-economic status. While Government initiatives to use digital services for financial inclusion is gaining grounds, the market is still evolving. The other barrier to entry is the confusing regulatory landscape. While efforts such as the Government's clamp-down on errant peer-to-peer funding providers is a positive step, a new entrant may find it difficult to cope with the multiple amendments made by the Financial Services Authority (OJK) and Bank Indonesia (BI). Global organisations that wish to enter the Indonesia Fintech market might also face some resistance unless they partner with a local bank or even another Fintech organisation that has better market and local knowledge.

Country Overview

Tech Landscape

A high population base with a potentially high domestic consumption of IT products and services makes Indonesia the largest economy in SE Asia and an attractive market for foreign investors. In fact, it is the fastest growing eCommerce market in SE Asia. Nearly 40% of the population is below 40 years of age which makes them more technologically savvy and open to emerging technologies. While the country has an active social media, the market is yet to fully tap this base for commercial digital services. There is also a clear digital divide - there are differences based on age, socio-economic status and region (Java and Sumatra in the west being better connected). The Government's 2020 Go Digital Vision aims to eradicate this divide.

The Ministry of Communications and Information (MCIT) is responsible for policies on Digital Government and telecommunications infrastructure and achieving the Government's target of a becoming a digital economy worth USD 100B by 2025. Developing IT infrastructure (including a cybersecurity framework), a cloud services market and digital services is built into the Vision Indonesia 2025 - the country's strategic roadmap for ICT. The drivers of investment in the ICT industry include increasing the accessibility of mobile Internet, enabling start-up and SME growth and strengthening the eCommerce sector through payment gateways. Key initiatives include:

- **Infrastructure.** The Palapa Ring project is the major infrastructure project that is at the heart of Indonesia's digital journey. The project involved the construction of a 36,000 km undersea and terrestrial fibre-optic network that connects the underserved regions of the country. Apart from the Palapa Ring Project, the Government is looking at a high throughput satellite (HTS) launch in 2022 to expand connectivity to the remote locations in eastern Indonesia. This is expected to encourage nation-wide adoption of digital services.

- **Cybersecurity.** Indonesia has seen several significant cyber-attacks and the National Cyber and Encryption Agency (BSSN) was specifically launched in 2017 to create national cybersecurity policies and to oversee/evaluate their implementation.

- **Cloud.** The Government mandate that data centres and disaster recovery centres operating in the country must have a base in Indonesia, has not only strengthened the local telecommunications providers but also encouraged global public cloud providers such as Google, AWS and Alibaba to establish a presence in Indonesia. Some of these cloud providers such as Telkom Sigma's STAR Cloud, are actively targeting the SME sector. There has since been a relaxation of the regulation and now data residency is based on classification - sensitive data such as personal details, financial information or health information, are still required to be stored in-country.
- **Digital Services.** The Government has set a goal for digitisation of SMEs, to increase the value of SMEs by USD 10B by 2020. In 2018, Indonesia announced income tax incentive for venture capital firms investing in tech start-ups, to boost investments in digital economy and eCommerce, especially for SMEs. The financial industry is showing the highest uptake of digital services.

Digital Maturity: Indonesia

WORLD DIGITAL COMPETITIVENESS RANKING

50 ↑	56 ↑	47 ↑	58 ↑
Overall	Knowledge	Technology	Future Readiness

Source: IMD 2019 (Rank out of 63 Economies)

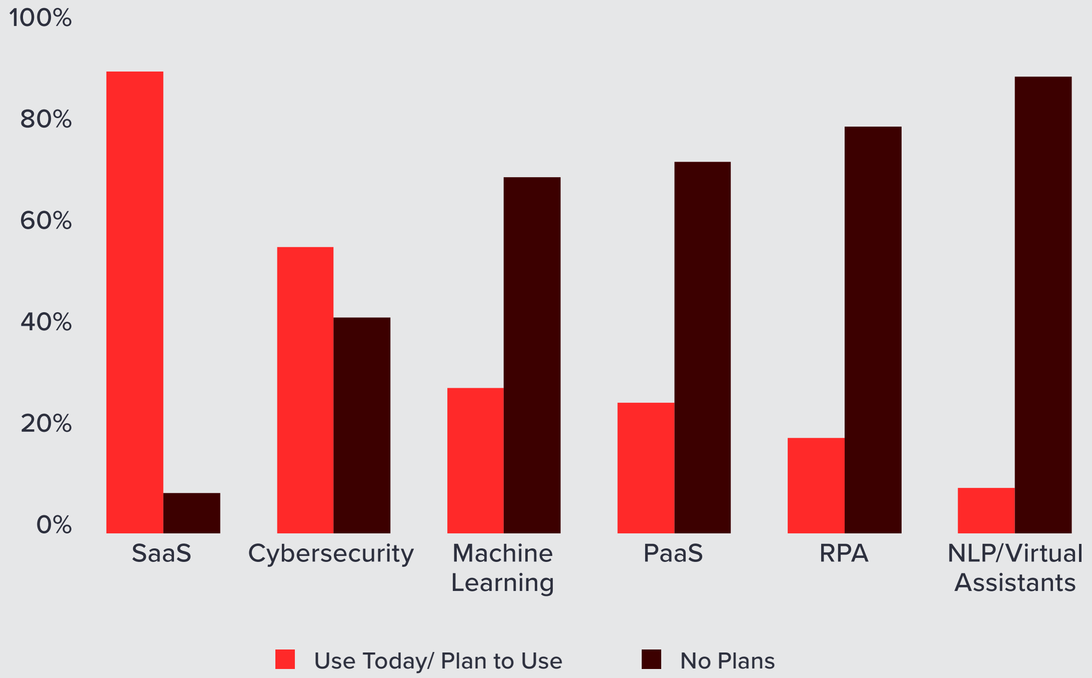
173.8%	25.4%	27.4%*	4.5/7	4.7/7
Mobile/cellular subscription	Internet users	Smartphone penetration	Score on legal framework for Digital businesses	Score on Digital skills

Source: World Economic Forum 2018
**Source: Newzoo*

Indonesia's global digital competitiveness has gone up across all parameters, boosted by the investments on infrastructure and connectivity. The regulatory framework is constantly evolving - however, sometimes this fast-changing environment may not be conducive to new digital businesses.

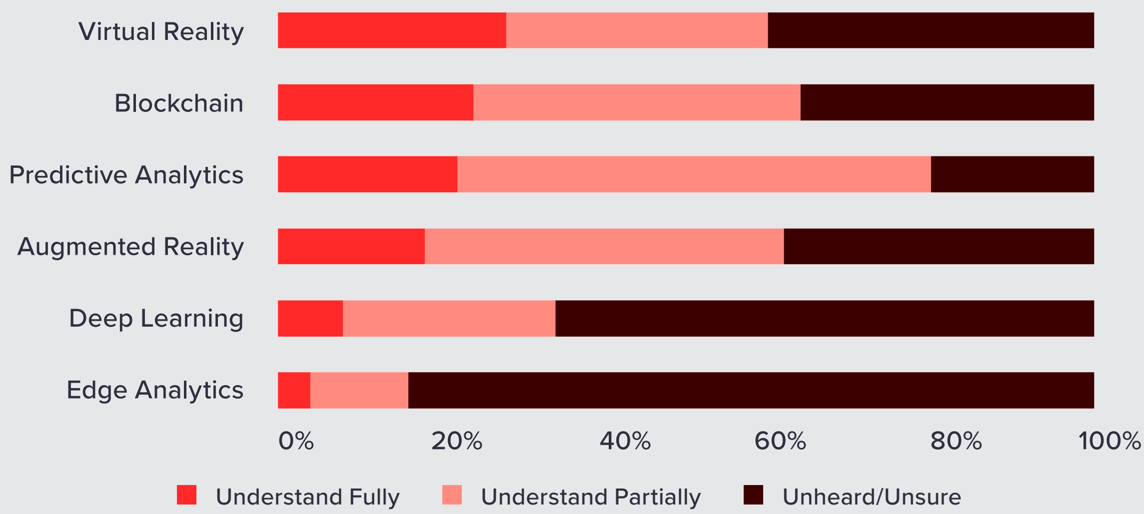
Indonesia has the highest adoption of Cloud in the region, mostly due to the presence of local data centres - run by local telecommunications providers as well as global leaders that wish to have a presence in the local market.

ENTERPRISE READINESS TO ADOPT TECHNOLOGIES - INDONESIA



*Source: Ecosystm, 2019^*

ENTERPRISE PERCEPTION OF EMERGING TECHNOLOGIES - INDONESIA



*Source: Ecosystm, 2019^*

Banking & Financial Industry Landscape

The BFSI in Indonesia has a diverse range of banks and non-banking financial institutions, even as banking penetration is estimated to be about 49%. This means that there is a huge untapped market that can be targeted by Fintech organisations, especially as connectivity improves. The central bank, Bank Indonesia (BI) is an independent institution responsible for regulating payment systems and foreign exchange supervision. The Financial Services Authority (OJK) is the key regulatory authority for the banking and financial industries.

Indonesia has 115 commercial banks and 1,633 rural banks. The commercial banks hold 98% of the banking assets - out of which about 45% is held by the four largest banks - Bank Mandiri, Bank BRI, Bank Negara Indonesia, and Bank BTPN. Indonesia is also encouraging the Islamic banking sector and aims to increase its share of total banking assets to more than 5%. Indonesia's banking industry is fragmented and is expected to consolidate over the next few years, mostly through mergers and acquisitions in the private sector.

The OJK sets the roadmap for the banking sector in Indonesia. Till 2019, the banking industry has focused on:

- **Being Contributive.** Role of the financial services sector in accelerating national economic growth

- **Being Stable.** Stability of the financial system as a foundation for sustainable economic development
- **Being Inclusive.** Promotion of financial independence and economic equality

OJK emphasises on the role of IT in realising these objectives of the financial services sector.

Indonesia also has a roadmap for sustainable finance included in the longer-term view till 2024. The Indonesia Sustainable Finance Initiative (ISFI), a collaborative effort between eight national banks and the WWF Indonesia was launched in 2018 to promote and implement inclusive sustainable finance practices. The initiative promotes a collaboration between the BFSI and other industries, and the integration of environmental, social and governance (ESG) risk management practices into the banking sector.

FINANCIAL INDUSTRY MATURITY	
Domestic credit provided by the financial sector *(% of GDP)*	**47.2%**
Banking Penetration	**49%**
Commercial bank branches *(per 100k adults)*	**16.9**
Online payments	**11%**
Debit card ownership	**31%**
Credit card ownership	**2%**
Score on Financing of SMEs	**4.6/7**
Score on VC Availability	**3.8/7**

Sources: World Economic Forum, 2018
The World Bank, 2018

Indonesia's banking industry is ripe for transformation and Fintech will be the enabling technology especially for financial inclusion.

Regulatory Landscape

The key regulatory authority for Fintech solutions such as digital payments, cryptocurrency and Blockchain is BI, while P2P lending, crowdfunding, Insuretech, and Digital Banking initiatives is regulated by the OJK.

In 2017, BI introduced the Fintech sandbox (Reg 19/12/2017) allowing Fintech providers to test their products and services in a live environment, with the necessary legal and regulatory backdrop, for a stipulated period. To participate in the sandbox scheme Fintech providers are required to register with BI or OJK (for P2P funding). At the end of the stipulated period, BI assesses the Fintech product and service to evaluate whether an official business license/approval can be granted.

OJK has been proactively formulating and amending Fintech regulations since 2016. In the 2018 amendment OJK stipulated regulations on recording the Fintech (Digital Financial Innovation) provider with OJK, participating in the regulatory sandbox, and only registering if qualified for the market. The amendments in 2019 go beyond P2P lending to cover other Fintech areas. Recently Indonesia's P2P lending industry has seen a rise in complaints on unscrupulous practices. The OJK has recently blocked more than 400 websites and smartphone apps and issued warnings to 78 registered P2P lenders. Further amendments to the regulations are in the offing, making Indonesia's Fintech regulatory landscape difficult to negotiate.

A significant move in the regulatory space in Indonesia is the relaxing of Reg 82/2012 on data management and personal data protection. It will ease the requirement to set up local data centres, especially for foreign entities operating in the country. The move is set to make the Indonesian market more competitive for foreign investments.

Indonesia as a Fintech Hub

✓	40.4%*	73**
Regulatory Sandbox	Share of Fintech Funding (within SE Asia)	Ease of Doing Business Ranking

**Cited by Singapore Business Review, 2018*
***The World Bank 2018 (Rank out of 190 Economies)*

Funding and Incentives for Start-ups

While Indonesia's funding industry is yet to mature because of several barriers ranging from a widely dispersed population and the requirement of foreign-based asset managers to establish a local presence, several global funds view Indonesia as a large and evolving market. Most venture funds, accelerators and incubators in Indonesia are sector agnostic.

GLOBAL FUNDS WITH A PRESENCE IN INDONESIA

SoftBank Ventures Asia
Golden Gate Ventures
Fenox
East Ventures
500 STARTUPS

LEADING LOCAL FUNDS

mandiri capital
CONVERGENCE VENTURES
KEJORA
ALPHA JWC VENTURES
Arkblu
tmi
MDI by Telkom Indonesia
gdp VENTURE
INDOGEN CAPITAL

Accelerator Programs

Accelerator and Incubator programs in Indonesia are often set up in collaboration with global Venture funds

	PROGRAM NAME	PROGRAM FOCUS
ideabox	Ideabox Accelerator	Mobile solutions, eCommerce, Portals
Founder Institute Globalizing Silicon Valley	Founder Institute	Tech start-ups
1337 Ventures	Alpha Startups	Tech start-ups
GK Plug and Play Indonesia	Plug and Play Indonesia	Insuretech, Fintech
GnB Accelerator	GnB	Tech start-ups
techbator	Techbator	Tech start-ups
Batavia Incubator	Batavia Incubator	Tech start-ups
indigo	Indigo Creative Nation	Fintech, eCommerce
Skystar Ventures	Skystar Ventures	Tech start-ups
merahputih Restoran Indonesia	Merah Putih	Fintech

Fintech Initiatives

NATIONAL PAYMENT GATEWAY

To facilitate the country's goals of financial inclusion both BI and OJK are promoting financial technologies in the industry. As far back as 2016, BI launched a Fintech office to monitor innovations in the financial industry and the security features of these innovations. In 2017, BI launched the **National Payment Gateway (NPG)**, that provides a shared payment infrastructure to create an integrated electronic payment platform. The second phase of the NPG is aimed at payments for transport and utilities infrastructure.

PAYMENT SYSTEM 2025 VISION

BI recently unveiled **Indonesia's Payment System 2025 Vision.** The vision includes closer collaboration between banks and Fintech and faster digital transformation within banks. The five themes that shape the vision include open banking, development of retail payments, development of the financial market infrastructure, data and digital identity, and Regtech. BI also held a soft launch for QR Code Indonesia Standard (QRIS) which will enable QR interoperability.

CRYPTOCURRENCY

Cryptocurrency has made its way to Indonesia and government agencies are working to regulate its use. In 2018, BI announced plans to launch its own Blockchain-empowered digital currency, especially to make cross-border transactions smoother. However, there are still concerns regarding widespread use of cryptocurrency, especially when it comes to money laundering and the use of virtual currency as a payment instrument is not allowed in the country. This has not prevented the larger Indonesian banks to explore possibilities around Blockchain. Reports say that Bank Negara Indonesia, Bank BRI, Bank Mandiri, Bank Danamon and Bank Permata are all piloting Blockchain initiatives.

GLOBAL COLLABORATIONS

In 2018, Smartag International and local Fintech PT Supratama Makmur Sejahtera (PTSMS) entered into a joint venture to form a company with Smartag owning 51% of equity. The company started **Indonesian Project** which provide eWallet services to 10,000 rural boarding school students. Several of these schools are owned by Islamic microfinance institutions such as Baitul Mal Tamwii (BMT). Smartag is looking to combine these different financial platforms into one Fintech platform which will give students access to eWallet as well as BMT microfinancing services. Initiatives such as these promote financial inclusion.

FINTECH IN BANKS

Several banks in Indonesia have been collaborating with the Fintech ecosystem in various ways. Bank Mandiri became the first local bank to start a Fintech venture fund, Mandiri Capital, which also runs Mandiri Business Incubator in collaboration with Telkom Indonesia. It has also opened the API to its digital money system Mandiri E-Cash for startups to experiment with. BCA, the country's largest private bank has also launched its venture fund, Central Capital Ventura (CCV). Bank Bukopin and Bank BRI have a specific aim to empower SMEs with Fintech through initiatives such as funding and incubator programs. This bodes well for Fintech providers in the country as these institutions can guide them with their market intelligence.

Fintech Talent Development

Indonesia has a very high literacy rate, but the education is struggling with meaningful education - education that will allow gainful employment in an evolving world. The use of computers for education at the primary and secondary level is limited to a few urban regions. Technology is not intrinsically built into their system and digital services being relatively new in the country, there is a shortage of skilled people with IT expertise especially in emerging technologies such as data analytics, cloud and cybersecurity. People who wish to pick up these digital skills have the option of online courses, but there are isolated initiatives which indicate that the Government and the industry are giving digital education some consideration.

NGEE ANN POLY

- In 2018, Singapore's Ngee Ann Polytechnic in collaboration with the Indonesia Government announced that they would deliver Fintech programs to tertiary students in Indonesia, including in institutions such as Politeknik Negari Jakarta and Universitas Indonesia. The Ministry of Research, Technology and Higher Education received a grant of about USD 380,000 from Temasek Foundation International for the initiative. Indonesia will have to rely on global collaboration to bring them up to speed with emerging technologies.

- Universities in Indonesia do offer isolated courses that are training students on AI technologies, cloud and technology. But there does not appear to be a unified course that offers both the technological and the business skills require to push organisations into Digital Transformation. As an example, the School of Electrical Engineering and Informatics at the Bandung Institute of Technology (ITB) offers modules on National Language and Speech Processing and Mobile Application Development. The School of Business and Management offers a module on Technology Commercialisation. The leading universities and technology institutions should look at incorporating technology into the syllabus for programs on Finance and Management.
- Private educational institutions in major cities such as Jakarta are leveraging the gap in technology education and offering courses on data science and machine learning, such as Algoritma that offers a range of options from full courses to one-day workshops. Purwadhika is another such institution that targets start-ups and focuses primarily on coding. They offer several bootcamps for data science, programming, web/mobile application development, digital marketing and UX design. While these private institutions can bridge the gap, a concerted effort is required to entrench emerging technology education in mainstream education to equip the workforce of the future.

Notable Fintech Orgnisations

There are multiple digital payments and consumer lending Fintech organisations in Indonesia - most of them in partnership with eCommerce platforms.

	FINTECH AREA	PARTNERS	FUNDING TYPE
KOINWORKS Peer-to-Peer Fintech Lending	P2P lending	Lazada, Tokopedia, Allianz, Bhinneka.com, Berrybenka	Venture - Series B Estimated USD 37 M
modalku	P2P lending, Crowdfunding		Venture - Series Unknown Estimated USD 10.8 M
Kredivo Buy now, Pay later	Digital payments, Consumer lending	Bukalapak, Lazada, Shopee, Tokopedia	Venture - Series B Estimated USD 5 M
akulaku	Consumer lending, eCommerce	Shopee, Bukalapak, Telkomsel, Alphamart's, Blibli.com	Venture - Series Unknown Estimated USD 1.1 M
cashlez	mPOS	Visa, Mastercard, JCB, Bank BNI, Jenius, Maybank, Bank Mandiri, Bank BTPN, DBS	Equity Crowdfunding Estimated USD 0.7 M
cermati	eCommerce	Aeon, Bank Bukopin, Danamon, Bank BRI. Bank BNI, CIMB, DBS, Standard Chartered Bank	Seed Estimated USD 0.6 M
JOJONOMIC	Personal financial advisory	FWD Insurance, Bank Bukopin, CIMB, Indosat Ooredoo	Venture - Series Unknown Estimated USD 1.5 M
PAYFAZZ	Digital payments	Telkomsel, Indosat Ooredoo, Smartfren, 3, Bank BRI	Venture - Series Unknown Estimated USD 21.1 M
ajaib	Robo-advisory	Syailendra Asia, HP Asset Management, RHB Asset Management, Ciptadana, Prospera, Kresna	Seed Estimated USD 2.2.M

This report is based on Ecosystm analysts' subject matter expertise in addition to specific research based on interactions with technology buyers across industries and tech vendors, industry events, and secondary research.

^ The data findings mentioned in all Ecosystm reports are drawn from Ecosystm's live and on-going studies on the Ecosystm research platform. This report refers to data from multiple Ecosystm studies (Cloud, AI, Cybersecurity and IoT) and the number of participating organisations in Indonesia range from 60 - 96 depending on the study. Participants include decision-makers from IT and other Lines of Business, from small, medium and large enterprises.

The Philippines

Executive Summary

- **The Regulatory Environment.** The main attraction of the Philippines as a Fintech market is the way they have evolved their regulatory environment to make it conducive for non-financial organisations. This includes the special incentives for operation out of the Cagayan Economic Zone Authority (CEZA) and initiatives such as the National Payment Systems Act being implemented by the Bangko Sentral ng Pilipinas (BSP). This has led to several Fintech initiatives especially in the digital payments and cryptocurrency domains. Also, the evolving regulatory environment will fuel investments in Regtech. Initial initiatives include the Government-initiated chatbot service that helps customers lodge complaints against financial firms and an API and back office reporting initiative to allow financial institutions to submit data to the BSP digitally.

- **Cryptocurrency and Blockchain.** The Philippines is fast emerging as one of the leaders in the region for Blockchain and Cryptocurrency with crypto start-ups accounting for nearly 16% of Fintech start-ups. The number of approved cryptocurrency exchanges has been growing - in addition to the 11 operators registered by BSP, there are 37 other crypto exchange operators licensed by the CEZA. While there are stricter regulatory restrictions around virtual currency trading platforms, BSP has a regulatory sandbox for virtual currency exchange and digital payments. The opportunity will also be fueled by the need to increase banking penetration in the remote and rural areas and banks are experimenting with Blockchain for greater financial inclusion.

- **Payments and Cross-border Funds Transfers.** While the banking penetration remains low at about 34%, the Philippines has one of the most vibrant mobile and digital payment ecosystem in the region. PESONet, an electronic payments system that allows digital funds transfer to any bank within the network within the same working day, has more than 40 participating financial organisations that include universal, commercial, thrift and rural banks as well as non-banking financial institutions. Initiatives such as these are further driven by the number of overseas workers sending money back to the country. There are several cross-border funds transfer initiatives and the market is expected to grow.

- **Emerging P2P Lending Market.** The Philippines' Fintech market is not as evolved as most of the other countries in SE Asia. However, that only implies that there are immense possibilities especially in niche areas. For example, the country is said to have the highest loan rejection rate in SE Asia, especially for small and medium enterprises (SMEs). This has provided opportunity for alternative finance start-ups, including crowdfunding and loan management platforms – and that accounts for 30% of the Fintech market. While the market for alternative funding may not appear as flourishing as digital payments, personal finance and Blockchain, this will fast emerge as a market opportunity in the near future.
- **Assessing Real Opportunity.** It is important for Fintech organisations wishing to enter the Philippines market to assess the real opportunities for their products and services. There is a lot of hype around the Philippines market, but the country is still plagued with infrastructural issues. Connectivity speed remains a concern even today. Even the Government framework around Fintech and innovation are more at an intention level and less of a roadmap for the future. Once the Government is able to frame clearer guidelines for initiatives such as the regulatory sandbox, the market will present immense opportunities for Fintech organisations.

Country Overview

Tech Landscape

With the creation of the Department of Information and Communications Technology (DICT) in 2016, the Philippines has shown a commitment to developing an eGovernment and leveraging ICT to bolster the economy and foster national development. By extension the eGovernment policy also includes empowering eCitizens. The Philippine Digital Transformation Strategy (PDTS) aims to achieve genuine citizen engagement by 2020 through social media and other communication channels. This has been the cornerstone of the telecommunications industry in the country - to give access to connectivity to every citizen. Another key area of focus has been the strengthening of the Business Process Outsourcing (BPO) sector in the country.

The National ICT Ecosystem Framework (NICTEF) launched earlier this year makes it clear that the country regards a robust ICT ecosystem the foundation for the equitable, inclusive, and sustainable development in the society. The interdependent elements of the framework are:

- The Users - Human Capital
- The Means - Affordable Access and Devices, and Platforms (Apps, Services and Content/ Data)
- The Enablers - Infostructure/Infrastructure and Standards, Regulations and Policies

NICTEF acknowledges the role of Fintech in bringing about financial inclusion but notes some challenges and implications especially on regulators. The key concern revolves around data integrity and the associated risks of having several new entrants in the financial services industry and the liability in the case of a loss or breach. NICTEF also recognises the role of a robust ICT infrastructure and the need to create a level playing field for both financial and non-financial organisations that wish to enter the Fintech market.

Some Government initiatives that will impact the uptake of emerging technologies such as Fintech in the Philippines include:

- **The National API Gateway** which serves as the principal connectivity channel to secure and encrypt inter-government data exchanges between the Philippines and other countries including cross-border paperless trade and funds transfers

- **Philippine National Public Key Infrastructure (PNPKI)** which allows users of public networks like the Internet to exchange private data securely. This includes applications such as authentication in Web applications and electronic documents and forms signing

WORLD DIGITAL COMPETITIVENESS RANKING

55↑	**51↓**	**55↑**	**54↑**
Overall	Knowledge	Technology	Future Readiness

Source: IMD 2019 (Rank out of 63 Economies)

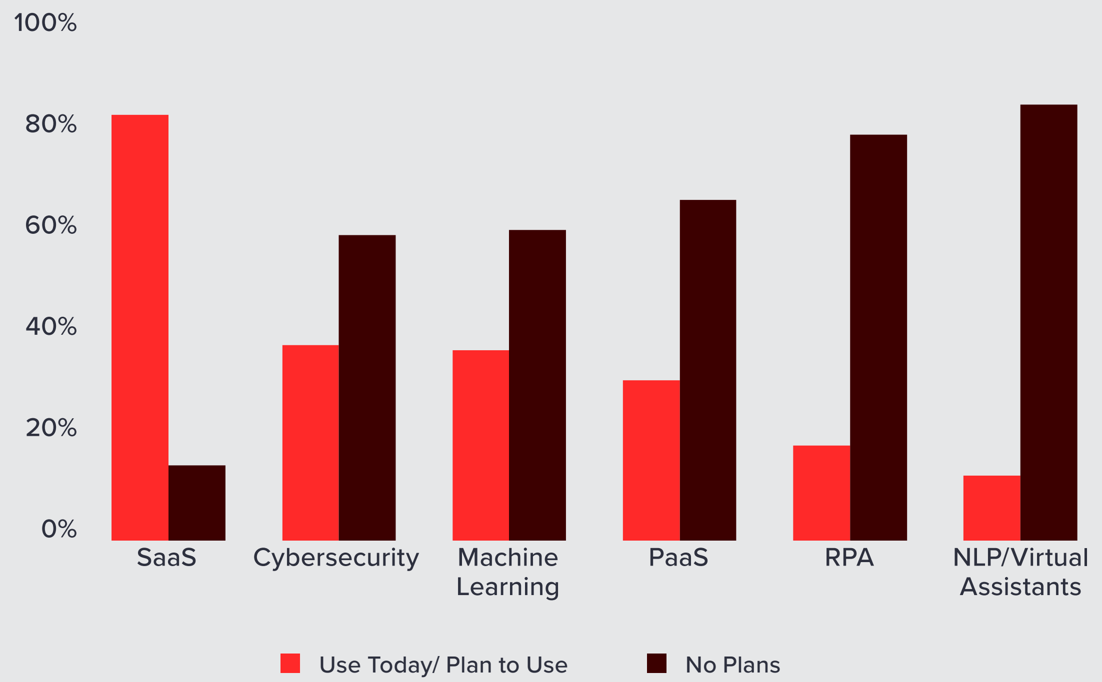
110.4%	**55.5%**	**44.9%***	**3.7/7**	**5.1/7**
Mobile/cellular subscription	Internet users	Smartphone penetration	Score on legal framework for Digital businesses	Score on Digital skills

Source: World Economic Forum 2018
**Source: Newzoo*

The Philippines has managed to increase their global competitive index ranking mostly by focusing on digital skills to strengthen the BPO sector. However, they need to focus equally on enabling factors such as Cybersecurity and the legal framework.

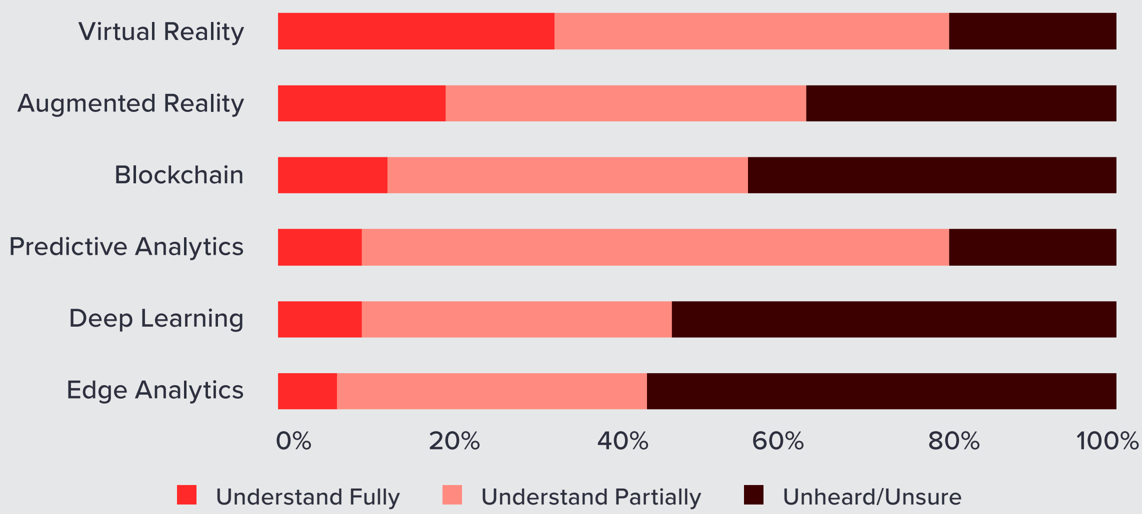
Enterprises in the country have a high uptake of SaaS solution which bodes well for Fintech adoption. Emerging technologies need to be evaluated at depth, beyond the hype around them - especially truly enabling technologies such as predictive analytics and Blockchain (especially as the Government drives Blockchain adoption).

ENTERPRISE READINESS TO ADOPT TECHNOLOGIES – THE PHILIPPINES



*Source: Ecosystm, 2019^*

ENTERPRISE PERCEPTION OF EMERGING TECHNOLOGIES – THE PHILIPPINES



*Source: Ecosystm, 2019^*

Banking & Financial Industry Landscape

Like other countries in the region, the banking industry reforms started in the Philippines in the late 1990s. The BSP is the central bank in the Philippines and has brought about various regulatory reforms to enhance governance and risk standards, including reporting requirements. The BSP promotes consolidation of the banking industry through various incentives, especially for the rural and the cooperative banking sectors.

There are 46 universal and commercial banks, 54 thrift banks, and 470 rural and cooperative banks in the Philippines, with the commercial banks holding an estimated 91% of assets. In addition to the function of a commercial bank, the 21 universal banks are also authorised to engage in underwriting and investment functions. Thrift banks comprise of savings and mortgage banks, private development banks, stock savings and loan associations, and microfinance organisations. According to the BSP, they provide short-term working capital and medium and long-term financing to SMEs engaged in agriculture, services, industry and housing. The rural and cooperative banks are mainly responsible for providing financial services to rural communities. In spite of a relatively high number of banks, the banking penetration is estimated to be at a nascent 34%.

The BSP has also allowed 12 foreign banks to operate in the country including Singapore's UOB and Malaysia's CIMB. The

number is growing with three more banks showing an active interest in the market in 2019 encouraged by the changes in regulatory framework and a large percentage of unbanked and underbanked population.

The key areas that the BSP advocates are:

- Microfinance and financial inclusion
- Financial education and consumer protection
- Overseas worker remittances

Fintech organisations that can collaborate with thrift, rural and cooperative banks to drive financial inclusion will have an edge over the market.

FINANCIAL INDUSTRY MATURITY	
Domestic credit provided by the financial sector *(% of GDP)*	**69.1%**
Banking Penetration	**34%**
Commercial bank branches *(per 100k adults)*	**9**
Online payments	**10%**
Debit card ownership	**21%**
Credit card ownership	**2%**
Score on Financing of SMEs	**4.5/7**
Score on VC Availability	**3.3/7**

Sources: World Economic Forum, 2018
The World Bank, 2018

The low banking penetration in the Philippines attracts both foreign banks and Fintech organisations. However there needs to be a more holistic approach to create a better infrastructure for start-ups and foreign investments if Fintech organisations are to successfully bridge the gap in the financial industry.

Regulatory Landscape

The evolving regulatory landscape in the Philippines has been the major draw for Fintech organisations in the recent past. The BSP is the main regulatory authority for the banking and financial industry (BFSI) in the Philippines. Areas relevant to Fintech organisations that the BSP regulates are virtual currency exchanges and electronic and digital banking services. One of the key areas that receives regulatory focus in the country is compliance with AML. BSP's Circular Nos. 942 and 944 provide clear guidelines on the requirements to acquire a virtual currency exchange certification in the Philippines.

The Securities and Exchange Commission (SEC) also have regulatory authority over Fintech organisations, especially over virtual currency trading. The SEC is in the process of formulating guidelines for initial coin offerings (ICOs) to help organisations raise alternative funds. Currently an initial assessment request has to be filed with the SEC before an organisation can conduct an ICO and the SEC determines whether the tokens to be issued can be considered as securities.

Fintech organisations that operate in the Cagayan Economic Zone Authority (CEZA) can also apply for a license from the special economic zone regulatory authorities. This is another initiative that is driving organisations to consider the Philippines as a viable Fintech market. However, overseas businesses are required to have some form of a local presence to obtain the licenses and permits required to launch their Fintech offerings.

Other significant regulations operating in the Philippines are the Data Privacy Act of 2012 and the Cybercrime Prevention Act of 2012.

BSP has introduced a Fintech Supervisory Sandbox which has evolved since the early initiatives of 2004. The sandbox is tasked with identifying major regulatory concerns, setting the framework for Fintech organisations before a market launch, issuing appropriate regulations, ongoing monitoring and introduction of regulations as new risks emerge. Applications to the sandbox is processed on a case-by-case basis and the application process is often considered tenuous by start-ups.

Philippines as a Fintech Hub

✓	5.7%*	124**
Regulatory Sandbox	Share of Fintech Funding (within SE Asia)	Ease of Doing Business Ranking

*Cited by Singapore Business Review, 2018
**The World Bank 2018 (Rank out of 190 Economies)

Funding and Incentives for Start-ups

While there are several active local funds the majority of the Fintech funding comes from global funds - many of which have a strong presence in SE Asia. Most funds operating in the Philippines are sector agnostic.

GLOBAL FUNDS WITH A PRESENCE IN THE PHILIPPINES

ACCION

wavemaker

BEENOS

Golden Gate Ventures

SPIRAL VENTURES

LEADING LOCAL FUNDS

KICKSTART

ideaspace

FUTURE NOW VENTURES

hatchd

The Philippines Government offers initiatives - including tax breaks - for Fintech organisations, especially those that are registered under the CEZA, which aims to be a Fintech hub. There are also special incentives for SMEs with Fintech offerings, in an extension of the Magna Carta Laws.

Accelerator Programs

		PROGRAM NAME	PROGRAM FOCUS
Fund, Corporate and Educational Institution Initiatives		AIM-Dado Banatao Incubator	Deep tech, AI, IoT
		Cerebo Labs	Fintech, AI, Iot, eCommerce
		IdeaSpace Foundation	Tech start-ups
		Impact Hub Manila	Tech start-ups
		Launchgarage	Tech start-ups, Fintech
		QBO Innovation Hub	Tech start-ups
		SPrinG.PH	Tech start-ups

Fintech Initiatives

FINTECH IN BANKS

Encouraged by the BSP and the ASEAN Financial Innovation Network (AFIN), the Bankers Association of the Philippines (BAP) has been working with regional banking associations such as the ASEAN Bankers Association (ABA) and the Association of Banks in Singapore (ABS) to gain best practices guidance on how to integrate Fintech to improve their offerings. The National Retail Payment System (NRPS) which was launched by the BSP in 2015 was extended to include banks in 2017 with the goal to increase electronic payments from 1% (in 2015) to 20% of all transactions (by 2020). Several banks have incorporated Fintech. **UnionBank** has partnered with Visa to build a Blockchain-based bank-to-bank payments system. **PSBank,** a thrift bank, has implemented a mobile payment application. As BSP promotes open banking there will be more opportunities for Fintech organisations to partner with local banks.

CRYPTOCURRENCY

The Philippines is actively encouraging adoption of cryptocurrency and crypto start-ups account for nearly 16% of Fintech start-ups. The number of approved cryptocurrency exchanges has been growing - in addition to the 11 operators registered by BSP, there are 37 other crypto exchange operators licensed by the CEZA. While there are stricter regulatory restrictions around virtual currency trading platforms imposed by the SEC, BSP has a regulatory sandbox for virtual currency exchange and digital payments.

INDUSTRY COLLABORATION

BSP launched **PESONet,** an electronic payment system that allows digital funds transfer to any bank within the network within the same banking day. It is an automated clearing house under the NRPS. It enables enterprises, the Government and citizens to set up funds transfers and recurring payments from their accounts, provided they are part of the BSP's list of approved BFSIs. PESONet has more than 40 participating financial organisations that include universal, commercial, thrift and rural banks as well as non-banking financial institutions. The National Payment Systems Act (NPSA) being implemented by BSP aims to create a level playing field for Fintech providers in the digital payment space and create one overarching set of payments regulations. While the regulations may be deemed stringent by some, this helps regularise the payments sector and bodes well for newer Fintech entrants.

DIGITAL BANK

Earlier in 2019, Malaysia's **CIMB Bank** launched an all-digital mobile-first bank in the Philippines. This partnership is a part of CIMB's 'Invest and Incubate' initiative. Empowered by GCash, a local ePayment platform start-up, the bank estimates that it has managed to garner more than 500,000 customers. The Philippines has immense opportunity for Digital Bank initiatives, given the unbanked population and the number of expatriates from the country who would demand seamless, cross-border banking services.

FINTECH ALLIANCE PHILIPPINES

A collaborative effort that brings together the different industry stakeholders of Fintech and financial innovation initiatives, it is open to registered companies that are engaged in 'digital finance'. It brings together leading Fintech organisations, funds and industry groups to test the potential of financial innovation in contributing to the country's economic and social development.

Fintech Talent Development

The Philippines' strength and market presence in the BPO sector has had an impact on technology education in the country. Several universities and institutions provide IT courses to equip people for the BPO sector. University of the Philippines, Ateneo de Manila University (ADMU), Polytechnic University of the Philippines and De La Salle University are amongst the leading institutions offering technology education. Very often these institutions update their course offerings to incorporate modules on popular technologies - as an example AMA University offers modules on AI and Robotics. However, there are not many established modules or courses on Fintech offered by these institutions yet. There are several institutions that offer courses on Blockchain, given the Government's focus on the technology.

AMBERLab
Ateneo-Medixserve Blockchain Education & Research Lab

- MediXserve, ADMU and NEM Foundation collaborated to create AMBERLab in 2018, and focuses on areas such as AI, Healthtech and Fintech. The modules are designed by NEM Foundation, a Blockchain platform provider and the modules were introduced at ADMU this year.

UnionBank

- UnionBank launched the **Blockchain Institute** in 2018, a six-month program to equip developers as well as bank employees to stay relevant in today's technology environment. Following its partnership with Visa to build a Blockchain-based B2B (bank-to-bank) payments system, UnionBank also initiated Project i2i that aims to bring millions of the unbanked to the financial system by connecting rural banks to the country's main financial network. Initiatives such as these give those enrolled in the Blockchain Institute an opportunity for experiential learning.

Asian Institute of Artificial Intelligence

- The Asian Institute of Artificial Intelligence offers courses on Python, AI applications, Blockchain, and Security and Data Privacy.

Notable Fintech Organisations

	FINTECH AREA	PARTNERS	FUNDING TYPE
ACUDEEN	SME funding, P2P marketplace	UnionBank, Anthem Asia, OpenPort	ICO Estimated USD 6.8 M
ayannah	eCommerce, ePayments	LBC Express, Ventaja, Sendah	Venture - Early Stage Estimated USD 8.4 M
coins.ph	Mobile payments, Cryptocurrency	Western Union, Globe, PLDT, Smart, Manila Water	Venture - Series A Estimated USD 10 M
cashalo FOR FAST, EASY, AFFORDABLE LOANS	Consumer lending	Cherry Mobile, Robinsons Department Store, Blade, Spyder	Venture - Series Unknown
JazzyPay	Digital payments, Invoicing		Seed Estimated USD 0.12 M
MariaHealth	Comparison platform	AsianLife, FamilyDOC Hi-Precision, InLife Health Care, Intellicare	Seed Estimated USD 1 M
PDAX PHILIPPINE DIGITAL ASSET EXCHANGE	Cryptocurrency exchange	ConsesSys, BitMEX	Venture - Series Unknown Estimated USD 1.1 M

This report is based on Ecosystm analysts' subject matter expertise in addition to specific research based on interactions with technology buyers across industries and tech vendors, industry events, and secondary research.

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Vietnam

Executive Summary

- **Fast Emerging Economy.** Vietnam's Global Competitive Index rating has risen considerably driven by numerous factors, including the growth in the manufacturing, agriculture and services industries. The country has seen several entrepreneurial initiatives - including Fintech - especially from the younger generation. Fintech growth in the country is also being prompted by the recent efforts by the Government to introduce Fintech regulations, policies around increasing financial inclusion, the focus on cashless payments, rising income and consumption which has fueled the eCommerce sector, the rising penetration rate of Internet and smartphones, and a young and tech-savvy population base. Foreign investments continue to flow into the country - and the Government aims to increase banking penetration from an estimated 31% to 70% by 2020. Irrespective of whether that goal is achieved, there is untapped potential for Fintech providers in Vietnam.

- **Cashless Payments.** The Government's main Fintech focus has been on cashless payments. Digital payments is estimated to account for more than 85% of the Fintech market. It is estimated that around 47% of companies in Vietnam are working on providing remote payment services. The State Bank of Vietnam has provided licenses to over 30 intermediary payment service providers, the majority of which are eWallets. This promotes the Government's vision of a cashless society and is also supported by a regulatory framework. However, regulation requires eWallet accounts to be connected to bank accounts held in the same name. Even though cashless payment options are readily available, as regulations firm up there will continue to be opportunities for digital payments.

- **Emerging Fintech Domains.** While payments is the key area of focus and investments now, there are opportunities in other Fintech domains as well - going forward, personal finance and peer-to-peer lending are set to have the highest growth and will account for an estimated quarter of the market in the next five years. While there are several peer-to-peer lenders already in the market, the Government is expected to issue mandates for the sector, as it begins pilots soon, before officially developing laws mandating the business. Digital banking services for personal finance is also seeing a greater uptake amongst the tech-savvy. While Vietnam has the lowest adoption of insurance policies in the region, there is also a growing market for Insuretech products. Timo, the country's first digital bank has partnered with several insurance providers and are allowing consumers to compare offerings on a digital platform. As digital platforms such as Grab increase their market presence in Vietnam, there will be greater awareness and demand for other digital services.

- **Nascent Regulatory Environment.** While the economy grows and so do opportunities in Fintech, the biggest stumbling block for global Fintech organisations wishing to enter the Vietnam market is the nascent regulatory environment. The Government has only recently started to work actively on the regulatory framework and are taking inspiration from other countries in SE Asia. Many of the initiatives, including a regulatory sandbox are at a pilot stage. The initiatives appear to be reactive given that the country already has a vibrant start-up and eCommerce ecosystem, and a fast-growing Fintech market. Global Fintech providers should be wary of entering a non-regulated market.

Country Overview

Tech Landscape

Vietnam's digital economy is the second fastest growing market in SE Asia after Indonesia's. Several macroeconomic factors and Government initiatives have seen the country rise 10 places in the Global Competitive Index in 2019. The Government aims for Vietnam to be in the top 20 and in the top 3 in SE Asia in the Global Competitiveness Index by 2030. The country also aims to be in the top 50 in eGovernment ratings.

Digital technology is set to positively impact industries, agriculture and services - which have been very much at the centre of Vietnam's growth. The recently published Resolution 52 lays out the Government's guidelines and policies to ensure active participation in Industry 4.0 - a joint venture of the Ministry of Planning and Investment (MPI) and the Ministry of Information and Communications (MIC). The key focus is on promoting innovative thinking and empowering institutions to contribute in the national digital transformation. Specific policies have been laid out on:

- Development of essential infrastructure
- Enhancing creativity and innovation
- Human resource development
- Improvement in priority sectors and technologies
- Global integration

MIC's Authority of Information Technology Application (AITA) in their recent draft made it clear that the country is moving from IT development to a digital transformation phase. AITA proposed that the digital roadmap till 2030 would be implemented in three phases:

- **2020 - 2022.** Digitalisation of industrial sectors and digital transformation of Government agencies
- **2023 - 2025.** Improvement of labour productivity and creating growth momentum and competitiveness
- **2026 - 2030.** Development of a comprehensive digital economy and society

The goal is to grow the digital economy at an average growth rate of 20% a year and labour productivity growth of 7-10% by 2030. This includes a universal adoption of mobile payment by 2030.

In the past, Vietnam has shown their commitment to ICT development especially in the synchronous way the telecommunications industry developed, in terms of coverage and introduction of 4G and 5G (which is expected to be deployed from 2020).

Another area where Vietnam has identified as top priority is network security. They are also focused on building a strong ecosystem of local security providers. The guideline for organisations is to spend 10% of the total IT budget on network security solutions and to preferably procure from local providers.

DIGITAL MATURITY: VIETNAM

125.6%	46.5%	37.7%*	3.6 / 7	3.7/7
Mobile/cellular subscription	Internet users	Smartphone penetration	Score on legal framework for Digital businesses	Score on Digital skills

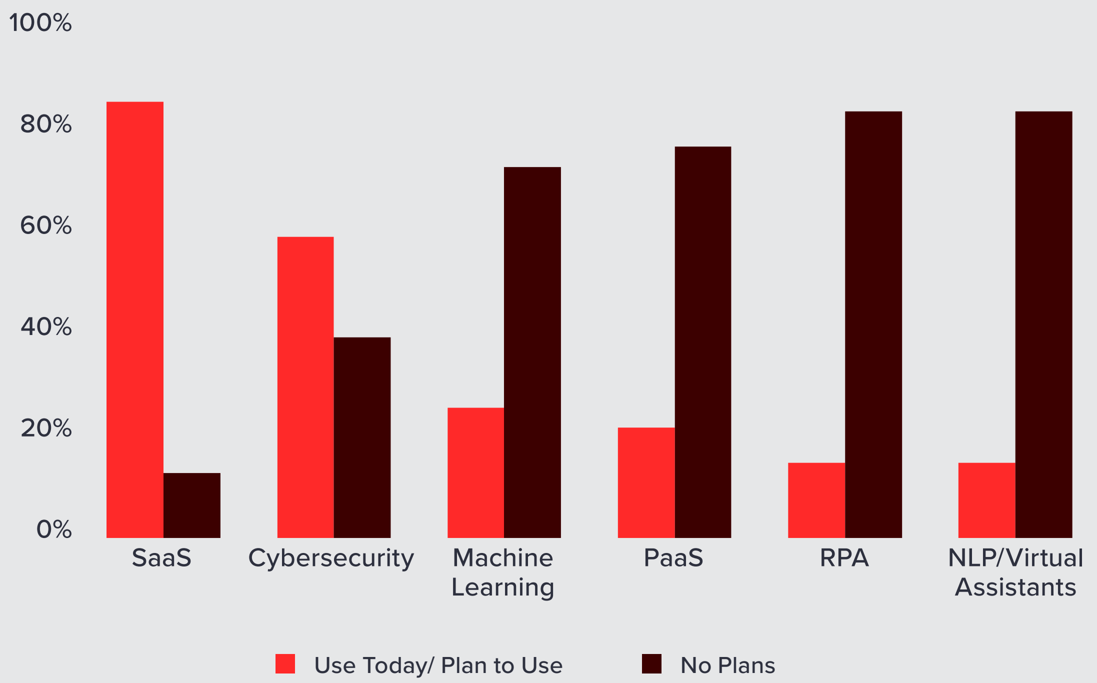
Source: World Economic Forum 2018

**Source: Newzoo*

While Vietnam has improved its network connectivity, adoption is still not as strong as in more mature economies. With the recent rise in foreign direct investments, there is expected to be a boost in digital maturity and increase in the number of digitally savvy citizens.

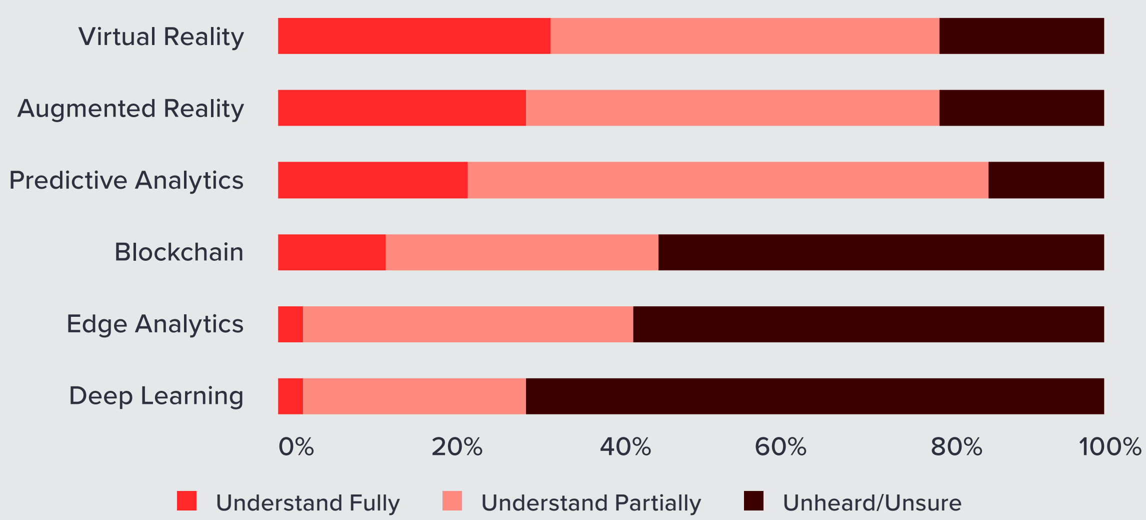
Enterprises in the country have a high uptake of SaaS solution which bodes well for Fintech adoption. Emerging technologies need to be evaluated at depth, beyond the hype around them - especially truly enabling technologies such as predictive analytics and Blockchain.

ENTERPRISE READINESS TO ADOPT TECHNOLOGIES – VIETNAM



*Source: Ecosystm, 2019^*

ENTERPRISE PERCEPTION OF EMERGING TECHNOLOGIES – VIETNAM



*Source: Ecosystm, 2019^*

Banking & Financial Industry Landscape

The banking and financial industry (BFSI) in Vietnam is smaller than those of the other countries in the region. But it has actively sought foreign help to reform and evolve the banking system. The central bank, the State Bank of Vietnam (SBV) is responsible for monetary policy and regulation of the banking system.

The primary banking institutions are the 5 state-owned commercial banks (SOCBs) that account for more than 40% of market share. The largest bank in terms of assets and network is the 100% state-owned, Agribank. The 4 other SOCBs are Vietcom Bank, Viettin Bank, BIDV and MHB. Other than the SOCBs, there are 33 joint stock commercial banks (JSCBs) and 5 joint venture commercial banks.

Vietnam has so far given licenses to around 10 wholly-foreign-owned banks, such as HSBC, Standard Chartered Bank, Hong Leong Bank and CIMB. However, the Government announced last year that no more licenses will be issued for wholly-foreign-owned banks while foreign investors will still be allowed to buy stakes in local banks.

The SBV is still in the process of implementing financial reforms with the help of global entities such as the IMF and the World Bank and other international donors. The reforms include forced mergers of weaker banks, restructuring of SOCBs and JSCBs, introducing steps to improve

the regulatory framework and to increase transparency. A few areas that have received attention are interbank relationships and external audits of the major banks. Being part of several international trade agreements Vietnam's banking system is now more aligned to global banking standards.

The SBV has also been promoting the development of non-cash payments and gradually reducing the economy's reliance on cash. It aims to build and continually upgrade the national payment infrastructure and deploy new payment products and services. To drive the use of electronic payments, it intends to apply security and payment standards in accordance with global best practices.

FINANCIAL INDUSTRY MATURITY	
Domestic credit provided by the financial sector *(% of GDP)*	**141.9%**
Banking Penetration	**31%**
Commercial bank branches *(per 100k adults)*	**3.4**
Online payments	**21%**
Debit card ownership	**27%**
Credit card ownership	**4%**
Score on Financing of SMEs	**3.7/7**
Score on VC Availability	**3.2/7**

Sources: World Economic Forum, 2018
The World Bank, 2018

Regulatory Landscape

The SBV is the apex body in Vietnam for financial regulations. However, the Government has only recently started to work actively on the regulatory framework and are taking inspiration from other countries in SE Asia. The initiatives appear to be reactive given that the country already has a vibrant start-up and eCommerce ecosystem, and a fast-growing Fintech market.

There is some focus on foreign investments and the MPI has launched the 'eRegulations Portal' where foreign investors can access step-by-step guides on investment procedures in seven provinces across Vietnam. Earlier, in a bid to attract capital into the country the Government removed the 49% cap on foreign ownership. But regulations - even around data protection - are still being formed.

The MIC and the Ministry of Public Security have announced 3 upcoming regulations to safeguard the digital economy to address:

- Management, connection and sharing of digital data

- Electronic identification and authentication, and
- Personal data protection

In 2017, the SBV's Steering Committee on Financial Technology initiated programs on eKYC, Open APIs, peer-to-peer (P2P) lending, ePayments and Blockchain. However, global Fintech providers are wary of entering a non-regulated market. P2P lenders in Vietnam, as an example, are usually registered as investment consultancy firms and not as financial institutions. This means that SBV does not really have any regulatory authority over them, leading to malpractices. The Government is expected to allow P2P lending pilots soon, before officially developing laws mandating the business. During the pilot, P2P lending would be restricted to connecting lenders and borrowers and are not allowed to mobilise capital. However, the P2P lending market is already fast expanding, leveraging the high proportion of unbanked population. The regulatory landscape is still firming up as the Government has announced initiatives to mandate the Blockchain market and a regulatory sandbox is still at a pilot stage.

SBV has formulated regulations to promote cashless payments. However, many consumers find the regulations too strict as eWallet accounts are required to be connected to bank accounts held in the same name. While this does promote cashless payment, it does little for financial inclusion.

Vietnam as a Fintech Hub

PILOT	0.7%*	69**
Regulatory Sandbox	Share of Fintech Funding (within SE Asia)	Ease of Doing Business Ranking

*Cited by Singapore Business Review, 2018
**The World Bank 2018 (Rank out of 190 Economies)

Funding and Incentives for Start-ups

In a bid to attract more foreign capital the Government has laid clear guidelines incorporating and operating a Venture Capital fund in Vietnam.

GLOBAL FUNDS WITH A PRESENCE IN VIETNAM

Life.SREDA
scventures
PIX VINE CAPITAL
CyberAgent Ventures
Captii ventures
Goldman Sachs
INSIGNIA VENTURES PARTNERS
VOYAGE VENTURES

LEADING LOCAL FUNDS

IDG Ventures Vietnam
MEKONG CAPITAL
VinaCapital
NEXT100 Startup Soulmate

GOVERNMENT FUNDS AND START-UP PROMOTION INITIATIVES

Startupcity.vn - Hanoi's People Committee

Vietnam - Finland Innovation Partnership Programme - Collaboration between the governments of Vietnam and Finland

Mekong Business Initiative - Collaboration between the Asian Development Bank and the Government of Australia

National Technology Innovation Fund (NATIF) - Ministry of Science and Technology

Accelerator Programs

	PROGRAM NAME	PROGRAM FOCUS
Viisa	VIISA Accelerator Program	Fintech, Insuretech, B2C & B2B platforms
VIETNAM SILICON VALLEY	Vietnam Silicon Valley	Tech start-ups
EXPARA	Expara Vietnam	Tech start-ups
FOUNDER INSTITUTE	Founder Institute	Tech start-ups

Fintech Initiatives

SBV INITIATIVES

In 2017, the SBV's Steering Committee on Financial Technology initiated programs on eKYC, Open APIs, peer-to-peer (P2P) lending, ePayments and Blockchain. Recently, the SBV is working on regulations around Fintech especially in Blockchain and P2P lending. Vietnam is also experimenting with introducing a regulatory sandbox for Fintech.

PARTNERING WITH SINGAPORE

The Monetary Authority of Singapore (MAS) and SBV signed an MOU in 2018 on establishing a partnership to encourage Fintech innovation and to strengthen cooperation in banking supervision. Enterprise Singapore, the Singapore agency supporting SMEs expanded its Global Innovation Alliance (GIA) network to Ho Chi Minh City in collaboration with venture fund Quest Ventures, and the Vietnamese Government-backed Saigon Innovation Hub (SIHUB). The initiative gives Singapore start-ups access to the local market and connects them to partners, investors and local customers. Vietnam's Fintech market will strengthen from these collaborations with Singapore.

DIGITAL PAYMENTS

It is estimated that around 47% of companies in Vietnam are working on providing remote payment services. The SBV has provided licenses to over 30 intermediary payment service providers, the majority of which are eWallets. This promotes the Government's vision of a cashless society. In fact, one of the Fintech domains that has a regulatory framework is cashless payments. However, the regulation requires eWallet accounts to be connected to bank accounts held in the same name. So, Fintech for financial inclusion is still a largely untapped market.

FINTECH IN BANKS

As eWallets are required to be connected to bank accounts, most banks in Vietnam have collaborated with digital payment Fintech providers. Citibank, as an example, has formed a strategic partnership with local Fintech provider, Payoo to facilitate consumer-to-business collections for their corporate clients - their client can receive realtime payments from their customers for services including utilities, telecommunications, and credit card bills through Payoo's digital network and brick-and-mortar touchpoints.

DIGITAL BANKS

Timo, the country's first digital bank was launched in 2016 and has since expanded its operations to three other cities illustrating that there is a market for digital banking services amongst the young and digitally savvy. The success of Timo has encouraged VPBank to start another digital bank - YOLO - in 2018, which in addition to standard banking services, also allows customers to access services such as taxis, movies, hotel bookings and food and beverage orders. The large percentage of unbanked population provides market opportunities for digital banking especially in areas where there are no physical bank branches.

Fintech Talent Development

Vietnam's Global Competitive Index rating has gone up by 10 places and is a good indication that the Government is focusing on developing talent in technology-related domains. The median age of the population is 30 years which indicates the presence of a younger population, many of whom are inclined towards technology and are tech-savvy. This is backed by the vibrant start-up ecosystem the country has. However, Vietnam is yet to incorporate training on Fintech and allied technologies into the mainstream. Universities have started courses on machine learning and other emerging technologies, in isolated instances.

- As part of Project 844 the Ministry of Science and Technology has signed contracts with four partners to conduct technology-based skills training and building capabilities for all stakeholders in the start-up ecosystem. The partners are the Vietnam National University Hanoi, BK-Holdings (part of the Hanoi University of Science and Technology), the Business Startup Support Centre, and Vietnam Silicon Valley accelerator program.

- The National Economics University in Hanoi in collaboration with the School of Management of the Asia University, Taiwan has started the International Bachelor Program in Financial Technology. Vietnam will depend on the international community for knowledge sharing on Fintech as the market develops.

- NobleProg, the international training and consultancy group delivers Fintech training courses in Vietnam which provides interactive hands-on practice in the technologies required. Options include ‘onsite live training’ that is carried out on customer premises or in NobleProg corporate training centres and ‘remote live training’ that is carried out through an interactive, remote desktop.

- Initiatives such as the 10-week bootcamp on AI technologies organised by VietAI are taking the country in the right direction, introducing emerging technologies to the younger, digital-native generation.

Notable Fintech Organisations

	FINTECH AREA	PARTNERS	FUNDING TYPE
momo mobile money	eWallets, Mobile payments	Vietcombank, VietinBank, AgriBank, BIDV, ACB, TPBank, VPBank, EximBank, OCB, VIB, Shinhan Bank, SCB, SacomBank, VRB, BAOVIET Bank	Venture - Series C Estimated USD 133.8 M
FINHAY	Wealth management platform	VietFund Management, OCB, MoMo, Mai Linh Group, Techcom Securities, UOB, Airpay, Sacombank, BaoViet Fund, Inspitrip	Seed Estimated USD 0.1 M
tima	P2P lending	VietinBank Insurance	Venture - Series B Estimated USD 3 M
Tomochain	Blockchain	NOIA, Shyft, Axie Infinity, FUNiX, VeloxChain	ICO Estimated USD 8.5 M
TheBank Chuyên gia tài chính	Consumer lending, ePayments	VIB, Manulife, AB Bank, VPBank, TPBank, Citibank, Maritime Bank, Standard Chartered Bank, Techcom Bank, Sacombank	Venture - Series A
ononpay	Mobile commerce platform		Venture - Series Unknown Estimated USD 0.8 M
moca	Mobile payments	ACB, Agribank, BIDV, HDBank, OCB, SCB, VietinBank, VPBank, Sacombank, Visa, Mastercard	Corporate Round Estimated USD 0.2 M

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NEW ZEALAND TRADE & ENTERPRISE
Te Taurapa Tūhono

New Zealand Trade and Enterprise (NZTE) is the Government agency charged with a single purpose: growing companies internationally, bigger, better and faster for the good of New Zealand.

We employ 600 people, have over 200 private sector partners and draw on a global network of thousands more. Our global presence lets us deliver value to the businesses we support, through our unique know-how (knowledge and experience) and know-who (networks and connections).

Our know-how and know-who is expressed in our Māori name: Te Taurapa Tūhono.

Te Taurapa is the stern post of a traditional Māori waka, which records valuable knowledge and stabilises and guides the craft forward. Tūhono represents connections to people and an ability to build relationships.

We provide customised services and support to ambitious businesses looking to go global. We help them build their capability, boost their global reach, connect to other businesses and invest in their growth. We also connect international investors with opportunities in New Zealand through a global network of investment advisors.

We call on our Government network and work closely with our NZ Inc partners and the business community, to grow our national brand and help businesses to open doors in global markets.

ecosystm

Ecosystm is a private equity backed Digital Research and Advisory Platform with global headquarters in Singapore.

As a global first, Ecosystm brings together tech buyers, tech vendors and analysts into one integrated platform to enable the best decision making in the evolving digital economy. The firm moves away from the highly inefficient business models of traditional research firms and instead focuses on research democratisation, with an emphasis on accessibility, transparency and autonomy.