

# THE ASEAN FINTECH ECOSYSTEM BENCHMARKING STUDY

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# FOREWORDS

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Cambridge  
**Centre  
for Alternative  
Finance**



The rapid development of new platforms and technologies has accelerated the rate of growth of the financial services sector and attracted increased attention from regulators and policymakers across jurisdictions. This research report is the first of what we at the Cambridge Centre for Alternative Finance (CCAF) hope will be annual reports analysing the development of FinTech activities across ASEAN countries.

Across the world, developments in financial technology are revolutionizing the way people interact with financial services. These innovations are enabling faster payments, more secure transactions, reducing the costs of remittance and allowing financial access in areas where traditional financial could never reach. FinTech activities have flourished across Southeast Asia in recent years and several indicators suggest that this high rate of growth is likely to continue. In 2018 alone, ASEAN saw a 58% increase in internet penetration and a 141% growth in mobile connectivity. This indicates a region primed to lead the push in developing FinTech to revolutionize financial services and realise its potential to tackle critically important regional issues such as access to financial services and financial inclusion.

At the CCAF, we have followed the journey of FinTech across ASEAN with great interest for several years. Our annual Asia-Pacific Alternative Finance Benchmarking Reports, including 2016's Harnessing Potential, 2017's Cultivating Growth and 2018's Asia Pacific Industry Report have tracked the growth and development of the sector. This report builds on our prior research to focus specifically on the 10 ASEAN member states and provides a more detailed investigation of the FinTech market as well as the evolving regulatory ecosystem.

This study has been amongst our most challenging to date, and could not have succeeded without the collaboration of many research partners located across the region. I would like to thank the Asian Development Bank Institute (ADBI) and FinTechSpace for their generous support and research collaboration which helped make this report possible. It is our hope that it provides a valuable overview of FinTech in the region and will inform the work of others seeking to realise the potential that FinTech innovation offers.

**Dr. Robert Wardrop**, Director  
Cambridge Centre for Alternative Finance



Promoting sustainable and inclusive growth is a key objective of the Asian Development Bank, and financial inclusion has come to be viewed as an important part of this agenda for inclusion. This reflects the view that individuals, households and firms cannot fully take advantage of the opportunities for economic and social development available if they do not have adequate and appropriate access to financial products and services. Nonetheless, many Asian economies still have relatively low rates of financial access, especially in rural areas. Moreover, access to financial products and services should be convenient, affordable (taking into account the relevant costs and risks), appropriate for the circumstances of the users, and accompanied by legal and supervisory safeguards, including consumer protection and regulatory and supervisory frameworks, but the reality often falls short of these standards.

Developments of financial technology (fintech) show great potential to extend the availability of financial products and services to households and small and medium-sized firms in Asia. The widespread penetration of the internet and mobile phone networks, together with developments in artificial intelligence, big data, and biometric identification, have revolutionized both the modes of delivery and the methodologies of providing financial services. Fintech companies, whether in payments, P2P lending, crowd funding, asset management or other areas, are playing a key role in this transformation. Therefore, it is critical to monitor the development of the fintech industry in Asia to assess its potential to contribute to overall economic and financial development.

Fintech innovations often involve innovation, adoption of new technologies, and the merging of activities of the financial sector with others such as telecommunications. All of these developments require that regulatory and supervisory frameworks evolve in a timely way to adequately balance the competing needs of the sector for innovation, financial stability and consumer protection. In this context, regulators need to adopt an experimental approach, including setting up regulatory sandboxes.

We at the Asian Development Bank Institute are very pleased to have participated in this study, which provides a detailed picture of both the development of the fintech industry in ASEAN and the evolution of the regulatory environment in which it operates. We hope that the information contained in it will contribute substantially to the development of financial access in Asia.

**Naoyuki Yoshino**, Dean

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FinTechSpace is a Taiwan-based public-and-private-backed fintech hub which is guided by the regulating Financial Supervisory Committee (FSC), funded by the Taiwan Financial Service Roundtable (TFSR), and executed by the Institution of Information Industry (III). As is known, fintech has made a great market impact on all economies globally, from developed, developing, and underdeveloped, and with varying approaches, whichever fits, especially in the last few years. Primarily, the two key drivers of those impacts are user-centric innovations and digitalization. Also, there is an unusual phenomenon we learned from our FinTechSpace startup accelerator program, namely that Fintech startups are keen to explore and reach out to international markets from a very early time, which is different from other tech-based startups, who usually wait to expand until it becomes more mature or the late expansion stage.

Given the above, we believe that cultural preference, financial regulation, and technology adoption interact and co-form different fintech services, which comply with regulations and are well received by individuals in society. To better understand the context, performing a holistic survey in regional markets which cover market-based analysis for individual jurisdiction is a must. Therefore, we started this idea with CCAF to synergize both resources to develop a report which has a global view of the greater Southeast Asia markets, one of the regional markets with the most potential globally.

As a result, thanks to the CCAF inter-country team, not only Taiwan, but all the other market stakeholders in ASEAN can benefit from this report. For regulators and policy-makers in greater ASEAN, this could be a great reference for their fintech international strategy plans. For private sectors, both financial institutions and fintech companies like to explore and enter these markets; thus, our report could be a great start for market research.

Again, FinTechSpace is honored to have this opportunity to take part in this survey with the CCAF and ADBI. Being one of the founding presenters of this report, we sincerely are looking for more feedback and suggestions from industries and regulators. As is said in the internet business, it's "always beta." We can do better with you together.

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# EXECUTIVE SUMMARY

The advancing pace of technology enabled innovation is rapidly transforming the financial services industry in the Association of Southeast Asian Nations<sup>1</sup> (ASEAN) region. Financial technology, or FinTech, companies are using a wide variety of technology enabled innovations such as cloud computing, mobile phones, artificial intelligence, machine learning, and blockchain/distributed ledger to make it easier to deliver financial products/services to customers at anytime, anywhere and on any device. In addition, they are taking advantage of new and alternative data sources and business models to provide access to the unbanked and underbanked.

The emergence of FinTech start-ups in the ASEAN region has progressed at an unprecedented pace, with more than \$485 million invested in 2018 across 68 deals, a 143% year-on-year growth when compared to 2017 and more than four times larger than 2016, according to CB Insights.<sup>2</sup> It is estimated that there are more than 600 FinTech start-ups in the ASEAN region, with new companies emerging almost daily.<sup>3</sup> The demand for FinTech solutions in the ASEAN region is supported by a number of factors which make this sector attractive to investors:

- Strong economic potential as evidenced by high GDP growth rates and growing GDP per capita;
- High mobile phone and smartphone penetration rates;
- Rising rates of internet penetration;
- Increasingly urban, literate and young population; and
- Consumers and micro, small and medium enterprises (MSMEs) which are currently underserved or not served by traditional banking solutions

According to the World Bank Findex survey, more than half of the adult population in the ASEAN region is unbanked, with the majority living at or below the poverty level and in remote, rural areas.<sup>4</sup> FinTech firms can play an essential role in driving financial inclusion in the region, resulting in greater economic activity.

The objective of this study is to gain a better understanding of the FinTech landscape in the ASEAN region and how it has been evolving within each country. The FinTech ecosystem is constituted of interrelated and purposively congruent stakeholders, including FinTech companies, financial institutions, investment firms, accelerators / incubators and regulators and policymakers. The ASEAN FinTech Ecosystem Benchmarking Study examines the different FinTech business models that have emerged, the main business strategies taken to market, the types of customers served, and the principal technology innovations being adopted. In addition, the report provides an opportunity for FinTech firms to share their views on the main priorities to expand outside of their home country, how regulations are impacting their businesses, their level of innovation, as well as the key risk factors that may hinder their growth and scale. A FinTech taxonomy has been developed to classify the FinTech firms and is referenced below. The analysis focuses on the top five FinTech business models based on the number of responses. In addition, the report provides key insights and perspectives of the FinTech landscape for the top five ASEAN countries (based on the number of responses).

1 As of 2019, ASEAN has 10 member states; Brunei, Cambodia, Indonesia, Laos, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam.

2 <https://www.cbinsights.com/research/report/FinTech-trends-2019/>

3 Data based on discussions with FinTech experts in the region, and on the membership number of FinTech companies in each of the major countries in the ASEAN region: Singapore, Indonesia, Thailand, Malaysia, Philippines and Vietnam.

4 [https://globalfindex.worldbank.org/sites/globalfindex/files/2018-04/2017%20Findex%20full%20report\\_0.pdf](https://globalfindex.worldbank.org/sites/globalfindex/files/2018-04/2017%20Findex%20full%20report_0.pdf)

This study also explores the current landscape of FinTech regulations in ASEAN as well as related regulatory innovation initiatives employed by regulators. The rapid development of new technologies for financial services has concomitantly been accompanied by tremendous growth in private investment and subsequently, increasing attention from regulators. Regulators globally are now grappling with new business models, risks and uncertainties that require new regulatory responses and approaches. Chapter 2 reviews, synthesises and distils the various regulation across FinTech sectors in recent years, with a primary purpose to provide valuable and comparable insights across ASEAN member states. It explores their experience of fostering financial innovation and regulatory challenges faced, for the benefit of other regulators and authorities seeking to embrace financial and regulatory innovation to stimulate local market development

This report is jointly produced by The Cambridge Centre for Alternative Finance at Cambridge Judge Business School, The Asian Development Bank Institute (ADB) and FinTechSpace.

### HIGHLIGHT OF KEY FINDINGS:

- FinTech firms in the ASEAN region are shifting their customer focus from serving individuals to SMEs and large corporations. This is particularly evident in Digital Lending (56% of their user-base), AI/ML/Big Data (46%) and Enterprise Technology for Financial Institutions (80%) business models;
- Predictive Analytics (68% of respondents) and Machine Learning (40% of respondents) are the most commonly used technologies for all FinTech firms in the region, with Blockchain/DLT gaining momentum in Digital Payments, Enterprise Technology for Financial Institutions and Capital Raising Crowdfunding business models;
- Financial inclusion is a key issue in the region, where many countries have a high percentage of the population without access to financial products and services. Across the complete data-set, 17% of customers served by FinTech firms were categorized as unbanked and 28% were underbanked;
- Most FinTech firms in the region perceive the existing regulations to be adequate and appropriate for their platform activities in their respective jurisdictions;
- Changes in regulation and cyber-security breaches are perceived as the highest risks that FinTech firms may experience in their operations;
- As FinTech firms have started to expand to other countries within the region, more than 80% of Survey respondents believe that having an enabling regulatory environment, where the regulators value and use innovative techniques (i.e., regulatory sandboxes) are essential when considering which countries to target;
- Another important factor is having a good digital infrastructure in the country. FinTech firms based in Singapore have been the most active in expanding to other countries, specifically targeting Indonesia and Malaysia;
- Regulators in Southeast Asian countries welcome emerging technologies within financial services. However, there are challenges in balancing market stimulation and risk management through adequate regulation;
- Regulatory sandboxes have become an increasingly popular tool and can be found in six Southeast Asian countries; Brunei, Indonesia, Malaysia, Philippines, Singapore, and Thailand;
- 50% of the financial authorities in Southeast Asia have developed RegTech initiatives. These are Brunei, Malaysia, Philippines, Singapore, and Thailand;
- The majority of regulators across the region have signed cooperation agreements to share information on FinTech sectors in their respective markets;
- All of the regulators have responded to developments within FinTech markets with some form of bespoke regulation for specific sectors. As an example, 80% have introduced bespoke regulation for digital payments;

- Regulators also continue to use pre-existing regulation for other sectors. As an example, 90% have used existing regulation for the InsurTech industry;
- The regulatory environment in some jurisdictions has not seen as much development within the FinTech sector;
- The over-regulation by authorities may have contributed to preventing growth and development of certain sectors; and
- Regulatory harmonization is significant in terms of FinTech development in the region, and efforts are underway to encourage and further facilitate this, specifically involving cross-border initiatives.

# INTRODUCTION

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Over the past few years, FinTech developments have grown exponentially across the ASEAN region. Some of the sectors most affected by these technological developments include peer-to-peer lending, equity-based crowdfunding, digital payments, ICO/cryptocurrencies/DLT and InsurTech.

This report examines the current state of FinTech in ASEAN. Research was carried out by a team consisting of industry experts and academics across the region. The focus of this research was to explore the current state of both the market and the regulations governing selected areas of FinTech.

**Chapter 1** provides an overview of the FinTech market across ASEAN by analyzing different aspects of FinTech firms such as their business models, customer demographics, go-to-market strategies, technologies used, as well as their perceptions on regulations and key risks they encounter. The chapter also highlights the key factors that FinTech firms view as essential in order to expand to other countries.

**Chapter 2** provides an overview of regulations governing FinTech activities across ASEAN. This includes a regional comparative analysis of the current state of applicable regulations and legislations as well as a regional overview of regulatory innovation initiatives, specifically innovation offices, regulatory sandboxes and RegTech. Finally, it provides country-by-country profiles for each of the 10 ASEAN member states, detailing the regulations governing prominent FinTech sectors.

# METHODOLOGY

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Chapter One of the ASEAN FinTech Study analyzes the development of the FinTech start-up landscape across the ASEAN region. FinTech firm-level data was collected from the following countries in the ASEAN region: Cambodia, Indonesia, Malaysia, Myanmar, Philippines, Singapore, Thailand and Vietnam. Additionally, FinTech firms with operations in ASEAN countries but with headquarters in other jurisdictions also participated in this study.

The analysis presented in this report is based on a survey developed by CCAF in collaboration with the ADBI and FinTechSpace, which was the primary means of data collection. The survey was hosted by CCAF and was only accessible to the principle research team based at Judge Business School. The survey was available in English and Simplified Chinese. The survey consisted of 22 questions, gathering self-reported aggregate-level data from FinTech firms active in the ASEAN region in 2018. The report includes FinTech firms at all stages of development: from fledgling start-ups which have no customers and revenue, to more mature FinTech companies which have established a large customer base and are generating revenue.

The research team surveyed the ASEAN FinTech landscape between January and February 2019, and identified more than 550 FinTech firms which were contacted. The research team relied upon outreach partners such as the different FinTech associations in each of the ASEAN countries and the research sponsor's outreach teams to assist in identifying and contacting FinTech firms. These industry research partners contributed to making this research possible by identifying and engaging with FinTech firms, as well as providing local market analysis and insights of country-specific trends and developments. FinTech firms were contacted via emails, social media invites and phone calls from designated research team members throughout the data collection period. Upon request, FinTech firms were provided with copies of the questionnaire, in addition to assisting them in completing the surveys when requested. As this research study is aimed at collecting aggregate-level market data, all individual FinTech companies were anonymized and all identifying information was stripped from the analytical process. The questionnaire-based survey itself was securely hosted on a dedicated account accessible only to the core research team.

The survey captured data from 173 unique FinTech firms. To complement the survey, data from CCAF's 3<sup>rd</sup> Asia Pacific Region Alternative Finance Industry Report and the 2<sup>nd</sup> Global Cryptoasset Benchmarking Study were used to identify additional FinTechs operating in the ASEAN region. In total, 208 FinTech firms that are operating in the ASEAN region were analyzed to inform this study.

Chapter Two of the ASEAN FinTech Study compares the regulatory frameworks established for FinTech sectors in the 10 ASEAN member states. The overview of regulation was created through collaboration between research teams at CCAF alongside academics, industry experts and legal experts across ASEAN. This involved extensive desk-based research and literature analysis coupled with interviews with regulators, leading industry experts and practitioners. The insights gathered from the interviews and literature analysis formed the basis of the overall structure, contents and recommendations contained within this report.

In compiling the data for individual jurisdictions, a standardized template was developed to capture regulatory approaches. This ensured the data was both consistent and comparable. The sectors of FinTech reviewed are digital payments, P2P lending, equity crowdfunding, cryptocurrency, InsurTech, self-regulation mechanisms and relevant policies & engagement.

# FINTECH TAXONOMY

Financial technologies and FinTech firms have transformed many areas of the financial services sector, generally focusing on one or multiple financial products and utilizing new technologies and innovative ways to do business to serve customers in a more efficient and transparent manner. Providing financial products and services through digital channels, or digital financial services (DFS), allows FinTech firms to be nimble, asset-light, and quickly adapt to changes in the market and customer preferences.

A wide variety of approaches have been used to classify FinTech activities, with no widely adopted taxonomy defined as of yet. The most common approach to classify FinTech firms is by the economic functions and/or financial products and services they provide. Other approaches use a hybrid method which combines the technology innovation and economic functions.

For this report, the FinTech taxonomy used is based on new business models and products that have developed within the different areas of the financial sector. The table below provides an overview of the taxonomy used, which consists of 10 business models, covering all aspects of the financial services industry. Each business model is further divided into multiple sub-categories. A total of 327 responses were analyzed from the 2018 firm responses. With 54 firms, or 26% of the data-set, operating in two or more business model areas.

**Table 1. FinTech Taxonomy**

BUSINESS MODEL	SUB-CATEGORY	DESCRIPTION
<b>Digital Payments</b>	Mobile Money / Wallet / P2P Transfers	Mobile solutions to transfer and manage money
	Remittances / International Money Transfers	Online and mobile solutions designed to send money to companies or people abroad.
	Payment Gateways & Aggregators	Solutions to accept, authorize, and process payments on digital platforms
	Mobile Point of Sales (mPOS) & Point of Sales (POS)	Point of sale terminals for mobile phones and small businesses
	Others	Other technological solutions regarding digital payments
<b>Digital Lending</b>	Balance Sheet Business Lending	Platforms operated by a body that directly provides online credit to businesses
	Balance Sheet Consumer Lending	Platforms operated by an entity that directly provides online credit to consumers
	P2P Business Lending	Online Platforms through which people/other institutions provide loans to business
	P2P Consumer Lending	Online Platforms through which people/other institutions provide loans to consumers/individuals
	Factoring & Invoice Lending	Online platforms through which persons or entities purchase invoices or accounts payable of other business or provide loans backed by them
<b>Investment Crowdfunding</b>	Equity Crowdfunding	Platform through which people finance or invest in private companies
	Donations Crowdfunding	Platforms through which donors provide financial resources to individuals, projects or companies that have philanthropic motivations without expecting a monetary return
	Rewards Crowdfunding	Platforms under which people contribute financial resources to individuals, projects or companies in exchange for products or monetary rewards
	Real Estate Crowdfunding	Platform through which people finance or acquire equity in real estate projects

BUSINESS MODEL	SUB-CATEGORY	DESCRIPTION
<b>AI/ML/Big Data Analytics</b>	Alternative Credit Scoring	Alternative solutions to measuring people or companies' credit risks
	Customer Mktg/Data Analytics	Data analytics solutions for better targeting of customers and gain customer intelligence
	Customer Assistant / AI Chatbots	Chatbots based on AI/ML to provide assistance to customers
	Others	Other AI/ML/Big Data analytics solutions
<b>Digital Asset Management</b>	Digital Wealth Management	Online platforms to supply and provide asset management services
	Social Trading	Platforms that provide investment advice through a social network
	Robo-Advisors	Asset management automated solutions based on algorithms or artificial intelligence
<b>Trading and Capital Markets</b>	FX Solutions	Foreign currency trading solutions for people and companies
	Stock Market Solutions & Exchanges	Stock and debt trade solutions and electronic exchanges
	Others	Other technological solutions to simplify or execute transactions between other types of assets
<b>Personal Financial Management</b>	Savings	Digital tools for consumers that simplify savings management and expenditure organization. Also, covers micro-savings solutions
	Financial Comparison Sites	Online and mobile platforms comparing different financial products and their characteristics
	Others	Other technological solutions for personal financial management
<b>Enterprise Technology for Financial Institutions</b>	Security and Digital ID / Biometrics	Personal verification and authentication solutions to access and authorize financial transactions
	KYC Solutions	Know your customer solutions regarding their financial services suppliers
	Fraud Prevention and Risk Management	Solutions focused on fraud prevention and operational risk management of financial institutions
	Core Banking Software	Software solutions for banking infrastructure
	RegTech Solutions for Regulatory Compliance	Solutions that make it more efficient and effective to manage with regulatory / compliance requirements
	Others	Other solutions for Financial Institutions
<b>Enterprise Financial Management</b>	Electronic Invoicing	Online platforms to issue and manage invoices
	Digital Accounting	Online platforms for accounting and tax calculation
	Financial Management and Business Intelligence	Online platforms for financial administration and business performance analytics generation
	Payment Collection	Digital solutions to simplify or manage the recovery of companies' account receivables
	Others	Other technological management solutions
<b>InsurTech</b>	Micro-Insurance	Solutions that provide micro-insurance and fractional insurance
	P2P Insurance	Platform that provides insurance based on other people/institutions investing in them
	Insurance Comparison	Comparison sites for comparing/selecting best insurance products
	Others	Other InsurTech solutions

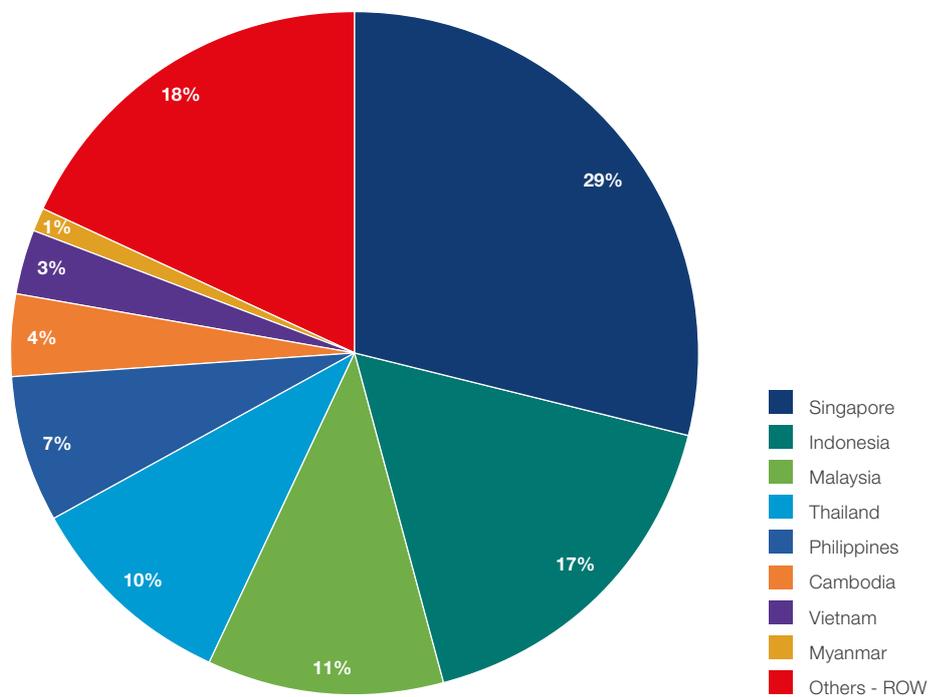
# CHAPTER 1 - MARKET OVERVIEW

## 1.1 MARKET FUNDAMENTALS

### 1.1.2 GEOGRAPHIC BREAKDOWN

The FinTech landscape in the ASEAN region is uneven, with several countries characterised by well-developed and established FinTech ecosystems with a large number of domestic firms. Yet, in the rest of the countries, the FinTech landscape is still relatively nascent, but growing rapidly. Figure 1 below provides a breakdown of survey respondents by country.

Figure 1. ASEAN Fintech Landscape by Country



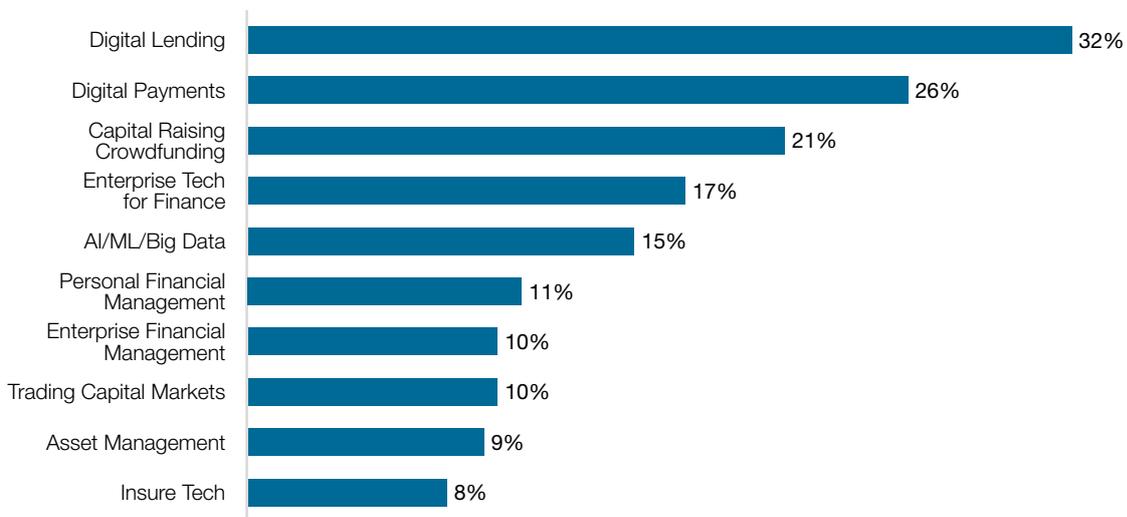
Source: CCAF

The top two countries in the ASEAN region by the number of FinTech firms are Singapore and Indonesia, representing close to 50% of the responses received, followed by Malaysia, Thailand and the Philippines. Vietnam, Cambodia and Myanmar are nascent FinTech markets, but are demonstrating strong growth. The chart also shows that some FinTech firms based in other parts of the world that actively operate in the ASEAN region also participated in the survey – for example from Australia, Hong Kong, Latvia, Denmark, and United Arab Emirates.

### 1.1.3 DIVERSITY OF BUSINESS MODELS AND PRODUCTS/SERVICES OFFERED

When looking at the different business models of FinTech firms in the region, Digital Payments and Digital Lending represent the largest number of companies, or close to 60% of the survey respondents. The emergence of Digital Payments and Digital Lending as the two main FinTech business models is a common occurrence that is observed in most emerging and developing markets. The main reason for this phenomenon is that these products are the most ubiquitous in everyday life; payments serve as the main foundation to a wide variety of financial products and lending is one of the easiest products to understand. The next three largest business models were Capital Raising Crowdfunding, Enterprise Technology for Financial Institutions and AI/ML/Big Data. Based on the survey responses, it can be noted that FinTech firms may offer products/services in multiple product categories. Therefore, the total number of responses may be higher than 100%.

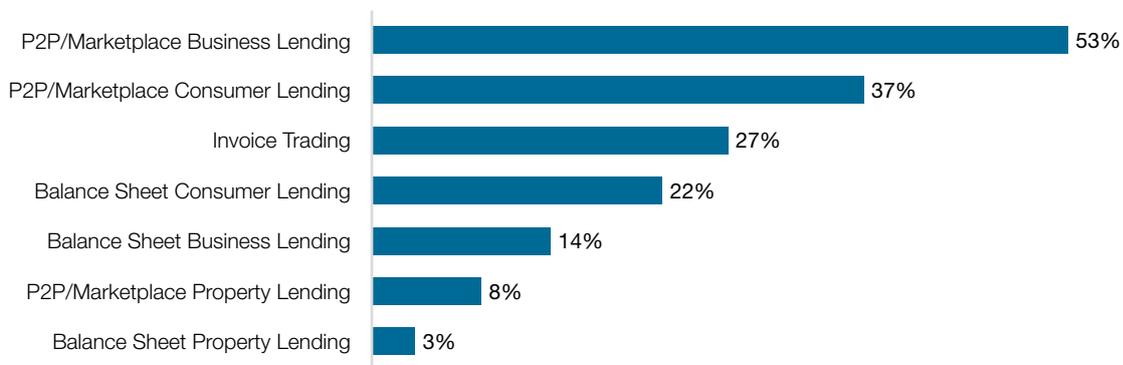
Figure 2. ASEAN FinTech Landscape by Business Model



Source: CCAF

To gain a better understanding of the FinTech firms by business model, an analysis of the top five business model by sub-segment is provided below.

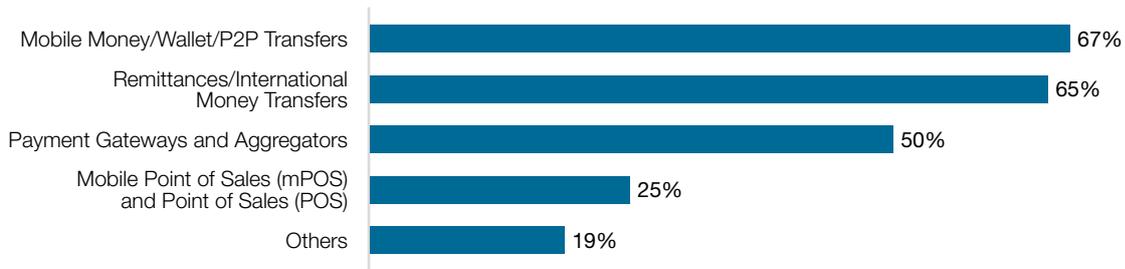
Figure 3. Digital Lending FinTech Firms by Sub-Segment



Source: CCAF

Based on the survey responses, Digital Lending FinTech firms in the ASEAN region are predominantly focused on peer-to-peer (P2P) / marketplace lending to small, and medium enterprises (SMEs). Invoice Trading, (also known as “Factoring”) is another form of financing for SMEs, and represents 27% of the responses. The second largest sub-segment was P2P / Marketplace lending to consumers. Alternative finance FinTech firms using their own balance sheet to provide loans is not as common in the ASEAN region, given the capital-intensive nature of these business models.

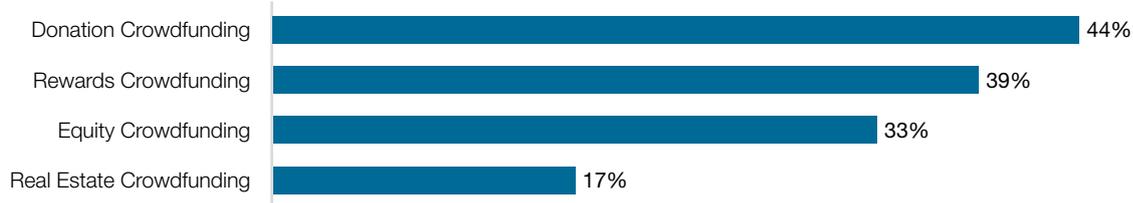
**Figure 4. Digital Payment FinTech Firms by Sub-Segment**



Source: CCAF

Mobile Money / Wallet / P2P Transfers and Remittances were the top two sub-segments for Digital Payment FinTech firms, which is in line with what has been observed in other emerging and developing markets around the world. Based on the responses, Digital Payment FinTech firms seem to offer multiple products / services within these two sub-segments.

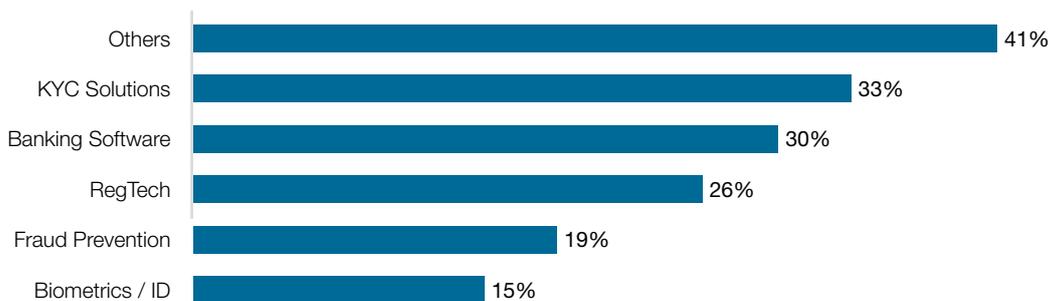
**Figure 5. Capital Raising Crowdfunding FinTech Firms by Sub-Segment**



Source: CCAF

Capital Raising Crowdfunding FinTech firms seem to be mostly focused on Donation Crowdfunding and Rewards Crowdfunding, with Equity Crowdfunding rounding out the top three sub-segments. Equity Crowdfunding and Real Estate Crowdfunding products and services are mostly present in more developed countries such as Singapore, Thailand and Malaysia.

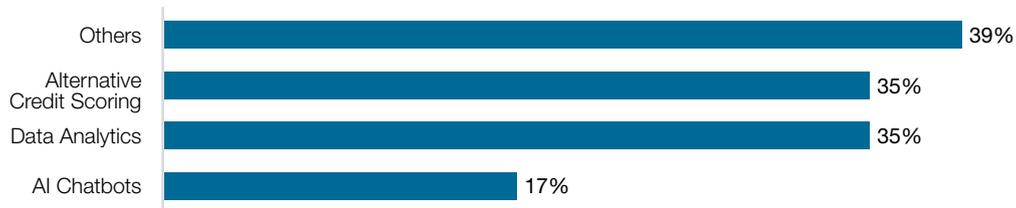
**Figure 6. Enterprise Tech for Financial Institutions FinTech Firms by Sub-Segment**



Source: CCAF

Enterprise Technology for Financial Institutions FinTech firms mainly provide innovative products and services to banks and financial institutions in order to make their operations more efficient and improve the customer experience. While Know Your Customer (KYC) solutions and core banking software were two of the most important sub-segments, the majority of responses were in the 'Others' category, delineating the wide diversity of products / services offered to financial institutions by FinTech firms in the ASEAN region.

**Figure 7. AI/ML/Big Data FinTech Firms by Sub-Segment**



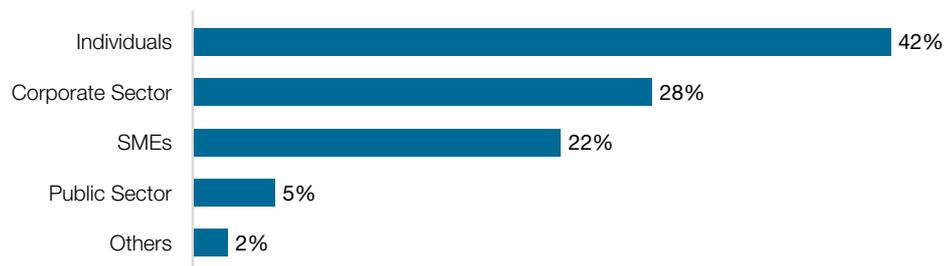
Source: CCAF

FinTech firms in the AI/ML/Big Data business model are mostly focused on providing alternative credit scoring and data analytics products and services to financial institutions and individuals. However, akin to the Enterprise Technology for Finance business model, AI/ML/Big Data FinTech firms serve a wide variety of sub-segments, with 39% of the responses in the Others category.

#### 1.1.4 CUSTOMER DEMOGRAPHICS

In general, FinTech firms have initially focused on the development of products and services for individuals, or also referred to as a Business-to-Consumer (B2C) business model. Survey respondents in the ASEAN region confirm this statement; on average, 42% of their customer base are individuals. However, upon closer examination, another important trend is emerging. As the FinTech landscape continues to mature globally, FinTech firms are realizing that it is more profitable to focus on serving small businesses and larger corporations. In this study, survey respondents mention that on average, 28% of their customer base are corporations and 22% are small and medium enterprises (SMEs). When combined, the FinTech firms on average show that 50% of their customer base are businesses.

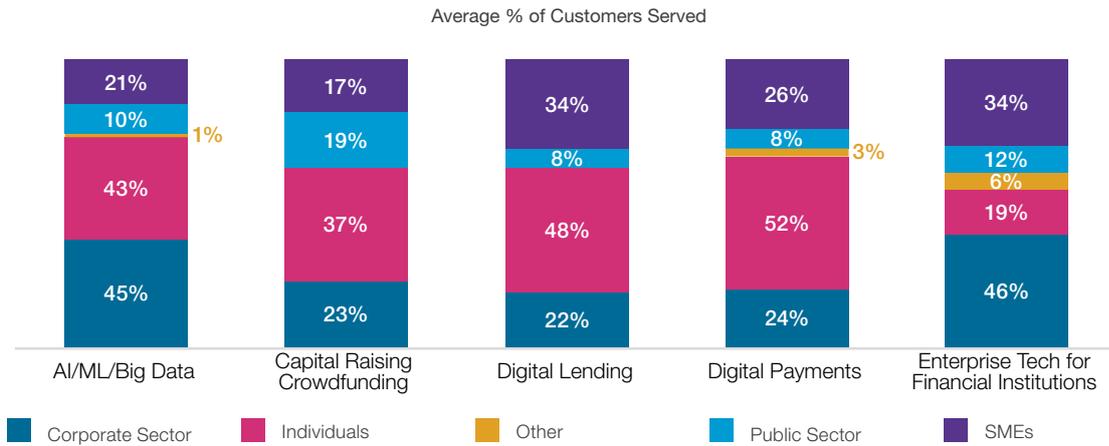
**Figure 8. Type of Customers Served by ASEAN FinTech Firms**



Source: CCAF

Nevertheless, it is important to highlight that customer demographics are also influenced by the type of products being offered. Respondents from Digital Payments and Digital Lending FinTech firms indicated that, on average, close to 50% of the customers they serve are individuals. Meanwhile, FinTech firms in the Enterprise Technology for Financial Institutions business model and AI/ML/Big Data predominantly serve large corporations and SMEs.

Figure 9. Type of Customer Served by Business Model

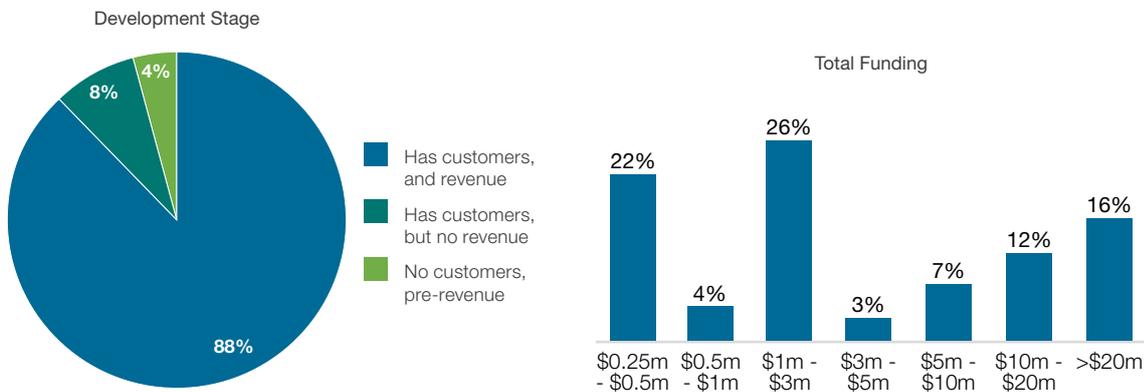


Source: CCAF

### 1.1.5 DEVELOPMENT STAGE AND FUNDING OF FINTECH FIRMS

The study analyzed FinTech firms at all stages of development and funding. The majority (88%) of FinTech firms that participated in the survey have customers and revenue, with only a small number in the very early stages of running pilot programs to test their products in the market. Over 75% of firms generating revenue have received funding from investors greater than \$1 million, with 16% of the FinTech firms receiving funding of greater than \$20 million, indicating the tremendous interest in the ASEAN FinTech sector by venture capitalist (VC) funds and other investors.

Figure 10. ASEAN FinTech Firms by Stage of Development and Funding Received

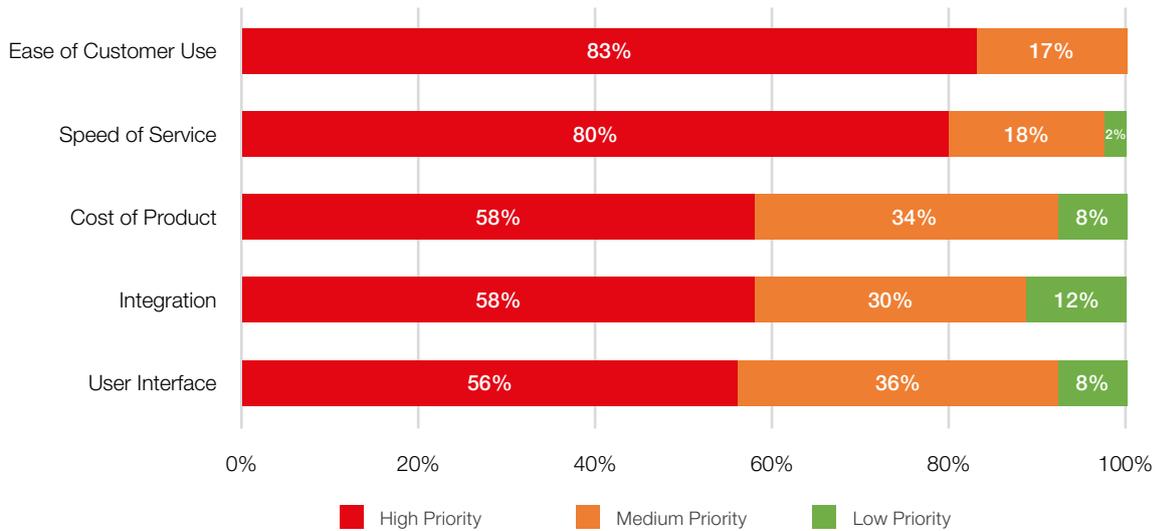


Source: CCAF, Crunchbase

### 1.1.6 GO-TO-MARKET STRATEGY - FOCUS ON CONVENIENCE AND CUSTOMER EXPERIENCE

FinTech firms rely on a variety of go-to market strategies to obtain customers and have them actively use their products / services. Based upon qualitative responses collected from FinTech firms in the region, their customers value convenience over functionality and cost; in many cases gaining access to financial products that were previously unattainable to them or hard to access. Therefore, it is no surprise that most ASEAN FinTech firms place the highest priority on Ease of Customer Use (83%) and Speed of Service (80%) as their principal means of target customers.

Figure 11. Go-to-Market Strategies of ASEAN FinTech Firms



Source: CCAF

Figure 12. Top Business Strategies for Key Product Categories

Product Category	Business Strategy - High Priority				
	Cost of Product	Ease of Customer Use	Integration	Speed of Service	User Interface
AI/ML/Big Data	72%	83%	50%	78%	57%
Capital Raising Crowdfunding	40%	86%	47%	88%	51%
Digital Lending	49%	86%	47%	88%	51%
Digital Payments	64%	88%	68%	72%	68%
Enterprise Technology for Financial Institutions	67%	72%	78%	75%	54%

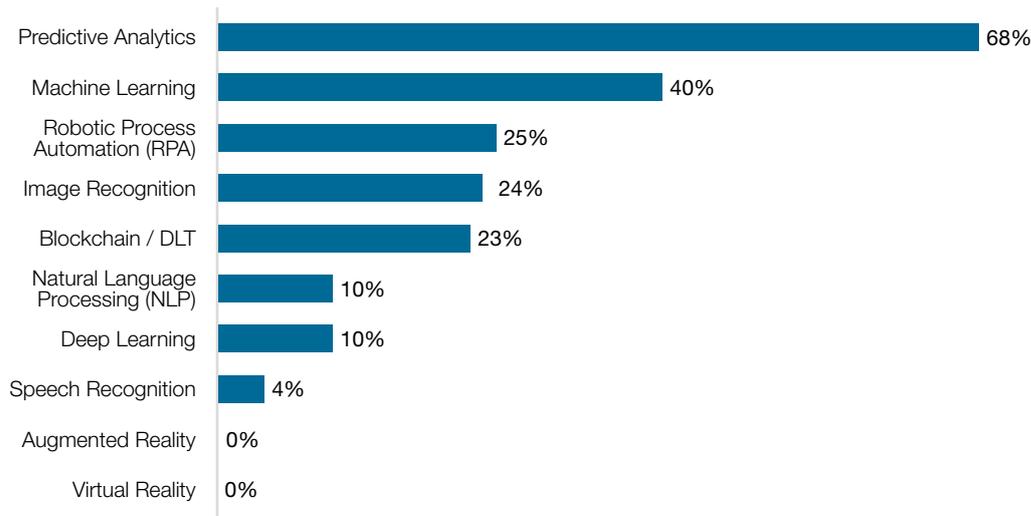
Source: CCAF, Crunchbase

These characteristics are also evident when viewing the FinTech firms by business model, with all of them unanimously showing the importance of developing products that are easy to use and can be quickly delivered to customers. It is interesting to note that in more complex and data driven product categories such as Enterprise Technology for Financial Institutions, there is a high focus on integration with customer and partner interfaces in addition to the top two characteristics highlighted above.

### 1.1.7 TECHNOLOGY - THE BACKBONE OF MOST FINTECH FIRMS

One of the essential building blocks of FinTech firms is the technology used to develop unique products and underpin innovative business models. Factors such as internet connectivity, mobile phone usage and IoT sensors have resulted in an enormous amount of data being generated by customers. When combined with cloud computing, the information can be analyzed to uncover trends and insights which may help better target individuals and SMEs. Out of the wide variety of technologies available, the survey responses show that most FinTech firms in the ASEAN region use Predictive Analytics (68%) and Machine learning (40%). Blockchain/DLT, Robotic Process Automation (RPA) and Image recognition were some of the other technologies used by FinTech firms. However, due to the emerging nature of most ASEAN countries, the use of more advanced technologies such as Virtual Reality, Augmented Reality, and Speech Recognition is limited.

Figure 13. Technology Used by ASEAN FinTech Firms



Source: CCAF

Figure 14. Technology Used by Product Category

Technology	Product Category				
	AI/ML/Big Data	Capital Raising Crowdfunding	Digital Lending	Digital Payments	Enterprise Tech for Financial Institutions
Augmented Reality	4%	0%	2%	2%	0%
Virtual Reality	4%	0%	2%	0%	4%
Speech Recognition	13%	0%	5%	2%	11%
Natural Language Processing (NLP)	30%	6%	12%	9%	19%
Deep Learning	39%	11%	12%	5%	26%
Image Recognition	35%	6%	20%	16%	30%
Robotic Process Automation (RPA)	26%	22%	41%	16%	26%
Blockchain / DLT	13%	39%	7%	35%	44%
Machine Learning	65%	22%	41%	23%	48%
Predictive Analytics	91%	61%	76%	58%	70%

Source: CCAF

When looking at the technologies used by FinTech firms by business model, the survey responses show that Predictive Analytics is essential across all platforms. Predictive Analytics techniques used by FinTech firms range from data mining and linear / logistic regression, to more complex methods such as decision trees, random forests and neural networks. Interestingly, Blockchain/DLT is highly prominent in Capital Raising Crowdfunding, Digital Payments and Enterprise Technology for Financial Institutions. It is also noteworthy that Enterprise Technology for Financial Institutions FinTech firms show relatively high responses across most of the different types of technologies, which is justified given that the products offered are trying to solve complex issues for banks.

## 1.2 MARKET DYNAMICS

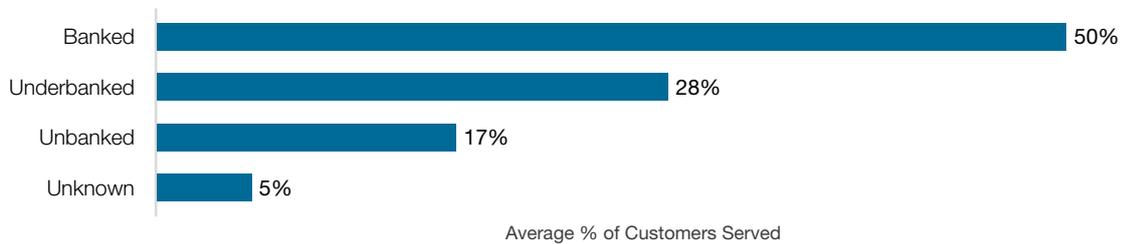
### 1.2.1 FINANCIAL INCLUSION - AN ESSENTIAL ISSUE TO ADDRESS IN THE ASEAN REGION

It has been widely recognized by academics and practitioners that financial inclusion can generate significant benefits and drive higher economic activity. In the ASEAN region, only 51% of adults have access to a formal financial product / service according to the World Bank’s Global Findex Survey.<sup>5</sup> FinTech firms can be a key enabler in providing access to and active usage of formal financial products and services to populations, be it individuals or businesses, which typically fall outside of traditional banking. As such, survey participants were asked to provide a percentage breakdown of their customer base based on the following four categories:

1. Banked – customers which have a bank account and actively use multiple financial products and services;
2. Underbanked – customers which have a bank account, but limited to no access to other financial products and services;
3. Unbanked – customers which have never had access to formal financial products; and
4. Unknown.

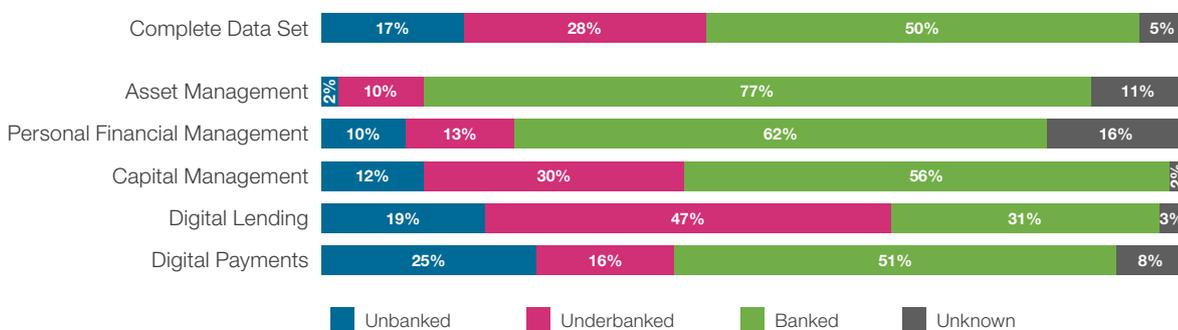
As noted in the beginning of the report, the ASEAN region is characterized by countries which can be divided into two different stages of economic development: countries which are well-developed, have a relatively high GDP per capita and a high banked population (Singapore, Malaysia and Thailand); and the rest of the countries which are less developed, have a relatively low GDP per capita and a low banked population. The survey results show that, on average, 50% of the customers are banked, although this is skewed by the fact that most participant firms were from Singapore.

Figure 15. Banked Status for ASEAN Fintech Customers



Source: CCAF

Figure 16. Banked Status for ASEAN FinTech Customers by Key Business Model Type



Source: CCAF

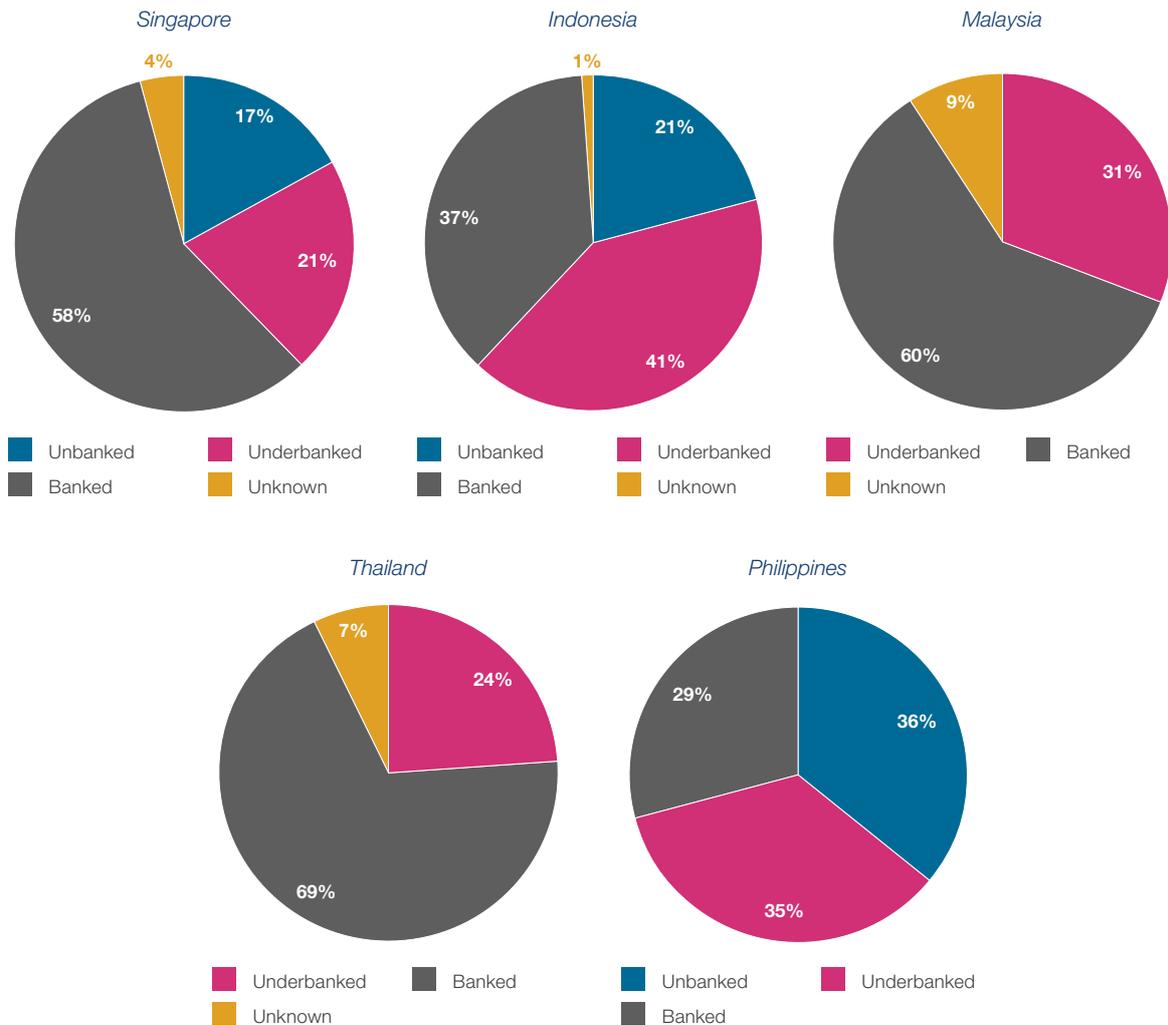
5 <https://globalfindex.worldbank.org/>

When we observe the customer breakdown by key model, it becomes apparent that certain models are able to cater to unbanked or underbanked communities. Digital Payments (25%) and Digital Lending (19%) cater to the highest proportion of users that would be categorized as unbanked (i.e. customers with little to no access to formal financial services and products), while Asset Management (77%) and Personal Financial Management (62%) firms cater most heavily to customers that have high levels of integration into traditional banking and financial services.

It is worth pointing out that Digital Lending firms, particularly firms catering to business-borrowing, had the highest level of ‘underbanked’ fundraiser users. While these borrowers have a traditional banking relationship, they are underserved and, therefore turn to FinTech solutions to close their funding gaps.

When observing financial inclusion and user-categories by country, the dynamic with respect to how FinTech cater to traditionally excluded populations tracks with Findex rankings. Within the top six countries of survey responses, the highest percentage of unbanked customers being served by FinTech firms were from the Philippines (36%) and Indonesia (21%), both of which are relatively less developed and with high proportions of unbanked populations according to the Global Findex Survey, 66% and 51% respectively. The results demonstrate that where greater unbanked populations exist, the higher the proportion of unbanked or underbanked users is denoted by the FinTech firm.

Figure 17. Banked Status of ASEAN FinTech Customers – by Country



Source: CCAF

Figure 18. Comparison of Unbanked Customers Served by ASEAN FinTech Firms vs. World Bank’s Global Index

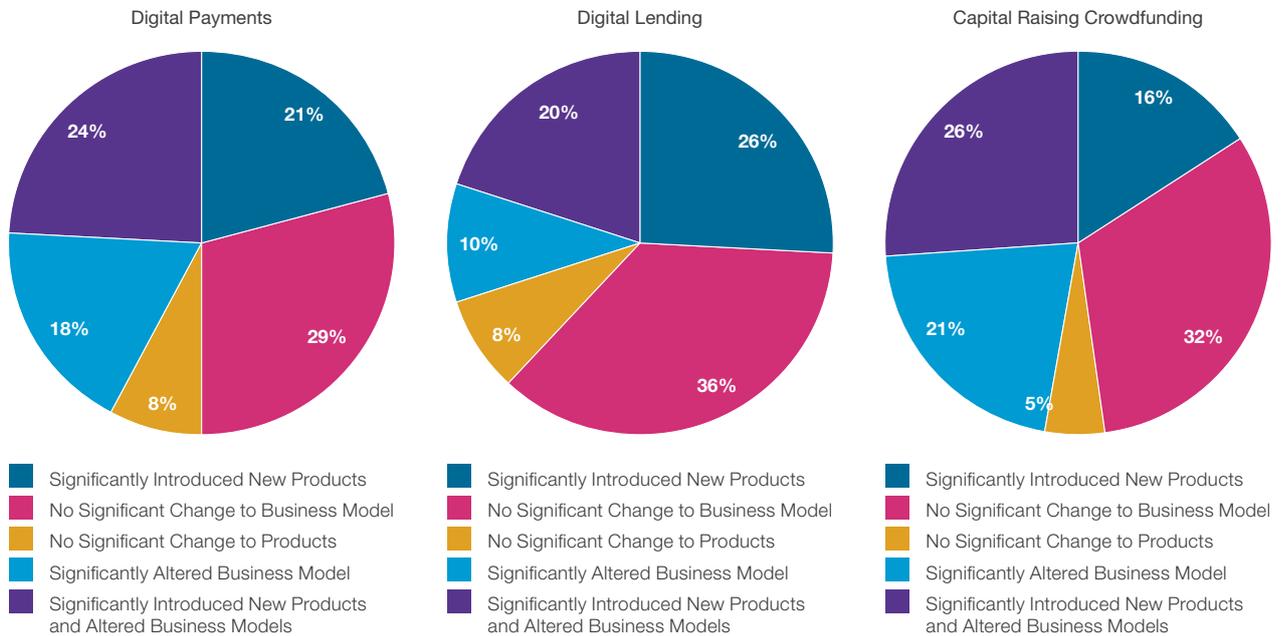
Country	GLOBAL FINDEX SURVEY	ASEAN FINTECH STUDY	
	% Unbanked	% Unbanked Served	% Underbanked Served
Singapore	2%	17%	20%
Indonesia	51%	21%	40%
Malaysia	15%	0%	31%
Thailand	18%	0%	24%
Philippines	66%	36%	35%

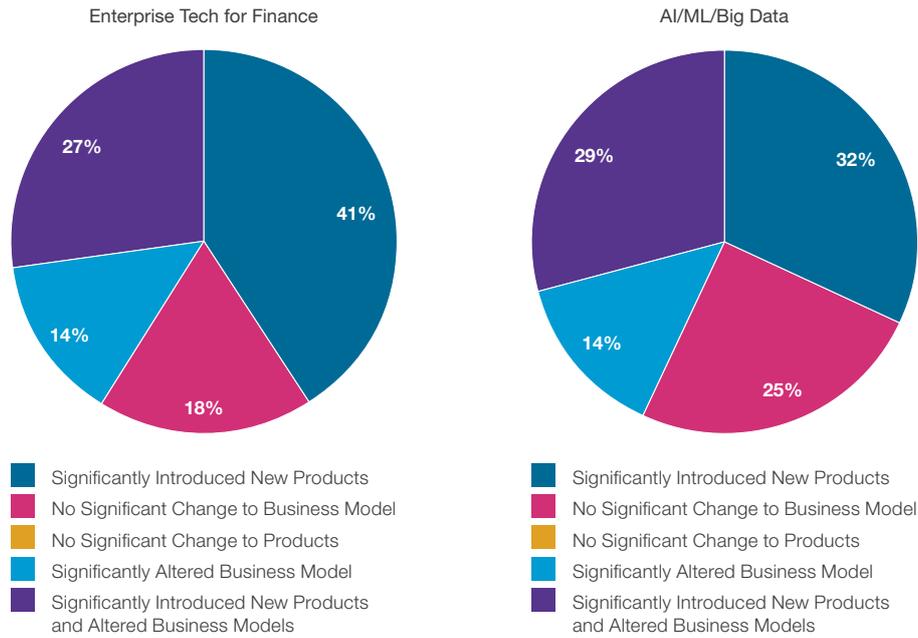
Source: CCAF

### 1.2.2 INNOVATION IN THE ASEAN REGION

One way to track how innovative FinTech firms are is by looking at how much they altered their business models and/or introduced new products / services. In the ASEAN region, the introduction of new products / services by FinTech firms was common across business models. Overall, 27% of the FinTech firms which participated in the survey indicated that they had introduced significantly new products in 2018, while 25% indicated that they had introduced new products and significantly altered their business models. Enterprise Technology for Financial Institutions and AI/ML/Big Data FinTech firms were the most innovative in terms of introducing new products at 41% and 36% of survey respondents, respectively. However, the survey results demonstrate that the majority of firms, despite having established customer bases and revenue streams, are not making significant changes to their business models.

Figure 19. Product and Business Model Innovation





Source: CCAF

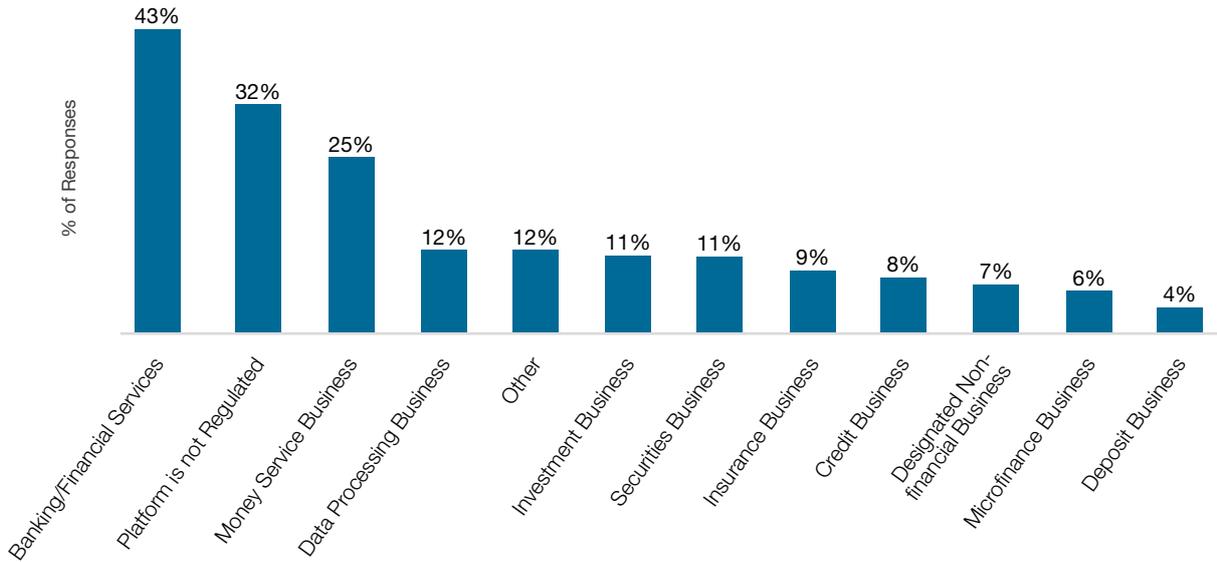
### 1.2.3 REGULATIONS IMPLEMENTED AND PERCEPTIONS TOWARDS REGULATIONS

The ASEAN FinTech benchmarking survey asks FinTech firms to indicate the type of regulatory permissions or licensing they obtained from their local regulator in order to operate, as well as their perceptions towards the regulatory environment in their respective jurisdictions. Based on the responses, FinTech firms that offer different products and services would need to be licensed for each type of product. The general perception towards regulation of the FinTech sector seems to be positive.

#### 1.2.3.1 Regulations Implemented by FinTech Firms

The majority of ASEAN FinTech firms responded that they are regulated under banking / financial services permissions, while the second highest response was that their platform was not regulated. Upon further inspection by country, FinTech platforms in Thailand had the highest responses of not being regulated. Meanwhile, more than 50% of the responses from platforms in Singapore, Philippines and Malaysia mentioned they were regulated under banking / financial services regulations. Another notable response is that 25% of the survey participants mentioned that they had obtained Money service permissions, which relates to FinTech platforms offering digital payment products. Indonesia and Philippines, two countries that have well established regulations in place for digital payments, had the highest responses to this area.

Figure 20. Regulations Implemented by ASEAN FinTech Firms

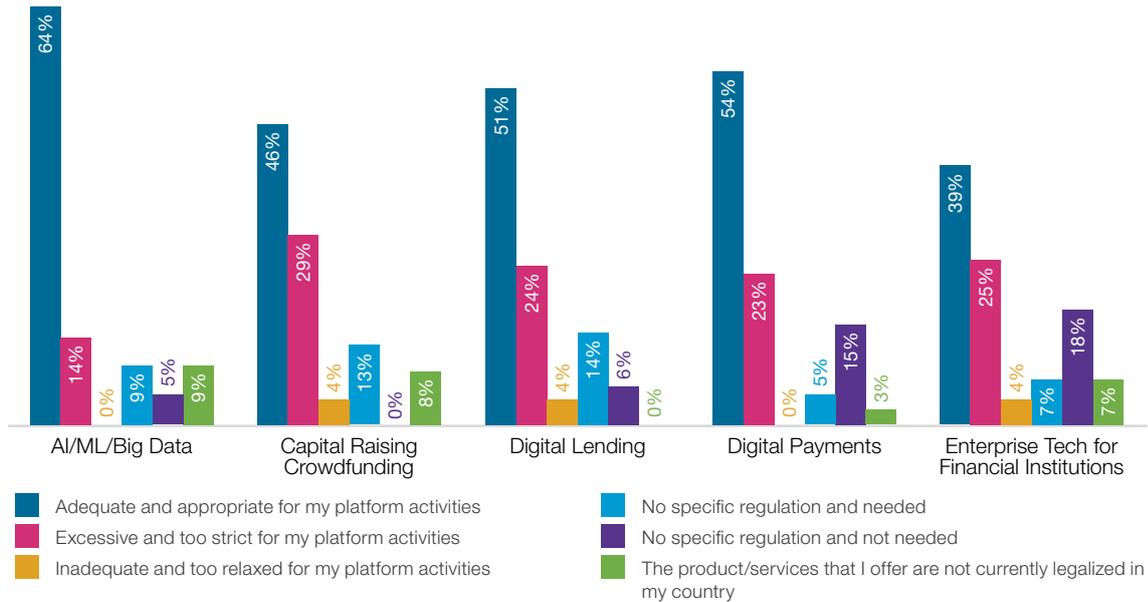


Source: CCAF

1.2.3.2 Perceptions towards Regulations

In general, most FinTech platforms that participated in the survey indicated that the regulations in their respective jurisdictions were ‘adequate and appropriate’ for their platform operations. AI/ML/Big Data and Digital Payments FinTech firms were the most satisfied with their regulatory regime. The second highest response by survey participants was the other extreme -regulations were ‘excessive and too strict’ for their platform activities. In particular, FinTech platforms in the Capital Raising Crowdfunding and Enterprise Tech for Financial Institutions product categories expressed their negative perceptions towards regulations.

Figure 21. ASEAN FinTech Firm Perception towards Existing Regulations



Source: CCAF

### 1.2.4 PERCEPTIONS TOWARDS KEY RISK FACTORS

The survey asked FinTech firms to rate nine different factors upon the perceived level of risk to their platform’s operations. These nine factors can be grouped into three overarching themes: Market Ecosystem Risks, Technology Risks and Regulatory Sensitivities.

**THE NINE FACTORS CAN BE CATEGORIZED AS FOLLOWS:**

**Market Ecosystem Risk Factors:**

- Fraud - An increase in fraudulent activity across the Fintech Ecosystem.
- Collapse of a well-known firm within the Fintech ecosystem.
- Shift in customer loyalty
- Potential acquisition of firm by Incumbent/Traditional Financial Services provider
- Potential acquisition of firm by a Competitor within the Fintech Ecosystem

**Technological Risk Factors:**

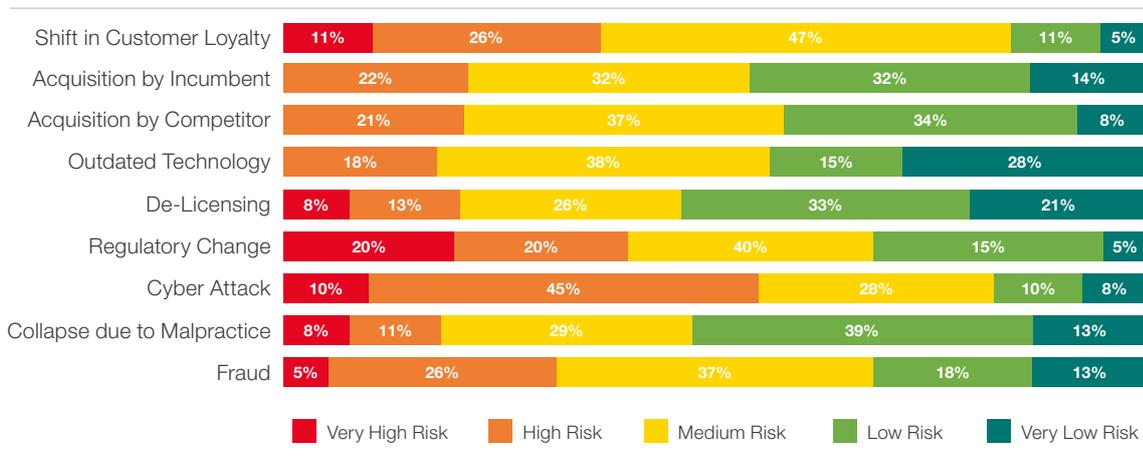
- Cyber security attack
- Reliance on Outdated technology

**Regulatory Sensitivities:**

- Changes to Existing Regulation
- De-licensing of key aspects of business operations

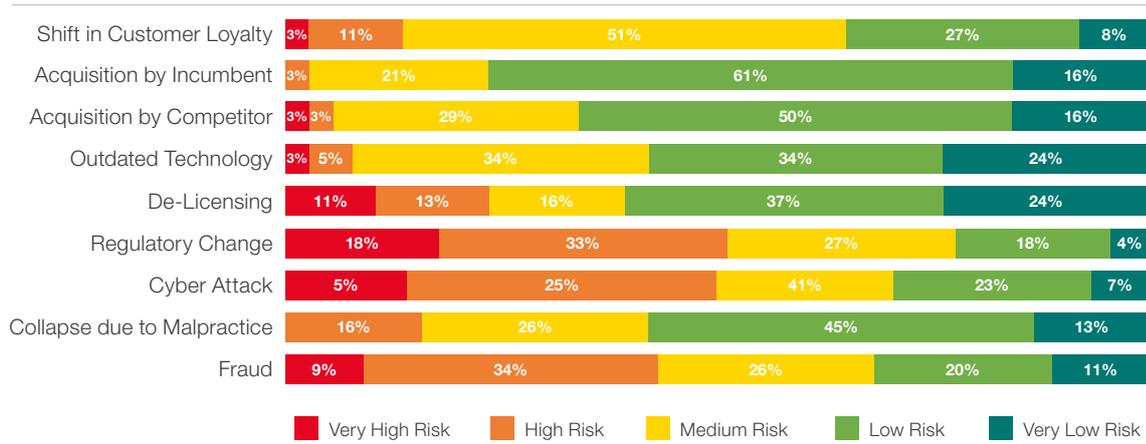
Cyber Attack and Regulatory Change were considered the top risks according to 45% and 46% of all platforms, respectively, viewing them as a high or very high risk. In particular, platforms in the Digital Payments, AI/ML/Big Data and Enterprise Technology for Financial Institutions business models viewed these two risks as the highest for their platforms. Regulatory Change was viewed overall to be the largest ‘very high risk’ at 18%, with platforms in Digital Payments, Digital Lending and Enterprise Technology for Financial Institutions product areas having the highest responses (20% or more) of ‘very high risk’. The business model that had the highest perception of risks across all categories was Capital Raising Crowdfunding, with five out of the nine categories showing levels of 30% or higher.

**Figure 22. Digital Payment FinTech Firms Perceptions Toward Risk Factors**



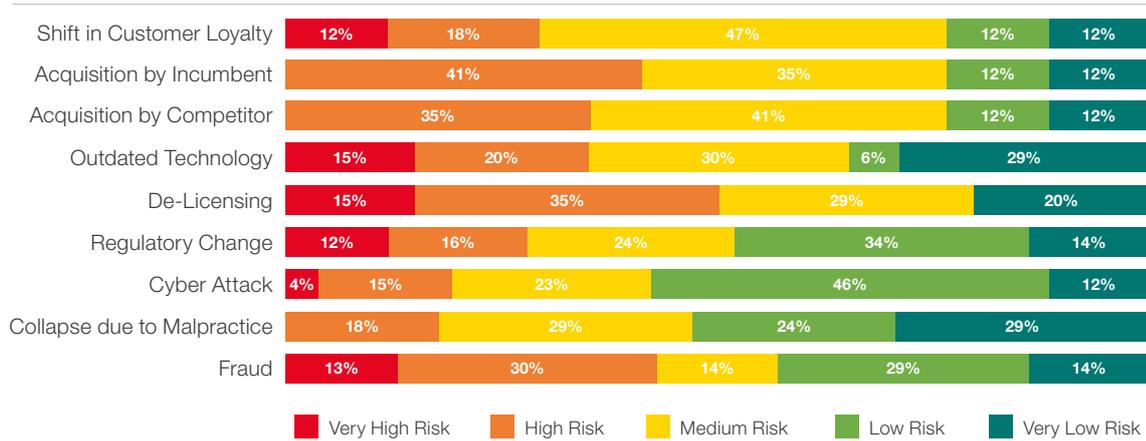
Source: CCAF

Figure 23. Digital Lending FinTech Firms Perceptions Toward Risk Factors



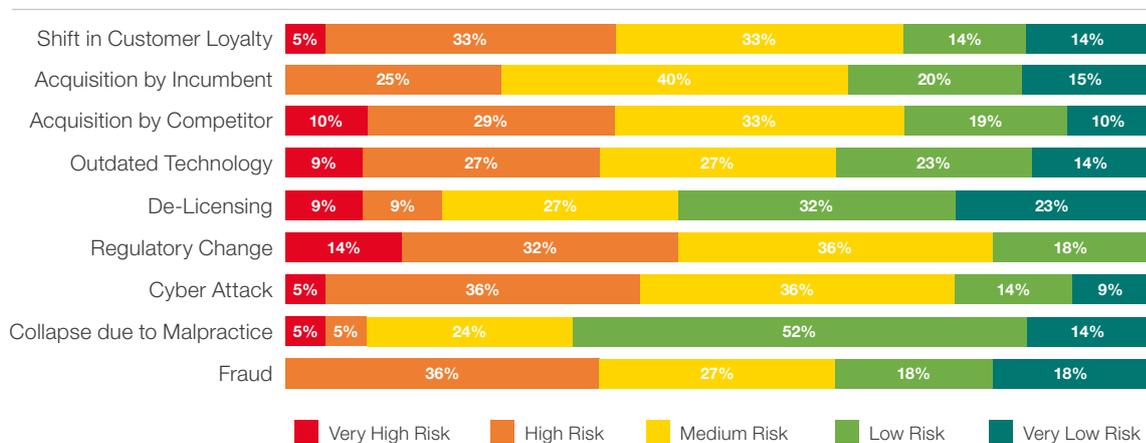
Source: CCAF

Figure 24. Capital Raising Crowdfunding Firms Perceptions Toward Risk Factors



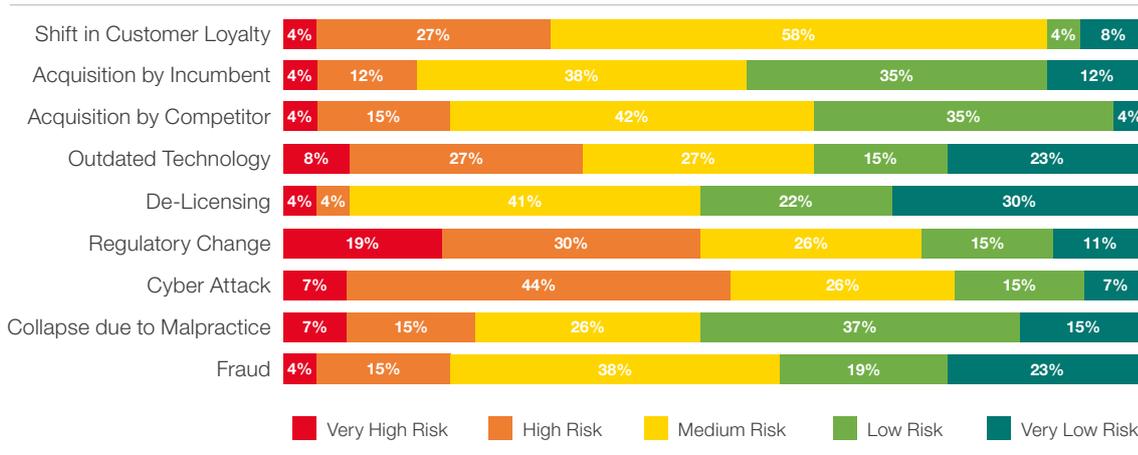
Source: CCAF

Figure 25. AI/ML/Big Data Firms Perceptions Toward Risk Factors



Source: CCAF

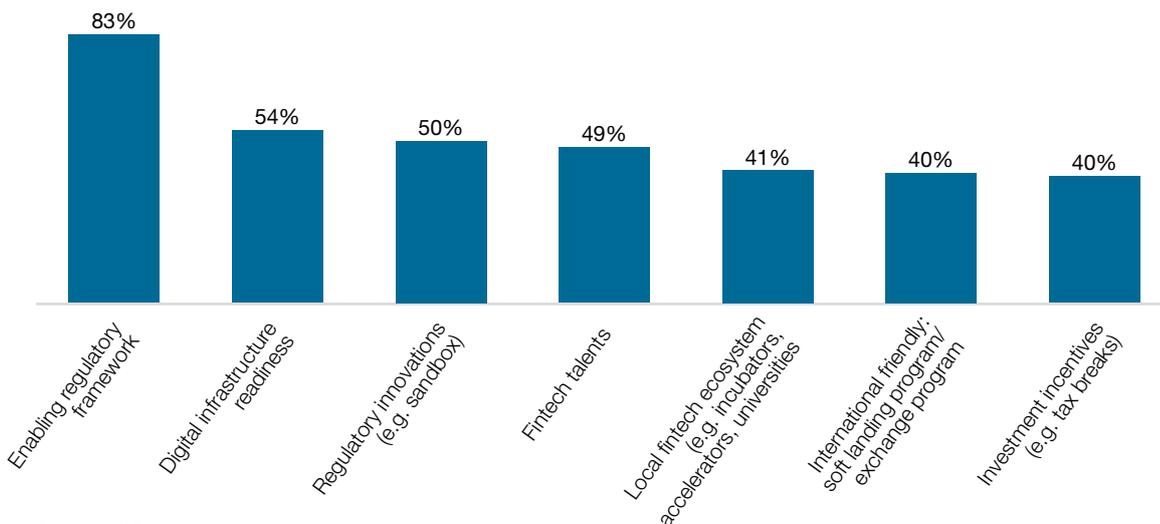
Figure 26. Enterprise Tech for Financial Institution FinTech Firms Perceptions Toward Risk Factors



Source: CCAF

### 1.2.5 MARKET EXPANSION / INTERNATIONALIZATION

Figure 27. Key Factors Needed for Market Expansion / Internationalization



Source: CCAF

As FinTech firms expand domestically they typically look to operate in other ASEAN countries to continue growing; 26% of firms within the data set already do so, with many more contemplating expansion within the region. Therefore, FinTech firms were asked to select the factors that were most important in facilitating expansion to other markets. ASEAN FinTech firms overwhelmingly believe that an enabling regulatory framework and environment is critical for them to expand outside of their domestic market. Another important aspect related to the regulatory environment was having regulators which are receptive to innovators – for instance, establishing regulatory sandboxes in their jurisdictions allowing FinTech start-ups to test their products/services in a safe environment. Having a good digital infrastructure in place is also considered important, representing the second highest response by survey participants. Lower priorities for FinTech firms include investment incentives and being internationally friendly.

## 1.3 ANALYSIS BY COUNTRY

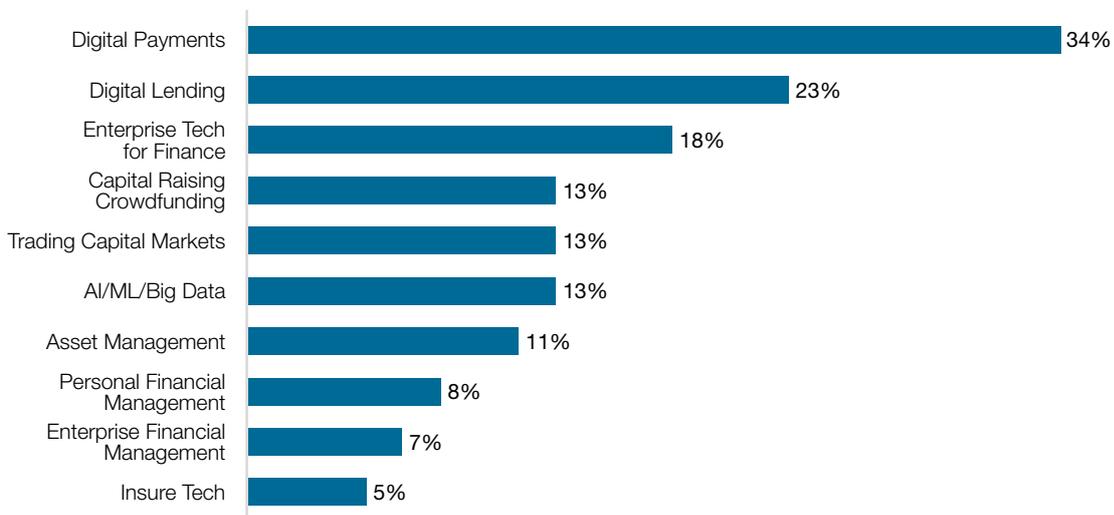
### 1.3.1 SINGAPORE

Often viewed as a top FinTech hub, Singapore has attracted technology and financial services companies, due to its relatively open and innovative regulatory environment, and its robust digital economy. Although it is difficult to provide a specific figure for the number of FinTech firms operating within Singapore, our research team was able to identify 239 firms across the country.

Our survey data was able to collect responses from 61 firms, making up 29% of the overall ASEAN data-set. As the largest ASEAN country in terms of respondents, these 61 companies represented a variety of verticals, making Singapore the most diverse ASEAN country within our data-set.

#### 1.3.1.2 Business Model

Figure 28. Singapore FinTech Firms by Business Model

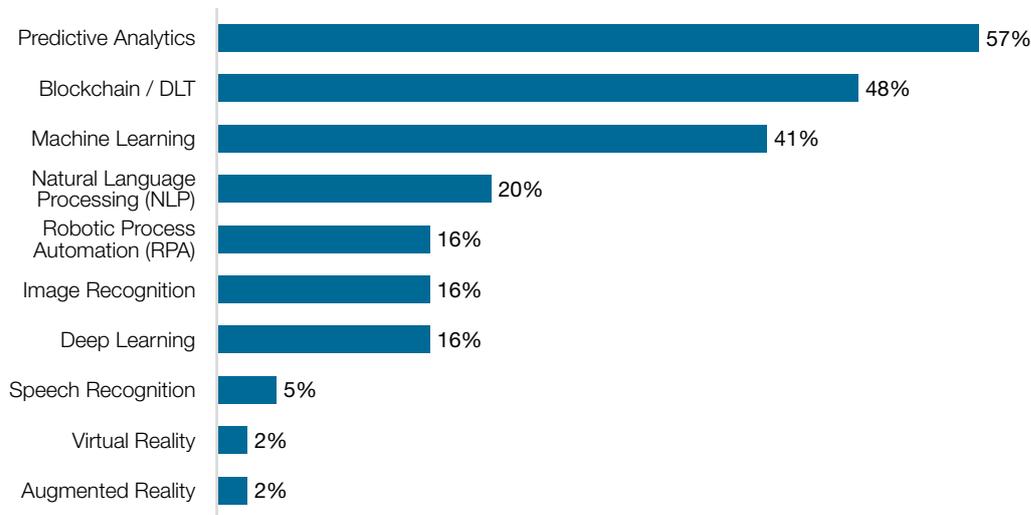


Source: CCAF

It is important to note that 19 (or 31%) of firms operated within more than one business model. As such, the data-set reviewed in this section includes 89 responses as related to business models pursued by firms within Singapore. Digital Payments (34%), Digital Lending (23%) and Enterprise Tech (18%) were the top three categories operating within Singapore. Though these three categories were the most prominent, Singapore notably had firm-level responses from all ten of the verticals included in our taxonomy.

### 1.3.1.3 Technology Used

Figure 29. Key Technologies Used by Singapore FinTech Firms



Source: CCAF

Singaporean FinTech firms identified several key technologies powering their operations. Consistent with the rest of the ASEAN region, significant emphasis was placed on ‘predictive analytics’, with 57% of firms denoting this technology as key. This follows from the emphasis and reliance on data from firms in the Payments or Lending arena, the two top-ranked verticals within the country. 48% of firms also indicated the use of Blockchain or DLT technologies, and 41% indicated Machine Learning as a key technology underpinning their operations.

#### 1.3.1.4 Perceptions toward Existing Regulations

FinTech has been getting increased attention from the Singaporean Government over the last few years. Of note, the Monetary Authority of Singapore (MAS) committed 225 million Singapore Dollars (around US\$166 million) to support the development of the FinTech industry in 2015.<sup>6</sup> To date, the MAS has also signed a series of Memorandum of Understandings ‘MOUs’ with many authorities and organizations, including educational institutions, in other jurisdictions in order to support this development. The active role of the MAS can be seen from its vision related to the creation of a Smart Financial Centre.<sup>7</sup> The scheme includes significant agendas for FinTech development - such as the creation of a collaborative FinTech ecosystem for potential firms, authorities as well as research institutions.

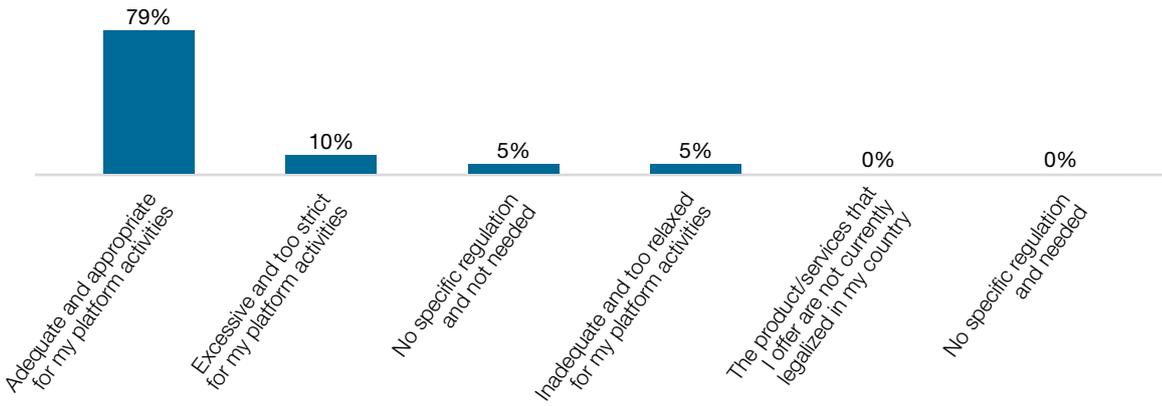
Given the country’s emphasis on FinTech friendly rules and regulations, it was not altogether surprising that 79% of firms perceive existing regulation as ‘adequate and appropriate’. When reviewing regulatory perception by product type, the proportion of Digital Payment firms viewing regulation as adequate and appropriate is equivalent to 69%. This is 100% when looking only at Digital Lending Firms.

Just 10% of firms indicated that regulation was ‘excessive and too strict’ for their platform activities, while 5% of firms indicated that regulations were ‘inadequate and too relaxed’. These responses came from firms operating in Capital Raising Crowdfunding, Asset Management and Personal Financial Management. A final 5% of firms indicated that no specific regulation existed and that it was not needed.

6 Singapore’s FinTech vision draws interest, Nikkei Asian Review, <https://asia.nikkei.com/Business/Banking-Finance/Singapore-s-fintech-vision-draws-interest2>

7 <http://www.mas.gov.sg/Singapore-Financial-Centre/Smart-Financial-Centre.aspx>

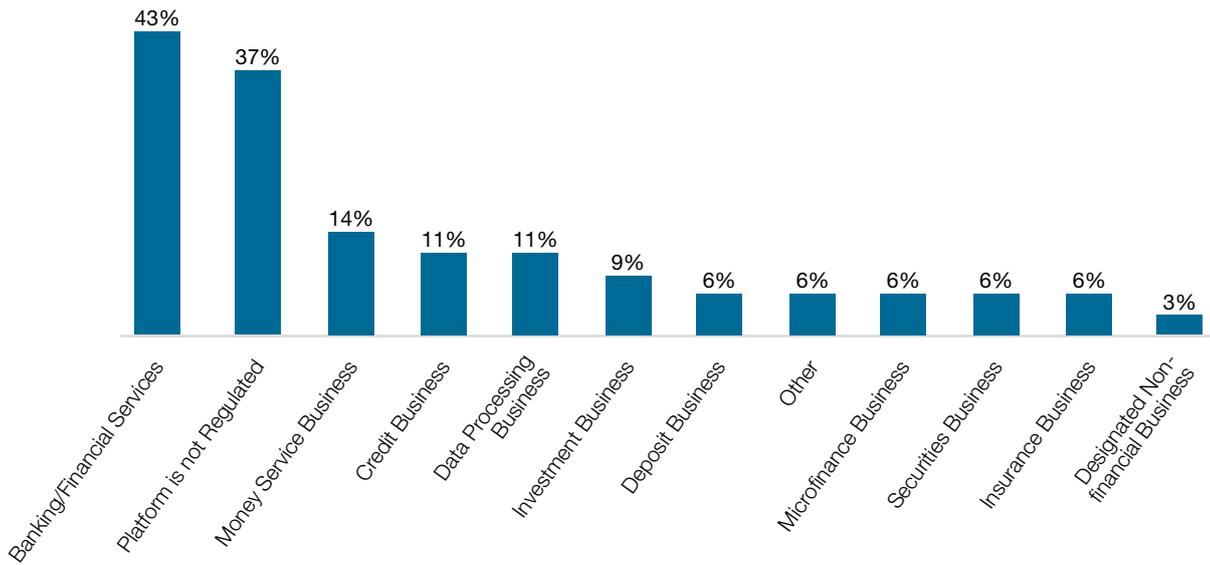
Figure 30. Singapore FinTech Firms' Perception toward Existing Regulation



Source: CCAF

### 1.3.1.5 Types of Regulation Implemented

Figure 31. Regulations Adopted by Singapore FinTech Firms



Source: CCAF

Firms were also asked to indicate their current status of regulatory supervision or licensing. Responses indicated that 37% of firms in Singapore are currently unregulated.

Of the remaining firms, 43% are currently regulated under Banking/Financial Services rules, which relates to the emphasis on digital payments and lending. 14% of firms also fall under 'Money Services Businesses' and 11% under 'Credit Businesses'.

### 1.3.1.6 Perception towards Risk Factors

Figure 32. Singapore FinTech Firms’ Perception toward Risk Factors

	Fraud	Collapse due to Malpractice	Cyber Attack	Regulatory Change	De-licensing	Outdated Technology	Acquisition by Competitor	Acquisition by Incumbent	Shift in Customer Loyalty
Very High Risk	12%		7%	17%	3%	6%	6%	3%	6%
High Risk	15%	11%	39%	26%	8%	14%	9%	11%	29%
Medium Risk	27%	17%	34%	33%	24%	25%	37%	40%	31%
Low Risk	24%	40%	10%	14%	32%	33%	37%	29%	29%
Very Low Risk	22%	31%	10%	10%	32%	22%	11%	17%	6%

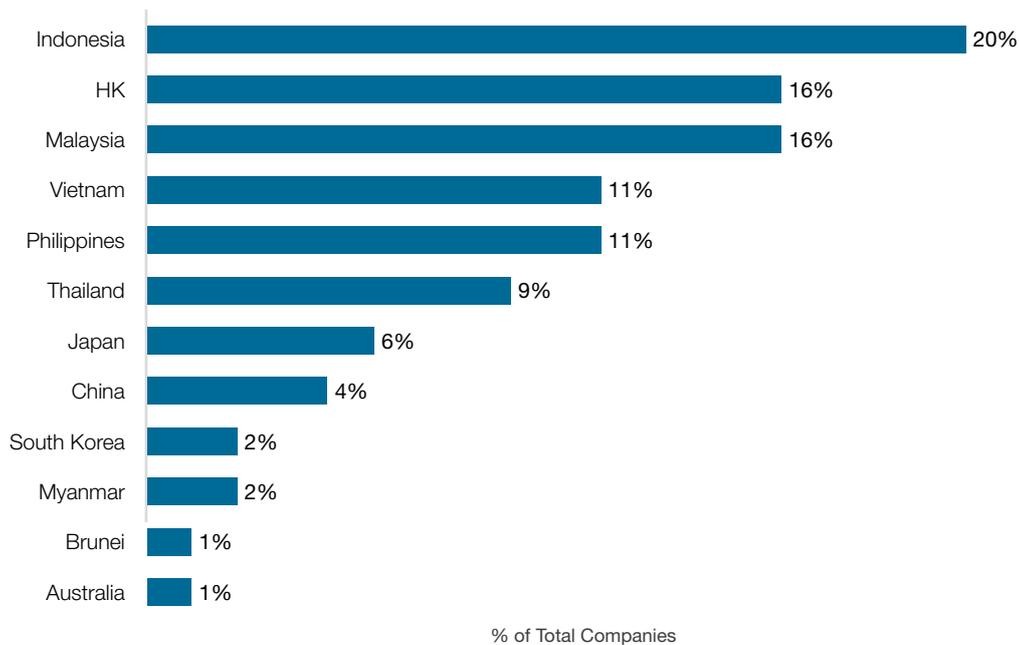
Source: CCAF

Singaporean firms viewed ‘cyber-attacks’ as the single highest risk factor to their businesses, with 46% of firms viewing this as ‘high to very high’. This was followed by ‘Regulatory Change’, with 43% of firms viewing this as a ‘high to very high’ risk factor.

### 1.3.1.7 Market Expansion / Internationalization

According to the MAS, significant resource has been allocated into making Singapore not only a leader in FinTech domestically, but also across ASEAN. According to Education Minister Ong Ye Kung, “MAS has been developing connections through a network of 25 FinTech Cooperation Agreements with counterparts in the UK, US, Japan and many of our ASEAN neighbors.”<sup>8</sup> With this in mind, it is not surprising that Singapore has become a major springboard for FinTech firms across ASEAN and globally, with firms based in Singapore utilising investment and activity established in their home market to ‘springboard’ or support international expansion. Of the 61 firms headquartered in Singapore, 31 of these firms are already actively operating or setting up operations across ASEAN. Of these, 20% are operating in Indonesia, 16% in Hong Kong, and 16% in Malaysia

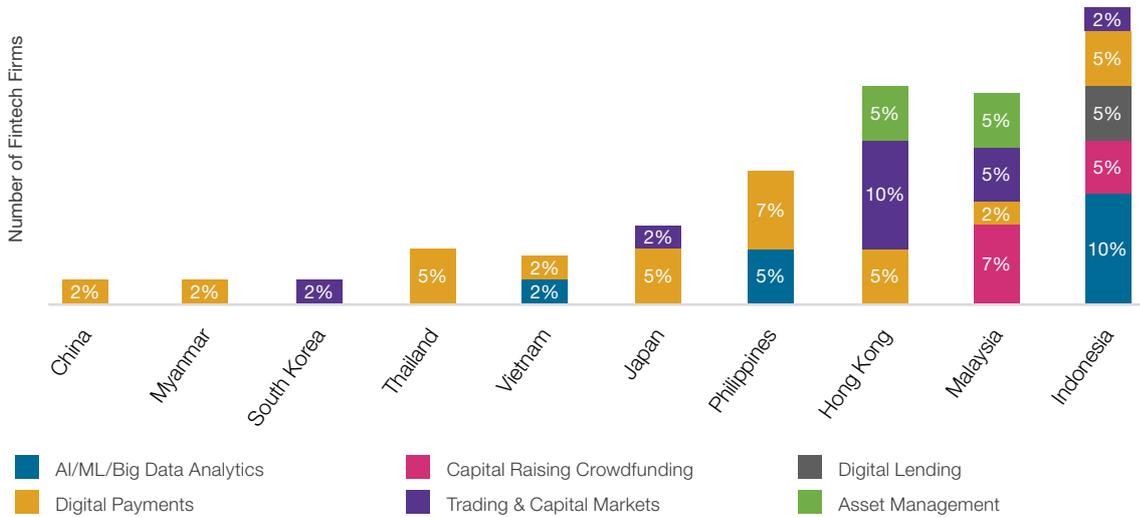
Figure 33. “Springboard Effect” – Singaporean fintech firms expanding and operating into other ASEAN countries



Source: CCAF

8 <https://www.straitstimes.com/business/why-FinTech-companies-are-drawn-to-singapore>

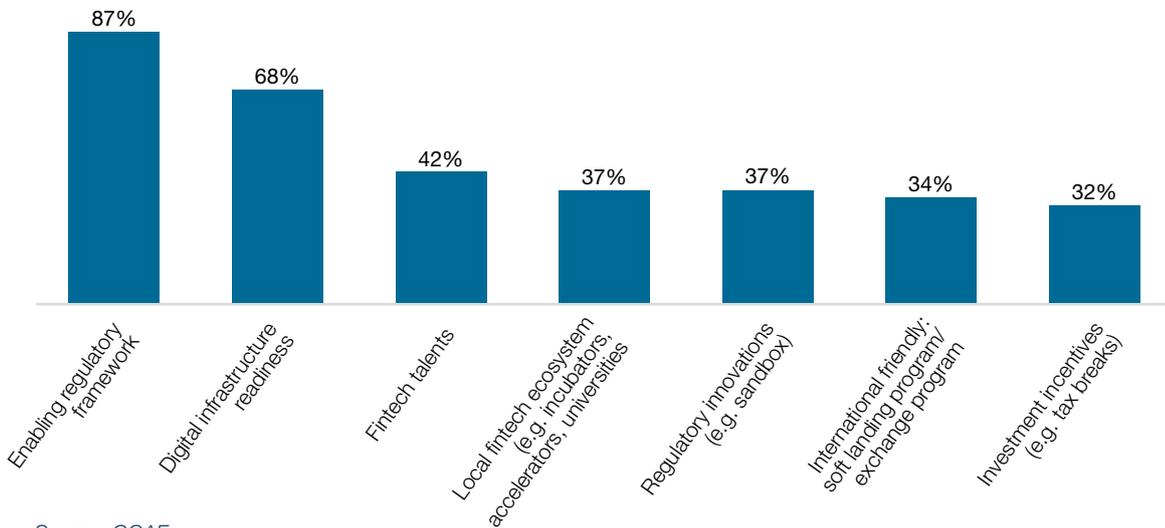
Figure 34. Countries with the Highest Number of Singaporean Firms by Key FinTech Type



Source: CCAF

When we observe the types of firms which tend to pursue international expansion, it is clear that certain models are more adept at spring boarding into new markets. For instance, Digital Payment platforms tended to have the highest instances of international activity, in an array of ASEAN markets. Indonesia attracted the highest number of Singaporean firms, in terms of absolute number of firms and with respect to model diversity.

Figure 35. Key Factors Needed for Market Expansion / Internationalization



Source: CCAF

In order to support market expansion, firms were asked to identify the key factors which they viewed as prerequisites when going outside of their home market. 87% of firms indicated that an ‘enabling regulatory framework’ was essential, and 68% also viewed Digital Infrastructure as a key factor.

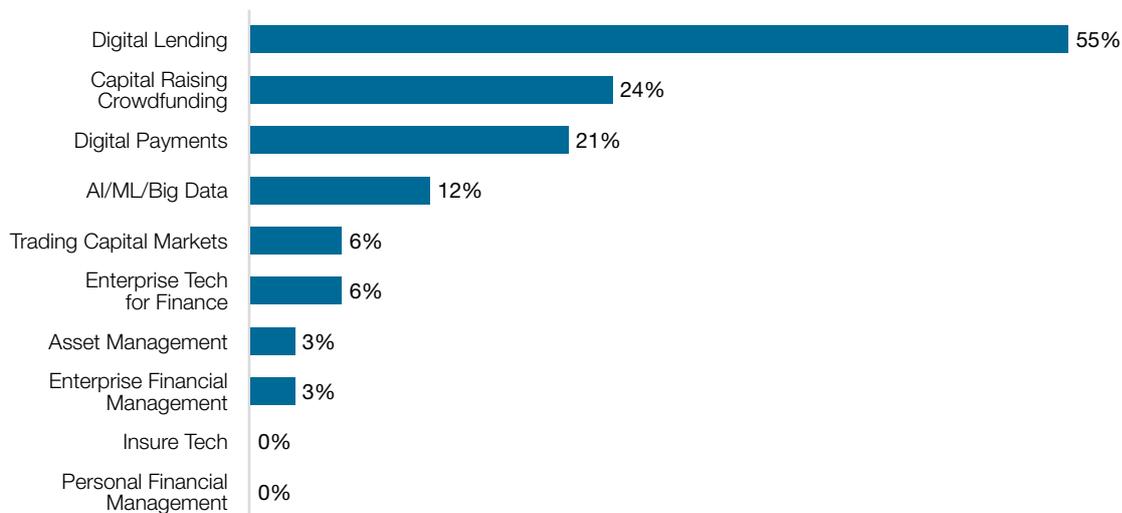
### 1.3.2 INDONESIA

Indonesia is the second largest economy in the ASEAN region, with attractive macroeconomic fundamentals relating to digitalization. Out of the 264 million population, 73% are adults, relatively young (median age of 29), and mostly living in urban areas (55% of the total), which makes them more in tune with the latest digital technologies. In fact, mobile phone and internet penetration rates have been rising quickly – currently, there are more than 400 million mobile phone subscriptions, and 45% of all mobile phones are smartphones.<sup>9</sup> However, the limited number of ATMs (0.5 terminals per 1,000 people) and Point of Sale (POS) terminals (0.4 terminals per 1,000 people), coupled with low credit card and debit card penetration,<sup>10</sup> demonstrate that there is tremendous opportunity for FinTech firms to disrupt the traditional financial system.

Indonesia has a dynamic and vibrant FinTech start-up environment, with the pace of new start-up s rapidly increasing over the last three years. Although it is hard to determine the exact number of FinTech firms at any given time due to new ventures continuously emerging and others going out of business, it is estimated that there are more than 250 FinTech start-up s currently in Indonesia.

For this study, 36 Indonesian FinTech firms completed the survey, with the majority of the companies in the Digital Lending business model (55% of responses), with Capital Raising Crowdfunding and Digital Payments following at a distant second and third spots, respectively. Within Digital Lending, the most prevalent sub-segments were P2P marketplace lending for consumers and businesses. These results confirm the fact there are now 99 P2P marketplace lending platforms registered in Indonesia, representing almost 40% of all of the FinTech firms in the country.

**Figure 36. Indonesia FinTech Firms by Product Category**



Source: CCAF

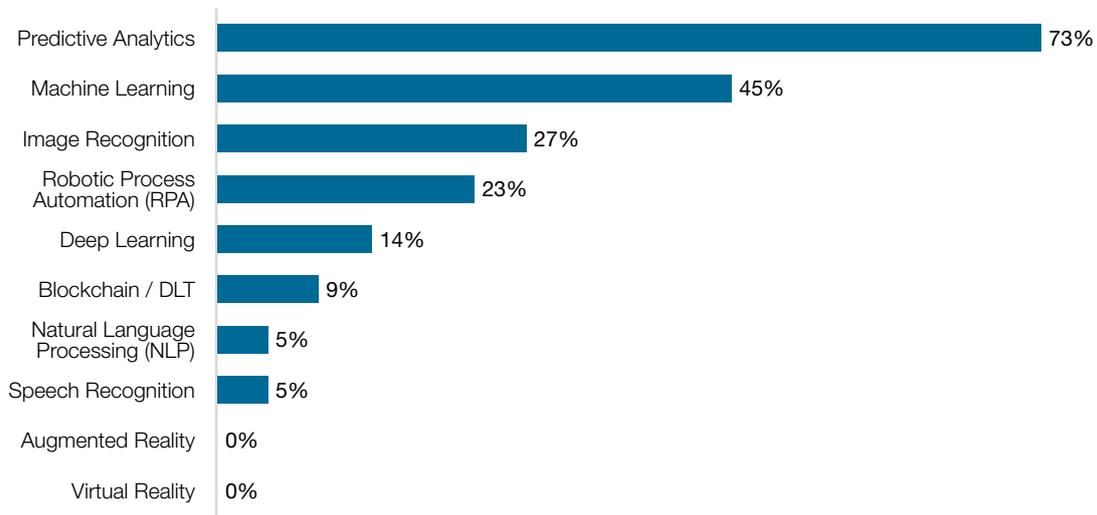
9 Indonesian Internet Service Providers Association (APJII), EIU

10 World Bank Data / EIU/ BMI / IMF / BPS (Statistics Indonesia), Euromonitor

### 1.3.2.2 Technologies Used

Given the large presence of Digital Lending FinTech firms in the country, it seems logical that Predictive Analytics and Machine Learning are the most prevalently used technologies, based on the survey responses; they are essential in the development of alternative credit risk assessment models.

Figure 37. Key Technologies Used by Indonesia FinTech Firms

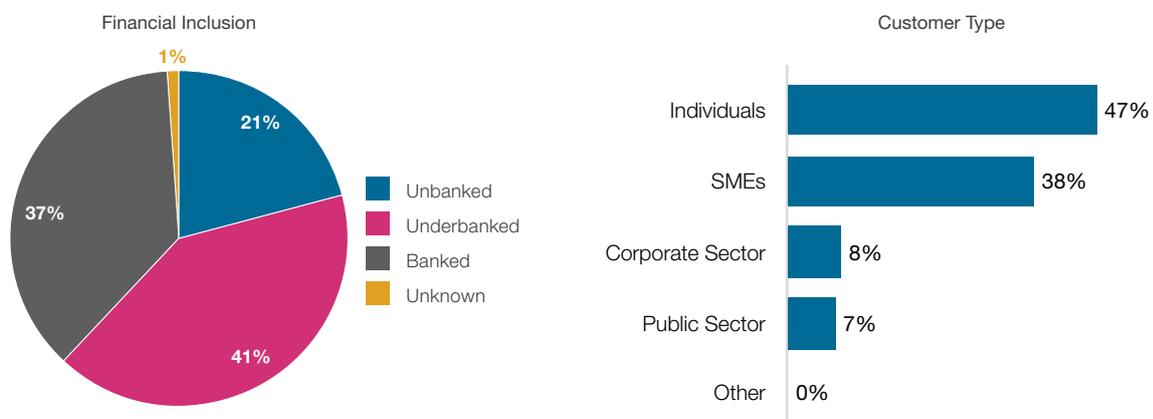


Source: CCAF

### 1.3.2.3 Financial Inclusion

Although Indonesia possesses strong fundamentals for the development of a digital economy, providing widespread access to and active usage of formal financial products and services is a major issue the government is addressing. Currently, only 49% of adults in the country have access to a bank account, significantly below the 75% target set by the government for the end of 2019. FinTech firms are a key enabler in accelerating financial inclusion in a rapidly growing mobile and digital market. Currently, 69% of the unbanked population own mobile phones, and could be included in the financial system through three million FinTech payment agents.<sup>11</sup> However, the survey responses show that Indonesian FinTech firms are mostly focused on serving the underbanked and banked population, targeting individuals and SMEs.

Figure 38. Customer Demographics for Indonesian FinTech Firms



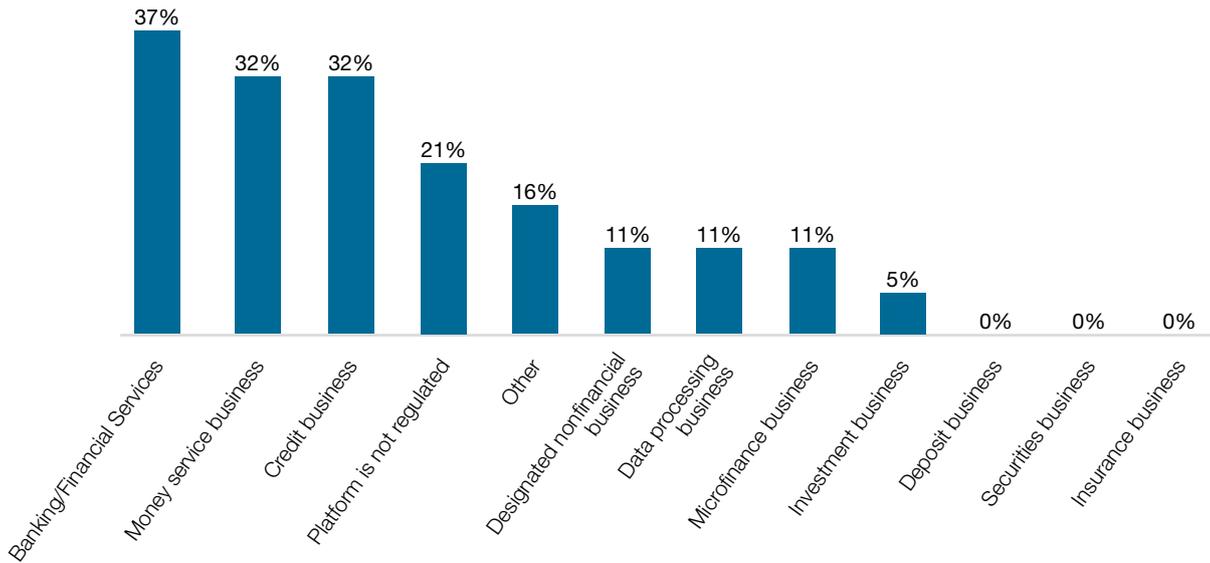
Source: CCAF

11 World Bank Global Findex Survey, 2017

### 1.3.2.4 Type of Regulations Implemented

Regulators are actively engaged and supportive of the FinTech sector in Indonesia, and have created a business-friendly FinTech ecosystem. For the Digital Lending and Digital Payments product categories, OJK and Bank Indonesia (BI) have established clear regulations which require all FinTech firms in these two areas to register with them. The chart below confirms this finding, demonstrating that FinTech firms have mostly adopted Money Service business (digital payments) and Credit business (digital lending) regulations and have received permissions or licensing in these areas.

Figure 39. Regulations Adopted by Indonesia FinTech Firms

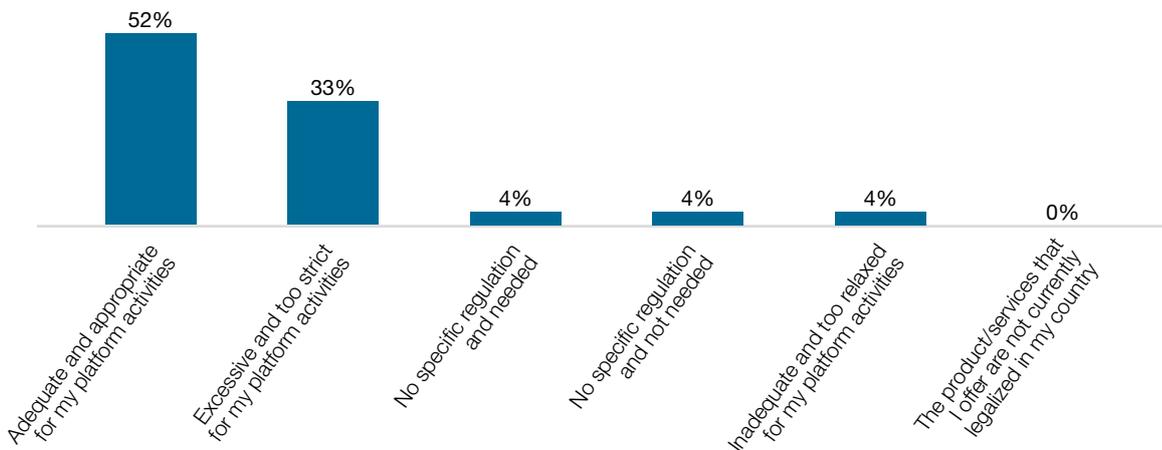


Source: CCAF

### 1.3.2.5 Perceptions toward Existing Regulations

The majority of FinTech firms seem to be satisfied with the regulations; 52% of the responses mentioned that the regulations are adequate and appropriate for their platform activities.

Figure 40. Indonesia FinTech Firms' Perception toward Existing Regulation



Source: CCAF

### 1.3.2.6 Perceptions towards Key Risk Factors

When considering the risks that FinTech firms may face in Indonesia, a change in regulation and fraud seem to be the highest perceived risks. Fraud has actually been observed in Indonesia, specifically within P2P lending platforms. Over the last two years, OJK, the main regulator overseeing digital lending, has banned more than 400 platforms that have failed to register and/or may have been engaged in fraudulent activities.

Figure 41. Indonesia FinTech Firms' Perception toward Risk Factors

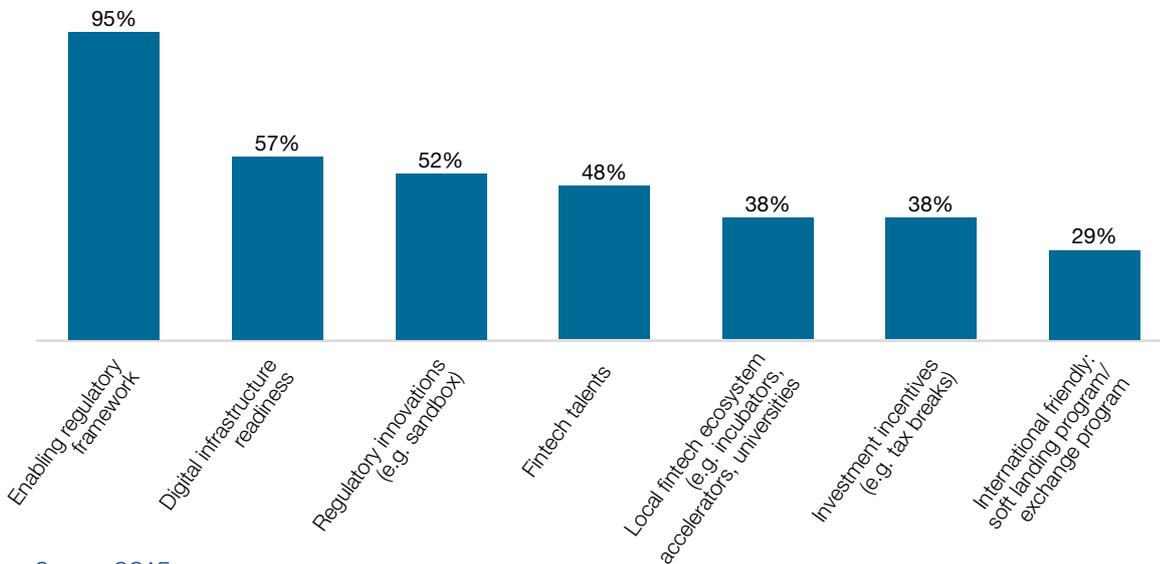
	Fraud	Collapse due to Malpractice	Cyber Attack	Regulatory Change	De-licensing	Outdated Technology	Acquisition by Competitor	Acquisition by Incumbent	Shift in Customer Loyalty
Very High Risk	8%	5%	15%	23%	24%	0%	0%	0%	10%
High Risk	31%	14%	23%	46%	19%	5%	10%	5%	0%
Medium Risk	38%	29%	31%	15%	19%	24%	19%	19%	55%
Low Risk	23%	48%	27%	15%	33%	38%	52%	62%	25%
Very Low Risk	0%	5%	4%	0%	5%	33%	19%	14%	10%

Source: CCAF

### 1.3.2.7 Market Expansion / Internationalization

Most respondents agree that an enabling regulatory framework is essential for expansion into other ASEAN countries. Digital infrastructure readiness is considered the next most important factor, closely followed by regulatory innovations. The responses are aligned with those from the wider ASEAN region.

Figure 42. Key Factors Needed for Market Expansion / Internationalization



Source: CCAF

### 1.3.3 MALAYSIA

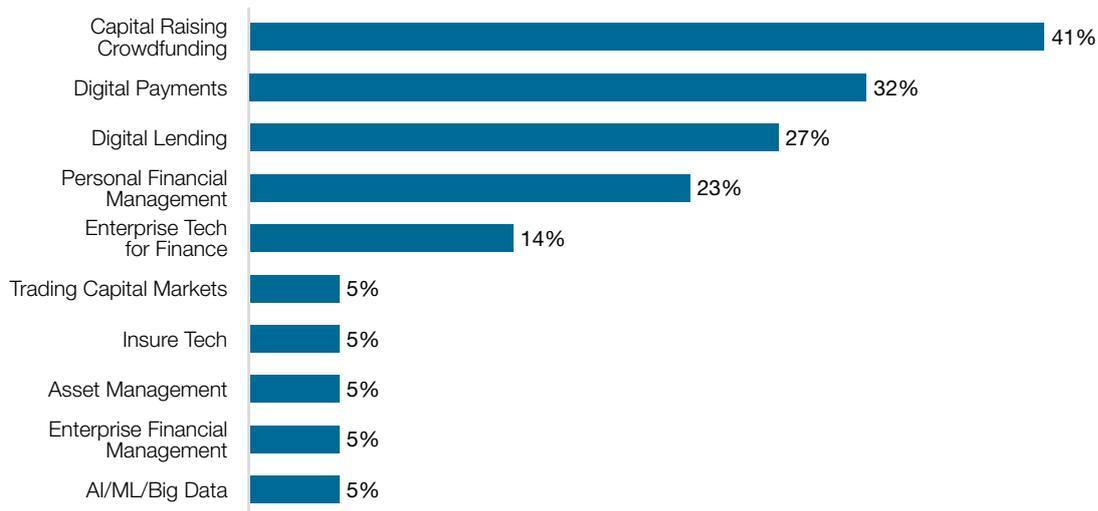
In recent years, Malaysia has made headlines due to its significant advancement as a global FinTech hub. In 2018, the IMF indicated that “the country is well on its way to achieving high-income status”<sup>12</sup> and is subsequently starting to look more and more like other ASEAN FinTech leaders in the region. In particular, Malaysian internet penetration is 86%, with online banking penetration 85%, according to the second edition FinTech Malaysia Report 2018.

Malaysia accounted for the third largest ASEAN market according to our survey results, making up 11% of our respondent database. With 22 unique firms contributing 35 survey responses, Malaysia accounted for the third largest ASEAN market according to our survey results, making up 11% of our respondent database, or 22 unique firms contributing 35 unique survey responses. Approximately 40% of Malaysian firms (9 firms) operated in two or more model categories.

Capital Raising Crowdfunding, and in particular Equity Crowdfunding, made up 41% of Malaysian firm categories, followed by Digital Payments (32%) and Digital Lending (27%).

#### 1.3.3.1 Business Model

Figure 43. Malaysia FinTech Firms by Business Model



Source: CCAF

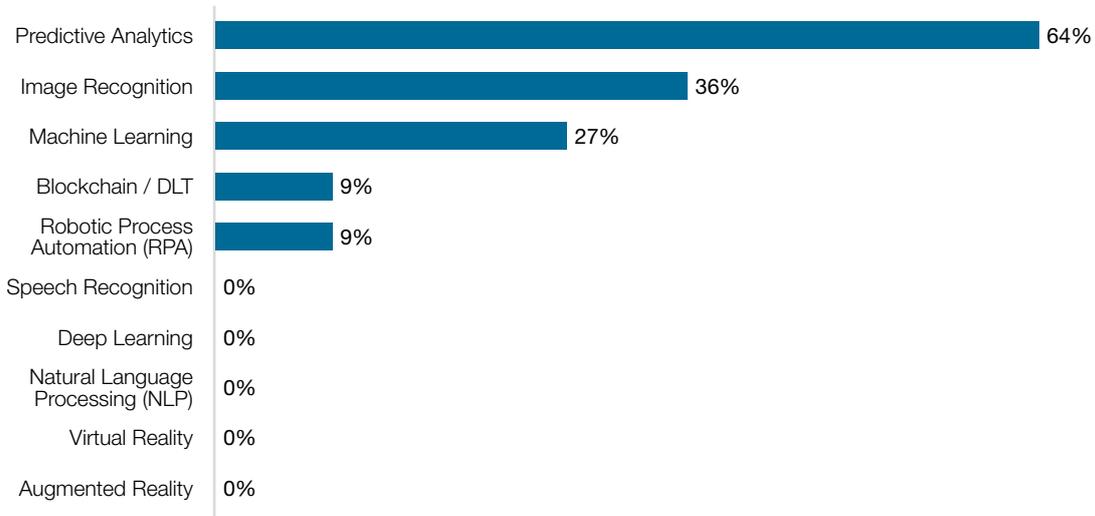
For 64% of firms, ‘predictive analytics’ was viewed as a key technology underpinning their operations. Interestingly, Image Recognition was viewed as the second most significant technology, indicated as such from 36% of firms. No other country ranked this technology as highly. Image Recognition was followed by Machine Learning (27%). Surprisingly, Blockchain/DLT was a key underlying technology for only 9% of firms, which is slightly counter-intuitive when considering the significant Media Coverage that Cryptocurrency and Blockchain firms based in Malaysia are receiving.<sup>13</sup>

12 <https://www.imf.org/en/News/Articles/2018/03/07/NA030718-Malaysias-Economy-Getting-Closer-to-High-Income-Status>

13 <https://FinTechnews.my/16980/blockchain/cryptocurrency-exchanges-in-malaysia-registered-bnm/>

### 1.3.3.2 Technology Used

Figure 44. Key Technologies Used by Malaysia FinTech Firms



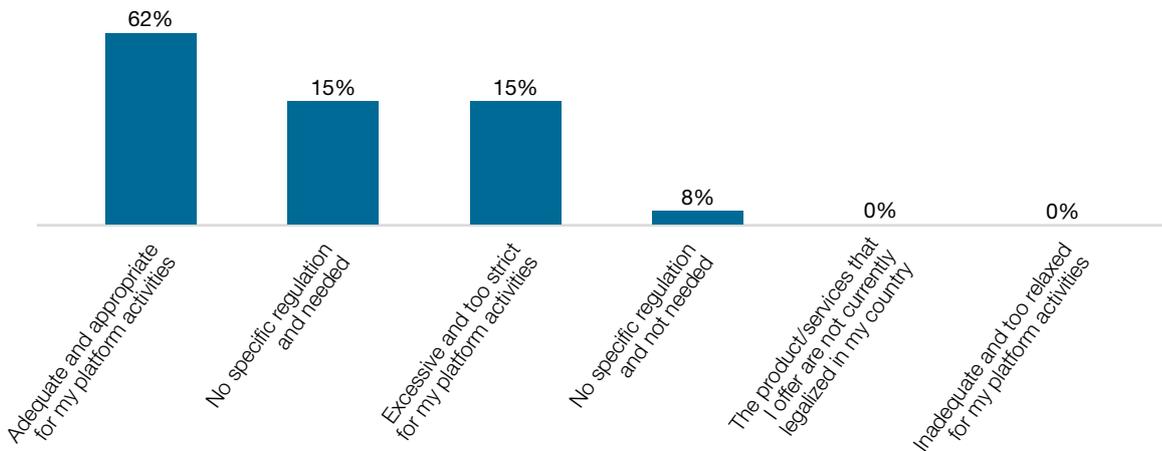
Source: CCAF

### 1.3.3.3 Perception toward Existing Regulation

In 2016, the Malaysia Securities Commission (SC) introduced the regulatory framework for crowdfunding and related activities, which set out requirements and obligations for platform operators in their revised ‘Guidelines on Recognized Markets’.<sup>14</sup> In particular, this provided a framework for Equity-based Crowdfunding. By mid-2018, the SC had registered seven Equity Crowdfunding platforms and six P2P Lending operators.

In this context, FinTech regulation in Malaysia is predominantly viewed positively from FinTech firms, with 62% of platforms indicating that existing regulation is ‘adequate and appropriate’ for their operations. Another 15% of firms view regulation as ‘excessive and too strict’, with another 15% indicating that ‘no specific regulation exists and is needed’.

Figure 45. Malaysia FinTech Firms’ Perception toward Existing Regulation



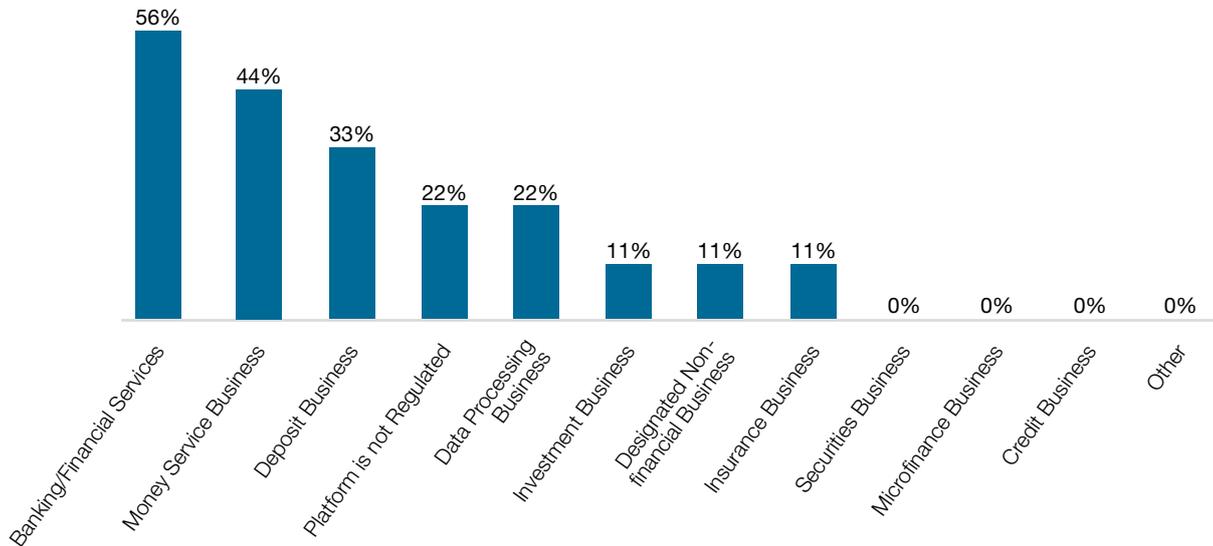
Source: CCAF

14 <https://www.sc.com.my/news/media-releases-and-announcements/sc-invites-applications-for-registration-as-equity-crowdfunding-and-peer-to-peer-financing-operators>

When firms considered the types of regulatory licensing firms fall under, 56% indicated that they fell under ‘banking/financial services’ practices, and 44% as ‘money service businesses’. A further 33% of firms indicated that they were deposit-holding businesses. Only 22% of firms indicated that their platform was not regulated under any statute or applicable to licensing.

### 1.3.3.4 Type of Regulations Implemented

Figure 46. Regulations Adopted by Malaysia FinTech Firms



Source: CCAF

### 1.3.3.5 Perception toward Risk Factors

Figure 47. Malaysia FinTech Firms’ Perception toward Risk Factors

	Fraud	Collapse due to Malpractice	Cyber Attack	Regulatory Change	De-licensing	Outdated Technology	Acquisition by Competitor	Acquisition by Incumbent	Shift in Customer Loyalty
Very High Risk	0%	0%	0%	29%	0%	0%	0%	0%	0%
High Risk	40%	9%	53%	7%	0%	18%	18%	27%	36%
Medium Risk	20%	64%	20%	36%	18%	36%	36%	27%	45%
Low Risk	27%	9%	27%	29%	45%	27%	36%	36%	18%
Very Low Risk	13%	18%	0%	0%	36%	18%	9%	9%	0%

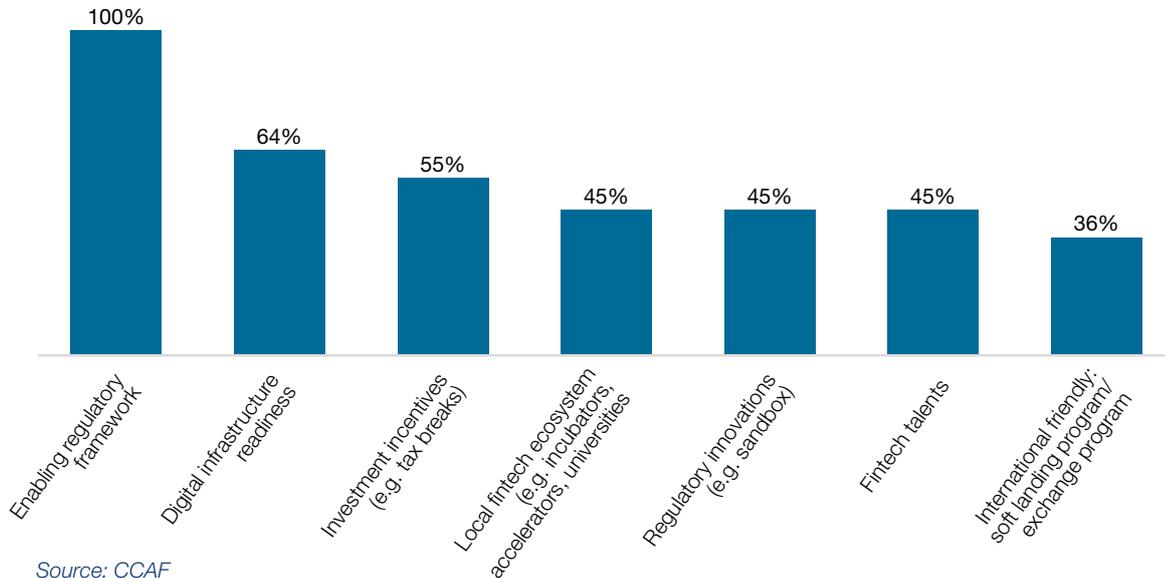
Source: CCAF

The highest ranked risk factor to a platform’s operations was ‘cyber-attack’, with 53% of firms indicating this as a high-risk factor. This was followed by ‘fraud’, viewed as a high-risk by 40% of firms. Interestingly, though over-all, regulation was viewed as a high-to-very high risk by 36% of firms, this was the only factor with firms denoting ‘very high risk’. This may likely be due to the fact that the government has indicated that two new regulatory frameworks related to Property crowdfunding and cryptocurrency/assets will be introduced within the first months of 2019.<sup>15</sup>

15 <https://www.nst.com.my/business/2018/11/435254/regulations-property-crowdfunding-cryptocurrency-place-early-2019-finance>

### 1.3.3.6 Market Expansion / Internationalization

Figure 48. Key Factors Needed for Market Expansion / Internationalization



Source: CCAF

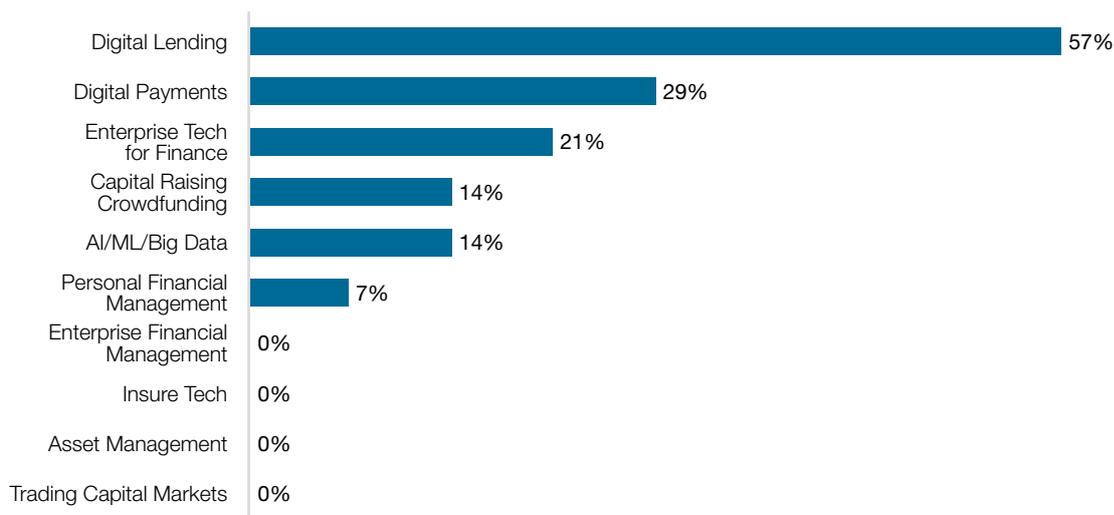
Finally, though most Malaysian FinTech firms remain predominantly in their home-market, some 23% of firms indicated operations in other ASEAN countries. As internationalization becomes a greater trend across not just ASEAN, but globally, it is important to understand what support systems and networks firms need when considering international operations. Every firm in Malaysia indicated that 'enabling regulatory frameworks' was an essential prerequisite to international expansion. 64% of firms also indicated digital infrastructure readiness and 55% indicated investment incentives, such as tax breaks or wrappers, as important.

### 1.3.4 PHILIPPINES

With a population of more than 100 million and attractive macroeconomic fundamentals, including 71% internet penetration rate and more than 124 million mobile phone subscriptions, the Philippines possesses some of the key ingredients for FinTech firms to thrive. The Philippines FinTech landscape has been expanding rapidly in recent years, fueled by the belief that financial innovation will drive higher financial inclusion. According to the World Bank Findex survey, out of the 34.5 million adults in the country only 32% of them have access to a formal financial product / service.

#### 1.3.4.1 Business Model

Figure 49. Philippines FinTech Firms by Product Category

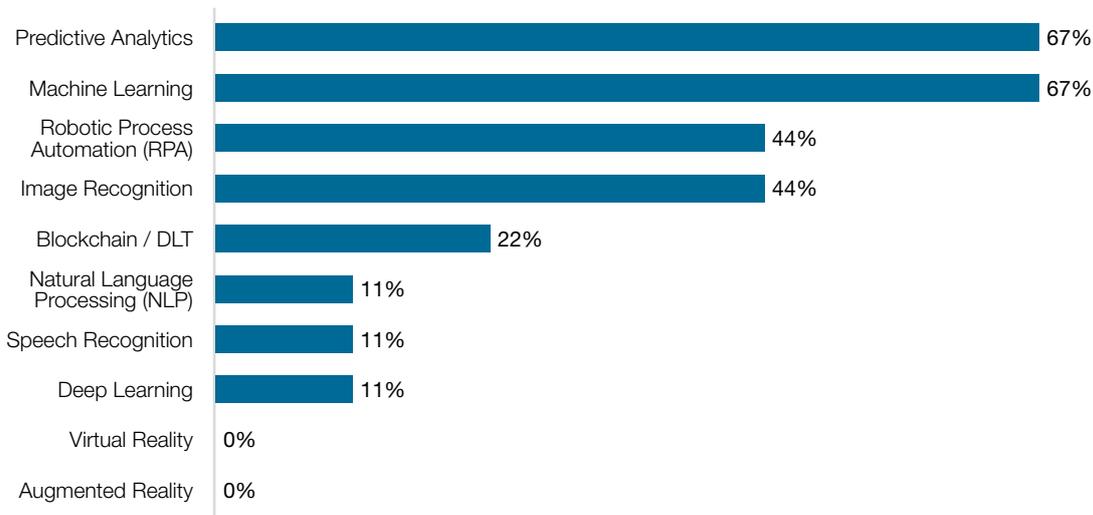


Source: CCAF

For this study, 14 FinTech firms based in the Philippines participated in the survey. Similarly to other countries with low financial inclusion figures, FinTech start-ups in the Philippines are mostly focusing on Digital Lending (57% of responses) and Digital Payments (29%). Within Digital Lending, the majority of FinTech start-ups are serving consumers through P2P / marketplace and balance sheet lending business models. Given the fact that remittances represent close to 10% of the country's GDP, it follows that most of the FinTech firms in the Digital Payments business model are focused on remittances/money transfer services.

### 1.3.4.2 Technology Used

Figure 50 Key Technologies Used by Philippines FinTech Firms



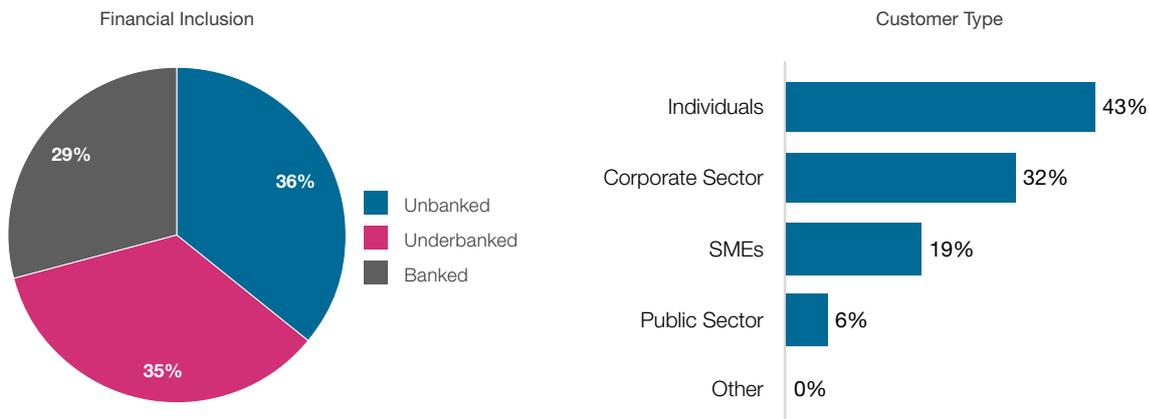
Source: CCAF

The majority of FinTech firms in the Philippines are using a combination of Predictive Analytics and Machine Learning technology solutions, which are essential for companies in the Digital Lending and Digital Payments space. Completing the top three responses is a tie between Image Recognition and Robotic Process Automation, which is mainly used by Enterprise Technology for Financial Institutions FinTech firms to provide products/services to the banking sector

### 1.3.4.3 Financial Inclusion

Similar to Indonesia, financial inclusion is an important issue in the Philippines, where 69% of the adults do not have access to a bank account. Therefore, FinTech firms are trying to address this issue by targeting the unbanked (36%) and underbanked (35%). Most FinTech firms are serving individuals, closely followed by large corporations.

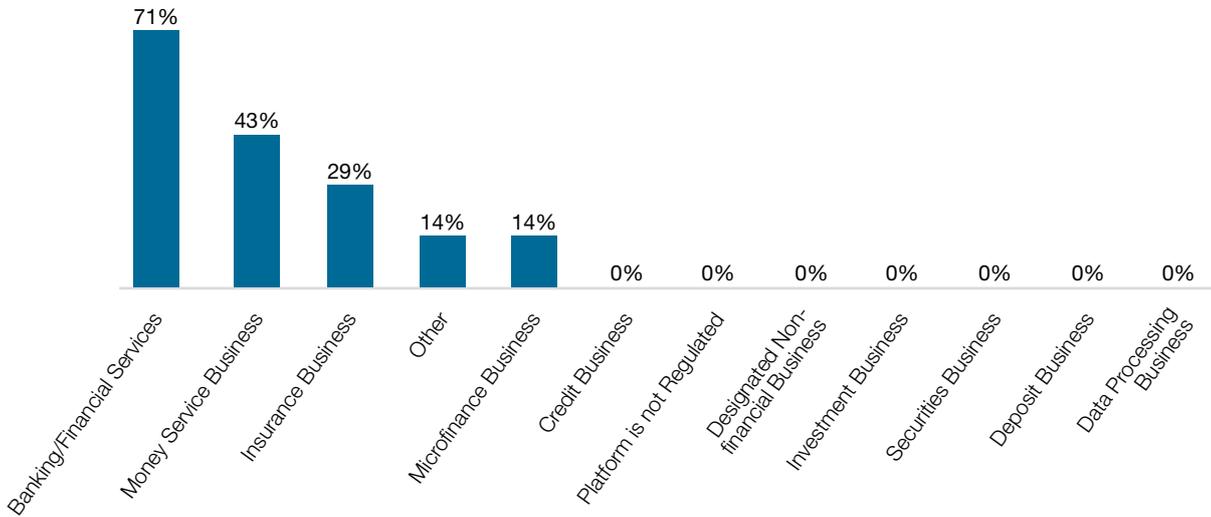
Figure 51. Customer Demographics for Philippine FinTech Firms



Source: CCAF

### 1.3.4.4 Type of Regulations Implemented

Figure 52. Regulations Adopted by Philippines FinTech Firms

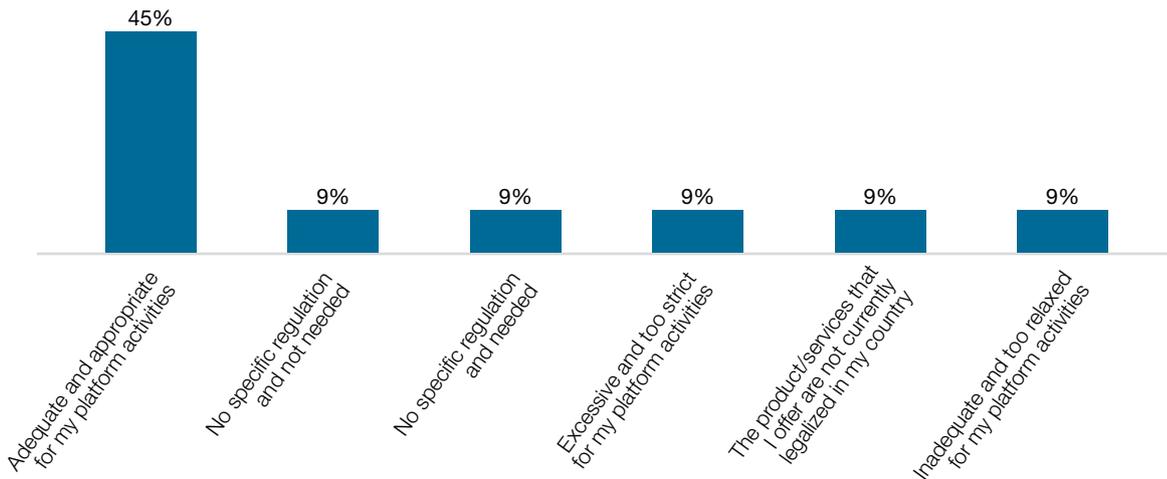


Source: CCAF

Bangko Sentral ng Pilipinas (BSP), the central of the Philippines, is progressive and open to the growth and development of the FinTech ecosystem in the country. BSP works closely with FinTech firms and is actively engaged with all of the stakeholders of the FinTech ecosystem. Based on the survey responses, most FinTech firms have adopted Banking/Financial services regulation, followed by Money service business regulation, which is related to digital payments. In general, FinTech firms in the Philippines feel that the regulations in place are adequate and appropriate for their business activities, whereas a minority (9%) state that the regulations are too strict and/or excessive.

### 1.3.4.5 Perception Toward Existing Regulation

Figure 53. Philippines FinTech Firms' Perception toward Existing Regulation



Source: CCAF

### 1.3.4.6 Perception Toward Risk Factors

Figure 54. Philippines FinTech Firms' Perception toward Risk Factors

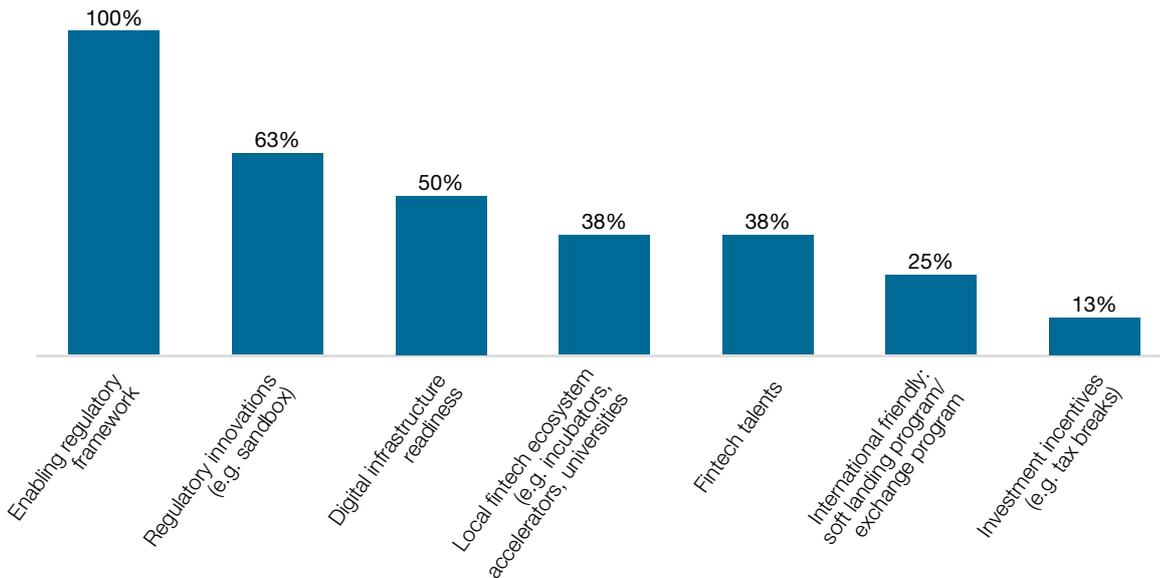
	Fraud	Collapse due to Malpractice	Cyber Attack	Regulatory Change	De-licensing	Outdated Technology	Acquisition by Competitor	Acquisition by Incumbent	Shift in Customer Loyalty
Very High Risk	0%	0%	9%	9%	11%	0%	11%	0%	0%
High Risk	55%	11%	55%	9%	33%	22%	0%	0%	22%
Medium Risk	36%	33%	27%	55%	11%	22%	33%	22%	44%
Low Risk	9%	44%	9%	27%	22%	33%	44%	56%	22%
Very Low Risk	0%	11%	0%	0%	22%	22%	11%	22%	11%

Source: CCAF

Out of the nine risk categories, most of the Philippine FinTech firms believe that fraudulent activities and a potential cyber-attack on their platforms are the two highest risks. Regulatory change is viewed as a medium risk, which shows that FinTech firms are fairly confident in the actions and regulations proposed by BSP.

### 1.3.4.7 Market Expansion / Internationalization

Figure 55. Key Factors Needed for Market Expansion / Internationalization



Source: CCAF

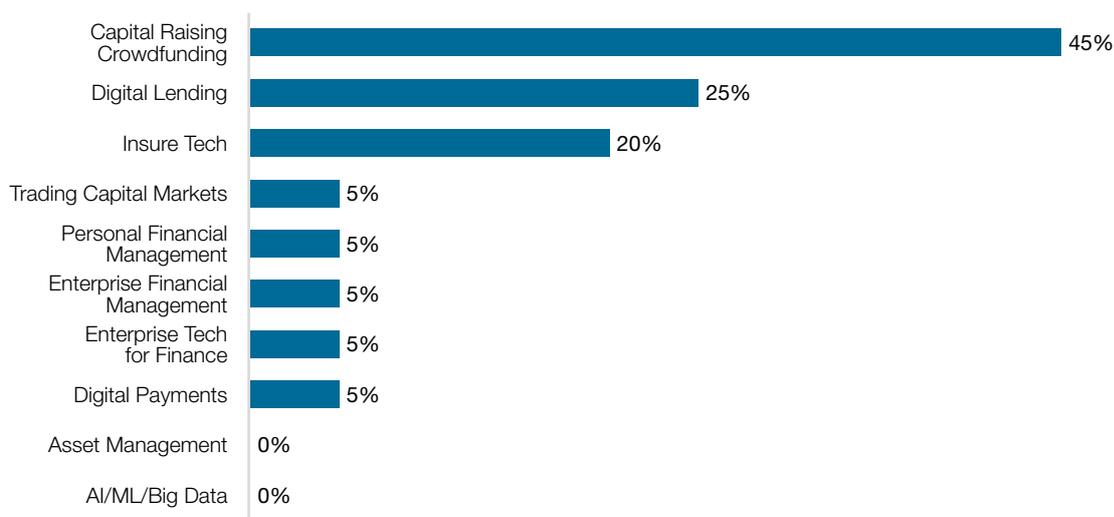
While most Philippine FinTech firms are small and mainly focused on serving their domestic market, there are a few platforms that have already expanded to other countries in the ASEAN region. To expand internationally, all FinTech platforms agree that having an enabling regulatory framework is essential, and specifically to have regulators which embrace innovation through the use of regulatory sandboxes.

## 1.3.5 THAILAND

As part of the country's broader Smart Cities and Thailand 4.0 Initiative, the government is aggressively pushing for the development of the FinTech ecosystem in order to transform the country into a FinTech hub for the ASEAN region. Considered one of the more advanced countries in the ASEAN region after Singapore, Thailand enjoys the second highest GDP per capita in the region, high literacy rate, more than 50% of the population living in urban areas and a median age of 40 years. The country also possesses the critical digital infrastructure needed for the development of FinTech firms; there are 92.3 million mobile phone subscriptions, or 133% penetration rate, and 57 million internet users, or 82% penetration rate.<sup>16</sup>

### 1.3.5.1 Business Model

Figure 56. Thailand FinTech Firms by Business Model

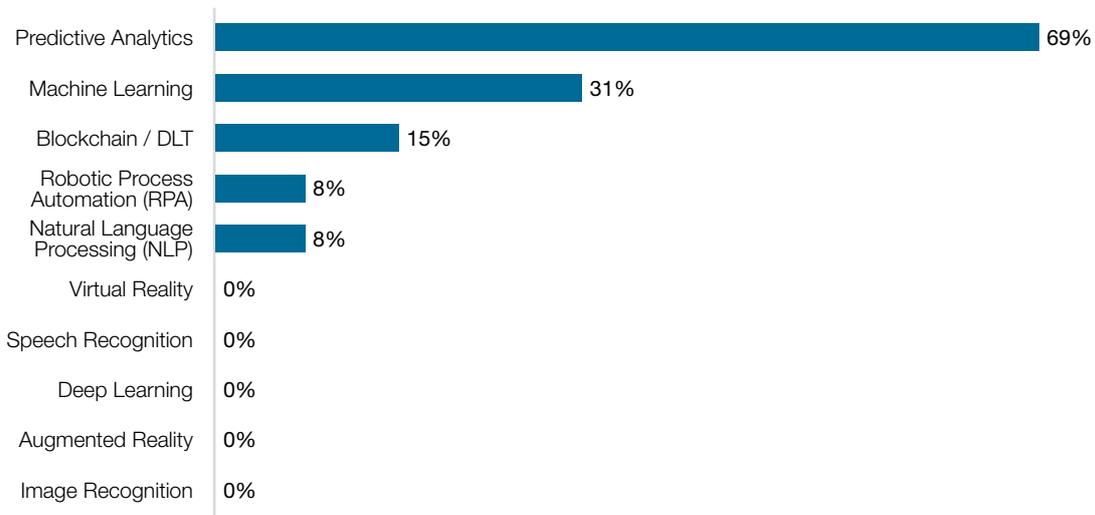


Source: CCAF

A total of 20 FinTech firms based in Thailand participated in our survey, with the majority of them in the Capital Raising Crowdfunding and Digital Lending business model. The FinTech firms in the Capital Raising Crowdfunding business model were equally divided into the Equity Crowdfunding and Donation Crowdfunding sub-categories. InsurTech Firm firms were also prominent in our survey, closely behind Digital Payments.

### 1.3.5.2 Technology Used

Figure 57. Key Technologies Used by Thailand FinTech Firms

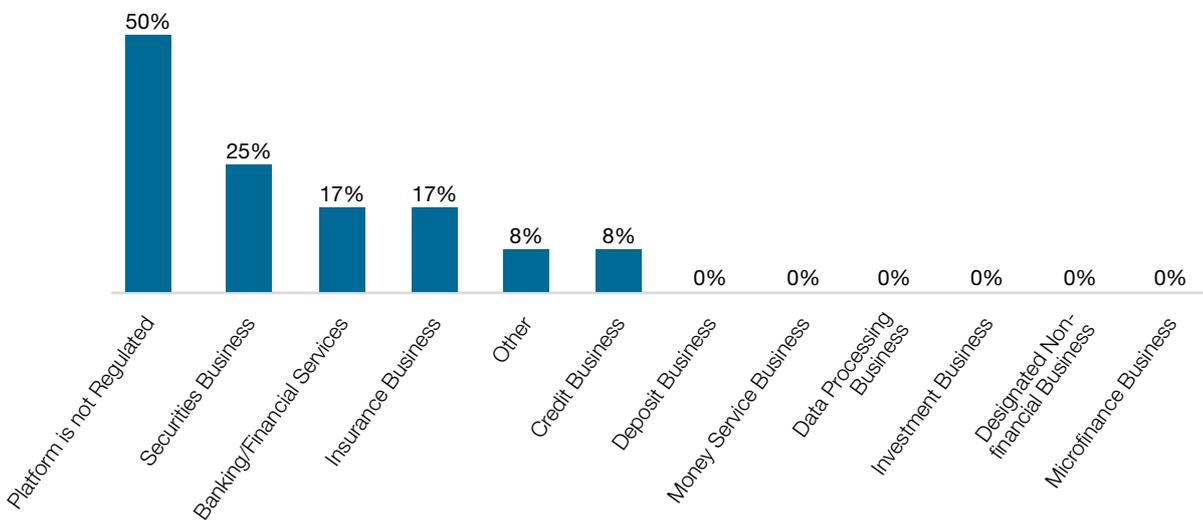


Source: CCAF

Like all the other countries in the ASEAN region, most of the Thai FinTech firms use predictive analytics and machine learning as the top two key technologies. Given the rapid development of the technology sector in Thailand, Blockchain/DLT is also being used by FinTech firms, but remains at an early stage.

### 1.3.5.3 Type of Regulation Implemented

Figure 58. Regulations Adopted by Thailand FinTech Firms

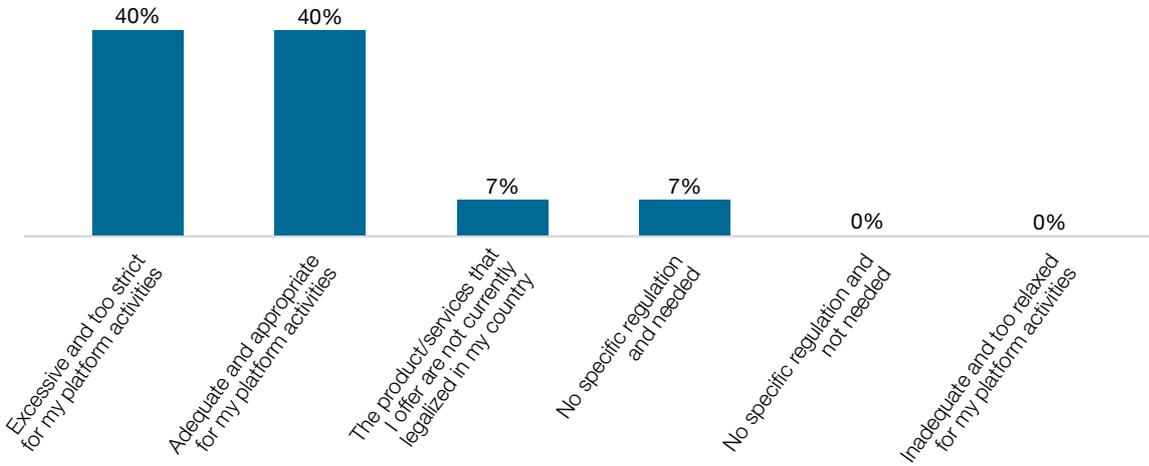


Source: CCAF

The financial regulators in Thailand are embracing technology and innovation, while simultaneously meeting the objectives of consumer protection, financial stability, financial integrity and competition. The Bank of Thailand introduced the Payment Systems Act in 2017 to encourage the growth of FinTech firms, particularly within Digital Payments. In addition, the regulatory authority has issued guidance on crypto-assets and Initial Coin Offerings (ICOs). The majority of respondents to the survey claim that their platform is not regulated. This seems logical given that most FinTech firms are in the Capital Raising Crowdfunding product area and this product is not yet regulated in Thailand.

### 1.3.5.4 Perception Toward Existing Regulation

Figure 59. Thailand FinTech Firms' Perception toward Existing Regulation



Source: CCAF

Although the majority of FinTech firms claimed that their platforms are not regulated, their perception towards existing regulation is mixed; about 40% of the responses believe that the current regulations are adequate and appropriate, while the same number of responses think the opposite – regulations are too excessive and strict for their platform activities.

### 1.3.5.5 Perception Toward Risk Factors

Figure 60. Thailand FinTech Firms' Perception toward Risk Factors

	Fraud	Collapse due to Malpractice	Cyber Attack	Regulatory Change	De-licensing	Outdated Technology	Acquisition by Competitor	Acquisition by Incumbent	Shift in Customer Loyalty
Very High Risk	15%	0%	7%	23%	17%	9%	0%	0%	27%
High Risk	8%	17%	21%	31%	17%	9%	18%	27%	27%
Medium Risk	8%	17%	36%	38%	17%	45%	27%	36%	27%
Low Risk	46%	50%	36%	8%	33%	27%	55%	36%	9%
Very Low Risk	23%	17%	0%	0%	17%	9%	0%	0%	9%

Source: CCAF

When examining the risks as perceived by Thai FinTech platforms, two types were considered the greatest concern - Regulatory Change at 54% (combined High Risk and Very High Risk) and Shift in Customer Loyalty at 54% (combined High Risk and Very High Risk). Serious concerns regarding a change in regulations were principally articulated by the Digital Lending and Digital Payments platforms, while those in the Capital Raising Crowdfunding business model perceived a shift in customer loyalty as their greatest risk.

# CHAPTER 2 - REGULATORY OVERVIEW

## 2.1 Regional overview: Current state of regulation governing FinTech activities in ASEAN

FinTech has enjoyed exponential growth across the ASEAN region in the last few years. Investments in the FinTech market grew to approximately \$366 million (US) in 2017<sup>17</sup>, compared with \$252 million in 2016 and \$190 million in 2015<sup>18</sup>. Domestically, many individual countries have ramped up efforts to develop their FinTech ecosystem. These efforts are not just limited to improving the regulatory environment for FinTech players but also to stimulate and encourage the growth of the sector. This may be because of FinTech's potential positive impact on economic growth and development. The potential for the growth of FinTech in the region has been clearly demonstrated and relates to many factors including, the high penetration rate of smartphones and high number of internet users.

In terms of regulation, there are varying approaches employed by individual regulators for the various FinTech sectors. Generally, regulators in Southeast Asia are receptive towards FinTech development and this is reflected in their regulatory approach. There are bespoke regulations in some jurisdictions which have been issued to supervise and/or support sectors of FinTech, because existing regulations were not suitable. This approach is useful to ensure a balance between market stability while encouraging innovation.

One of the notable developments in this area is the emergence of Islamic finance, an alternative finance platform that complies with sharia or Islamic principles. This has led to the creation of almost another sub-sector in its own right: Islamic FinTech. In terms of a regulation, the Islamic Financial Services Board (IFSB) has been monitoring the development of FinTech and issued guidance to countries in the region for regulatory development with regards to this matter.

According to the ASEAN Economic Community 2025 Consolidated Strategic Action Plan,<sup>19</sup> there are several agendas which relate to the development of FinTech activities in the region. These include developing alternative financing frameworks, online interactive platform to increase access to finance for micro, small and medium-sized enterprises (MSMEs), as well as support innovative financial inclusion via digital platforms. Through these initiatives, FinTech is expected to be an alternative tool to help increase access to finance and promote financial inclusion in the region. This corresponds with Asian Development Bank Institute's (ADBI) approach to support financial inclusion using FinTech.<sup>20</sup>

Regulatory responses to specific Fintech sectors are discussed below.

### **P2P Lending/Marketplace Lending**

At the supranational level, there are attempts to support microfinance institutions. For instance, the Regional Microfinance Risk Participation and Guarantee Program led by the ADBI<sup>21</sup>, which was initially designed to support microfinance institutions (MFIs). In general, ASEAN countries aim to utilise microfinance as well as P2P lending to enhance financial inclusion, especially for lower-income households and SMEs.

Bespoke regulations for P2P lending have been introduced in jurisdictions like Indonesia (OJK Regulation No.77/POJK.01/2016), while they are in the process of public hearing in Thailand. In particular, these regulations set a requirement for a specific operational license for P2P lending providers. Meanwhile, there

17 [https://www.ey.com/Publication/vwLUAssets/EY-asean-FinTech-census-2018/\\$FILE/EY-asean-FinTech-census-2018.pdf](https://www.ey.com/Publication/vwLUAssets/EY-asean-FinTech-census-2018/$FILE/EY-asean-FinTech-census-2018.pdf)

18 <https://www.ey.com/Publication/vwLUAssets/ey-state-of-FinTech-in-asean/%24File/ey-state-of-FinTech-in-asean.pdf>

19 <https://asean.org/asean-updates-aec-2025-consolidated-strategic-action-plan-csap/>

20 <https://www.adb.org/sites/default/files/related/107721/Advancing%20Financial%20Inclusion%20Through%20FinTech%20in%20ASEAN.pdf>

21 <https://www.adb.org/site/private-sector-financing/microfinance-program>

are still no specific regulations for P2P lending in certain jurisdictions such as in Vietnam, Singapore and Philippines. For these jurisdictions, P2P lending businesses fall within the scope of existing regulations such as securities laws and AML requirements.

### Equity Crowdfunding

Bespoke regulations have been issued in many jurisdictions to support the operation of equity crowdfunding platforms as an alternative means for fundraising. Examples of this include the Equity Crowdfunding Framework issued by the Securities Commission Malaysia<sup>22</sup> and the OJK Regulation No.37/POJK.04/2018 concerning IT Crowdfunding Services via Public Offerings.

Much of the regulation or guidelines issued specifically for equity crowdfunding are broadly similar in scope. They include ensuring sufficient risk management and specify requirements such as paid-up capital, IT infrastructure preparation and relevant disclosure duties. Furthermore, the regulations set limits of the total amount of funds that can be raised through the platforms, as well as the types of investors.

While there are no bespoke regulations in certain jurisdictions such as Laos, Myanmar and Vietnam, the regulators can still apply existing security laws and regulations to equity crowdfunding activities.

### Digital Payments

Under Article 5 of the e-ASEAN Framework Agreement, member states should adopt an electronic commerce regulatory and legislative framework which creates consumer trust and confidence.<sup>23</sup> The Framework Agreement shows the importance of e-payments and its supporting regulatory instrument and helps to ensure a standardized approach across the region.

At a national level, regulators in most Southeast Asian countries are keen to promote the use of e-payments in both public and private activities. The vast growth of QR payments in the region perfectly highlights this development.

In a number of jurisdictions regulators are trying to streamline existing payment regulations to keep pace with new developments in the payment sector, as well as to facilitate payment service providers in a single activity-based regulation. The Payment Services Act, which was passed by the Singaporean Parliament, and the Thai Payment System Act are great examples of adaptive regulation. There is, however, some differentiation in the operational requirements for e-payment service providers among ASEAN jurisdictions; for instance, the types of operational license, the qualification requirements and the types of service providers.

### ICO/Cryptoassets

The Central Banks in Southeast Asian countries have all adopted a cautious stance towards the rise of cryptoassets and specifically cryptocurrencies. They are very conscious of the potential harm to consumers if these products are used fraudulently. Some regulators have introduced bespoke cryptoasset regulations which include specific guidelines on cryptocurrencies. However, almost all regulators have stated that cryptocurrencies are not recognized as legal tender.

In several jurisdictions, including Singapore, Malaysia and Thailand, there are increasing amounts of ICO activity. This has spurred the regulators to introduce bespoke regulation or retrofit current regulation to oversee these activities. In some cases, the regulator has decided to outlaw certain elements of this practice; in Indonesia, the regulator has banned the use of cryptocurrencies by FinTechs including for ICOs.<sup>24</sup>

Bespoke regulation or regimes have been proposed in a number of jurisdictions within the region. For instance, the Royal Decree on Digital Asset Businesses in Thailand and the Guide to Digital Token Offerings and the changes proposed in the Payment Services Act to regulate crypto exchanges in

22 <https://www.sc.com.my/news/media-releases-and-announcements/sc-releases-public-response-on-proposed-equity-crowdfunding-framework>

23 [https://asean.org/?static\\_post=e-asean-framework-agreement](https://asean.org/?static_post=e-asean-framework-agreement)

24 <https://icoexaminer.com/ico-news/indonesiancentral-bank-opposes-cryptocurrencies-icos/>

Singapore. In jurisdictions such as Brunei, Indonesia, Laos, Myanmar and Vietnam, regulators have decided to wait and see how the market develops before issuing any regulations. However, among these jurisdictions, regulators are trying to develop a better understanding of cryptoasset activities in order to provide adequate regulations or guidance. One example of this is in Vietnam, whereby the Ministry of Justice is reviewing existing laws on the management of virtual assets and currencies.

### **InsurTech**

All of the ASEAN member states continue to regulate InsurTech generally through pre-existing insurance regulation and legislations. There are very limited bespoke regulation elements incorporated into this; Singapore is the only country to date which has imposed specific measures on InsurTech companies.<sup>25</sup>

The legislations related to InsurTech businesses include data privacy laws, electronic transaction laws and digital payment laws.

### **Self-Regulation Mechanisms**

At present, there are no comprehensive guidelines for self-regulatory efforts in ASEAN jurisdictions. The lack of this could be due to the absence of an industry standard organization within the region.

### **Relevant Policies and Engagement**

Generally, ASEAN regulators have exhibited a great willingness to support the growth and development of FinTech. The establishment of innovation offices and regulatory sandboxes in many jurisdictions reflects this approach. In addition, due to the cross-border nature of FinTech, collaboration among both regulators and industry players in the region is common to strengthen and advance the sector, whilst ensuring effective monitoring. These international collaborations can include membership to multi-national associations as well as MOU's and cooperation agreements.

In some jurisdictions, regulators have pursued favorable tax policies for FinTech firms such as tax exemptions and lower corporate income tax rates. These policies apply in Indonesia, Laos, Malaysia, Philippines, Thailand and Vietnam.

Some regulators have introduced co-working or collaboration spaces in order to encourage the growth of domestic FinTech firms. Examples of these can be found in Vietnam, Philippines and Malaysia.

### **Regulatory challenges**

A number of common challenges have been recognized with regards to FinTech across the region. For some, poor infrastructure makes it difficult for the FinTech market to develop, despite the best efforts of the regulator to support and encourage it. Other issues include respective regulators lack of capacity and resources, particularly in developing and emerging countries.

Similarly, there can be challenges presented when there is scarcity of international investors; in order to entice both foreign and domestic players to enter the market, regulators have to be extremely cautious about setting strict entry and supervision requirements. This could potentially result in regulation which is not adequate being issued.

The relatively slow development of technology in certain jurisdictions is also affecting regulation. A good example of this is KYC checks, which in some countries are still limited to face-to-face identity verification in accordance with the existing laws and customs.

Regulatory harmonization is also a significant challenge elsewhere in the region. This is exhibited in areas such as the different data protection standards, making it difficult for firms to operate in and around the region and impacting on the FinTech ecosystem within ASEAN. Another example is cross-border payments, where the fragmentation of platforms and differences in terms of regulations and policies across the region make it very difficult for payment service providers to offer services at regional level.

25 <https://e27.co/breakdown-insurtech-regulations-singapore-20170831/>

Cryptocurrencies is another sector where regulatory approaches differ significantly.

The lack of an industry standard organization in many jurisdictions has also prevented any element self-regulation, which can be a useful means of easing the capacity constraints on regulators. The intervention of governments may be required to develop the use of soft-law mechanisms in the region.

Overregulation of certain FinTech sectors can also be an issue, specifically in cases where bespoke regulation has been developed. This can occur when the proper balance is not ensured between market stimulation and risk management. A good example of this is the equity crowdfunding industry, where initially the requirements to be issued an operating license were so strict that almost no platforms were being approved. Initiatives such as regulatory sandboxes and soft-law mechanisms are being considered to prevent such instances in the future.

## 2.2 Regional overview: Regulatory Innovation Initiatives in ASEAN

Regulatory innovation initiatives have become increasingly common around the world over the last few years. Across the region, regulators face the challenge of rapidly changing financial services markets. New FinTech business models, products, and services raise questions on whether, and how, they should be regulated. These issues are particularly acute in emerging and developing economies where regulators often have limited capacity and resources. Authorities need to carefully balance the opportunities and risks that financial innovation presents for financial inclusion and other regulatory objectives.

Innovation offices, regulatory sandboxes and RegTech solutions are three of the most popular regulatory innovation initiatives being utilised globally.

### Innovation Offices

Some jurisdictions have established innovation offices as a first step in the regulatory innovation journey. Innovation offices come in many different guises, but all engage with, and provide regulatory clarification to, financial services providers offering innovative products and services.

The figure below highlights the distribution of existing or informal innovation offices across the ASEAN region.

#### Innovation Office initiatives across ASEAN



Sources: UNSGSA FinTech Working Group and CCAF. *Early Lessons on Regulatory Innovations to Enable Inclusive FinTech* (2019) and CCAF (2019).

Brunei's FinTech Office is operated by the Autoriti Monetari Brunei Darussalam (AMDB). It is responsible for the regulatory and developmental strategies to facilitate the use of financial technology in the financial sector. It serves as a one-stop virtual facilitation office where interested parties may contact AMDB on any matters concerning FinTech.<sup>26</sup>

Indonesia's OJK Infinity is operated by the Otoritas Jasa Keuangan (OJK). It serves as an innovation hub for digital financial industry development as well as advancement of the FinTech ecosystem. It is also an education centre for financial service players, consumers, participants and regulators.<sup>27</sup>

Malaysia's Financial Technology Enabler Group is operated by the Bank Negara Malaysia (BNM). It supports innovations that will improve the quality, efficiency and accessibility of financial services in Malaysia. It is responsible for formulating and enhancing regulatory policies to facilitate the adoption of technological innovations in the Malaysian financial services industry.<sup>28</sup>

26 <https://www.ambd.gov.bn/FinTech-office>

27 <https://dailysocial.id/post/ojk-launches-ojk-infinity-digital-financial-innovation-center>

28 <https://www.myfteg.com/>

Singapore's FinTech and Innovation Group is operated by the Monetary Authority of Singapore (MAS). It is responsible for regulatory policies and development strategies to facilitate the use of technology and innovation, to better manage risks, enhance efficiency, and strengthen competitiveness in the financial sector.<sup>29</sup>

Thailand's FinTech Forum is operated by the Securities and Exchange Commission of Thailand (SEC). It facilitates innovative financial products or services that leverage technology that provides cost effective, timely and secured products or services. It also serves as a channel for sharing, discussing, and consulting by inviting academics, start-ups, incumbents and regulators together to share their ideas and work together to align with the government's digital economy initiatives.<sup>30</sup>

### Regulatory Sandboxes

In recent years, regulatory sandboxes have become an increasingly popular tool to facilitate and encourage innovation. Sandboxes are, at their core, formal regulatory programs that allow market participants to test new financial services or business models with live customers, subject to certain safeguards and oversight. Global interest in sandboxes is strong, with regulatory sandboxes now live or planned in over 50 jurisdictions.<sup>31</sup>

ASEAN was one of the first regions to develop a cross-jurisdictional sandbox. APIX, a platform of the ASEAN Financial Innovation Network (AFIN), was established earlier this year by the International Finance Corporation (IFC), MAS and the ASEAN Bankers Association (ABA). It is designed to be a flexible online global FinTech marketplace and sandbox platform for financial institutions of all shapes and sizes from across ASEAN, with plans to extend to the Middle East and North Africa.<sup>32</sup>

The figure below highlights the distribution of sandboxes across the ASEAN region.

#### Regulatory Sandbox initiatives across ASEAN



Sources: UNSGSA FinTech Working Group and CCAF. *Early Lessons on Regulatory Innovations to Enable Inclusive FinTech* (2019) and CCAF (2019).

29 <https://www.gov.sg/gcdi/ministries/pmo/statutory-boards/mas/departments/mpidifi/departments/ftig>

30 <https://www.sec.or.th/TH/Pages/FinTechForum.aspx>

31 <https://www.jbs.cam.ac.uk/faculty-research/centres/alternative-finance/publications/early-lessons-on-regulatory-innovation-to-enable-inclusive-FinTech/#.XI74HCj7TIU>

32 <https://apixplatform.com/marketplace/landing>

Brunei's regulatory sandbox is operated by the AMBD. It was launched in 2018 and there are currently two approved participants. The AMBD has issued detailed guidance and is keen on further participants entering its sandbox.<sup>33</sup>

Indonesia's Regulatory Sandbox is operated by Bank Indonesia, the Central Bank. It was launched in 2017 and to date 34 firms have registered to test their products or services.<sup>34</sup> It is primarily for FinTech firms within the banking sector that are registered with the Bank.<sup>35</sup>

Indonesia's second Regulatory Sandbox is operated by the OJK. It was launched in 2018 and there is no public data on number of participants. It is aimed at FinTech firms attempting to implement a new business model with wide market coverage.<sup>36</sup>

Malaysia's Financial Technology Regulatory Sandbox is operated by the BNM. It launched in 2017, and there are currently five participants with one firm recently graduating. It is available for authorised or registered business as defined in the Financial Services Act 2013 and Islamic Financial Services Act 2013, or a money services business as defined in the Money Services Business Act 2011.<sup>37</sup>

The Philippines Regulatory Sandbox is operated by Bangko Sentral ng Pilipinas (BSP). It was launched in 2018 and to date there is no public data on number of participants. It is available for any firm proposing to engage in FinTech activities or the delivery of FinTech products and services not otherwise specifically regulated under prevailing legislation.<sup>38</sup>

Singapore's FinTech Regulatory Sandbox is operated by MAS. It was launched in 2016, it has received more than 40 applications with five firms currently testing. Additionally it has provided guidance to 140 firms and individuals. It allows FinTech players to experiment with innovative financial products or services in the production environment but within a well-defined space and duration.<sup>39</sup>

Thailand's Regulatory Sandbox is operated by the Bank of Thailand (BOT). It launched in 2017 and has had eight participants to date, with five of them recently graduating through the sandbox. It is for FinTech developers, including financial and non-financial institutions, to continue innovating financial technology in order to increase the efficiency of financial services.<sup>40</sup>

Thailand's InsurTech Sandbox is operated by the Thailand Office of the Insurance Committee (OIC). It launched in 2017 and there has been one participant to date. It is available for FinTech firms seeking to further develop digital insurance solutions in the country.<sup>41</sup>

Vietnam's sandbox will be operated by the State Bank of Vietnam (SBV). The SBV has been assigned to prepare a regulatory sandbox for FinTech activities in Vietnam, thereby working towards a comprehensive legal framework in the near future. However, no details of the sandbox have been published to date, nor any information on its expected release date.<sup>42</sup>

33 [https://www.ambd.gov.bn/SiteAssets/FinTech-office/FTSG%20v1\\_final.pdf](https://www.ambd.gov.bn/SiteAssets/FinTech-office/FTSG%20v1_final.pdf)

34 <https://dfsobservatory.com/sites/default/files/DFS%20-%20The%20State%20of%20Regulatory%20Sandboxes%20in%20Developing%20Countries%20-%20PUBLIC.pdf>

35 <https://www.bi.go.id/id/sistem-pembayaran/FinTech/regulatory-sandbox/Contents/default.aspx>

36 <https://www.lexology.com/library/detail.aspx?g=ba27fa50-283e-4a2e-b969-386e412dfb64>

37 <http://www.bnm.gov.my/index.php?ch=57&pg=137&ac=533&bb=file>

38 [www.bsp.gov.ph/publications/speeches.asp?id=616](http://www.bsp.gov.ph/publications/speeches.asp?id=616)

39 <http://www.mas.gov.sg/Singapore-Financial-Centre/Smart-Financial-Centre/FinTech-Regulatory-Sandbox/Understanding-and-applying-to-the-sandbox.aspx>

40 <https://www.bot.or.th/Thai/FIPCS/Documents/FPG/2559/ThaiPDF/25590251.pdf>

41 <http://www.oic.or.th/consumer/news/announcements/87010>

42 <http://www.conventuslaw.com/report/regulatory-sandbox-for-FinTech-in-vietnam/>

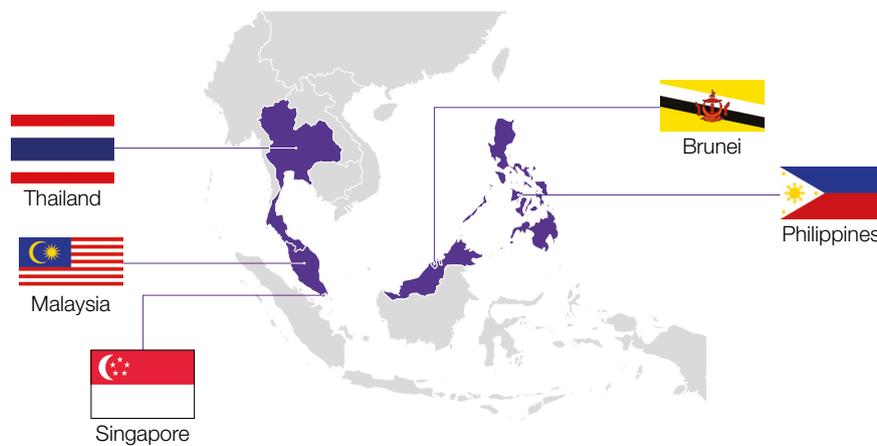
## RegTech

RegTech is an increasingly important tool for regulators to consider as they innovate and promote financial inclusion. While the term “RegTech” encompasses all technologies used for regulatory purposes — whether by regulators or regulated institutions — it was first conceptualized to describe compliance technology used to aid those subject to regulation. Significant adoption of RegTech is a longer-term proposition that often develops over an extended time frame. However, RegTech may prove to be a longer lasting solution, due to its potential to help regulators adapt to a changing marketplace.

The figure below highlights the distribution of RegTech efforts and the underpinning technologies employed by regulators across the ASEAN region.

Brunei’s Autoriti Monetari Brunei Darussalam has utilised RegTech to help implement a centralised statistical system, managing its collection of financial data from external entities.<sup>43</sup>

### RegTech initiatives across ASEAN



Sources: UNSGSA FinTech Working Group and CCAF. *Early Lessons on Regulatory Innovations to Enable Inclusive FinTech (2019) and CCAF (2019).*

Malaysia’s BNM has launched an Open API (application programming interface), focusing on motor insurance, credit cards and SME financing.<sup>44</sup>

Philippine’s BSP has partnered with the RegTech for Regulators Accelerator (R2A), a global initiative that provides technical assistance for financial sector regulators to “develop and test the next generation of digital supervision tools and techniques.”<sup>45</sup>

Singapore’s MAS has utilised RegTech to help develop their FinTech ecosystem, particularly in the fields of identity/KYC, data governance and platforms for innovation.<sup>46</sup>

Thailand’s BOT is leveraging RegTech to help develop its DLT industry.<sup>47</sup>

43 <https://www.bankingtech.com/2017/01/bruneis-central-bank-selects-vizor-for-financial-data-revamp/>

44 <https://FinTechnews.my/18462/regtech-FinTech-regulation-malaysia/bnm-open-api-open-banking/>

45 <https://www.r2accelerator.org/bsp>

46 <http://FinTechnews.sg/25967/regtech/regtech-singapore/>

47 <https://www.asiablockchainreview.com/bank-of-thailand-pushes-towards-blockchain-in-government-to-save-bonds/>

## 2.3 Country-by-country Profiles

The table below provides a snapshot of the currently regulatory approach employed by ASEAN countries towards Peer-to-peer Lending, Equity Crowdfunding, Digital Payments, ICO/Cryptocurrencies and InsurTech. These are explored in further detail in the following pages.

	P2P Lending	Equity Crowdfunding	Digital Payments	ICO/Crypto	InsurTech
<b>Brunei</b>	Unregulated but not prohibited	Regulated under bespoke regulation	Unregulated but not prohibited	Regulated under existing legislation	Regulated under existing legislation
<b>Cambodia</b>	Regulated under existing legislation	Regulated under existing legislation	Regulated under existing legislation	Regulated under bespoke legislation	Regulated under existing legislation
<b>Indonesia</b>	Regulated under bespoke regulation	Regulated under bespoke regulation	Regulated under bespoke regulation	Regulated under existing legislation	Regulated under existing legislation
<b>Laos</b>	Regulated under existing legislation	Regulated under existing legislation	Regulated under bespoke regulation	Unregulated but not prohibited	Regulated under existing legislation
<b>Malaysia</b>	Regulated under bespoke regulation	Regulated under existing legislation			
<b>Myanmar</b>	Regulated under bespoke regulation	Unregulated but not prohibited	Regulated under bespoke regulation	Prohibited	Regulated under existing legislation
<b>Philippines</b>	Regulated under existing legislation	Unregulated but not prohibited	Regulated under bespoke regulation	Regulated under existing legislation	Regulated under existing legislation
<b>Singapore</b>	Regulated under existing legislation	Regulated under existing legislation	Regulated under bespoke regulation	Regulated under existing legislation	Regulated under existing legislation
<b>Thailand</b>	Regulated under bespoke regulation	Regulated under existing legislation			
<b>Vietnam</b>	Unregulated but not prohibited	Regulated under existing legislation	Regulated under bespoke regulation	Unregulated but not prohibited	Regulated under existing legislation

### 2.3.1 BRUNEI

#### Regulatory Authorities

Autoriti Monetari Brunei Darussalam (AMBD) is a statutory body and the de facto Central Bank of Brunei. It also is the sole regulatory authority in Brunei and the entire financial services sector falls within its remit.

#### P2P Lending/Marketplace Lending

Marketplace lending is traditionally referred to as SME financing. The SME lending rate is a minimum of 3.0% per annum.

In September 2017, the Government set up an SME Bank, Bank Usahawan Berhad. This establishment has taken over all existing SME loans previously provided by the commercial banks. It seeks to be the leading provider of financial services to the micro, small, and medium-sized entrepreneurs in Brunei.<sup>48</sup> It offers financial products and advisory services which are compliant with Islamic shariah financing requirements.

48 Bank Usahawan, <http://bankusahawan.com.bn/>

P2P lending is not yet an established concept in Brunei and as such, there are currently no recognized operators or platforms within this industry.

### Equity Crowdfunding

The regulatory requirements on crowdfunding are outlined under section 239(1) of the Securities Markets Order, 2013 (SMO).<sup>49</sup> The AMBD further issued a notice on equity crowdfunding (ECF) platform operators that took effect on 11th August 2017.<sup>50</sup> The notice introduces new requirements for any applicants intending to operate an ECF platform in Brunei. An applicant must apply for a Capital Market Services License, allowing it to carry out the regulated activities of dealing and arranging deals in investments and investment advice.<sup>51</sup>

The issuance of the notice is expected to facilitate the growth and development of capital market sector and provide start-ups and small businesses an alternative source of financing to raise capital. As of yet, the equity crowdfunding industry has not taken-off in Brunei.

### Digital Payments

In support of the national development strategy set out in Wawasan Brunei 2035, AMBD visualizes Brunei becoming a leading digital payment nation. The AMBD has introduced a National Payment Settlement System (NPSS) project, which is a platform for the banking industry to provide more innovative products and enhanced e-payment services to consumers.

Traditional payment and settlement processes can be time consuming and costly; the transfer of funds can take several days. With the banks fully embracing the NPSS project, customers can soon expect to make payments that are more convenient, significantly faster and drastically more secure.<sup>52</sup>

In the Brunei Banking Order of 2006,<sup>53</sup> there is no legal requirement to seek approval from AMBD to launch or offer corporate mobile banking (CMB) services to the public. However, as a matter of practice, both Islamic and non-Islamic banks refer any new CMB products to AMBD. AMBD has developed the Digital Payment Roadmap for Brunei Darussalam 2019-2025<sup>54</sup> as part of its strategic initiatives to drive digital transformation in the payments industry and help develop a dynamic and diversified economy.

### ICO/Cryptoassets

Cryptocurrencies are not currently legal tender in Brunei. The AMBD has issued a press release to this effect on 22nd December 2017.<sup>55</sup> Following the press release, another statement was issued in 2017 stating that the activities surrounding cryptocurrencies could be regulated if they fall under any of the activities regulated in the relevant legislations under AMBD's purview.<sup>56</sup> This may include, but is not restricted to; providing financial services to the public in the form of taking deposits, extensions of loans, remitting funds across the border, foreign exchange services and the issuance of securities.

There are foreign cryptocurrency platforms or websites which can be accessed in order to purchase or trade cryptocurrencies. However, these websites are operated by companies based outside of Brunei and therefore do not fall under the remit of the AMBD.

49 Securities Markets Order, [http://www.agc.gov.bn/AGC%20Images/LAWS/Gazette\\_PDF/2013/EN/s059.pdf](http://www.agc.gov.bn/AGC%20Images/LAWS/Gazette_PDF/2013/EN/s059.pdf)

50 AMBD, Notice On Equity Based Crowdfunding Platform Operators, <https://www.ambd.gov.bn/SiteAssets/Lists/News/News/AMBD%20Press%20Release%20-%20ECF%20Notice%20170815CC.pdf#search=CROWDFUNDING>

51 Notice under the Securities Markets Order, [https://www.ambd.gov.bn/SiteAssets/Lists/Announcements/Notice%20on%20Equity%20Based%20Crowdfunding%20Platform%20Operators%20\(pdf%20searchable\).pdf#search=CROWDFUNDING](https://www.ambd.gov.bn/SiteAssets/Lists/Announcements/Notice%20on%20Equity%20Based%20Crowdfunding%20Platform%20Operators%20(pdf%20searchable).pdf#search=CROWDFUNDING)

52 Leap of Faith – Next Gen National Payment and Settlement Systems and Beyond, [https://www.ambd.gov.bn/SiteAssets/leap-of-faith-next-gen-national-payment-and-settlement-systems-and-beyond/AMBD%20Article%20-%20PSS\\_FINAL.pdf](https://www.ambd.gov.bn/SiteAssets/leap-of-faith-next-gen-national-payment-and-settlement-systems-and-beyond/AMBD%20Article%20-%20PSS_FINAL.pdf)

53 Brunei Banking Order, [http://www.agc.gov.bn/AGC%20Images/LOB/Order/ABC/B/Banking%20Order%20and%20Regulations,%202006/BANKING%20\(LICENCE%20FORMS%20AND%20FEES\)%20REGULATIONS,%202006.pdf](http://www.agc.gov.bn/AGC%20Images/LOB/Order/ABC/B/Banking%20Order%20and%20Regulations,%202006/BANKING%20(LICENCE%20FORMS%20AND%20FEES)%20REGULATIONS,%202006.pdf)

54 AMBD, Digital Payment Roadmap for Brunei Darussalam 2019-2025, <https://www.ambd.gov.bn/Lists/News/Displayitem.aspx?ID=389>

55 AMBD, Public to Exercise High Caution with Cryptocurrencies, <https://www.ambd.gov.bn/SiteAssets/Lists/News/News/AMBD%20Press%20Release%20-%20Cryptocurrencies.pdf%23search=cryptocurrencIES>

56 AMBD, Public to Exercise High Caution with Cryptocurrencies, <https://www.ambd.gov.bn/SiteAssets/Lists/News/News/AMBD%20Press%20Release%20-%20Cryptocurrency.pdf#search=cryptocurrencIES>

Regarding ICO's, only those financial institutions licensed by the AMBD under the Brunei Banking Order and Islamic Banking Order 2006<sup>57</sup> can accept deposits for savings, lendings and investment purposes.

### **InsurTech**

In Brunei, both conventional insurance and Takaful (sharia compliant) insurance services provide policies for various things such as general, life and family. Currently, there are 13 insurance operators in Brunei, including both local and foreign operators.<sup>58</sup>

Insurance providers have started to apply technological innovation in their businesses, but this is still very much in its infancy and is currently restricted to basic aspects such as mobile onboarding. Typically, the insurance/Takaful operators have rolled out renewal of policies via online and/or call centers.

The insurance sectors, for both general and family, are regulated by the Insurance Order of 2006<sup>59</sup> and the Takaful Order of 2008<sup>60</sup> under the supervision of the AMBD.

### **Self-Regulation Mechanisms**

At this time, there is no public discourse regarding self-regulation in Brunei.

### **Other Policies and Engagements**

Since 2017, the AMBD has partnered with a RegTech firm, Vizor Software, to revamp its collection of financial data. The purpose of this is to collect financial data from external entities via a single portal, to generate reports and insights. AMBD says this is a key step to building a sound and dynamic financial system.

AMBD is a member of and actively contributes to the ASEAN Capital Markets Forum, ASEAN Insurance Forum, ASEAN Insurance Regulators' Meeting, Asia Pacific Economic Cooperation (APEC) Financial Infrastructure Development Network (FIDN), Asia/Pacific Group on Money Laundering (APG) and Financial Services-Information Sharing and Analysis Centre (FS-ISAC).

AMBD has signed MOUs with fellow regulators and authorities including the Cambodia Financial Intelligence Unit of National Bank of Cambodia, the Capital Market Authority of Oman, the Office of Insurance Commission of Thailand and the Securities Exchange and Commission of Thailand.

57 [http://www.agc.gov.bn/AGC%20Images/LAWS/Gazette\\_PDF/2006/EN/S045.pdf](http://www.agc.gov.bn/AGC%20Images/LAWS/Gazette_PDF/2006/EN/S045.pdf)

58 <http://apps.asiainsurancereview.com/IDA/Asp/CompanyList.aspx?company=&type=&jobType=&country=Brunei&search=company>

59 [http://www.agc.gov.bn/AGC%20Images/LAWS/Gazette\\_PDF/2006/EN/s048.pdf](http://www.agc.gov.bn/AGC%20Images/LAWS/Gazette_PDF/2006/EN/s048.pdf)

60 <https://www.ambd.gov.bn/SiteAssets/Pages/Legislation-And-Regulations/Takaful%20Regulation,%202008.pdf>

## 2.3.2 CAMBODIA

### Regulatory Authorities

The primary financial regulator is the National Bank of Cambodia (NBC), while the Securities and Exchange Commission of Cambodia (SECC) regulates capital markets.

### P2P Lending/Marketplace Lending

P2P lending is relatively new to Cambodia, with one formal platform currently in operation - Komchey. Komchey has entered the market aiming to target the business community. P2P lending remains as much a new concept to regulators as it is to the general public. There is not enough traction for this new business model to draw on any type of general perception from the regulators and society.

P2P lending is governed by the Law on Banking and Financial Institutions<sup>61</sup>, primarily under the supervision of the NBC and to a certain extent the SECC, if securities is the subject of the transaction. P2P lending businesses will likely be considered to be providing intermediary services which thereby requires the entity to apply for a license from the NBC before commencing operations.

### Equity Crowdfunding

At this moment in time, there does not appear to be any equity crowdfunding activity in Cambodia. Cambodia's securities market is still embryonic, hence there is no discussion yet on this model of crowdfunding.

The Law on the Issuance and Trading of Non-Government Securities<sup>62</sup> (Law on Securities) is the primary legislation governing the operation of the security market in Cambodia. For equity crowdfunding, the law stipulates the conditions to be met for both the issuing entity and platform.

For a platform facilitating the issuance and trading of equities, approval from the Director General of the SECC is required in accordance with article 23 of the Law on Securities. The SECC will study and evaluate on the issuance of related licenses based on its criteria set out in related decrees. For issuing entities, the Law on Securities sets out basic criteria to be met to be able to issue securities.

### Digital Payments

The digital payments industry has boomed in recent years, with many firms having developed their own mobile applications. This revolutionizes how Cambodians conduct day to day transactions. PiPay is a locally grown company leading the move to go cashless.<sup>63</sup> Despite rapid developments, Cambodia still lacks the necessary regulations needed to govern this newly developed cashless method of payment.

Cambodia is still in the process of drafting its legislation on e-commerce. Currently, only the first draft is available, and it has a very broad scope. It is unclear when this e-commerce law will be passed.<sup>64</sup>

The government has taken initiatives to encourage citizens to utilize existing technologies by creating payment systems in which tax, non-tax and other public fees can be paid through online platforms. Cambodia Post, a state-owned agency that handles the postal service, has recently launched its own mobile application to allow for payments of shipping fees as well as utilities and school tuition payments.<sup>65</sup> In addition, the government is also working to develop a strategy to help and incentivize investments in e-payment systems in Cambodia.

61 The Law on Banking and Financial Institutions, [https://www.nbc.org.kh/download\\_files/legislation/laws\\_eng/86004-Law-on-Banking-and-Financial-Institutions-1999.pdf](https://www.nbc.org.kh/download_files/legislation/laws_eng/86004-Law-on-Banking-and-Financial-Institutions-1999.pdf)

62 The Law on the Issuance and Trading of Non-Government Securities, <http://www.secc.gov.kh/english/m21.php?pn=2&sn=1&no=30>

63 Forbes, *Cambodia has its own mobile payment app, but will it catch on beyond Phnom Penh?*, <https://www.forbes.com/sites/daniellekeetonolsen/2018/01/15/how-cambodias-leading-mobile-payments-app-is-using-discounts-to-drive-customer-acquisitions/#4f8efd7b5a74>

64 <https://www.khmertimeskh.com/547516/e-commerce-law-closer-to-approval/>

65 Khmer Times, Cambodia Post launches e-payment, money transfer app, <https://www.khmertimeskh.com/50499269/cambodia-post-launches-e-payment-money-transfer-app/>

## ICO/Cryptoassets

The concepts of cryptocurrencies are very new in Cambodia and cause much skepticism and controversy among the regulators. Cambodia remains for the most part unwelcoming towards cryptocurrencies. Regulators have not formally recognized any cryptocurrency operation in the market and have issued a warning to investors that those who deal or support the use of cryptocurrency without obtaining license will be punished by applicable law.<sup>66</sup> The same applies to ICOs.

## InsurTech

The insurance industry in Cambodia only started to fully function in the year 2000 when the Insurance Law of the Kingdom of Cambodia was passed.<sup>67</sup> The insurance industry is regulated by the Ministry of Economy and Finance of Cambodia, while the primary legislation is the 2014 Law on Insurance and its related regulations.<sup>68</sup>

While the insurance industry itself has experienced tremendous growth, there is only one InsurTech firm currently in operation; BIMA.<sup>69</sup> BIMA is currently cooperating with Smart Axiata, one of Cambodia's leading telecom service provider, by acting as the underwriter for Smart Axiata's subscribers.<sup>70</sup> BIMA's presence has allowed many more Cambodians, who would otherwise be ignored by big traditional insurance firms, to purchase insurance policies for themselves and their families.

## Self-Regulation Mechanisms

At present, there are no efforts to introduce soft law mechanisms such as self-regulation by the Cambodian regulators.

## Relevant Policies and Engagement

The Finance Minister of Cambodia, Aun Pornmoniroth, stated in an interview in August 2018 that "the government will develop a strategy [for the] digital economy to provide the private sector with a reliable platform, and may provide tax incentives to e-payment businesses to promote investment and growth of this sector".<sup>71</sup> Further developments are expected in the near future.

Cambodia is a member of the ASEAN Capital Market Forum, ASEAN Insurance Forum, ASEAN Insurance Regulators' Meeting and the APEC Group on Money Laundering. The NBC has further signed an MOU to develop FinTech relations with the Autoriti Monetari Brunei Darussalam.

66 Joint Statement Between the National Bank of Cambodia, the Securities and Exchange Commission of Cambodia and the General-Commissariat of National Police, [https://www.nbc.org.kh/download\\_files/news\\_and\\_events/news\\_eng/5070Joint\\_statementNBC\\_SECC\\_POLICE\\_11\\_May\\_2018\\_english.pdf](https://www.nbc.org.kh/download_files/news_and_events/news_eng/5070Joint_statementNBC_SECC_POLICE_11_May_2018_english.pdf)

67 Insurance Association of Cambodia, *Cambodia Insurance Market at a Glance*, <http://www.iac.org.kh/images/files/Cambodia%20Insurance%20at%20Glance%28%20English%29.pdf>

68 <https://www.ilo.org/dyn/natlex/docs/ELECTRONIC/86080/96913/F580020967/KHM86080.pdf>

69 BIMA Cambodia, *About Us*, <http://bima.com.kh/about-bima/bima-cambodia/>, (this page is in Khmer, the English equivalent of it does not function)

70 FinTech News Singapore, *BIMA Leverages Mobile Tech to Bring Insurance Products to Developing Countries*, <http://FinTechnews.sg/4529/InsurTech/bima-cambodia-leverages-mobile-tech-bring-insurance-products-developing-countries/>

71 <http://sea-globe.com/cambodias-finance-minister-FinTech-may-play-critical-role-in-supporting-financial-inclusion/>

### 2.3.3 INDONESIA

#### Regulatory Authorities

Bank Indonesia is the Central Bank and all elements of financial oversight and stability falls under its domain. The Indonesian Financial Services Authority (OJK) supervises the financial services sector which also incorporates managing the registration, security and licensing of FinTech firms.

#### P2P Lending/Marketplace Lending

OJK Regulation No.77/POJK.01/2016 provides guidelines regarding the organization of technology-based P2P lending services. This generally refers to financial services which are provided via online systems and which facilitate meetings between lenders and borrowers for the purpose of entering into loan agreements in the Indonesian Rupiah currency.

There are three defined parties involved in such transactions; platform operators, borrowers and lenders. Under such lending schemes, these parties can engage in two types of agreement, which must be drawn up in the form of electronic documents, namely agreement between operators and lenders; and agreement between lenders and borrowers.<sup>72</sup>

#### Equity Crowdfunding

OJK Regulation No.37/POJK.04/2018, concerning Information-Technology-Based Crowdfunding Services via Public Offerings, is the regulation issued to regulate and oversee the equity crowdfunding industry.

As a recently regulated industry, there is currently no significant equity crowdfunding activity in Indonesia. However, it is expected by financial technology stakeholders that equity crowdfunding will grow exponentially in the near future.

#### Digital Payments

Article 1(6) of Law No.23 of 1999 concerning Bank Indonesia defines payment systems and describes the regulations, institutions, and mechanisms which apply to digital payments. This includes credit/debit cards, ATMs, electronic transactions through clearing and real-time settlement, electronic money, internet banking, mobile banking, and other similar means of payments.

Digital payment firms are common in Indonesia and may have existed long before the relevant laws and regulations were issued. The main authority which oversees or regulates the industry is Bank Indonesia. On 2 September 2016, it announced Five Bank Indonesia Initiatives for the Payment System under Decree No.18/73/DKom: the national payment gateway; implementation of the national standard for Indonesian Chip Card Specification; payment transaction processing; financial technology; and government to person social assistance.<sup>73</sup>

#### ICO/Cryptoassets

Indonesia does not recognize virtual currency as legal tender - Bank Indonesia Regulation No.18/40/PBI/2016 concerning Implementation of Payment Transaction Process specifically prohibits use of virtual currency in the payment transaction process. This was clarified in a press release dated 06 February 2014, "Statement of Bank Indonesia in relation to Bitcoin and other Virtual Currencies". The statement highlighted the Bank's stance that Bitcoin and other virtual currencies are not currencies, or a valid means of payment in Indonesia. The public was also urged to be cautious towards virtual currencies in general.

Nonetheless, the trade of virtual currency is not prohibited. Instead, virtual currencies are legally traded as a commodity under Commodity Futures Trading Regulatory Agency (Badan Pengawas Perdagangan Berjangka Komoditi) Regulation No.5 of 2019 concerning Technical Provisions on Operation of Crypto Assets Market in Futures Exchange, which was passed on 8 February 2019.

<sup>72</sup> OJK Regulation No.77/POJK.01/2016 concerning Technology-Based Fund-Lending Services.

<sup>73</sup> Bank Indonesia, 'Five Bank Indonesia Initiatives for the Payment System' Press Release, [https://www.bi.go.id/en/ruang-media/siaran-pers/Pages/sp\\_187316.aspx](https://www.bi.go.id/en/ruang-media/siaran-pers/Pages/sp_187316.aspx)

## InsurTech

There is currently no specific regulation regarding InsurTech in Indonesia. The existing insurance providers still use conventional insurance licenses, regulated under OJK Regulation No.69/POJK.05/2016 concerning the Organization of Insurance, Sharia-Insurance, Reinsurance, and Sharia-Reinsurance Companies. In addition, insurance broker companies, reinsurance broker companies, and insurance loss appraisal companies are regulated under OJK Regulation No.68/POJK.05/2016 of 2016 concerning Licensing and Institution Of Insurance Broker Companies, Reinsurance Broker Companies, and Insurance Loss Appraisal Companies.

Research is currently being conducted in order to explore the potential of InsurTech in Indonesia,<sup>74</sup> and development is expected in the near future.

## Self-Regulation Mechanisms

At this time, there are no specific laws or regulations relating to self-regulation.

## Relevant Policies & Engagement

There are currently no tax incentives specifically for FinTech companies, however, there is a general corporate income tax reduction available for companies fulfilling certain requirements (industries that are classified as ‘pioneer’ and having an authorised capital investment plan of minimum 1 trillion rupiah, or 500 billion rupiah if the company introduces high technology).

OJK has been an active member of ASEAN Capital Markets Forum.<sup>75</sup> OJK has also signed several MOUs with other countries’ financial regulator, such as the Monetary Authority of Singapore<sup>76</sup> and the Bank of Thailand.<sup>77</sup>

74 Bawono Yadika, ‘Rhenald Kasali: Insurance Technology Bakal Hadir di RI’, Liputan 6, <https://www.liputan6.com/bisnis/read/3376051/rhenald-kasali-insurance-technology-bakal-hadir-di-ri>

75 <http://aseanhcsummit.com/members>

76 <https://www.ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Joint-Media-Release-Indonesia-and-Singapore-strengthen-cooperation-in-FinTech.aspx>

77 <https://www.ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Joint-Press-Release-Signing-of-a-MoU-on-Banking-Supervision-between-OJK-and-Bank-of-Thailand.aspx>

## 2.3.4 LAOS

### Regulatory Authorities

Bank of Lao PDR (BOL), the Central Bank, supervises operations of the banking and financial sectors.

The Securities and Exchange Commission (SEC) regulates the securities industry.

The Ministry of Finance (MOF) administers and controls the operation of the insurance industry.

### P2P Lending/Marketplace Lending

To date, there has been no record on the number of P2P lending participants or the volume of transactions in Laos. The inactivity within the market is most likely attributed to the lack of legal certainty around P2P lending in Laos, due to the absence of specific regulation. The lack of growth in engagement of both potential entrants and customers in P2P lending may also stem from the high cost of infrastructure, resulting in difficulty in persuading customers to switch to an online platform for loan activities.

Additionally, due to a lack of any specific regulations, it is questionable if investors can incorporate an enterprise with an objective to offer P2P lending services without being classed as some other type of financial institute, which will then trigger the application of relevant regulations.

### Equity Crowdfunding

Lao laws and regulations require that securities be issued by public companies and offered in the capital market in accordance with the approval of BOL. Considering the existence of regulatory restraints, equity crowdfunding in Laos has been inactive. There are no records of crowdfunding platform operators or foreign crowdfunding platforms that are approved to operate in Laos.

Currently, the only legitimate way to publicly raise funds is through the issuance of equity on the Lao Stock Exchange (LSX) and organizing a public fund in accordance with Lao laws and regulations. The LSX, which was founded in 2010<sup>78</sup>, only had nine listed companies trading in the market in 2018. All of the current listed companies have strong financial profiles, with the smallest having been registered with 40 million shares. The process for listing a company in LSX is also heavily regulated, and not cost efficient for start-up businesses. The organization of public funds is available only to asset management companies, and the fund shall be used for investment in securities or assets as authorized by the SEC.<sup>79</sup>

### Digital Payments

While the market for electronic banking products is booming across ASEAN, the development of electronic payments is still in its early stage in Laos. To date there are only a handful of market participants and products. The lack of active participants and the growth of the market are influenced by general socio-economic conditions and regulatory barriers for market entrant in Laos.

The Law on Payment System also requires that the payment system operator and provider apply for business operation license with the BOL. BOL is required to consider the application within 30 days from the date of the receipt.<sup>80</sup> The payment system business operation license shall be valid for a period as determined by the BOL.<sup>81</sup>

The digital payments sector is predominated by Lao banking or financial institutes, particularly commercial banks. These institutions are now offering a wide range of electronic banking products, including credit and debit cards, internet banking and mobile banking, to their consumers. It is however to be noted that foreign bank's branches are mostly inactive in the electronic banking market.

78 Lao Securities Exchange, 'The History of LSX', 2011, available online at <http://www.lsx.com.la/en/about/history.jsp>

79 Article 29, Law on Securities No. 21/NA dated 10 December 2012.

80 Article 37, Law on Payment System No. 32/NA dated 7 November 2017

81 Article 38, Law on Payment System No. 32/NA dated 7 November 2017

In response to the growth of the popularity of QR code payment in Asia, a number of Lao financial institutes also launched their QR code payment system. The launch of the QR code payment system as well as other payment systems is subject to the authorisation of BOL in accordance with the Law on Payment System No. 32/NA dated 7 November 2017.

Foreign investment in payment system businesses is subject to some regulatory barriers. Foreign entities shall seek partnership with local payment operators in Laos in order to provide services.<sup>82</sup> The BOL is also responsible in approving the connection of local payment system networks with the foreign system.<sup>83</sup> Given the fact BOL has extensive discretion in the grant of its approval in this absence of clear guidelines, entering Lao electronic payment and remittance market can be difficult and costly for foreign investor.

### ICO/Cryptoassets

Similar to other FinTech products, cryptoassets are still in their infancy in Laos. Financial transactions in the country are still mainly in cash<sup>84</sup> and not many people are familiar with the technology. BOL views these products with extreme caution and has issued a notice warning against the risks of cryptocurrencies. There are no available statistics on the number of Laotians engaged in the trade or use of cryptocurrencies.

While cash transactions remains to be preferred in Laos, it has been reported in 2018 that some businesses have already begun accepting cryptocurrencies as a means of payment for goods and services, as advertising investment or a commodity to trade in.<sup>85</sup> The first cryptocurrency exchange Laos, Vientiane Exchange Money, opened at the beginning of July 2018.

However, cryptocurrencies are not recognized as legal tender in Laos. Under the Law on Payment System, payment instruments aside from cash are limited to cards, cheque, fund transfer, or electronic money in Lao kip.<sup>86</sup> Cryptoassets, digital tokens, or distributed ledger technology are not defined under this Law or in other laws in Laos. The BOL has issued a Notice on 29 August 2018 warning the public against the use of cryptocurrencies, citing Bitcoin, Ethereum, and Litecoin as examples. This Notice by the BOL, while not outright banning cryptocurrencies, has stemmed the active development and uptake of this technology in the country.

### InsurTech

Insurance and related businesses are categorized as controlled business activities in Laos. Despite the fact that integration of technology into insurance businesses is not explicitly prohibited by laws and regulations, the adoption of InsurTech in Laos is relative slow.

There are over 20 approved insurance companies operating in Laos. The insurance industry is heavily regulated under the supervision of MOF and Ministry of Planning and Investment (MPI). Most insurance companies are a foreign invested entity, with some being joint foreign investment between a Lao entity and a foreign investor. This lack of domestic investment in the industry may be attributed to the fact that the minimum registered capital required for the incorporation of insurance companies required by law is restrictive for general local investors.<sup>87</sup>

The only InsurTech product currently available in Laos is 'AGL – My Insurance' mobile application offered by Allianz General Laos. However, unlike most sophisticated InsurTech products, the extent of utility of the application is limited to storing client information, claim records and individuals insurance contracts. Customers cannot purchase any insurance policies on this application and the entire features of the application are dedicated to third party liability and car insurances.

82 Article 28, Law on Payment System No. 32/NA dated 7 November 2017

83 Article 29 and 31, Law on Payment System No. 32/NA dated 7 November 2017

84 Alex Kong, "The State of FinTech in Laos", 27 December 2016 <https://yostartups.com/the-state-of-FinTech-in-laos/>

85 Laotian Times, "Bank of Laos Warns Public Against Use of Cryptocurrencies", 31 August 2018, <https://laotiantimes.com/2018/08/31/bank-laos-warns-cryptocurrencies/>.

86 Article 14, Law on Payment System No. 32/NA, dated 7 November 2017.

87 Article 20, Law on Insurance No. 06/NA dated 21 December 2011, sets minimum registered capital requirement for the establishment of insurance company at 16 billion LAK.

Laws and regulations in Laos create a number of indirect obstacles to the development of InsurTech. The Law on Insurance No. 06/NA dated 21 December 2011 (Law on Insurance) requires that insurance companies shall be registered with a minimum capital of 16 billion LAK (1.8 million USD).<sup>88</sup> The probability of small and medium insurers, which tend to adopt InsurTech, to participate in the development of Lao insurance market is therefore low.

### **Self-Regulation Mechanisms**

Laos does not currently have self-regulation mechanisms in any FinTech industry.

### **Relevant Policies and Engagement**

Governmental authorities in Laos encourage investment involving technology transfer and innovation. Foreign and domestic investors are eligible for investment incentives in accordance with The Law on Investment Promotion No. 14/NA dated 17 November 2016. Incentives under the Law includes the exemption from profit tax<sup>89</sup>, the application of 0% VAT and custom duty exemption for importation of material and equipment,<sup>90</sup> and land-related incentives.<sup>91</sup>

The United Nation Capital Development Fund (UNCDF) assists BOL in the development of its FinTech market and regulation. It enables BOL access to FinTech discussions in regional and international forums and provides FinTech regulatory experts to support Laos in its FinTech law and policy making activities.

At the regional level, Laos is an active ASEAN member in the implementation of e-commerce initiatives. E-commerce and information technology laws and regulations are increasingly adopted. This includes the promulgation of the Law on Electronic Transaction in 2012, the Law on Cybercrime in 2015, and the Law on Electronic Data Protection in 2017. Despite the need of international assistances, there is no publicly available record of Lao Government entering into binding instruments of any kind at national, regional and international levels containing its commitment to specifically develop FinTech market and regulations.

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88 Supra Note 91

89 Article 11, Law on Investment Promotion No. 14/NA dated 17 November 2016.

90 Article 12, Law on Investment Promotion No. 14/NA dated 17 November 2016.

91 Article 15 and 16, Law on Investment Promotion No. 14/NA dated 17 November 2016.

## 2.3.5 MALAYSIA

### Regulatory Authorities

There are two main regulatory authorities in Malaysia. The Central Bank, Bank Negara Malaysia (BNM), regulates the country's financial institutions, credit system and monetary policy.

The capital markets regulator, Securities Commission Malaysia (SC), is a statutory body entrusted with the responsibility of regulating and systematically developing the capital markets in Malaysia.

### P2P Lending/Marketplace Lending

P2P lending is relatively a new concept in Malaysia, and in order to promote it, the SC has appointed six operators to run P2P platforms. These are Funding Societies,<sup>92</sup> Fundaztic,<sup>93</sup> QuickKash,<sup>94</sup> Alixco, Nusa Kapital<sup>95</sup> and B2B FinPal.<sup>96</sup>

The SC states that all P2P operators must be locally incorporated and have a minimum capital base of RM5 million. They must ensure that investors' monies are properly safeguarded from conversion or inappropriate use by its officers. They may only release the fund to the issuer provided that there is no material adverse change relating to the investment notes or Islamic investment notes during the offer period. The regulation further states that where an Islamic investment note is executed or offered, on or through a P2P platform, the P2P operator must establish and maintain a Shariah compliant trust account with a licensed Islamic bank, licensed bank or licensed investment bank approved to carry on Islamic banking business, for purpose of the fund raised. An issuer is permitted to keep any amount which was raised through a hosting on a P2P platform provided that the issuer must have at least raised 80 per cent of the target amount.

The SC regulations also state that a sophisticated investor or angel investor may invest in any issuer hosted on the P2P platform and shall not be subjected to any restriction in respect of his investment amount. However, to manage the risk exposure of retail investors, P2P operators must encourage retail investors to limit their investments on any P2P platform to a maximum of RM50,000 at any period of time. In this regard, a P2P operator may require the investors to file a declaration confirming their compliance with the limit.

### Equity Crowdfunding

There are currently seven equity crowdfunding (ECF) platforms in Malaysia: PitchIn; Ataplus; Crowdplus. Asia; Crowdo; FundedByMe; Eureeca and Fuunnel Technologies. Overall the ECF industry has raised a total of over RM 38 million (USD 9.3 million) in more than 40 campaigns. RM3 million is the maximum amount that any one company can raise via ECF at any one time. In total, they can raise RM5 million by going through a second funding round. About 5% of ECF investors are foreign investors while the larger 95% are local investors. Overall, the campaigns have attracted 2000 investors from 25 different countries.

All ECF operators in the country have banded together to form an association named Registered Digital Markets Association. They work together on six main objectives which include working with regulators and educating the market of ECF investment opportunities.

ECF are regulated by the SC of Malaysia where an ECF operator obtains and retains the self-declared risk acknowledgement forms from the investors prior to them investing on an ECF platform. The regulation also noted that an ECF operator may allow for the hosting of a micro-fund on its platform provided the micro-fund is registered with the SC as a venture capital company, has a specified investment objective and only raises funds from sophisticated investors or angel investors.

92 <https://fundingsocieties.com.my/>

93 <https://p2p.fundaztic.com/>

94 <https://www.quickkash.com/>

95 <https://www.nusakapital.com/>

96 <https://www.b2bfinpal.com/>

In terms of crowdfunding limit, an issuer can only raise up to RM3 million within a twelve month period, irrespective of the number of campaigns an issuer may seek funding for during the 12-month period. Additionally, an issuer can only utilise the ECF platform to raise a maximum amount of RM5 million, excluding the issuer's own capital contribution or any funding obtained through a private placement exercise.<sup>97</sup>

### Digital Payments

Mobile-based applications are dominating the market in Malaysia, including daily purchase of goods and services. Apart from using credit cards online, the use of electronic wallet (e-wallet) has gained popularity and is expanding fast. Under the BNM Financial Sector Blueprint 2011–2020 (FSBP), one of its key objectives is to achieve greater economic efficiency through e-payment. BNM has undertaken efforts to promote e-payment such as formulating an E-Payments Roadmap in the FSBP and creating an enabling environment to spur the adoption of e-payments.

Under the Financial Services Act 2013 (FSA), digital payments are now governed as a payment instrument. Issuers of designated payment instrument (DPI) are required to obtain BNM's prior approval. Empowered by the FSA, BNM has prescribed e-money as a DPI under the Financial Services (Designated Payment Instruments) Order 2013 (DPI Order).

BNM has also prescribed several requirements under the E-payment guidelines with various operational requirements in the form of principles such as the requirement to establish adequate governance and operational arrangements, to ensure proper risk management is in place, to ensure prudent management of funds etc.

On 20 March 2018, BNM issued the Interoperable Credit Transfer Framework (ICTF) which come into effect on 1 July 2018. The ICTF is essentially the establishment of a shared payment infrastructure to enable interoperability of credit transfer services which would expand network reach and avoid market fragmentation. This would impact both inter-bank credit transfers and inter-scheme (e-money) credit transfers. All such credit transfers must be processed in Malaysia through the operator of the shared payment infrastructure, Payments Network Malaysia Sdn. Bhd. (PayNet)<sup>98</sup>, an entity partly owned by BNM.

### ICO/Cryptoassets

The SC issued its much anticipated framework for crypto-exchanges recently in January 2019, which states that they will fall under the purview of its Guidelines on Recognised Markets, being the same guidelines used to regulate Equity Crowdfunding and P2P lending players. Under the same guideline, the regulator has amended a section to introduce new requirements for crypto exchanges.

Key requirements that cryptocurrency exchanges will need to comply with in order to operate in Malaysia are:<sup>99</sup>

- i. All Digital Asset Exchange (DAX) Operators must be locally incorporated and have a minimum paid-up capital of RM5 million;
- ii. A DAX Operator is prohibited from providing direct or indirect financial assistance to investors, including its officers and employees, to investor trade in Digital Assets on its platform;
- iii. No DAX Operator shall facilitate the trading of any Digital Asset unless the SC has approved the trading of the said Digital Asset;
- iv. A DAX Operator must establish an internal audit function to develop, implement and maintain an appropriate internal audit framework which commensurate with its business and operations; and

97 <https://www.sc.com.my/api/documentms/download.ashx?id=eb8f1b04-d744-4f9a-a6b6-ff8f6fee8701>

98 <https://www.paynet.my/>

99 <https://www.sc.com.my/api/documentms/download.ashx?id=eb8f1b04-d744-4f9a-a6b6-ff8f6fee8701>

- v. A DAX Operator must only allow investors to invest or trade in Digital Assets hosted on its platform using Ringgit Malaysia or any foreign currency which is recognised as legal tender, subject to Bank Negara Malaysia's requirements relating to international and domestic transactions.

Under the revised guidelines, any person who is interested in operating a digital asset platform is required to apply to the SC to be registered as a recognized market operator by 1 March 2019. New guidelines also noted that any person operating unauthorised initial coin offerings (ICOs) or digital asset exchange faces a 10-year jail and RM10 million fine. Meanwhile, guidelines for ICOs have yet to be released and are expected for end of March 2019.

### InsurTech

Malaysia continues to suffer from low penetration rate in insurance industry, which has remained static within the range of 54% to 56% over the last five years.<sup>100</sup> This provides an opportunity for InsurTech players to penetrate the market with their digital offering. Insurance companies have over the past couple of years branched out into online platforms and mobile apps, making these products more accessible to customers.

One of the key Insurance players in the country, Takaful Malaysia<sup>101</sup>, is making use of digital offering to gain the market share. For instance, it is using costs and utilization business intelligence platform that allows their Business Managers to share their corporate clients' claims costs. PolicyStreet<sup>102</sup> is one of the leading InsurTech platform trying to generate enough demand from consumers to push insurers to introduce innovative products. According to PolicyStreet's website, the platform's range of insurance products includes medical cards, personal accident, home contents, dental, sports and diabetes care. GoBear<sup>103</sup>, which was the first company approved under BNM regulatory sandbox, is one of the few aggregator platforms in Malaysia. Launched in 2016, it provides comparisons for personal loans, credit cards and travel insurance. There are currently 14 insurers on GoBear's platform providing travel insurance, which has a take-up rate of 35%.

### Self-Regulation Mechanisms

As of now, there does not seem to be any comprehensive guidelines for self-regulatory efforts in Malaysia.

### Relevant Policies and Engagement

The FinTech Association of Malaysia (FAOM)<sup>104</sup> helps facilitate ecosystem collaboration between FinTech stakeholders in Malaysia, with the key objectives to support the Malaysian FinTech community and build awareness and trust in FinTech start-up s.

The Malaysia Tech Entrepreneur Programme (MTEP) is an initiative by the Malaysian government that aims to attract individuals from all around the world, and help them to kick-start their start-up s in Malaysia. Under the MTEP, both new and established entrepreneurs from all over the world are encouraged to apply if they wish to set-up their start-up s in Malaysia.

The Malaysia Digital Hub<sup>105</sup> offers start-up s the opportunity for global expansions, ready access to high-speed broadband and fibre optic connectivity, funding and facilitation opportunities, workforce-ready ecosystem, technologically focused and a holistic convenience and lifestyle experience.

100 <http://www.focusmalaysia.my/Enterprise/insurance-industry-gets-a-digital-makeover>

101 <https://www.takaful-malaysia.com.my/home/Pages/Default.aspx>

102 <https://policystreet.com/>

103 <https://www.gobear.com/my>

104 <http://www.FinTechmalaysia.org/index.php/home>

105 <https://www.malaysiadigitalhub.my/>

Malaysia is also the part of 'Asia-Pacific FinTech Network' which was formally launched at the Asian Financial Forum in Hong Kong through the signing of a Statement of Intent by nine FinTech associations in the region<sup>106</sup>.

The SC has signed series of cooperation agreements with the Hong Kong Securities and Futures Commission, the Dubai Financial Services Authority, the Monetary Authority of Singapore and the Australian Securities and Investments Commission.<sup>107</sup> The SC and MAS have also signed an agreement to foster closer cooperation on FinTech and innovation in financial services, allowing both regulators to assist innovative businesses to better understand the regulatory regime in each jurisdiction and provide support through the application and authorisation processes.

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106 <https://www.regulationasia.com/nine-associations-join-forces-to-launch-asia-pacific-FinTech-network/>

107 <https://www.sc.com.my/news/media-releases-and-announcements/sc-establishes-FinTech-cooperation-agreements-with-major-financial-centres>

## 2.3.6 MYANMAR

### Regulatory Authorities

The Central Bank of Myanmar (CBM) and the Ministry of Planning and Finance (MOPF) are the key authorities responsible for regulating the financial services sector (including FinTech) in Myanmar.

### P2P Lending/Marketplace Lending

P2P Lending has traditionally occurred in Myanmar under unlicensed and informal conditions where borrowing from friends or family member is common and the use of unlicensed money lenders is also rampant. Informal P2P lending in this form, typically comes with hefty interest rates varying between approximately 30% to 100% per annum for collateralized loans and between 60% to 200% for uncollateralized loans. Where collateral is provided, this includes gold, jewelry and land. Other than such informal peer lending, there is no current framework for regulated P2P Lending in Myanmar.

### Equity Crowdfunding

Presently, crowdfunding is not a popular and prevalent financing method in Myanmar.<sup>108</sup> Fund Myanmar claims to be the first investment portal in Myanmar that provides a platform to promote local businesses to access capital funding (including equity crowdfunding) locally and globally, through its connection with the Myanmar business community and strong investors.<sup>109</sup>

The legal framework in Myanmar does not provide guidance on the regulatory requirements on crowdfunding.

### Digital Payments

Myanmar remains a predominantly cash-dependent economy and the preference to pay in cash even extends to the purchase of vehicles and houses. This is mainly due to the population being largely unbanked; a study conducted in 2018 revealed only 25% of the population is banked whereas the remaining 75% is unbanked.<sup>110</sup>

In December 2013, the CBM has issued a Directive on Mobile Banking (No. 4/2013) (MBD) which authorized a bank-led model for the provision of mobile banking services, to make payments process more efficient and convenient. The MBD provides for a list of financial services which can be undertaken through mobile banking, namely (a) domestic remittance and remittance from other countries; (b) cash-in and cash-out through agents, bank branches, ATMs, or branches of a mobile operator; (c) payments between business, individuals, and Government; and (d) microfinance, overdraft and other small payments like insurance premium.

In conjunction with the expansion of telecoms industry in Myanmar, Regulation on Mobile Financial Services (MFSR) was subsequently issued by the CBM in March 2016 to open up the market to non-bank financial institutions, and to create an enabling regulatory environment for efficient and safe mobile financial services in Myanmar. MFS transactions that are permitted under the MFSR are (a) opening and maintaining MFS accounts; (b) cash-in or cash-out transactions to or from MFS accounts; (c) money transfer between MFS accounts; (d) domestic payments between businesses, individuals, and Government; and (d) any other transactions as the CBM may authorize from time to time.

Digital payments are regulated by the CBM which categorizes mobile-based financial services into two categories, being (a) mobile banking under the MBD 2013 regime offered by a traditional bank or by a FinTech company in conjunction with a traditional bank; and (b) MFS under the MFSR 2016, which is operator-led.

<sup>108</sup> Myanmar Insider, Crowdfunding: Alternative financing for SMEs in Myanmar, <http://www.myanmarinsider.com/crowdfunding-alternative-financing-for-smes-in-myanmar/>

<sup>109</sup> Fund Myanmar, <https://fundmyanmar.com/>

<sup>110</sup> UNCDF, *FinScope Myanmar 2018 Launch* p.12 ([www.finmark.org.za/wp-content/uploads/2018/07/FS-Myanmar-2018-Launch-Presentation.pdf](http://www.finmark.org.za/wp-content/uploads/2018/07/FS-Myanmar-2018-Launch-Presentation.pdf))

## ICO/Cryptoassets

The CBM has not announced their official view on cryptocurrencies. The Ministry of Home Affairs in May 2018 cautioned against the trading of cryptocurrencies by issuing a statement that cryptocurrencies were “unstable” and those interested should only study them, and not invest.<sup>111</sup>

While cryptocurrency is neither legalized nor regulated locally, various sites are operating platforms in Myanmar. The government is adopting a stringent approach towards cryptocurrency related activities, and in May 2018, the authorities took enforcement actions against cryptocurrency trading platforms that have allegedly been operating in Myanmar without any licence or approval.

## InsurTech

Prior to 2 January 2019, only local companies were allowed to provide insurance services in Myanmar.<sup>112</sup> The recent liberalization now permits foreign insurers wishing “to operate the business of insurance, underwriting agency or insurance broking with foreign investment” to operate its business in Myanmar, subject to certain licensing and minimum capitalization requirements. By accepting foreign players into the industry, local players will benefit from the access to additional know-how, especially in relation to InsurTech. Currently, the insurance providers in Myanmar have not started to apply technology innovations in their traditional business models.

The Insurance Business Supervisory Board was formed under the Insurance Business Law 1996 and reports to the MOPF. It has the role of regulating insurers, underwriting agents and insurance brokers in Myanmar.

## Self-Regulation Mechanisms

Currently, there does not appear to be any public discourse on self-regulatory efforts in Myanmar relating to FinTech.

## Relevant Policies and Engagement

The Digital Economy Development Committee (DEDC) is a national-level committee that consists of public and private sectors with an aim to develop Myanmar’s digital economy.<sup>113</sup> The role of the DEDC is to promote the development in economy and public services using digital technology by implementing policies which will help in advancing Myanmar’s digital economy<sup>114</sup> and media reports have reported that the DEDC is drafting Myanmar Digital Economy Development Master Plan to develop and regulate the country’s booming digital economy.<sup>115</sup>

Myanmar has entered into agreements with several international agencies and is an active member of the ASEAN Economic Community which includes regional cooperation in finance.<sup>116</sup> The United Nations Capital Development Fund has launched programs in Myanmar to accelerate financial inclusion and develop financial programs centered at youth, poor and low income groups and women.<sup>117</sup>

The Myanmar Ministry of Finance has signed an MOU with the Financial Services Agency of Japan to assist in the development of Myanmar’s financial infrastructure.<sup>118</sup> Myanmar has also signed an MOU with the Bank of Thailand to provide capacity building training.<sup>119</sup>

111 Frontier Myanmar, Government warns against cryptocurrency trading (9 May 2018), <https://frontiermyanmar.net/en/government-warns-against-cryptocurrency-trading>.

112 See Ministry of Planning and Finance Announcement No. 1/2019.

113 Myanmar Times, Embrace technology for a better tomorrow, says technopreneur (7 December 2018), <https://www.mmtimes.com/news/embrace-technology-better-tomorrow-says-technopreneur.html>.

114 Ibid.

115 Ko Ko, Thiha, “Myanmar drafts digital economy masterplan” (19 January 2018) (<https://www.mmtimes.com/news/myanmar-drafts-digital-economy-master-plan.html>)

116 Asean Finance Ministers’ and Central Bank Governors’ Joint Meeting - <https://asean.org/asean-economic-community/asean-finance-ministers-meeting-afmm/overview/>

117 <https://www.uncdf.org/myanmar>

118 <https://www.fsa.go.jp/en/news/2014/20140127-1/01.pdf>

119 <https://www.cbm.gov.mm/content/signing-memorandum-understanding-between-central-bank-myanmar-and-bank-thailand-technical-0?page=462>

## 2.3.7 PHILIPPINES

### Regulatory Authorities

There are three primary regulators in the Philippines.

The Bangko Sentral ng Pilipinas (BSP) is the Central Bank and provides policy directions in the areas of money, banking, and credit. It also exercises supervisory and regulatory powers over the operations of finance companies, non-bank financial institutions performing quasi-banking functions, and institutions performing similar functions. Under the Office of the Deputy Governor, the BSP created the Financial Supervision Sector (FSS) with a Financial Technology Sub-Sector (FTSS).

The Securities and Exchange Commission (SEC) formulates policies and regulates the securities market.

The Insurance Commission (IC) regulates and supervises the insurance industry.

### P2P Lending/Marketplace Lending

There are no specific regulations governing online P2P lending. Republic Act No. 9474, otherwise known as the Lending Company Regulation Act of 2007, defines lending companies as corporations that engage in the granting of loans from its own capital funds or those sourced from no more than 19 persons. It shall not include banking institutions, investment houses, savings and loan associations, financing companies, pawnshops, insurance companies, cooperatives and other credit institutions already regulated by law.

Lending companies are under the supervision and regulation of the SEC. A lending company must be established as a stock corporation, with a minimum paid-up capital of 1 Million Pesos in general. However, if it is one hundred percent owned by foreign nationals, the paid-up capital requirement is increased to 10 Million Pesos. The company must: (a) pay the initial application and annual fees; (b) maintain books of accounts and records; and (c) furnish borrowers with a disclosure statement detailing the rate of interest on the loan, amortization schedule and penalties for late payment, among others. It must also obtain a secondary license from the SEC and be issued a Certificate of Authority.

### Equity Crowdfunding

In November 2017, the SEC issued Rules and Regulations Governing Crowd Funding,<sup>120</sup> and made a request for comments from market participants and interested parties. The purpose behind these rules is to encourage investments while ensuring the protection of investors.

These rules only cover the operation and use of equity and lending-based crowdfunding by registered persons such as brokers, investment houses, funding portals, issuers and investors. There is a cap of 10 Million Pesos as the maximum amount of funds that may be raised in a 12-month period to exempt the security from registration requirements.

As per these rules, the issuer must disclose, among others, its financial condition, historical reports of its operations, business plan, risk factors of its projects, nature of its businesses and procedures on completing/cancelling an investment and the return of funds if its target is not met. It must also submit annual reports to the SEC of all its transactions and financial statements as well as progress updates on meeting its target amount.

The funding portal must have equity of at least 50 Thousand Pesos and must submit a Registration Statement with its principal place of business; its legal status and disciplinary history, if any; business activities; website and types of compensation the funding portal would receive; account opening and disclosure rules and business conduct rules.

As to intermediaries, they must be registered securities brokers, investment houses as defined in the Investment Houses Law and funding portals that comply with the registration requirements of the Rules.

120 SEC, Rules and Regulations Governing Crowd Funding, [https://www.sec.gov.ph/wp-content/uploads/2017/11/2017Notice\\_DraftRulesandRegulationsGovernmentCrowdv2.pdf](https://www.sec.gov.ph/wp-content/uploads/2017/11/2017Notice_DraftRulesandRegulationsGovernmentCrowdv2.pdf)

## Digital Payments

The BSP has issued two circulars specifically regulating entities that provide digital payment services. BSP Circular No. 649, Series of 2009 provides guidelines for issuers as a retail payment medium in the Philippines. Issuers may be banks or non-banking financial institutions registered as a money transfer agent. BSP Circular No. 704, Series of 2010 streamlines the licensing requirements of banks and financial institutions that intend to offer electronic payment and financial services.

All issuers must obtain prior BSP approval, but the requirements depend on the type of institution. Banks must submit to the BSP the description of services to be offered, a certification from the bank president that it has an adequate risk management process, security policies and procedures, system testing prior to implementation, a business continuity plan on electronic banking channels and systems, satisfactory financial condition, continuing risk management oversight, adequate security controls, and compliance with AML policies.

All issuers of digital payments must adopt risk management policies that include internal controls, properly designed and tested computer systems, appropriate security policies and measures, business continuity and recovery plans and audit functions. The total accumulated cash value of instruments issued should not exceed 100 Thousand Pesos a month, unless the BSP approves a higher amount.

In November 2017, the BSP issued Circular No. 980, Series of 2017, which promulgated the National Retail Payment System Framework, a policy and regulatory framework to establish a safe, reliable, and efficient retail payment system.

## ICO/Cryptoassets

The BSP defines virtual currency (VC) as any type of digital unit that is used as a medium of exchange or a form of digitally stored value created by agreement within the community of VC users. VCs are neither issued nor guaranteed by any jurisdiction and do not have legal tender status.

The BSP has issued two advisories and one circular on VC. BSP Circular No. 944, Series of 2017, known as the Guidelines for VC Exchanges. It officially recognised the legitimacy of VCs, a progressive stance in comparison to other states. While the BSP does not officially endorse any VCs, its aims to regulate VCs when used for delivery of financial services, which have a material impact on anti-money laundering, combating terrorist financing, consumer protection and financial stability.

In March 2014, the BSP issued “A Warning Advisory on Virtual Currencies.”<sup>121</sup> It informed the public of what VCs are, its features, attendant risks and its possible ties to money laundering and other illicit activities. In December 2017, the BSP issued an “Advisory on the Use of Virtual Currencies”,<sup>122</sup> after it observed that an increasing number of individuals or entities may be tempted to invest in VC pyramid schemes disguised as ICOs or VC investment products. It advised the public to exercise caution regarding the acquisition, possession and trading of VCs or dealing with VC-related offers.

In January 2018, the SEC issued an “Advisory on Initial Coin Offerings”.<sup>123</sup> It noted that certain individuals or groups are enticing the public to participate in so-called ‘initial coin offerings’ and to purchase the corresponding ‘virtual currency’. It likened the VCs to a security and reminded the public that the securities must be registered, and the seller/agent must have the appropriate license to sell it to the public.

In August 2018, the SEC issued the Proposed Rules on ICOs, Series of 2018,<sup>124</sup> to address the recent financial innovation of raising funds for a business through online platforms. It requested for comments and input from the public. In December 2018, the SEC subjected the Proposed Rules to a second round of public consultation.

121 BSP, Warning Advisory on Virtual Currencies, <http://www.bsp.gov.ph/publications/media.asp?id=3377>

122 BSP, Warning Advisory on Virtual Currencies, <http://www.bsp.gov.ph/publications/media.asp?id=4575>

123 SEC, Advisory on Initial Coin Offerings, [http://www.sec.gov.ph/wp-content/uploads/2018/01/2017Advisory\\_InitialCoinOffering.pdf](http://www.sec.gov.ph/wp-content/uploads/2018/01/2017Advisory_InitialCoinOffering.pdf)

124 SEC, Rules on Initial Coin Offerings, <http://www.sec.gov.ph/wp-content/uploads/2018/12/Notice-and-Proposed-Rules-on-Initial-Coin-Offering.pdf>

## InsurTech

The IC has issued five Circular Letters (“CL”) in recent years to encourage insurance companies to utilize available technology.

In November 2014, the IC issued CL 2014-47, Series of 2014, entitled Guidelines on Electronic Commerce of Insurance Products. This CL requires insurance providers to provide specific information on their websites to enable customers to make an informed choice. The use of any mobile application should be with the prior approval of the IC, and this application should be registered with a major digital platform such as Apple, Inc. App Store, Google, Inc. Google Play and Microsoft Windows Marketplace.

In March 2016 the IC issued CL 2016-15, Series of 2016, permitting the renewal of electronic policies online. Generally, for variable life insurance products, the insurance providers must refer the consumer to a licensed agent or intermediary for advice prior to the online execution or issuance of the variable life contract.

In November 2016, the IC issued CL 2016-60, Series of 2016. This allows a consumer to signify his consent to the contract by clicking the confirmation button to finalize the processing of the application instead of manually inputting a specimen signature.

Later in the same month, the IC issued CL 2016-61, Series of 2016. Based on this Circular, the IC must recommend the approval of the telemarketing arrangement or agreement before the company or broker may engage in the telemarketing of insurance products.

Finally, in January 2018, the IC issued CL 2018-07, Series of 2018. This provides guidelines for the use and payment of a mobile insurance application that may be pre-installed in the mobile device, an item in the SMS menu of the network carrier or downloaded by the user through any of the digital platforms.

## Self-Regulation Mechanisms

As the FinTech market in the Philippines is still at its infancy, the concept of self-regulation within the FinTech environment does not yet exist.

## Relevant Policies and Engagements

The BSP partnered with R2A RegTech for Regulators Accelerator to develop two tools; an Application Programming Interface (API) and a chatbot prototype.<sup>125</sup> The API allows banks to digitally and directly report to the BSP, enabling the BSP to improve data collection and analysis, while the chatbot allows customers to send complaints to the BSP through their mobile phones.

In November 2017 the BSP entered into a FinTech Cooperation Agreement with the Monetary Authority of Singapore. Both regulators may refer firms, share trends, best practices and emerging developments.<sup>126</sup> The BSP also partners with non-governmental regional alliances. In May 2018, the BSP signed an agreement with the Alliance for Financial Stability with Information Technology to fight money laundering and to cooperate in the establishment of standards and services related to FinTech.<sup>127</sup>

There are special areas designated as ecozones for industrial, commercial/trading, agro-industrial, tourist, banking, financial and investment centers. There is minimum government intervention in these ecozones, and they are treated as a separate customs territory.<sup>128</sup> Some areas are designated for information technology enterprises who receive special fiscal and non-fiscal incentives such as tax holidays, tax and duty-free importation of equipment and parts, exemption from dues on import shipments of equipment and Special Non-Immigrant Visas with Multiple Entry Privileges.<sup>129</sup>

125 RegTech for Regulators Accelerator, Financial Authority Partner Profile BSP, <https://www.r2accelerator.org/bsp/>

126 BSP, 2017 Annual Report, <http://www.bsp.gov.ph/downloads/publications/2017/annrep2017.pdf>

127 BSP, Financial Inclusion Initiatives 2017, [http://www.bsp.gov.ph/downloads/Publications/2017/microfinance\\_2017.pdf](http://www.bsp.gov.ph/downloads/Publications/2017/microfinance_2017.pdf)

128 Rep. Act No. 7916 as amended (1994).

129 Implementing Rules and Regulations Rep. Act No. 7916 as amended (1994).

## 2.3.8 SINGAPORE

### Regulatory Authority

The Monetary Authority of Singapore (MAS) is Singapore's central bank and financial regulatory authority. It administers the various statutes pertaining to money, banking, insurance, securities and the financial sector in general, as well as currency issuance.

### P2P Lending/Marketplace Lending

Platforms which allow P2P-lending to non-accredited natural persons require a license under the Moneylenders Act.<sup>130</sup> Those facilitating lending to businesses such as start-ups and SMEs do not require such a license, as this would fall under the relevant exception for "excluded moneylenders".

The P2P lending industry has been enjoying a lot of success recently, possibly because all active Singaporean crowdfunding platforms are engaged in it.

MAS has also recognised P2P as a means to facilitate lending to unemployed or low-income individuals through microfinance. On 16 November 2017, it was announced that the ASEAN Financial Innovation Network<sup>131</sup> would provide an "integrated platform for collaboration between ASEAN banks, microfinance institutions, non-banking financial institutions and regional FinTechs".<sup>132</sup>

### Equity Crowdfunding

As of May 2018, seven crowdfunding platforms have obtained a license. Crowdfunding has therefore become an important, though not yet primary, source of investment funds for businesses in recent years, due in part to the support of MAS, which has explored securities-based crowdfunding as an alternative source of financing for start-ups and Small and Medium Enterprises (SMEs).

The three parties to the crowdfunding model are investors, companies and internet-based platforms. Platform regulations center around licensing requirements: any person carrying on business in any 'regulated activity' must be the holder of a CMS license. The ambit of 'regulated activities'<sup>133</sup> under the Securities and Future Act (SFA) has recently<sup>134</sup> been widened to include 'dealing in capital markets products', which are defined to include, inter alia, securities. Platforms which undertake equity crowdfunding therefore have to obtain a CMS license since they deal in securities. A CMS license requires that applicants are able to meet the minimum financial requirements prescribed under the SFA<sup>135</sup> and place a sum of SGD100,000 as a security deposit with MAS.

More recently the definition of 'accredited investor' has been made more stringent.<sup>136</sup> Furthermore, MAS has created an 'opt-in regime', where a person that meets the criteria to be an accredited investor may only be treated as such if he opts to be treated as such,<sup>137</sup> effective 8 January 2019.

### Digital Payments

Singapore's digital payment landscape has recently changed due to the development of the FAST<sup>138</sup> infrastructure. This has allowed direct real-time transfers from one bank account to another, at any time, any place.

130 See Moneylenders Act s5.

131 Formed by MAS, ASEAN Bankers Association and the International Finance Corporation.

132 MAS, ASEAN Financial Innovation Network to support financial services innovation and inclusion, <http://www.mas.gov.sg/News-and-Publications/Media-Releases/2017/ASEAN-Financial-Innovation-Network-to-support-financial-services-innovation-and-inclusion.aspx>.

133 SFA Second Schedule Part I.

134 See Securities and Futures (Amendment) Act 2017, which came into force on 8 October 2018.

135 MAS, Registration and Licensing, <http://www.mas.gov.sg/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Securities-Futures-and-Funds-Management/Registration-and-Licensing-for-Fund-Management-Companies.aspx>

136 Since 8 October 2018, pursuant to SFA s4A(1)(a)(i)(B), an individual must have financial assets (net of any related liabilities) which exceed in value SGD1 million.

137 See Securities and Futures (Classes of Investors) Regulations 2018 (Regulations), as amended by Securities and Futures (Classes of Investors) (Amendment No. 2) Regulations 2019/

138 Fast and Secure Transfers system, to which can be added features to provide more conveniences.

MAS has recently submitted a new Payment Services Bill<sup>139</sup> for first reading in Parliament, which aims to streamline existing regulations of payment services (which are currently regulated under the Payment Systems Oversight Act and the Money-Changing and Remittance Businesses Act enacted in 2006 and 1979 respectively) under a single activity-based<sup>140</sup> legislation. The proposed Bill is targeted at regulating the following key risks:<sup>141</sup> money-laundering and terrorism financing; loss of funds owed to consumers or merchants due to insolvency; fragmentation and limitations to interoperability; and technology and cyber risks. Requirements to mitigate such risks will be imposed only where the licensee conducts the activity that poses the risk identified. It seeks to establish two parallel regulatory frameworks. These are a designation framework for significant payment systems and a licensing framework for payment service providers.

### ICO/Cryptoassets

According to MAS, the use of virtual currencies is not prevalent in Singapore and that only about 20 Singapore retailers currently accept Bitcoins.<sup>142</sup> Additionally, the use of virtual currencies (or digital tokens) as a mode of payment in the financial industry is not significant, and cryptoasset trading is generally for speculative investment purposes. Nevertheless, it is recognised by financial institutions that there has been a growing interest in digital token market. This ecosystem, which includes ‘trading platforms, brokers and wallet providers’,<sup>143</sup> may fall outside regulators’ ambits. While there is currently no bespoke regulation to supervise cryptoasset activities in Singapore, several existing regulations may apply. Furthermore, the launch of organisations like the Token Economy Association (‘TEA’)<sup>144</sup> show a commitment on MAS’ part to the development of this young industry.

MAS has taken a mostly cautious approach to cryptocurrencies to date. Ensuring consumer protection and safeguarding financial stability, while enabling technology innovation have been the main drivers of Singaporean regulators’ approach to crypto-asset activities. MAS has observed that the function of digital tokens has evolved beyond just being a virtual currency, and may represent ownership or a security interest over an issuer’s assets or property, or a debt owed by an issuer. Rule enforcement and consumer protection also falls under the scope of the Commercial Affairs Department. Issuers or intermediaries of digital tokens would be subject to licensing requirements under the Securities and Futures Act and the Financial Advisers Act, unless exempted, and the applicable requirements on anti-money laundering and countering terrorist financing.<sup>145</sup>

### InsurTech

Singapore is Asia’s largest InsurTech hub in terms of start-up count, with this number is expected to increase.<sup>146</sup> In light of rapid technological changes, MAS has imposed regulatory measures on InsurTech companies. There are three common categories of InsurTech businesses: the InsurTech Aggregator, InsurTech Intermediaries and ‘Full Stack’ InsurTech.

The InsurTech Aggregator, which is essentially a digital marketplace for insurance, often directly offers insurance products and services without having to go through brokers, thereby cutting out brokerage costs. These businesses do not originate, underwrite or issue any insurance policy or contract, and therefore in principle do not require the same licenses as intermediaries. However, those digital advisers

139 See Payment Services Bill, <https://sso.agc.gov.sg/Bills-Supp/48-2018/Published/20181119?DocDate=20181119>

140 Channel News Asia, Bill proposes changes to enhance Singapore’s payment services regulations, <https://www.channelnewsasia.com/news/singapore/payment-services-bill-enhances-regulations-10946048>

141 MAS, Explanatory Brief on the Payment Services Bill, <http://www.mas.gov.sg/News-and-Publications/Speeches-and-Monetary-Policy-Statements/Speeches/2018/Explanatory-Brief-on-the-Payment-Services-Bill.aspx> at para 4.

142 Monetary Authority of Singapore, <http://www.mas.gov.sg/News-and-Publications/Parliamentary-Replies/2017/Prevalence-use-of-cryptocurrency-in-Singapore.aspx>. [Accessed: 13 December 2018]

143 Straits Times, Emerging digital token ecosystem draws regulators’ eye, <https://www.straitstimes.com/business/emerging-digital-token-ecosystem-draws-regulators-eye>.

144 Token Economy Association, <http://teasingapore.org/about-us/>. “The Token Economy Association (TEA) is an industry-sponsored, self-regulatory organization (SRO) for the Singapore digital assets industry, specifically cryptocurrencies and tokens.”

145 Monetary Authority of Singapore (2017) A Guide to Digital Token Offerings, <http://www.mas.gov.sg/~media/MAS/Regulations%20and%20Financial%20Stability/Regulations%20Guidance%20and%20Licensing/Securities%20Futures%20and%20Fund%20Management/Regulations%20Guidance%20and%20Licensing/Guidelines/A%20Guide%20to%20Digital%20Token%20Offerings%202014%20Nov%202017.pdf> at section 3.

146 e27, A breakdown of InsurTech regulations in Singapore, <https://e27.co/breakdown-InsurTech-regulations-singapore-20170831/>.

that pass on customer orders to brokerage firms, or those that refer clients to open accounts directly with brokerage firms, must hold a financial adviser's license, unless otherwise exempted. Some digital advisers also offer a platform for the execution of capital markets products and in these cases are required to hold a CMS license.

Regarding InsurTech intermediaries, these relate to brokers or agents for persons in respect of their insurance policies. These companies are required to apply to MAS to be registered as an insurance broker.<sup>147</sup> Acts such as issuing insurance policies, collecting/receiving premiums on policies or arranging insurance contracts would be regulated by the Insurance Act.

Full Stack InsurTech companies seek to build an end-to-end product or service and must apply under the Insurance Act to be direct insurers, reinsurers or captive insurers. There are various admission criteria, with Full Stack InsurTech companies being subject to the same stringent regulatory mechanisms as traditional insurance companies.

### Self-Regulation Mechanisms

Some notable efforts at introducing soft-law mechanisms have been made in Singapore. An example is the recent release by MAS of a set of principles to promote “fairness, ethics, accountability and transparency”, or FEAT, in the use of artificial intelligence and data analytics in finance.<sup>148</sup> FEAT articulates a set of guiding principles which, it is hoped, would encourage firms, to use technologies responsibly and ethically. From the public's perspective, this commitment would foster greater confidence and trust in the use of AI and data analytics.

### Relevant Policies & Engagement

The RegTech initiatives taken by MAS in the past year have included Know-Your-Customer (“KYC”) Utility and Supervisory Technology (“SupTech”). Regarding KYC Utility, MAS is currently liaising with various local and foreign banks to explore setting up a shared-service platform of KYC operations using the MyInfo platform. This arose out of MAS' observations of the duplication and inefficiencies of banks using their individual platforms.<sup>149</sup> If actualised, this integrated platform would allow significant systemic efficiencies to be reaped and harmonise the KYC policy requirements across banks.

MAS has also launched various initiatives to facilitate greater FinTech innovation. One FinTech initiative is MAS' encouragement of the adoption of open Application Programming Interfaces (APIs).<sup>150</sup>

Another initiative is the ongoing Financial Sector Incentive Scheme which aims to promote and encourage the development of Singapore's financial services sector. This grants concessionary tax rates ranging from 5-12% on income derived from qualifying financial activities.<sup>151</sup> However, there has yet to be a FinTech-specific incentive, although it is possible that this might be in the works, given the calls for such tax incentives to be implemented.

MAS has signed a total of 29 FinTech Co-operation Agreements with various international counterparts. MAS is part of the Global Financial Innovation Network (GFIN), which was formally launched in 2019 by an international group of financial regulators. The GFIN is “committed to supporting financial innovation in the interests of consumers” and “seeks to provide a more efficient way for innovative firms to interact with regulators”.<sup>152</sup>

147 MAS, Insurance Brokers, <http://www.mas.gov.sg/Regulations-and-Financial-Stability/Regulations-Guidance-and-Licensing/Insurance/Insurance-Licensing/Insurance-Brokers.aspx>.

148 MAS, MAS introduces new FEAT Principles to promote responsible use of AI and data analytics (12 November 2018), <http://www.mas.gov.sg/News-and-Publications/Media-Releases/2018/MAS-introduces-new-FEAT-Principles-to-promote-responsible-use-of-AI-and-data-analytics.aspx>.

149 Questions and Answers on KYC Utility from the Monetary Authority of Singapore, 9 September 2018.

150 MAS, Application Programming Interfaces (APIs), <http://www.mas.gov.sg/Singapore-Financial-Centre/Smart-Financial-Centre/Application-Programming-Interfaces.aspx>.

151 Rikvin, Singapore Corporate Tax Incentives, <https://www.rikvin.com/taxation/singapore-corporate-tax-incentives/>

152 <https://www.fca.org.uk/firms/global-financial-innovation-network>

MAS also launched the ASEAN Financial Innovation Network (AFIN) with the International Finance Corporation.<sup>153</sup> This regional network aims to “help financial institutions, FinTech firms and regulators address issues of connectivity, local compliance and cross-border compatibility”. One highly-publicised initiative is an industry FinTech sandbox for financial institutions, which aims to be a “cloud-based marketplace for distribution of FinTech solutions to financial institutions located in multiple jurisdictions”.<sup>154</sup>

### **Singapore FinTech Association - Our Unusual FinTech Journey**

*Chia Hock Lai - President, Singapore FinTech Association*

Singapore has long been one of the leading international financial centres, and provides a conducive environment whereby incumbents, innovators, investors and regulators can interact, network and learn from each other. As a result, and with strong government support, Singapore rapidly becomes a leading regional FinTech hub housing about 40% of FinTechs in Southeast Asia.

To support the growth the FinTech ecosystem, the Singapore FinTech Association was officially launched in November 2016, right before the week of the inaugural Singapore FinTech Festival, which has since become the largest FinTech festival of the world. The association was founded as a non-profit cross-industry organisation to facilitate collaboration among the market participants and stakeholders in the ecosystem, with the primary objectives of providing access to talents, market demand and capital.

Membership has been growing fast and today we have more than 300 corporate members and 80% are FinTech and Blockchain firms. Increasingly we are seeing more incumbents joining the Association as the financial services industry is currently undergoing digital transformation and incumbents are keen to work with the innovators in their transformation journey. This is further helped by the fact that Singapore is home to more than 200 financial institutions and 7000 Multinational corporations, making Singapore an attractive market for B2B-focused FinTechs.

Being a small market with only a population size of about 5.6m, many B2C FinTechs use Singapore an operating base and a gateway to Southeast Asia (SEA), which boost a population size of 640m. The SEA is a very attractive market for FinTech due to the relatively young but growing middle income population with high penetration rates for e-commerce, social media and mobile internet. To facilitate the SEA opportunity for our international partners and to help our members internationalise beyond the region, the association has built a network of more than 40 international partnerships in 32 countries.

Early this year we became the first external association to be affiliated with the National Trades Union Congress (NTUC), which is a national confederation of trade unions as well as a network of professional associations and partners across all sectors in Singapore. This affiliation will allow us to help workers in the Financial Services industry cope with the FinTech disruptions through up-skilling and re-skilling in order to future-proof their jobs.

Our journey as a FinTech association is just beginning. Amongst the various initiatives we are embarking this year includes “SMEs Go FinTech”, which aims to raise awareness to Small and Medium Enterprises (SMEs) of the alternative financing and FinTech solutions to their funding needs. While our journey so far might be unusual, we are confident that we are on the right way to enable a better future for our members and partners, and creating a vibrant FinTech ecosystem in the region.

153 MAS, “IFC and Monetary Authority of Singapore Collaborate to Advance FinTech Innovation in Asia”, <http://www.mas.gov.sg/News-and-Publications/Media-Releases/2017/IFC-and-Monetary-Authority-of-Singapore-Collaborate-to-Advance-FinTech-Innovation-in-Asia.aspx>

154 MAS, “ASEAN Financial Innovation Network to support financial services innovation and inclusion”, <http://www.mas.gov.sg/News-and-Publications/Media-Releases/2017/ASEAN-Financial-Innovation-Network-to-support-financial-services-innovation-and-inclusion.aspx>

## 2.3.9 THAILAND

### Regulatory Authorities

There are several key authorities responsible for the regulation of FinTech services in Thailand. The Bank of Thailand (BOT) is the Central Bank and has played a leading role in creating and promoting the environment of FinTech sector in Thailand via its National e-Payments Master Plan and its FinTech regulatory sandboxes.

The Office of the Securities and Exchange Commission (SEC) oversees the securities market.

The Office of the Insurance Committee (OIC) oversees the insurance industry and related services.

### P2P Lending/Marketplace Lending

Traditional P2P lending in Thailand, including informal loans where an individual lends certain amount fund to others, happens mostly in an offline form.<sup>155</sup> Nevertheless, the growth of FinTech has introduced online platforms which match lenders with borrowers. The existence of matchmakers is recognized in the survey of the Kasikorn Research Centre in June 2018, which revealed that there were four or five FinTech start-ups who operate as P2P lending platforms for limited group focusing on SMEs borrowers.<sup>156</sup>

The BOT is actively involved in driving the P2P industry forward. In September 2018, the BOT invited people who are interested in operating a P2P platform to join the regulatory sandbox program.<sup>157</sup> At the end of January 2019, the BOT published its draft of the Notification of the BOT No. FPG.../2562 re: Rules and Procedures and Conditions for the Peer to Peer Lending Platform Business Operation for a public consultation. The draft notification focuses on the licensing, setting up platform operational standards and an assessment of borrowers.<sup>158</sup> It should be noted that the draft specifically requires the interested business operators to join the regulatory sandbox prior to application for a license and only allows P2P lending to individual borrowers.

### Equity Crowdfunding

At present, there are two registered equity crowdfunding portals which are Live Fin Corp Co., Ltd (also known as LiVE) and Phoenixict Co., Ltd (also known as Sinwattana Crowdfunding). LiVE is the crowdfunding portal invested in by 99.9% of the Stock Exchange of Thailand (SET). The crowdfunding scheme has been enthusiastically supported by several business operators from various sectors and government agencies as listed as partners of LiVE including various commercial banks, the Thai Venture Capital Association (TVCA), the Thailand Tech Start-up Association, the National Innovation Agency (NIA), the National Science and Technology Development Agency (NSTDA) and the National Science Technology and Innovation Policy Office (TSI).

Despite the presence of alternative crowdfunding platforms,<sup>159</sup> only equity crowdfunding is regulated by the SEC. It oversees the operation of crowdfunding portals by granting permission and providing operational standards to ensure fair treatment for the investors.<sup>160</sup> This is under the provisions of the Notification of Capital Market Supervisory Board No. Tor.Jor. 7/2558 re: Regulations on Offer for Sale of Securities through Electronic System or Network dated 2 April 2015, as amended (Notification Re: equity Crowdfunding), issued under the Securities and Exchange Act B.E.2535 (1992), as amended. The Notification Re: equity Crowdfunding aims to protect the portal users, both the fundraisers and the investors. Besides the regulations imposed on the crowdfunding portal providers, this gives an

155 Post Reporters, 'New NSO Stats Show Informal Debts Rising, [www.bangkokpost.com/news/general/1384238/new-nso-stats-show-informal-debts-rising](http://www.bangkokpost.com/news/general/1384238/new-nso-stats-show-informal-debts-rising)

156 Kasikorn Research Centre, 'P2P Lending' <https://kasikornresearch.com/en/analysis/k-econ/financial/Pages/z2917.aspx>

157 BOT, 'The Regulation Framework of Peer-to-Peer Lending Platform' [www.bot.or.th/Thai/PressandSpeeches/Press/News2561/n6361t.pdf?fbclid=IwAR16xvS-XbTqfyo6MYzph8b1PLPJk6ojtEIKQd7EkCbO4tKKBGZRohPD4](http://www.bot.or.th/Thai/PressandSpeeches/Press/News2561/n6361t.pdf?fbclid=IwAR16xvS-XbTqfyo6MYzph8b1PLPJk6ojtEIKQd7EkCbO4tKKBGZRohPD4)

158 The draft of the Notification of the BOT No. SorNorSor.../2562 re: Rules and Procedures and Conditions for the Peer to Peer Lending Platform Business Operation

159 Donation-based, rewarding-based, loan-based or investment-based crowdfunding.

160 The Notification of Capital Market Supervisory Board No. Tor.Jor. 7/2558 Re: Regulations on Offer for Sale of Securities through Electronic System or Network dated 2 April 2015, as amended, issued under the Securities and Exchange Act B.E.2535(1992), as amended; SEC (n 44).

opportunity to limited companies to have alternative fundraising method by offering their shares to the public.<sup>161</sup> This would be a turning point for the SMEs and start-ups to raise fund for the expansion of their business.

In January 2019, the SEC proposed the amendments to crowdfunding regulations for public hearing. The proposed draft amendments contain provisions which provide better support to fundraisers, for example, the fundraisers would be able to offer debentures as an alternative to shares.<sup>162</sup>

### Digital Payments

According to the BOT's online database, there are 108 digital payment operators who have obtained licenses to date.<sup>163</sup> On 22 December 2015, the Thai government published its intention to promote a cashless society in the National E-payment Master Plan. The scheme aims to standardize and centralize the e-payment system in four aspects; money transfer via PromptPay service<sup>164</sup>, expansion of electronic card usage, e-tax invoice and e-receipt, and government e-payment.<sup>165</sup>

The number of digital payment transactions has significantly grown as mobile/internet banking usage has increased. The main legislation governing the industry is the Payment System Act B.E. 2560 (2017) (PSA). The PSA focuses on the licensing of payment systems and other services such as systems for fund transfer handling, clearing or settlement for retail fund transfers, electronic cards services, e-money service and bill payment service.<sup>166</sup>

According to the Payment System Strategic Plan No. 4 (2019-2021), there will be a plan to create a suitable environment for the integration of digital payment service into everyone's daily lives.<sup>167</sup> This strategic plan has envisioned the digital payment system as consumer's primary payment method while the payment system becomes efficient and safe, has low transaction fee, and matches consumer's need. In order to achieve such vision, the BOT plans to expand the use of digital payment, promote the creation of innovation which connects to payment system, standardise the payment infrastructure, have thorough cyber resilience and utilise payment information.<sup>168</sup>

### ICO/Cryptoassets

In Thailand, cryptocurrency is normally traded for investment and speculation rather than an intermediate for payments of goods and services. According to the 2016 Financial Stability Report published by the BOT, there are approximately 70 stores accepting payment in cryptocurrency which is accountable to approximately THB 300 million per day. In addition, the number of investors who invest in Thai cryptocurrency market increased from hundreds in 2013 to several tens of thousands in 2017.<sup>169</sup>

Upon the enactment of the Digital Asset Business Emergency Decree, B.E. 2561 (2018) (Emergency Decree on Digital Asset) on 14 May 2018, the SEC has granted approval to three companies to operate digital assets exchanges. This legislation regulates the offering, trading and exchanging of digital assets and other related activities. The digital token or coin issuers must be a limited company, or a public limited company approved by the SEC<sup>170</sup> and the offering can only be proceeded via the ICO portals which are licensed by the SEC. As of 15 February 2019, there is no ICO portal that has already obtained

161 The Notification Re: equity Crowdfunding s 7; In general, the public offering of the limited company's shares and securities is prohibited.

162 SEC, [https://capital.sec.or.th/webapp/phs/upload/phs1546591653hearing\\_01\\_2562.pdf](https://capital.sec.or.th/webapp/phs/upload/phs1546591653hearing_01_2562.pdf)

163 BOT, 'List of Business Provider of Designated Payment Systems and Designated Payment Services' [www.bot.or.th/Thai/PaymentSystems/PSA\\_Oversight/Business\\_Provider/Pages/default.aspx](http://www.bot.or.th/Thai/PaymentSystems/PSA_Oversight/Business_Provider/Pages/default.aspx) accessed 31 January 2019.

164 Real time fund transfer system which facilitates the fund transfer between Thai citizens, business operators and government.

165 Knowledge Board of Office of The Electronic Transaction Commission, 'Handbook of the Electronic Transaction Knowledge Distribution' [http://www.epayment.go.th/home/app/media/uploads/files/handbill\\_sep\\_2016.pdf](http://www.epayment.go.th/home/app/media/uploads/files/handbill_sep_2016.pdf).

166 The Payment System Act B.E. 2560 (2017) s 5, 12, 16.

167 BOT (n 21).

168 BOT, 'The Payment System Strategic Plan No. 4 (2018-2020)' [www.bot.or.th/Thai/PressandSpeeches/Press/News2562/n1262t.pdf](http://www.bot.or.th/Thai/PressandSpeeches/Press/News2562/n1262t.pdf) accessed 14 February 2019.

169 BOT, 'the 2016 Financial Stability Report'(2017) [https://www.bot.or.th/Thai/FinancialInstitutions/Publications/FSR\\_Doc/FSR2017.pdf#page=63](https://www.bot.or.th/Thai/FinancialInstitutions/Publications/FSR_Doc/FSR2017.pdf#page=63) accessed 10 February 2019.

170 The Digital Asset Business Emergency Decree, B.E. 2561 (2018) s 17.

the license. Furthermore, operators of the digital asset exchange business, which is a centre or network for cryptocurrency and digital assets trade or exchange, must be an entity established under the law of Thailand that obtains the digital asset business license from the Ministry of Commerce upon the recommendation from the SEC.<sup>171</sup>

On 17 December 2018, the SEC published the draft of the revised guidelines for the relaxation of the regulation concerning pre-ICO process and private sale of token, and duties of ICO portal.<sup>172</sup> The SEC expressed that the revision would make the regulations comply with an international standard and facilitate fundraising in Thailand while protecting and creating justifiable fairness to investors.<sup>173</sup>

### InsurTech

Currently, Thai insurance companies mainly use InsurTech to provide an alternative channel for offering and selling insurance policies such as on websites or mobile applications platform.<sup>174</sup> In addition to the sales of insurance policies, InsurTech is also used to enhance the company's efficiency and cost reduction.<sup>175</sup> At present, both life insurance companies and non-life insurance companies in Thailand sell their insurance policies on websites. Some of these are joint initiatives between insurance companies and FinTechs.

The OIC has become well aware of the growth of InsurTech in Thailand, thus, it has established the Centre of InsurTech (CIT) to encourage and regulate the development and application of it. Upon the establishment of CIT, it has launched the insurance regulatory sandbox which allows the insurance companies, insurance brokers, and InsurTech developer to test their new products and/or innovations.<sup>176</sup>

At the moment, there is no specific act governing the InsurTech scheme separately. However, the InsurTech business operator still need to comply with the Life Insurance Act, B.E. B.E. 2535 (1992), as amended (LIA) and the Non – life Insurance Act, B.E. 2535 (1992), as amended (NLIA) and their subordinate regulations.<sup>177</sup> The OIC would use LIA and the NLIA as tools for the InsurTech regulation.<sup>178</sup>

As the growth of InsurTech creates a big movement to the insurance industry, the OIC has enacted the Notification of the Office of Insurance Commission RE: Criteria Method of Issuing Life Insurance Policy, Offering Life Insurance Policy and Reimbursement or Compensation under Life Insurance Contract through Electronic Means, B.E. 2560 (2017) and the Notification of the Office of Insurance Commission re: Criteria Method of Issuing Non –Life Insurance Policy, Offering Non – Life Insurance Policy and Reimbursement or Compensation under Non – Life Insurance Contract through Electronic Means, B.E. 2560 (2017). These two notifications allow the offering of insurance policies via an online platform. However, the offering must be approved by the OIC and the offering platform must be registered with the OIC. In this regard, the platform must comply with the privacy and personal data management standard provided by OIC.

171 The Digital Asset Business Emergency Decree, B.E. 2561 (2018) s 26.

172 <https://coinidol.com/thai-sec-considers-loosening-ico-regulations/>

173 SEC, 'Document for the Public Hearing No. Or.Tor.Ngor 57/2561 Re: Regulatory Guidelines for Pre-ICO, Private Sale and Public Pre-Sale' (2018) [https://capital.sec.or.th/webapp/phs/upload/phs1545109173hearing\\_57\\_2561.pdf](https://capital.sec.or.th/webapp/phs/upload/phs1545109173hearing_57_2561.pdf) accessed 10 February 2019.

174 Techsauce Team, 'Analysis of Thai InsurTech in the Middle of FinTech and Digital Disruption' (2018) <https://techsauce.co/tech-and-biz/FinTech-InsurTech-digital-disruption/> accessed 10 February 2019.

175 Ibid.

176 OIC <http://www.oic.or.th/th/consumer/news/releases/87426> accessed 9 February 2019.

177 Section 7 of the Life Insurance Act, B.E. B.E. 2535 (1992), as amended s 7; of the Non – life Insurance Act, B.E. 2535 (1992), as amended s 6.

178 OIC, <https://www.oic.or.th/th/about/introduction>.

### Self-Regulation Mechanisms

As of now, there are no guidelines for self-regulatory efforts in Thailand.

### Relevant Policies and Engagements

The National Innovation Agency (NIA) is a public organization under the supervision of the Ministry of Science and Technology. It is a key organization responsible for promoting the creation of a national innovation system, creating opportunity for private sector to gain access to innovation infrastructure and improving innovation capability of innovation operators. The NIA also aims to promote start-ups to create technologies and innovations for financial business by providing financial support and technical assistance.

Thailand has issued Royal Decrees providing corporate income tax (CIT) exemption for five years for new start-ups in 10 promoted business categories including FinTech. Moreover, in 2017, the Royal Decree issued under the Revenue Code Re: Exemption from Revenue Tax (No. 640) B.E. 2560 (2017) allows business operators, both individuals and juristic persons, to deduct transaction fees arising from the payments via Electronic Data Capture (EDC) in the calculation of income tax from November 2016 to December 2021. The EDC providing banks can also get CIT deduction for cost which banks invested in the EDC during November 2016 to December 2020 subject to applicable criteria.

At present, Thailand has not participated in any multinational FinTech cooperation. The only international framework that the Thailand's government has participated is the FinTech Cooperation Agreement (FinTech CA) between the BOT and the Monetary Authority of Singapore which was signed on 11 July 2017. The main objective of the FinTech CA is to encourage the financial ecosystem among Thailand, Singapore and other ASEAN countries. This FinTech CA allows the BOT and the MAS to share FinTech market information including enforcement of FinTech regulations and FinTech company referral. Moreover, a joint cross-border innovation project might be developed.<sup>179</sup>

179 <https://lawforasean.com/blog/2017/07/thailand-and-singapore-build-FinTech-bridge?lang=th>

## 2.3.10 VIETNAM

### Regulatory Authorities

The State Bank of Vietnam (SBV) is the Central Bank and performs the state management of monetary and banking activities and foreign exchange.

The State Securities Commission (SSC) is an organization under the Ministry of Finance, charged with the functions of regulating the securities market.

### P2P Lending/Marketplace Lending

P2P lending platforms have emerged to provide an alternative financing method to businesses and individuals in Vietnam. Market observation reveals that P2P lenders have already attracted large numbers of depositors and borrowers in the short time that they have been operating.

Although the establishment of P2P has increased remarkably, Vietnam still lacks the official legal framework for this model at the moment. The FinTech companies operating P2P platforms are not classified as credit institution; therefore, their business is not definitely subject to a banking license under the Law on Credit Institutions. In the absence of a specific legal framework for the operation of P2P lending platforms, in practice the business appears to be conducted in accordance with the Law on Enterprises in regard to the establishment and operation of enterprises, and with the regulations of Civil Code on lending activities.

### Equity Crowdfunding

In Vietnam, since the first successful crowdfunding campaign in 2014, the total amount of capital raised via crowdfunding accumulated to VND 36.7 billion (equivalent to approximately USD 1.6 million)<sup>180</sup>; however, this relates to donations, rewards and lending. Until now, there has not been any equity-based crowdfunding platform in Vietnam - perhaps due to the strict conditions in place.

Entrepreneurs who wish to raise funds via equity must ensure that their projects are exempted from the prospectus requirement by limiting the amount of offering and the number of investors. In addition, crowdfunding platforms which provide equity services must obtain a specific license from the SSC.

### Digital Payments

Despite Vietnam's high smartphone and mobile internet penetration rates, consumer adoption of digital payments remains low. According to a survey by the SBV from 2017, the percentage of bank account ownership in Vietnam was still low at 59% of the adult population (aged over 15).<sup>181</sup>

Regarding mobile payment, the market is fragmented, with numerous players providing the same services, with their own separate alliances of stakeholders (users and merchants), and none of them being a dominant player. Banks' mobile banking apps have the basic functions including checking balance in bank account, transferring money within one bank and among banks, and payment of utility bills, phone top up and credit cards. Some banks' mobile banking apps allow QR payment at merchants that these banks have an agreement with.

In terms of policy, the Prime Minister signed Decision 2545/QĐ-TTg to ratify the project to develop cashless payment in 2015-2020. According to the decision, the government will optimize the legal framework for cashless payment and issue some policies to incentivize cashless payment at government agencies and businesses.

Currently, third-party payment service providers are defined as organizations other than banks that are licensed by the State Bank of Vietnam to provide third-party payment service, and are regulated by Decree 101/2012/ND-CP and Circular 39/2014/TT-NHNN. The decree details the process of applying for

<sup>180</sup> Crowdfunding ở Việt Nam - Thực Trạng và Bước Tiến. (2016, February 22). Retrieved March 06, 2017, from <http://phan.vn/posts-with-image/crowdfunding-o-viet-nam-thuc-trang-va-buoc-tien/>

<sup>181</sup> <https://kinhdoanh.vnexpress.net/tin-tuc/ebank/ngan-hang/ngan-hang-nha-nuoc-59-nguoi-dan-co-tai-khoan-ngan-hang-3681227.html>

a license and requirements that service providers need to meet including to have a charter capital of at least VND50 billion (US 2.2 million), that the legal representative and employees have to have “professional capacity”, the technical infrastructure has to meet the SBV’s requirements, and requirements on the internal process of carrying out the service, among others.

### **ICO/Cryptoassets**

The Deputy Prime Minister assigned the Ministry of Justice to lead and coordinate with the SBV to complete the legal framework on management of virtual assets, digital currencies and virtual money in conformity with the Decision No. 1255/QĐ-TTg. In Vietnam, Bitcoin in particular drew significant market attention despite experts’ warning about its risks and the lack of a management framework. At present, Ministry of Justice is reviewing existing laws on the management of virtual assets and currencies in Vietnam.

Previously on October 30 2017, SBV said virtual currencies are not a lawful means of payment, therefore, “as from January 1, 2018, the act of issuing, providing and using illegal means of payment (including bitcoin and other similar virtual currency) may be subject to prosecution in accordance with the provision of Article 206 of the Penal Code 2015” as per SBV’s statement released on 28 October.

### **InsurTech**

In Vietnam, the main legislation regulating insurance activities is the Law on Insurance Business of 2000, as amended in 2010, as well as guiding decrees and circulars issued by governmental authorities.

The insurance sector is growing at a significant rate, and insurers are embarking on digitization initiatives such as enhancing web portals, introducing online sales, and incorporating digital payment mechanisms. In 2018, INSO Vietnam Joint Stock Company officially introduced its insurance technology service named INSO – the first totally automated insurance application for mobile phones in Vietnam, allowing customers to choose insurance packages based on their requirements and evaluate assets themselves.

Vietnam life insurers are still in the early stages of digitization and are cautious in its adoption. Shifting from a product to a customer centric approach, investing in people and training, and implementing effective structures to govern digital initiatives are the three main activities driving InsurTech forward.

### **Self-Regulation Mechanisms**

To date, there are no self-regulation policies in Vietnam.

### **Relevant Policies and Engagements**

With the aim of promoting FinTech, the SBV has signed a MOU with Singapore’s MAS. The government has established a number of incubators and accelerators, including Vietnam Silicon Valley which is developed by the Ministry of Science and Technology in conjunction with the Founder’s Institute.

Additionally, the government has issued incentive regulations and policies for Da Nang Hi-Tech Park, one of which is companies operating new projects will be exempt from corporate income tax (CIT) for the first four years, then will enjoy a 50% reduction of the payable tax for the next nine years. A CIT rate of 10% will be applicable for 15 years (the normal CIT rate for outside enterprises is 20%); large projects valued at more than VND 3 trillion (USD 133 million) will enjoy such 10% CIT rate for 30 years.

Further incentives include an exemption from import duty for the first five years for raw materials and accessories that cannot be domestically produced, eligibility for free land rental for the entire term of the investment project, assistance in immigration procedures, housing for foreign expats, connecting with high-quality labour resources from top universities in Vietnam, and loan funding from local banks.

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