# Annual Member Survey
## 2019/2020

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# Our Chairman's Note

**Niki Santo Luhur**

Chairman, Asosiasi FinTech Indonesia
(AFTECH)

I am thrilled that Indonesia FinTech Association (AFTECH) is publishing the Annual Member Survey Report 2019/2020, and especially that we are doing so in the midst of the COVID-19 pandemic where the development of fintech may have emerged as one of the tools to provide and serve the needs of the many. Since 2017, AFTECH has regularly issued the Annual Member Survey Report to exhibit the development of fintech industry in Indonesia, including opportunities and challenges.

The report utilizes data from the preceding year collected through the Annual Member Survey which is undertaken every first quarter. This year, in addition to the result from the Annual Member Survey 2019, we are also showing the result from two surveys on the Impact of COVID-19 to AFTECH members. Further to fintech contribution to the economic recovery, the report is also highlighting the industry effort in building Good Governance as part of its commitment to consumer protection and responsible innovation in digital finance ecosystem. Some other key topics included in the report are the role and potential of fintech in G2P (Government-to-People) programs, talent gap, gender equality in fintech industry, as well as development of Regulatory Sandbox.

## The positive growth and development of fintech industry in Indonesia

Fintech industry continues to grow and evolve as shown by increasing number of licensed players, variety of financial services solutions offered, as well as adoption in the market. Number of fintech startups registered as AFTECH members has increased from 24 to 275 (end of 2019), and by the end of Q2 2020, it has reached 362. The type of fintech solutions available in the market has also varied from only Digital Payment and Online Lending, to now includes Aggregator, Innovative Credit Scoring, Financial Planner, Equity Crowdfunding (ECF), Project Financing, as well as around 16 other solutions.

In response to the above trends, fintech adoption in the market continued to increase. According to Bank Indonesia (BI) statistics, in June 2020 total number of e-Money instruments in Indonesia has reached 353,587,670; whilst in the same period, accumulation of loan disbursement has reached IDR 113.46 trillion (source: OJK). Both figures show increasing trend throughout the time. Such growth is supported by large number of unbanked and underbanked population, rapid growth of internet penetration, mobile phone and social media users, large number of working-age population, conducive regulatory environment, as well as growing investment.

The recent COVID-19 pandemic has hit the revenue of fintech providers. AFTECH survey on the impact of COVID-19 shows that number of users (particularly MSMEs) has declined in some fintech business models. Meanwhile, market risk has increased and operational has been affected due to adjusted business procedures, as well as delayed expansion and investment plans. Nearly 70% of the respondents experienced these impacts. To survive the economic downturn, fintech has adopted various mitigation measures, including reduction of number of employees, implementation

of unpaid leave and salary deduction, better cash management, delay on business expansion plan, and pivot their business model.

## Fintech potential in supporting the national economic recovery

As part of digital finance ecosystem, fintech has provided positive impacts to the economy by creating greater access to finance for the underbanked and the unbanked. Particularly, during this pandemic, fintech has played important roles in supporting economic activities through low-touch economy concept. The adoption of fintech verticals, including Digital Payment, Online Lending, Digital Capital Raising, and InsurTech, during large-scale social restrictions has increased because it facilitates various commercial transactions and meets increasing need of financial solutions.

Fintech providers are committed in supporting national economic recovery through implementation of various initiatives to help the people. AFTECH Survey recorded a total of 55 initiatives from 52 fintech companies targeting the society (47.3%), MSMEs (45.4%), the government (5.5%), as well as others (1.8%) to reduce the economic impact of COVID-19.

## Way ahead: balancing growth and governance to realize the optimum potential of fintech in supporting the economic recovery

To fully realize its potential and provide further support to national economic recovery, there are several key challenges that need to be addressed:

a.  **Infrastructure:** The survey shows that e-KYC, open banking API, and cloud infrastructure are essential for fintech industry. Therefore, creation of a conducive regulatory environment that provides clear governance for utilization of these infrastructures and harmonization of various relevant regulations are imperative.

b.  **Regulatory Environment:** The survey shows that more clarity on implementation as well as faster licensing process are needed for e-KYC process, data governance, and tax-related regulations.

c.  **Talent Gap:** The survey shows that gap in skills such as data analytics, programming, and risk management remained. It will require a concerted collaboration between government,

fintech industry, as well as academics to address this challenge in short to medium term.

d.  **Good Governance:** The growth of fintech industry (both before and during the pandemic) and its rising contribution to the national economy has been followed by increasing risks on cybersecurity, market, and operation. In parallel, it brings forward the importance of consumer protection. The survey result shows that AFTECH members are upholding this principle through implementation of Code-of-Conduct, adoption of international standards (including on cybersecurity, data privacy, and data security), and provision of their own customer service and/or complaint handling process.

We realize that it is not easy to balance innovation and governance. AFTECH welcomes the government's effort in fostering innovation through light touch regulation and safe harbor policy. We also acknowledge the government's attention to consumer protection and good governance. We believe that stronger collaboration between fintech industry and the government is essential to reach the ideal condition of equilibrium between growth and governance.

I would like to thank all fintech companies who have allocated their time to fill up the survey and to all of our members for providing support to AFTECH through participation in Working Groups. I would also like to thank the AFTECH Secretariat Team for coordinating the survey, analyzing the result, and writing the report. Finally, we are looking forward to continuing collaboration with members, donors, regulators, knowledge partners, as well as other stakeholders to sustain the growth of responsible innovation in fintech.

*For fintech. For financial inclusion. For faster national economic recovery.*

Regards,
Niki Santo Luhur

# 1 Methodology
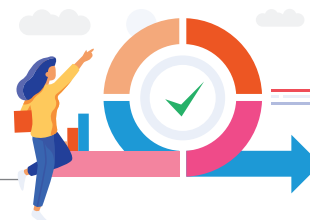
## A. Definition

Asosiasi FinTech Indonesia (AFTECH) uses the following World Bank's definition of financial technology (fintech). Fintech is an industry composed of companies that use technology to make financial systems and the delivery of financial services more efficient.[1] According to Bank Indonesia Regulation (PBI) No. 19/12/PBI/2017 concerning Provision of Financial Technology, fintech is defined as the use of technology in a financial system that generates products, services, technology and/or new business models, and may have an impact on monetary stability, financial system stability and/or the efficiency, fluency, security, and reliability of payment systems. Meanwhile, the Financial Services Authority Regulation (POJK) No. 13/POJK.02/2018 opts for the term "Digital Financial Innovation/DFI" (Inovasi Keuangan Digital/IKD) to define fintech. Both regulations contain similar essence, in which fintech is defined as any forms of innovation that provide added value in the financial service.

Fintech solutions have expanded beyond Digital Payment and Online Lending. They now include Digital Capital Raising, InsurTech, WealthTech and Market Provisioning; adopting a wide range of technologies based on consumers' needs, level of development, regulatory stance, and existing technological infrastructure. Based on existing regulations, the Annual Member Survey (AMS) 2019/2020 covers four main business models:

1. **Digital Payment.** According to PBI 18/40/PBI/2016, it includes e-Money, e-Wallet, remittance, payment gateway, POS solutions, payment agent network, bill payment, and payment issuer support;

2. **Online Lending.** According to POJK 77/POJK.01/2016, it includes off-balance sheet lending for consumers and businesses, and on-balance sheet lending for consumers;

3. **Fintech under Digital Financial Innovation (DFI) category/Inovasi Keuangan Digital (IKD).** According to POJK No. 13/POJK.02/2018, DFI is defined as business process update activity, business model, and financial instruments that provide newly added value in the financial services sector by involving digital ecosystem. The scope of DFI includes:
   a. Transaction settlement;
   b. Capital gathering, including equity crowdfunding, virtual exchange, smart contract, and alternative due diligence;
   c. Investment management, including advanced algorithm, cloud computing, capabilities sharing, open source information technology, automated advice and management, social trading, and retail algorithmic trading;
   d. Gathering and distribution of funds, including P2P lending, alternative adjudication, virtual technologies, mobile 3.0, and third-party application programming interface;
   e. Insurance, including sharing economy, autonomous vehicle, digital distribution, and securitization and hedge fund;
   f. Market support, including artificial intelligence/machine learning, machine readable news, social sentiment, big data, market information platform, and automated data collection and analysis;
   g. Other digital financial supports, including social/economic crowdfunding, Islamic digital financing, e-Waqf, e-Zakat, robo-advice, and credit scoring; and/or
   h. Other financial services activities, including invoice trading, vouchers, token, and blockchain.

By the time the report is launched, there are 16 business models identified in the Regulatory Sandbox, namely:
   i. Aggregator;
   ii. Credit Scoring;
   iii. Financial Planner;
   iv. Financing Agent;
   v. Project Financing;
   vi. e-KYC;
   vii. Verification Non-CDD;
   viii. Tax & Accounting;
   ix. InsurTech;
   x. Property Investment Management;

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1. http://pubdocs.worldbank.org/en/767751477065124612/11-Fintech.pdf;
   http://pubdocs.worldbank.org/en/361051561641115477/pdf/Fintech-executive-summary.pdf

xi.   Blockchain-based;
xii.  Claim Service Handling;
xiii. Funding Agent;
xiv.  Insurance Broker Marketplace;
xv.   Online Distress Solution; and
xvi.  Regtech.

4. **Equity Crowdfunding.** According to POJK 37/POJK.04/2018, Equity Crowdfunding is defined as the implementation of shares public offering services conducted by issuers to sell shares directly to investors through an open electronic system network, which is provided and managed by a provider.

## B. Survey Design

AFTECH conducted the Annual Member Survey (AMS) in the first quarter of 2020 to understand the landscape of the industry, as well as its members' opinion on the progress of policy and regulatory framework in Indonesia.

The questionnaire of the 2019/2020's AMS consists of five main sections, which were further developed from the previous questionnaire in 2018:
i.   Fintech Profiling, which provides a summary profile of the respondents;
ii.  Regulatory Challenges and Outlook, which provides an insight into the speed of approval and regulatory hurdles faced by the respondents;
iii. Financial Inclusion, which focuses on current programs/initiatives adopted by the respondents to mitigate financial inclusion and financial literacy issues;
iv.  Infrastructure for Fintech, which focuses on understanding issues to build a responsible and sustainable fintech ecosystem;
v.   Talent and Gender Equality, which explores prominent gaps in skills faced by fintech industry.

By the time AFTECH Secretariat was analyzing the result of the survey, the world faced an unprecedented situation caused by the spread of COVID-19 across the globe, which has changed the lives of many people. Since COVID-19 significantly impacted the industry, AFTECH conducted two rounds of supplementary survey to identify the impacts and mitigation measures taken by the respondents. The result of these surveys is incorporated into this report to provide updated views of the industry.

For the surveys on COVID-19, the questionnaires consist of three main sections:
i.   Impact of COVID-19 on the business activities of fintech industry;
ii.  Measures to mitigate COVID-19 impacts;
iii. Fintech industry's initiative to reduce negative impact of COVID-19 on the national economy.

## C. Data Collection

The 2019's AMS questionnaire was circulated online on December 2019. A total of 154 respondents participated. This questionnaire included compulsory and non-compulsory questions. The non-compulsory questions were mainly investment related, whereas compulsory questions were opinion related. The responses varied for non-compulsory questions depending on the comfortableness of the respondents in revealing the data.

The 2020's COVID-19 survey was conducted in end of March (the beginning of large-scale social restrictions due to COVID-19 imposed by the government) and June (in the middle of COVID-19 pandemic period) with total of 52 respondents.

Kindly note: A number of questions across the survey that were asked to the respondents had multiple options i.e. a respondent could choose more than one option for that question. Those percentages if added are more than 100%.

## D. Research Analysis

AFTECH has used primary and secondary research for analysis. The first section on Fintech Overview is compiled using secondary research. However, the other sections of the report used the data collected from the survey (primary research). Analysis of the survey also shows insight and wide-ranging experience that AFTECH has gained over the years representing fintech industry in Indonesia.

Overall insight in this report is classified into four major categories:
1.  **Digital Payment;**
2.  **Online Lending;**
3.  **Fintech under DFI category; and**
4.  **Equity Crowdfunding.**

However, where a consistent trend of the entire industry is observed, an aggregate data is shown.

# 2 Fintech Industry Overview

Fintech industry continues to grow and evolve as shown by increasing number of licensed players, variety of financial services solutions offered, as well as adoption in the market. Number of fintech startups registered as AFTECH members has increased from 24 to 275 (end of 2019), and by the end of Q2 2020, it has reached 362. The type of fintech solutions available in the market has also varied from only Digital Payment and Online Lending, to now includes Aggregator, Innovative Credit Scoring, Financial Planner, Equity Crowdfunding (ECF), and Project Financing.

In response to these trends, fintech adoption in the market continued to increase. According to Bank Indonesia (BI) statistics, in June 2020 total number of e-Money instruments in Indonesia has reached 353,587,670; whilst in the same period, accumulation of loan disbursement has reached IDR 113.46 trillion (source: OJK). Both figures show increasing trend throughout the time.

The rapid growth of fintech industry is influenced by: (i) growing investment in fintech; (ii) large number of working-age population; (iii) rapid growth of internet penetration, as well as mobile phone and social media users; (iv) large number of unbanked and underbanked; and (v) conducive regulatory environment.

## A. Landscape

Fintech industry is continuously growing, as shown by increasing number of licensed fintech startups. As an association, AFTECH members represent 80% of licensed fintech startups in Indonesia. By the end of 2019, number of AFTECH startup members has increased by 54% (YoY). By the end of Q2 2020, the growth is 56.7% (YoY), with total number of 362 startup members.

By the end of Q2 2020, amongst the four categories of fintech business models, Online Lending is the most dominant one (44%), followed by fintech under DFI category (24%), Digital Payment (17%), and Equity Crowdfunding (1%).

It is interesting to note the development of fintech under DFI category or fintech providers participated in the OJK's Regulatory Sandbox. By the end of 2019, there were 70 fintech companies under DFI category, by which 61 of them were registered as AFTECH members. By the end of Q2 2020, the number of AFTECH members participated in the OJK's Regulatory Sandbox has increased to 76 operating in 14 clusters.
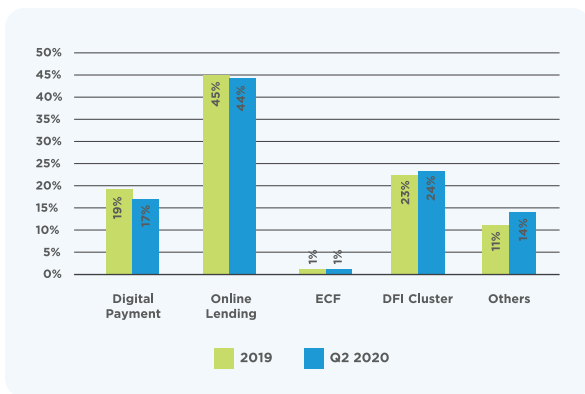
Figure 1. AFTECH Members from 2016 to Q2 2020



| | 2016 | 2017 | 2018 | 2019 | Q2 2020 |
|---|---|---|---|---|---|
| | 24 | 79 | 178 | 275 | 362 |
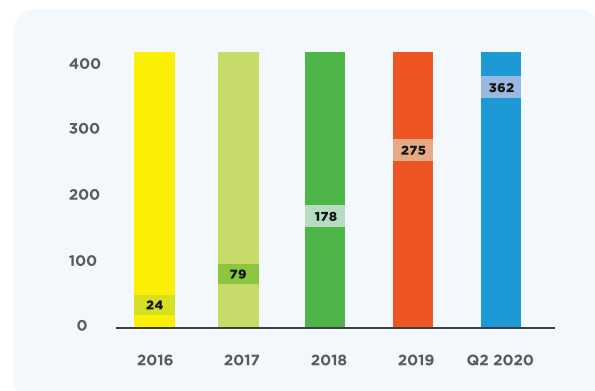
Source: AFTECH Secretariat Analysis, 2020

Amongst 16 clusters of the OJK's Regulatory Sandbox, Aggregator, Credit Scoring, Financial Planner, Project Financing and Financing Agent are the top five most populated.

Figure 2. AFTECH Members by Business Model (in percentage)



Source: AFTECH Secretariat Analysis, 2020

Figure 3. DFI Cluster Business Models in Q2 2020 (in percentage)
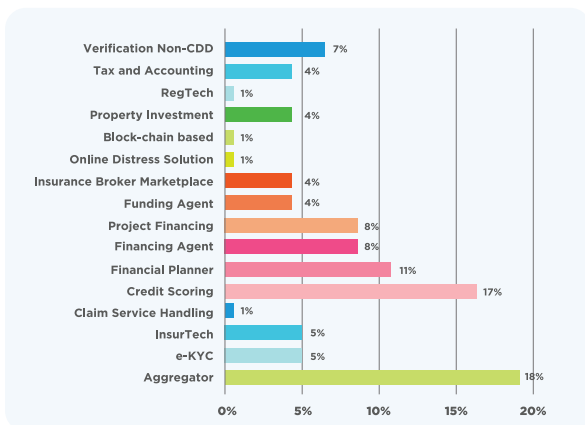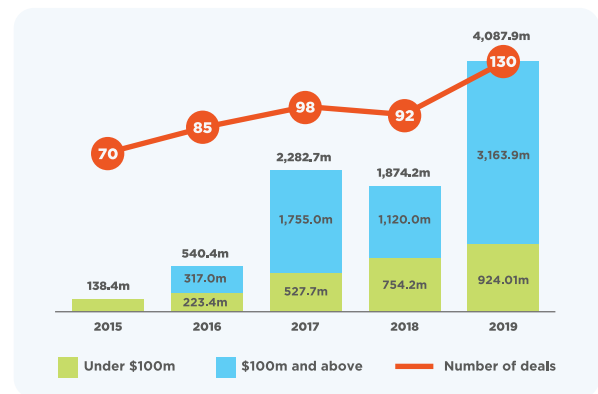


Source: AFTECH Secretariat Analysis, 2020

AFTECH sees the structure of fintech business models remain unchanged during the COVID-19 pandemic period. The majority of players are similar to the 2019's survey result.

## B. Growth Drivers

### Growing Investment in Fintech

Fintech companies raised over USD 8.9 billion through 475 deals between 2015-2019. In 2019 alone, fintech investment in ASEAN reached a record of USD 4.1 billion through 130 deals, or 45.8% of the total capital raised in the region since 2015. Furthermore, average deal size has increased nearly 16-fold to USD 31.4 million in 2019 from just USD 2 million in 2015. [2]

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2. CCAF, ADBI, FinTechSpace (2019). ASEAN Fintech Ecosystem Benchmarking Study. Cambridge, UK.

Figure 4. Fintech Investment in ASEAN Countries, 2015 – 2019 (USD, number of deals)



Source: Fintech Global, 2020

Indonesia has the greatest number of fintech startups amongst ASEAN countries. Data from Tracxn shows that Singapore hosted 39% of fintech companies in ASEAN, followed by Indonesia (20%), Malaysia (15%), and Thailand (10%). Indonesia has been catching up fast to Singapore. [3]

### Large Number of Working-Age Population

As the world's fourth most populous country with more than 60% of its population representing working-age demography (Fig.5), Indonesia offers huge market potential for fintech to grow.

Figure 5. Indonesia Population Based on Age By millions of individuals, 2019 – 2030F
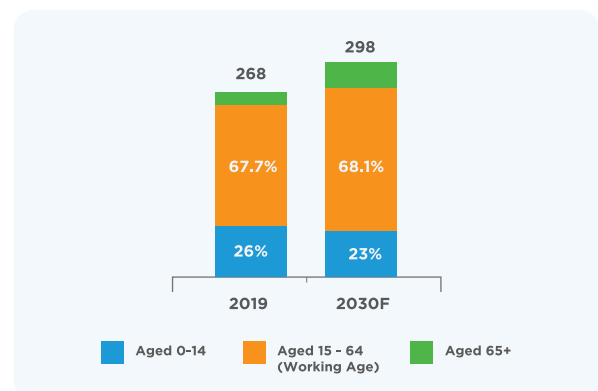


Source: Indonesia Statistics Agency, 2019

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3. https://www.uobgroup.com/techecosystem/pdf/UOB-State-of-FinTech-in-ASEAN.pdf

## Rapid Growth on Internet Penetration, Mobile Phones and Social Media Users

Mobile phone and internet penetration rates have been rising quickly. Currently, there are more than 400 million mobile phone subscriptions, with 45% of all mobile phones are smartphones.[4] By 2019, there were 175.4 million internet users and 160 million active social media users with 80% of this number accessing the internet via mobile phones. An increasing number of smartphone users significantly contributes to the adoption of fintech.[5]

It is reported that the internet usage grew exponentially by 40% amidst the COVID-19 large-scale social restrictions.[6] Consequently, this also pushes the adoption of fintech.

Figure 6. Rapid Growth of Internet Penetration, Mobile Phone and Social Media Users in 2016 - 2020
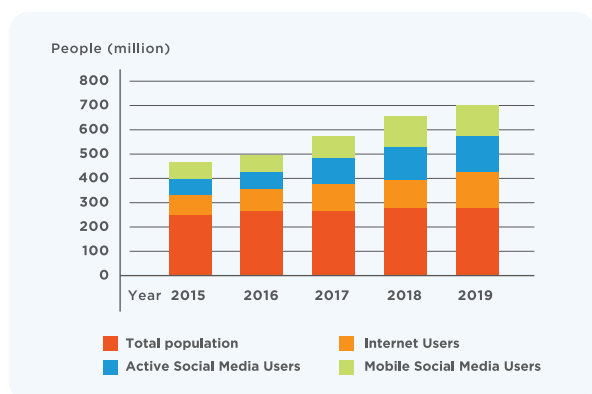


Source: Hootsuite: Indonesian Digital Report 2016 – 2020

## Opportunity from Large Number of Unbanked and Underbanked

Currently, only 49% of Indonesian adults have access to a bank account, which means 51% are unbanked. Amongst the unbanked population, 69% own mobile phones, making them likely to use fintech.[7] Fintech can accelerate financial inclusion as it provides greater access to financial services.

According to Cambridge Center for Alternative Finance, Indonesia's fintech firms mostly focus on serving the underbanked and banked population, targeting individuals and SMEs.

Figure 7. Customer Demographics for Fintech Firms in Indonesia, 2019
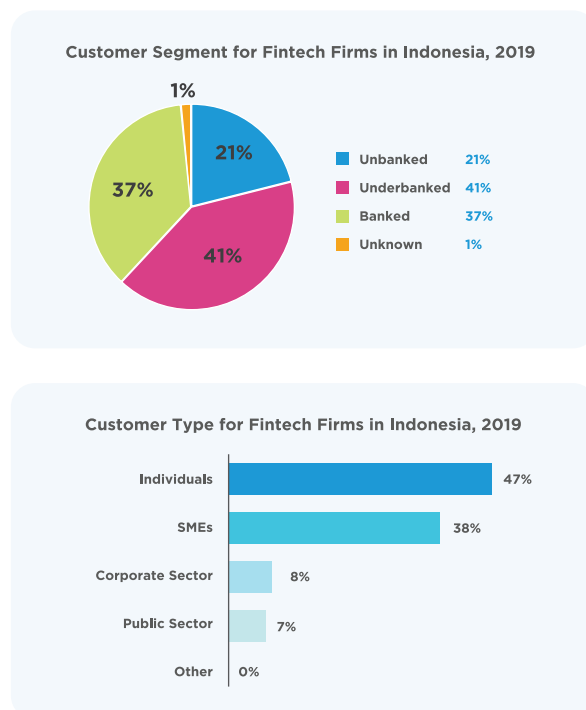


Source: Cambridge Centre for Alternative Finance (CCAF), 2019
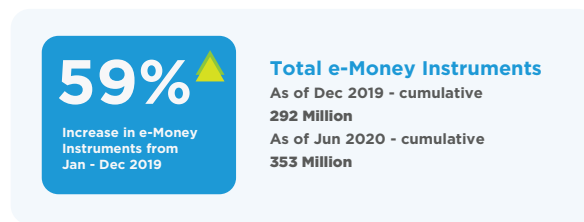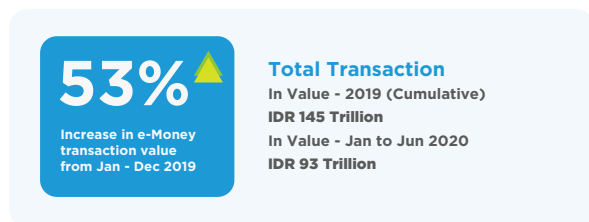
## Conducive Regulatory Environment

Regulators have been implementing light-touch and safe harbor policies that support the development of fintech in Indonesia. Since 2016, Bank Indonesia (BI) and the Financial Services Authority (OJK) have issued a series of fintech regulations. In 2019, the Ministry of Home Affairs RI, as well as the Ministry of Communication and Informatics RI issued two relevant regulations. Furthermore, we also see increasing participation in both BI and OJK Regulatory Sandbox. To note, during the pandemic, OJK has imposed moratorium of licensing process for Online Lending and Equity Crowdfunding. Further discussion on fintech regulatory environment can be found in Chapter 5.

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4.    Indonesian Internet Service Providers Association (APJII), EIU, 2019.
5.    Hootsuite (We are Social): Indonesian Digital Report 2020

6.    https://en.tempo.co/read/1347321/kominfo-announces-internet-usage-soared-amidst-pandemic
7.    CCAF, ADBI, FinTechSpace (2019). ASEAN FinTech Ecosystem Benchmarking Study. Cambridge, UK.

# C. Rapid Adoption of Fintech

## Digital Payment

**53%**
Increase in e-Money transaction value from Jan - Dec 2019

**Total Transaction**
In Value - 2019 (Cumulative)
**IDR 145 Trillion**
In Value - Jan to Jun 2020
**IDR 93 Trillion**

**59%**
Increase in e-Money Instruments from Jan - Dec 2019

**Total e-Money Instruments**
As of Dec 2019 - cumulative
**292 Million**
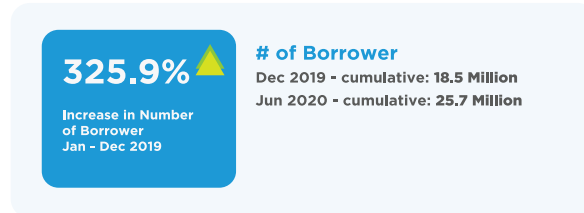As of Jun 2020 - cumulative
**353 Million**

Source: Bank Indonesia, 2020

Adoption of e-Money continues to increase. From accumulative transaction value of IDR 47 trillion in 2018, it has reached IDR 145 trillion in December 2019. This number is expected to further increase, as accumulative transaction value in June 2020 has reached IDR 93 trillion.

The pandemic has increased the use of e-Money. Total value of transaction reached its peak at IDR 17.55 trillion in April 2020.

More people feel the convenience of using fintech as means of payment. Total number of e-Money instruments continue to increase and reached its peak at 412,055,870 in April 2020. QR Code Indonesian Standard (QRIS) contributes to further fintech adoption.

## Online Lending

**259.6%**
Increase in Loan Disbursement from Jan – Dec 2019

**Total Loan Disbursement**
Dec 2019 - cumulative: IDR 81.5 Trillion
Jun 2020 - cumulative: IDR 113.46 Trillion
**# of Lender**
Dec 2019 - cumulative: 605,935
Jun 2020 - cumulative: 659,186

**325.9%**
Increase in Number of Borrower Jan – Dec 2019

**# of Borrower**
Dec 2019 - cumulative: 18.5 Million
Jun 2020 - cumulative: 25.7 Million

Source: OJK, 2019.

Adoption of loan disbursement in Indonesia continues to increase. As of 2019, OJK recorded IDR 81.5 trillion of total loan disbursed from 605,935 lenders to 18.5 million of borrower accounts. In accumulation, from January to December 2019 total loan disbursed increased by 259.6%.

Furthermore, from January to June 2020, OJK recorded IDR 113.46 trillion of total loan disbursed from 659,186 lenders to 25.7 million of borrower accounts.

## Equity Crowdfunding

**336%** ▲

Increase in Investment in ECF Platform from Jan – Dec 2019

**Total Investment**
Dec 2019 - cumulative: IDR 15.5 Billion
**# of Licensed Player**
Dec 2019 - 3 Player

Source: INDEF Study, 2020.

According to Institute for Development of Economics and Finance (INDEF) Study in 2020, the amount of investment in ECF platforms in Indonesia reached IDR 15.5 billion as of December 2019.

The focus of ECF fundraising activities is on the form of increasing capital for MSMEs. As of December 2019, the amount of funding provided by licensed ECF platforms to MSMEs reached approximately IDR 8.16 billion.

## DFI Cluster

**IDR 2.1 Trillion**

Total Ampunt of Transaction by fintech under DFI category as of May 2020

**# of Regulatory Sandbox Participant**
Dec 2019: 70 fintech providers
Jun 2020: 86 fintech providers

Source: OJK, 2020.

By the end of 2019, there were 70 fintech providers participated in OJK's Regulatory Sandbox. This number has increased to 86 by the time the report is launched. There are 16 business models (clusters) in the Sandbox. Aggregator, Credit Scoring, Financial Planner, Project Financing, and Financing Agent are the top five. According to OJK, total amount of transactions made by fintech under this category reached IDR 2.1 trillion in May 2020.

## C. The Taxonomy of Fintech in Indonesia

### Digital Payment

Payment Gateway, e-Money, and QR Code Indonesian Standard (QRIS) are the top three business model in Digital Payment verticals.

Figure 8. Digital Payment Sub-Segment (Number of Providers), 2019 and Q2 2020
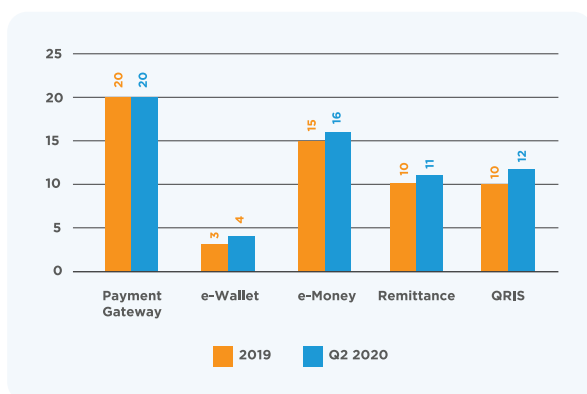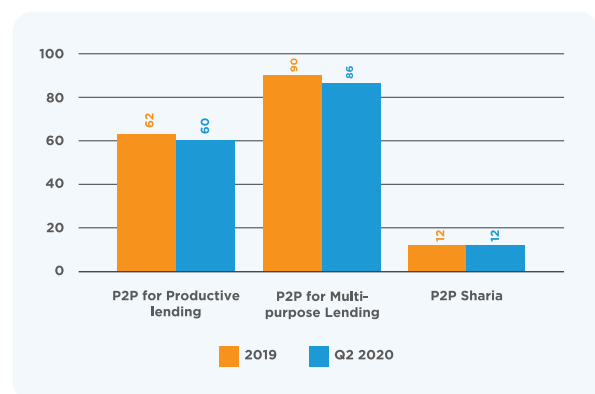


Source: AFTECH Secretariat Analysis, 2020

### Online Lending

By the time this report is launched, Multi-purpose Lending remains dominant (54%), followed by Productive Lending (38%) and Sharia (8%).

Figure 9. Online Lending Sub-Segment (Number of Providers), 2019 and Q2 2020



Source: AFTECH Secretariat Analysis, 2020

## Fintech under DFI Category

There were 70 participants in the OJK's Regulatory Sandbox (fintech under DFI category) by the end of 2019. By the time this report is launched, there are 86 participants representing 16 clusters.[8] Aggregator, Credit Scoring, Financial Planner, Project Financing, and Financing Agent are the top five clusters under DFI category. Box. 1 provides more detail description of the Regulatory Sandbox Process.

### Figure 10. Fintech under DFI Category Sub-Segment (Number of Providers), 2019 and Q2 2020
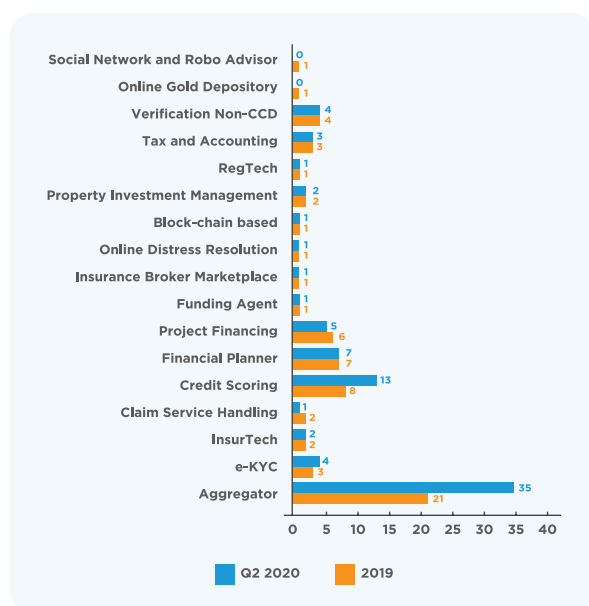


Source: AFTECH Secretariat Analysis, 2020

## Equity Crowdfunding

So far, there are two types of business model in Equity Crowdfunding (ECF):
i.   Capital Raising for MSMEs and
ii.  Capital Raising for Property.

Up to now, there are 3 licensed ECF providers and approximately 10 that are still in the process of obtaining license.

### Figure 11. Equity Crowdfunding Sub-Segment (Number of Providers), Q2 2020
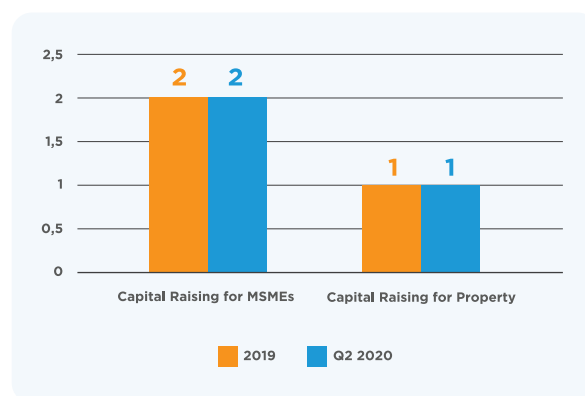


Source: AFTECH Secretariat Analysis, 2020

## Summary of Fintech Taxonomy Based on Existing Regulations

| Category | License | Number of Licensed Fintech Start-ups | | | License Issuer | Regulation |
|---|---|---|---|---|---|---|
| | | 2018 | 2019 | Q2 2020 | | |
| Online Lending | Online Lending | 88 | 164 | 158 | OJK (Department of Non-Bank Financial Institution/*Institusi Keuangan Non-Bank (IKNB)*) | POJK 77/POJK.01/2016 |
| Digital Payment | Payment Gateway | 11 | 20 | 20 | Bank Indonesia | PBI 18/40/PBI/2016 |
| | e-Wallet | 3 | 3 | 4 | Bank Indonesia | PBI 18/40/PBI/2016 |
| | e-Money | 22 | 15 | 16 | Bank Indonesia | PBI 20/6/PBI/2018 |
| | Remittance | - | 10 | 11 | Bank Indonesia | PBI 19/12/PBI/2017 |
| | QR Code Indonesian Standard (QRIS) | - | 10 | 12 | Bank Indonesia | PADG 21/18/PADG/2019 |
| Digital Financial Innovation (DFI) | Regulatory Sandbox (Recordation Status) | 34 | 70 | 86 | OJK (Digital Finance Innovation Group/*Grup Inovasi Keuangan Digital (GIKD)*) | POJK 13/POJK.02/2018 |
| Equity Crowdfunding | Equity Crowdfunding | - | 3 | 3 | OJK (Department of Capital Market Supervision/*Departemen Pengawasan Pasar Modal*) | POJK 37/POJK.04/2018 |

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8.   Q2 2020

## E. Maturity Level

Fintech startups across categories experience different dynamic in the market. In this case, industry maturity is analyzed through three main indicators: growth figures (growth of volume or value of transaction, user acquisition, etc.), number of players operating within the sub-sector, and regulatory environment of the sector.

Similar to the previous year, Digital Payment and Online Lending lead the industry. Online Lending has moved towards the end of "shake-out" phase in 2018 and entered the early stage of "mature" phase in 2019. It is shown by rapid increase in number of transactions, players, as well as established regulatory environment of the sector.

The market of Online Lending fintech has not yet been as consolidated as the market of Digital Payment. Meanwhile, fintech under DFI category and Equity Crowdfunding fit in the "growth" phase, with varying degree of growth level across different verticals.

| Categories | Maturity Level | Notes |
|---|---|---|
| Digital Payments | Mature | Digital Payment has achieved considerable maturity in comparison to others. This is apparent by how market competition among Digital Payment players have consolidated (through collaboration, merger, and acquisition) into a few big names. |
| Online Lending | Mature | Online Lending has moved towards the end of "shake-out" phase in 2018 and entered the early stage of "mature" phase in 2019. It is shown by rapid increase in number of transactions, players, as well as established regulatory environment of the sector. The market of Online Lending fintech has not yet been as consolidated as the market of Digital Payment. |
| DFI Clusters | Growth | Fintech under DFI category is still in growth phase. From only 20 AFTECH member companies during the implementation of the 1st Regulatory Sandbox back in 2019, there are currently more than 70 member companies from 16 different DFI clusters within the 7 batches announced by OJK to date. |
| Equity Crowdfunding | Growth | Equity Crowdfunding is still in the early growth phase. By the end of 2019, there are three licensed providers. |

Source: AFTECH Secretariat Analysis, 2020

Figure 12. Maturity Level of Fintech Business Model in Indonesia [9]
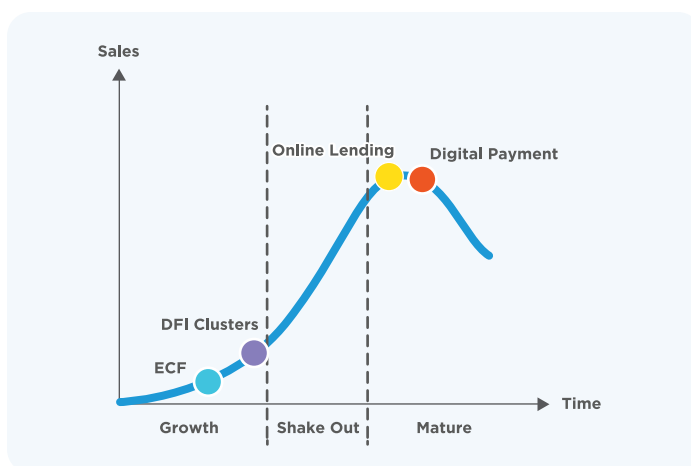


Source: AFTECH Secretariat Analysis, 2020

---

9.  Growth
    In this phase, various fintech categories/business models slowly start to garner market attraction. Overall, depending on the extent of the growth phase, startup experiences increase in revenue and even in profit.

    Shake-out
    The shake-out phase is both characterized by high fragmentation of players at its early stage and a subsequent consolidation of players during its later stage. As the sector moves forward to reach maturity, smaller and less developed players naturally lose out to bigger and more developed players through numerous exit strategies.

    Mature
    Market consolidation to a few big players and declining growth rate are the features of sub-sector within the mature phase. At this stage, the sector has reached considerable saturation and new entrants to market often face significant challenge in acquiring market share.

## BOX. 1
## Regulatory Sandbox – The Rapid Growth of DFI Operators

The rapid development and advancement of technology has led to the renewal of business activities in the financial services sector, namely the emergence of Digital Financial Innovation (DFI) which provides new added value in the financial services sector. According to OJK Regulation No. 13/2018, DFI is defined as business process update activity, business model, and financial instruments that provide newly added value in the financial services sector by involving digital ecosystem. The overall licensing process of DFI consist of three stages: (i) Recordation/Tercatat; (ii) Registration/ Terdaftar; (iii) Licensed/Berizin.

Provisions within OJK Regulation No. 13/2018 stipulate that all eligible fintech, except for those having been registered with OJK and/or having obtained the license from OJK prior to the regulation's issuance, are required to apply for recordation. After the completion of the aforementioned recordation process, OJK shall conduct the Regulatory Sandbox to ensure that the operators have fulfilled the DFI criteria as stipulated in Regulation No. 13/2018. Below is the flowchart of OJK's Regulatory Sandbox:
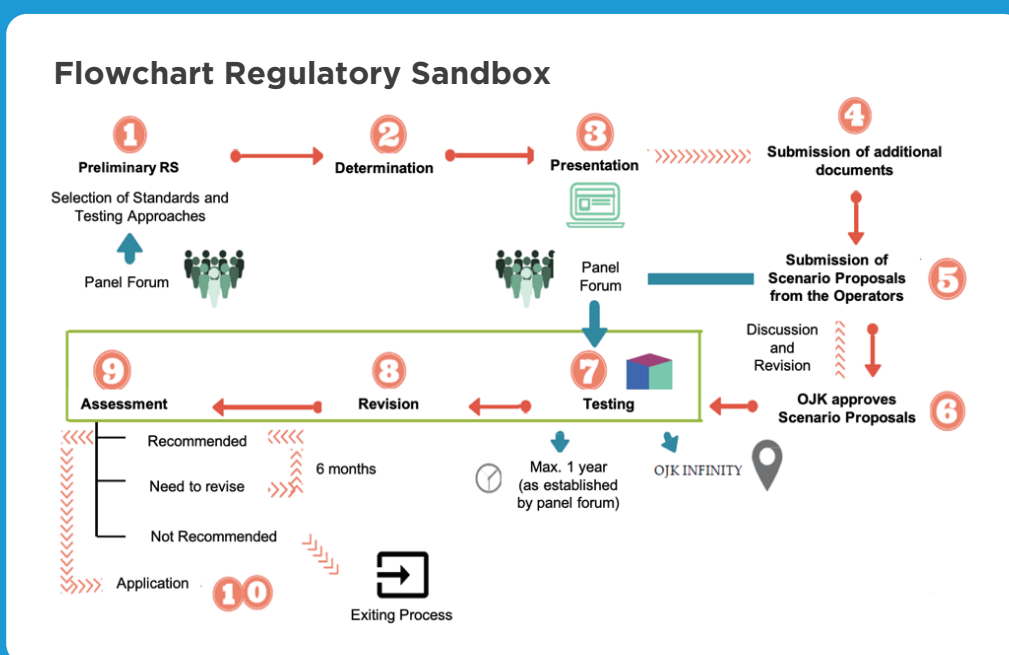


Source: OJK, July 2020

In the beginning of the Sandbox, there were 20 AFTECH members participating in the 1st Batch of Regulatory Sandbox. Currently, there are more than 70 AFTECH members within 16 different DFI clusters from seven batches. The 16 DFI clusters are Aggregator, Financial Planner, Blockchain-based, Credit Scoring, Claim Service Handling, Insurance Broker Marketplace, Online Distress Solution, Financing Agent, Property Investment Management, RegTech, Project Financing, Funding Agent, Verification Non-CDD, Tax and Accounting, e-KYC, and InsurTech. The below chart illustrates the development of Regulatory Sandbox Batch 1 to 7.

On 29 May 2020, OJK announced the evaluation result from the first batch of Regulatory Sandbox. Two clusters were recommended to move to the next stage (i.e. obtaining Registered Status/Status Terdaftar), while the remaining were given additional six months to revise their business models.

Amongst the suggested revisions were: 1) Cooperation with legal business entities; 2) Adoption of consumer protection principles, as well as implementation of consumer complaint handling process; and 3) Consumer consent. Throughout the Regulatory Sandbox process, OJK is giving an emphasis on regulatory compliance and consumer protection.

**GIKD OJK Regulatory Sandbox Batches 1-7 Journey ( AFTECH Members)**
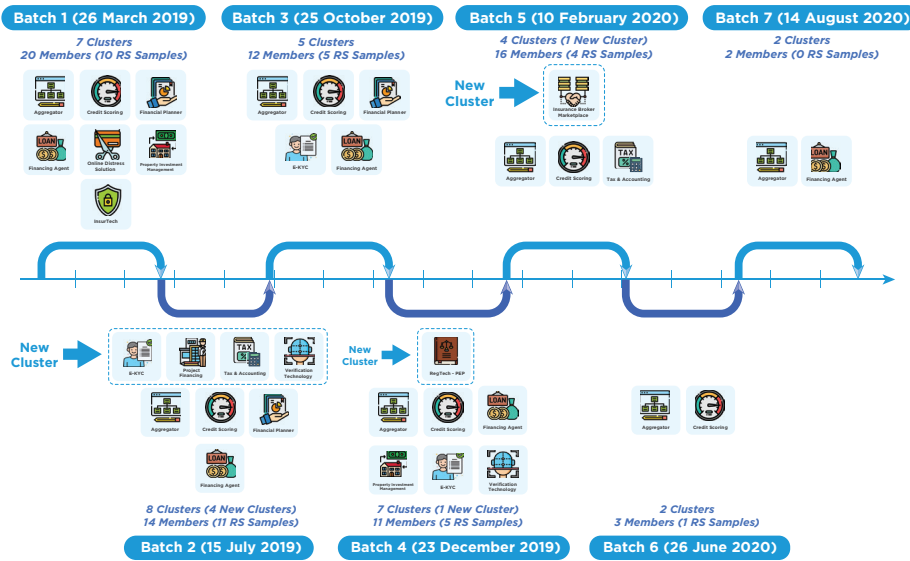
To further develop digital financial innovation ecosystem in Indonesia, OJK has launched the Digital Financial Innovation Roadmap 2020-2024. The roadmap includes initiatives that focus on OJK's roles as accelerator, enabler, supervisor, collaborator, and talent promoter. Below are the targeted annual milestones from the roadmap.

| Roadmap years | | | | | |
|---|---|---|---|---|---|
| GIKD OJK Roles | **2020** | **2021** | **2022** | **2023** | **2024** |
| **Accelerator** | Being a member of the Global Financial Innovation Network (GFIN to accelerate Fintech development | Develop OJK Infinity to be one of the top regulatory innovation hubs in Southeast Asia | Expand the number of Fintech start-ups and scale up the business in collaboration with international donors or member | OJK Infinity support the expansion of Indonesia Fintech on a Regional and Global level and actively share Indonesia's Fintech experiences globally | Plan to develop the next action plan that further strengthens the role of Fintech in becoming a key element in driving an inclusive and responsible digital economy |
| **Regulation & Supervision** | Enhance the existing regulation and conduct research related to advances in technology and its associated risk Including strengthen relationships with all the Fintech Associations | Draft Regulation/ Guidelines and expansion in research related to advances in technology and their associated risk. Enhance the role of regulatory sandbox | Implement the regulation and develop the infrastructure for the use of RegTech/ SupTech | Start the innitial implementation of RegTech to facilitate compliance reporting and SupTech to enhance market conduct supervision | Full implementation of RegTech to improve the compliance of Fintech and financial industry players and SupTech to harness technologies to better supervise the industry |
| **Collaboration** | Strengthen collaboration with key domestic stakeholders and international organizations | Setting the collaboration and arrangement with key domestic stakeholders, regional regulators (via ASEAN Financial Sector Working Groups) and international organization to discuss data sharing arrangement, information exchange protocol, risk management, etc. | Ensure that Indonesia works with Regional and International groups to strengthen and adopt international standards both to address domestic cross cutting issues and support crossborder Fintech related business opportunities and supervision. | Coordinate work program in OJK to ensure the adoption of standard guidelines for the cross-cutting issue within domestic stakeholder and crossborder Fintech trade and finance issues. | Further strengthen and review collaboration arrangement and the next five year collaboration agenda |
| **Talent** | Build a continuous program to develop external and internal talent within the Fintech industry | Implement the continuous program by collaborating with expertise from financial service industry (bank and non-bank) and Fintech start-up | Leverage new technologies to enhance talent development process | Create agile organization for internal talent and enhance the role of innovation hub to support external talent development | Review of the Fintech talent development program and develop the new five year roadmap plan |

Source: OJK

# 3 Fintech Landscape
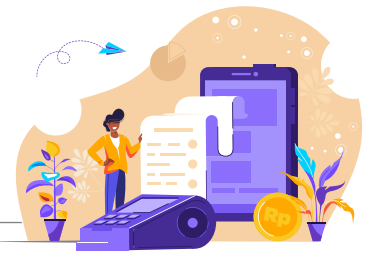
Indonesia's fintech continues to serve low-middle income consumer segment. In terms of age range, majority of fintech users are 25-50 years old, who mostly lived in Jabodetabek (41%), followed by Bandung (13%), Surabaya (12%), and Medan (8%).

The operational year of most fintech companies in Indonesia is less than five years. Before the COVID-19 pandemic, majority of the respondents claimed that they have never changed/expanded their business models (87%). Majority of Digital Payment and Online Lending respondents employed more than 100 people, while most of fintech under DFI category and ECF employed between 10 – 50 people.

There is a high gap in transaction values. 33% of fintech respondents claimed to have total transaction value more than IDR 80 billion, while 24% of them claimed to have less than IDR 500 million. Prior to the COVID-19 pandemic, almost half of the respondents were trying to raise the investment. This trend can be found across all fintech verticals. The total amount of investment raised by fintech startups ranging from IDR 500 million to IDR 35 billion, which mostly come from bootstrapping, angel investor, and venture capital.

The COVID-19 pandemic has triggered fintech companies to pivot their business models, reduce number of employees, and adjust investment plan in order to survive and mitigate the risk. Furthermore, the pandemic has also increased the adoption of fintech, which later supports digital financial literacy.

## A. Primary Users

According to the survey, fintech mostly caters low-middle income segment. This is supported by the result that 32% of fintech users are individuals with average monthly income ranging from IDR 5 million to IDR 15 million. The ability to capture high frequency and small ticket size transactions allow fintech to serve the low-middle income segment.

In terms of age range, majority of fintech users are 25-50 years old. One way to interpret this data is fintech users have higher digital financial literacy rate.

The COVID-19 pandemic has triggered the adoption of fintech, hence, increase the rate of digital financial literacy. However, it is also worth to note that these primary users are sensitive to declining economic condition.

Figure 13. Primary Users by Income



| | |
|---|---|
| <5 Mil | 63 (22%) |
| 5 - 15 Mil | 90 (32%) |
| 16 - 30 Mil | 59 (21%) |
| 31 - 50 Mil | 37 (13%) |
| >50 Mil | 33 (12%) |

Source: AFTECH Secretariat Analysis, 2020

Figure 14. Primary Users by Age Range



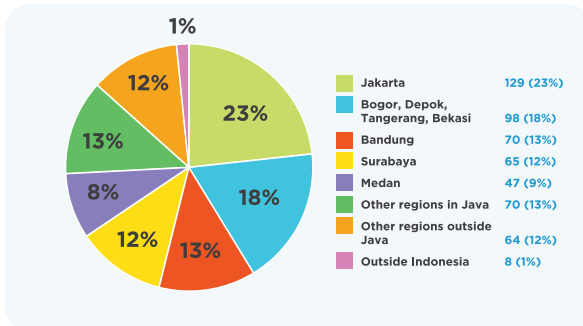| | |
|---|---|
| <18 | 6 (2%) |
| 18 - 24 | 61 (20%) |
| 25 - 34 | 118 (39%) |
| 35 - 50 | 92 (30%) |
| >50 | 27 (9%) |
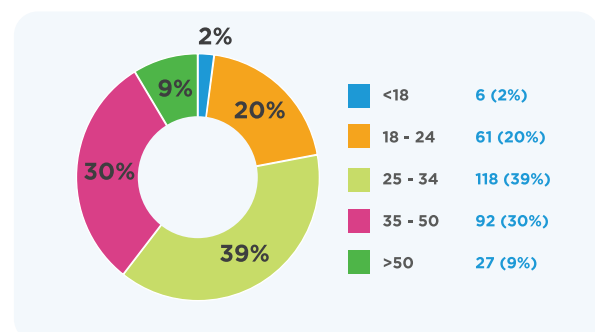
Source: AFTECH Secretariat Analysis, 2020

## B. Market Penetration

Jabodetabek remain as the main market for fintech (41%), followed by Bandung, Surabaya, and Medan. Albeit still concentrated in big cities, fintech market also covered areas outside Java. The survey shows that 23% of the respondents have outreached to area outside Java.

Figure 15. Main Market Penetration



| Jakarta | 129 (23%) |
| Bogor, Depok, Tangerang, Bekasi | 98 (18%) |
| Bandung | 70 (13%) |
| Surabaya | 65 (12%) |
| Medan | 47 (9%) |
| Other regions in Java | 70 (13%) |
| Other regions outside Java | 64 (12%) |
| Outside Indonesia | 8 (1%) |

Source: AFTECH Secretariat Analysis, 2020

## C. Years of Operation

According to the survey, 57% of Digital Payment respondents have been operating for less than five years. The number is high for all fintech verticals.
Majority of fintech under DFI category have been operating between 1 to 5 years (94%), and only 6% that have been operating between 6 to 10 years. In addition, all ECF fintech have also been operating between 1 to 5 years.

Figure 16. Years of Operation
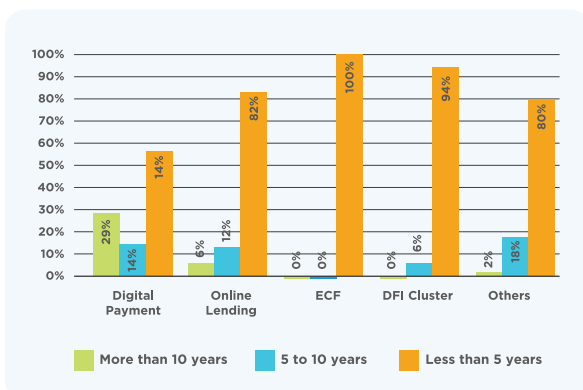


Source: AFTECH Secretariat Analysis, 2020

## D. Expansion of Business Model

Before the COVID-19 pandemic, majority of the respondents claimed that they have never changed/expanded their business models (87%). This situation changed during the pandemic. AFTECH's survey on the impact of COVID-19 pandemic to fintech industry shows that companies have pivoted their business models in order to survive and mitigate the risk.

Figure 17. Expansion of Business Model (Before the COVID-19 Pandemic)



| No | 123 (87%) |
| Yes | 18 (13%) |
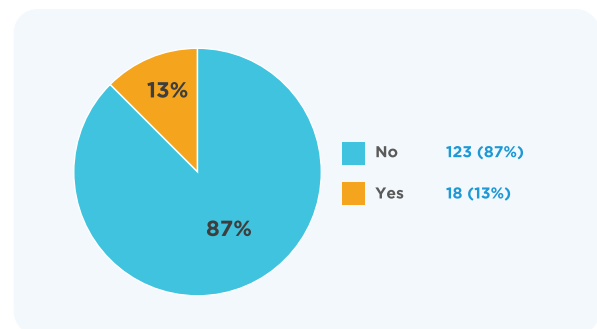
Source: AFTECH Secretariat Analysis, 2020

Figure 18. Expansion of Business Model (During the COVID-19 Pandemic)



| No | 19 (59%) |
| Yes | 13 (41%) |
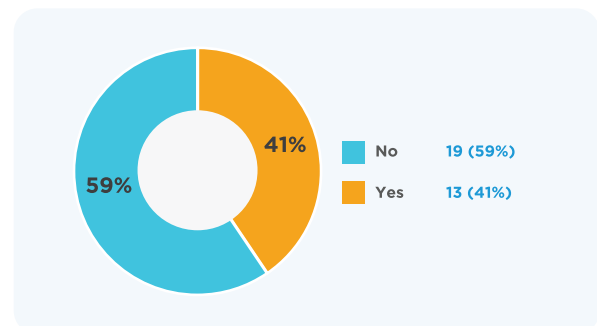
Source: AFTECH Secretariat Analysis, 2020

## E. Number of Employees

Referring to the complexity of the business models, majority of Digital Payment and Online Lending respondents employed more than 100 people, while most of fintech under DFI category and ECF employed between 10 – 50 people.

Due to COVID-19 pandemic, number of employees in fintech industry might decline. The result of AFTECH's survey on the impact of COVID-19 shows that almost 10% of the respondents have implemented layoff as part of their mitigation efforts.

Figure 19. Number of Employees
(Before the COVID-19 Pandemic)
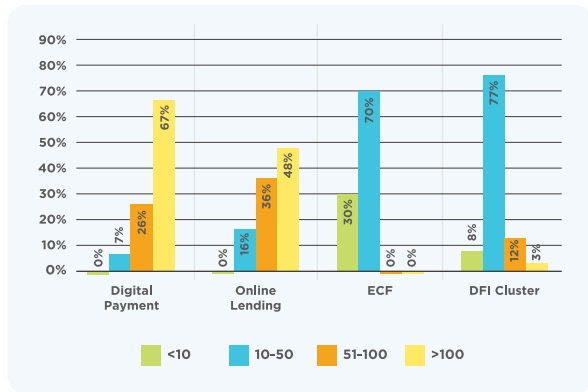


Source: AFTECH Secretariat Analysis, 2020

## F. Transaction Values

The survey shows that there is a high gap in transaction values. 33% of fintech respondents claimed to have total transaction value more than IDR 80 billion, while 24% of them claimed to have less than IDR 500 million.

During the pandemic, total transaction value has declined due to lower number of users in some fintech business models, as well as less economic activities. AFTECH's survey on the impact of COVID-19 shows that 69% of the respondents experienced slower business operation, including less transaction.

Figure 20. Total Transaction Value
(Before the COVID-19 Pandemic)
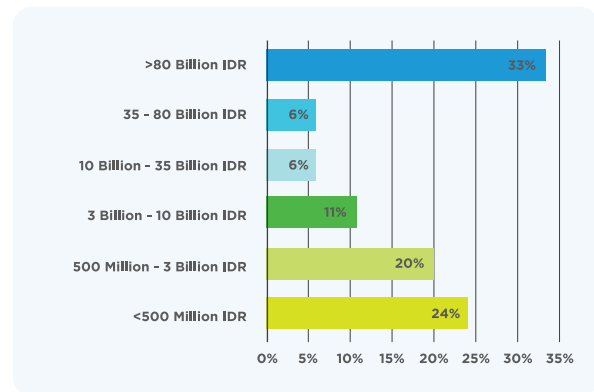


Source: AFTECH Secretariat Analysis, 2020

## G. Investment

Before the COVID-19 pandemic, 46% of the respondents were trying to raise the investment, whereas 25% have raised the investment as much as needed and 2% have raised more than needed. This trend is similar in all fintech verticals.

The COVID-19 pandemic has affected most fintech companies' investment plan, as shown by the AFTECH's survey on the impact of COVID-19 result.

Figure 21. Investment Status in 2018 and 2019
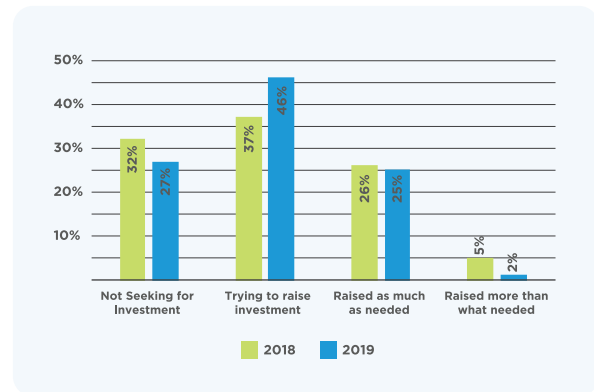


Source: AFTECH Secretariat Analysis, 2020

Figure 22. Investment Status Based on Type of Fintech in 2019
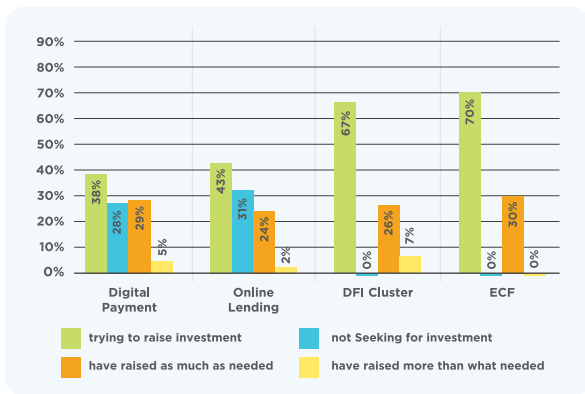


Source: AFTECH Secretariat Analysis, 2020

The top three main sources of investment are bootstrapping, angel investor, and venture capital. It is worth to note that the sources of investment might differ as fintech startup move onto different rounds of funding.
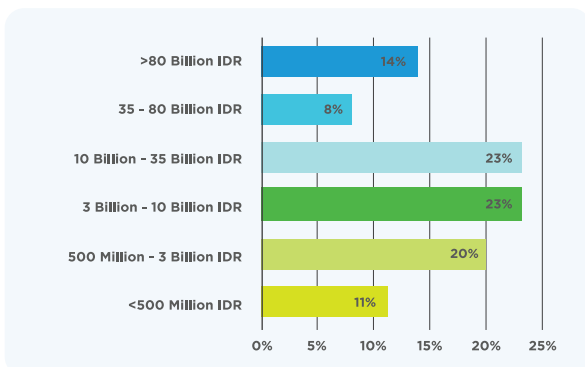
Figure 23. Sources of Investment in 2019



| Angel Investor | 19% |
| Bootstrapping | 23% |
| Private Equity | 28% |
| Loan | 10% |
| Venture Capital | 13% |
| Friend & Family | 2% |
| Goverment | 3% |
| IPO | 2% |
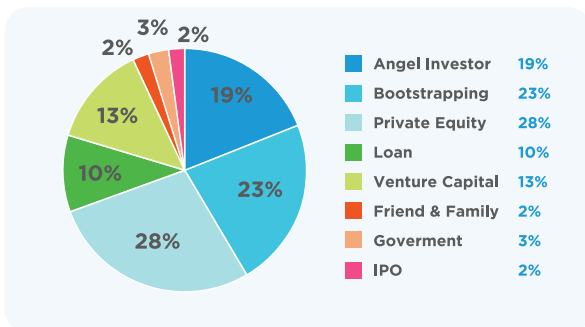
Source: AFTECH Secretariat Analysis, 2020

On average, the total amount of investment raised by fintech startups ranging from IDR 500 million to IDR 35 billion. Consequently, majority of fintech respondents are classified as Series A and above category.

Figure 24. Total Amount of Investment Raised in 2019 (percentage)



Source: AFTECH Secretariat Analysis, 2020

According to the survey, 55% of investment in fintech came from Indonesia. The rest were from Singapore (18%), China (8%), and Japan (7%).

Figure 25. Source of Investment by Country
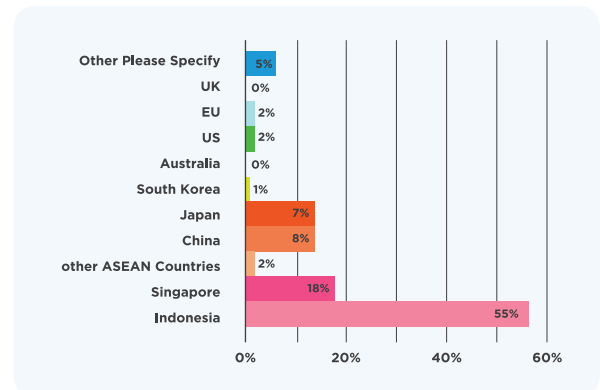


Source: AFTECH Secretariat Analysis, 2020

In order to boost investment, the respondents suggested the following actions from the government:
i.    Creation of conducive regulatory environment;
ii.   Provision of incentives for fintech investors; and
iii.  Provision of alternative support schemes.

Figure 26. Recommended Government Actions to Boost Investment in Fintech
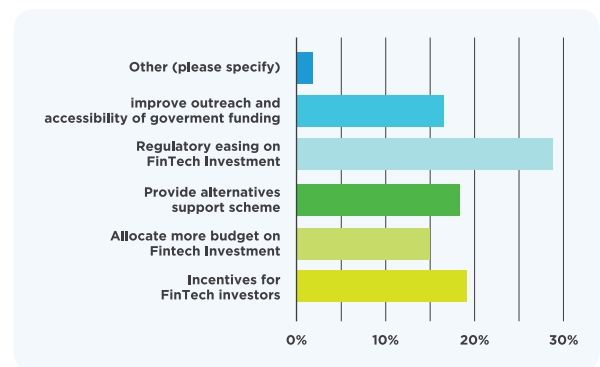


Source: AFTECH Secretariat Analysis, 2020

# 4 Implementation of Good Governance

According to the survey, majority of fintech respondents have continued to adopt good governance principles. In terms of data center, majority of the respondents with own data center have registered the facility to the Ministry of Communication and Informatics RI (Kominfo). In addition, most respondents also claimed that they have a Disaster Recovery Plan/DRP (90%).

In terms of consumer complaint handling process, 94% of the respondents have a policy to guide the process. Almost all respondents think that consumer protection is important. Amongst the principles of consumer protection, data privacy and security, transparency, as well as fair treatment are considered the most important.

More than half of the respondents (54%) have implemented international standards and regulations in their business operation. In addition, 81% of the respondents have implemented industry Code-of-Conduct. Both figures have increased compared to last year, which indicates increasing efforts to adhere to good governance principles.

## A. Data Management

Majority of the respondents (64%) do not own data center, but rather utilize cloud infrastructure. This finding is similar across Online Lending, fintech under DFI category, as well as Equity Crowdfunding. In contrast, on Digital Payment, more than half of the respondents have their own data center.

Figure 27. Data Center Ownership



YES 36%
NO 64%
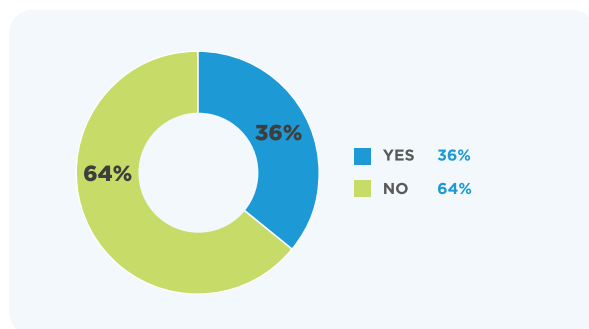
Source: AFTECH Secretariat Analysis, 2020

Figure 28. Data Center Ownership (by Fintech Business Models)
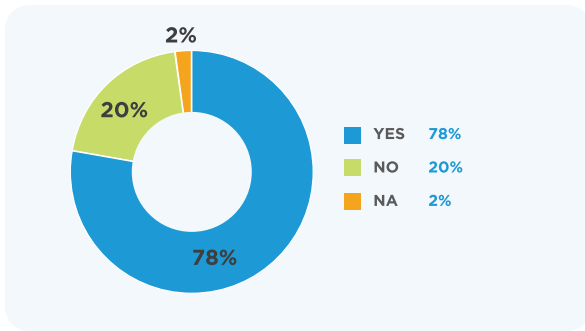


YES    NO
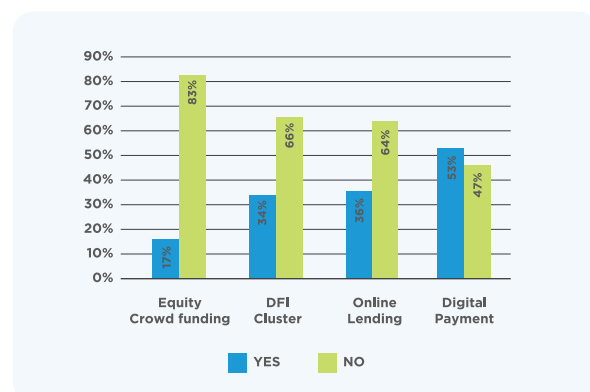
Source: AFTECH Secretariat Analysis, 2020

Majority of the respondents with their own data center have registered the facility to the Ministry of Communication and Informatics RI (Kominfo).

Only 2% of the respondents have not registered it to Kominfo.

## Figure 29. Registration Status of Fintech Company's Data Center in Kominfo



| | | |
|---|---|---|
| YES | 78% | |
| NO | 20% | |
| NA | 2% | |

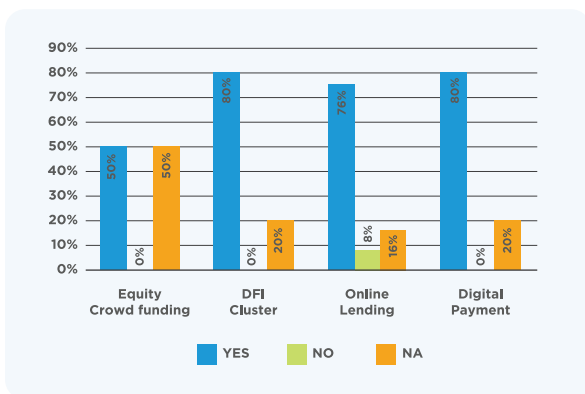Source: AFTECH Secretariat Analysis, 2020

In four major fintech business models, majority of the respondents claimed that they have a Disaster Recovery Plan/DRP (90%).

## Figure 30. Availability of Disaster Recovery Plan



| | |
|---|---|
| Yes | 90% |
| No | 10% |
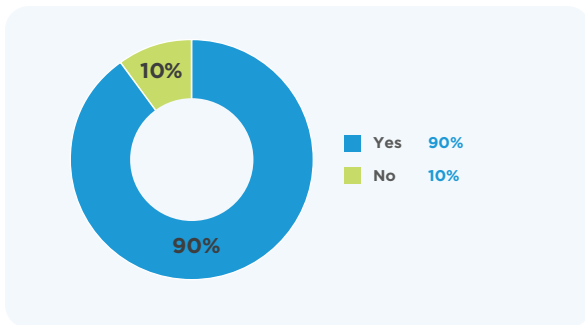
Source: AFTECH Secretariat Analysis, 2020

## Figure 31. Availability of Disaster Recovery Plan (by Fintech Business Models)



Source: AFTECH Secretariat Analysis, 2020

The top three strategies of DRP include providing backup server, creating SOP for Disaster Recovery Center/DRC, and providing multiple servers.

## Figure 32. Strategies of DRP



| | |
|---|---|
| Provide Multiple served | 32% |
| Creating SOP for DRC | 4% |
| Following cloud service provider SOP for DRC | 32% |
| Backup Server | 32% |
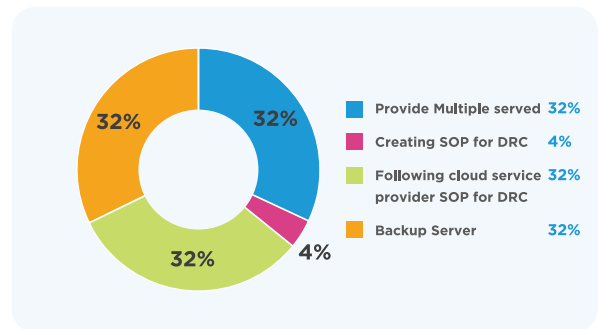
Source: AFTECH Secretariat Analysis, 2020

## B. Cybersecurity

Most respondents claimed that they do not frequently experience system failures or cyber-attacks.

Compared to fintech under DFI category and ECF, Digital Payment and Online Lending have more experiences in facing system failures and cyber-attacks. In 2019, around 22% of the respondents from Digital Payment and 18% of the respondents from Online Lending were facing system failures and cyber-attacks.
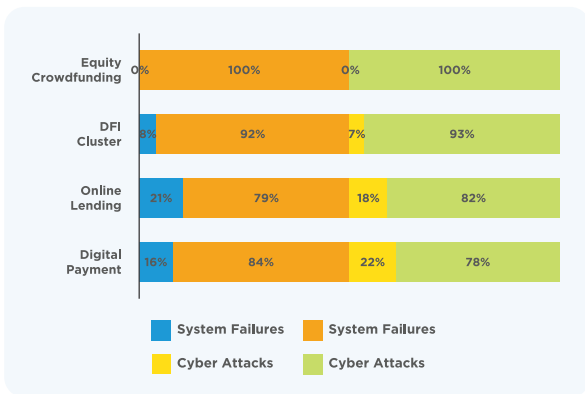
During the COVID-19 pandemic, the risk of cyber-attacks has increased in parallel with the increased adoption of digital financial services.

## Figure 33. Number of System Failures and Cyber-attacks
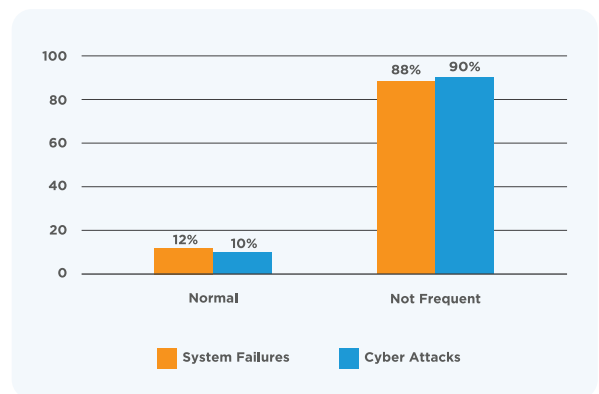


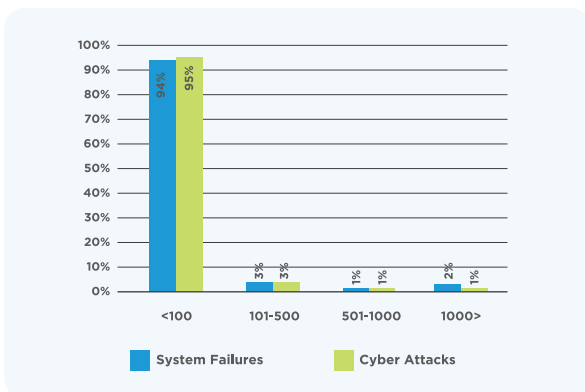Source: AFTECH Secretariat Analysis, 2020

## Figure 34. Number of System Failures and Cyber-attacks (by Fintech Business Model)



Source: AFTECH Secretariat Analysis, 2020

In 2019, 95% of the respondents claimed that there are less than 100 users on average, who were affected by cyber-attacks. The result is almost similar for system failures.

## Figure 35. Number of Users Affected by System Failures and Cyber-attacks



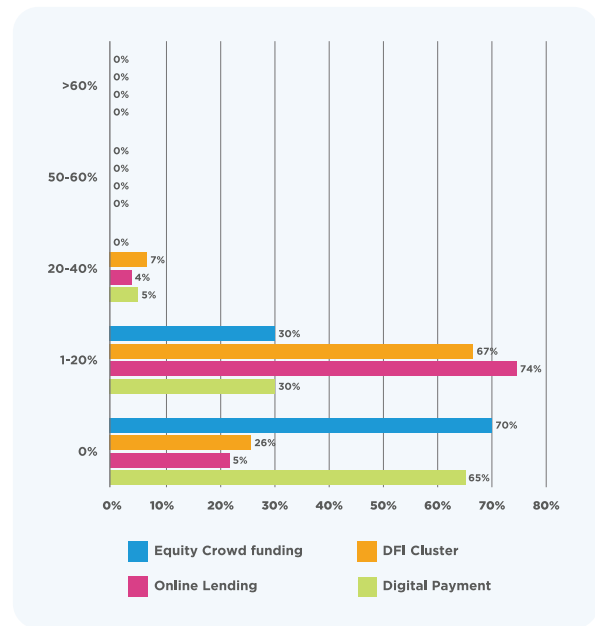Source: AFTECH Secretariat Analysis, 2020

## C. Consumer Complaint Handling

Majority of the respondents have received complaints from less than 20% of their overall consumers. This finding is identical across the four fintech business models.

In 2019, the top three complaints included:
i.   the long process of registration;
ii.  pending transaction; and
iii. system error.

## Figure 36. Number of Complaints Received in 2019 (Percentage to Overall Consumers)



Source: AFTECH Secretariat Analysis, 2020

More than half of the respondents have solved over 60% of consumer complaints received, whilst 33% have solved 50-60% of consumer complaints received. According to all respondents, all complaints were solved in less than 20 days.

## Figure 37. Number of Complaints Solved in 2019 (Percentage to Overall Complaints Received)
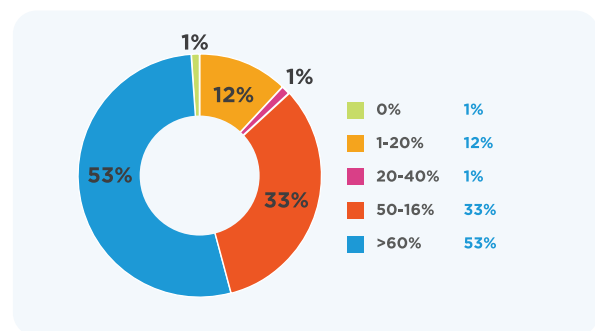


Source: AFTECH Secretariat Analysis, 2020

The most used channel for consumer complaint handling is Call Center (51%), followed by social media (35%) and email (14%). It is interesting to note that the use of social media as channel for consumer complaint has increased from 29% (2018) to 35% (2019).
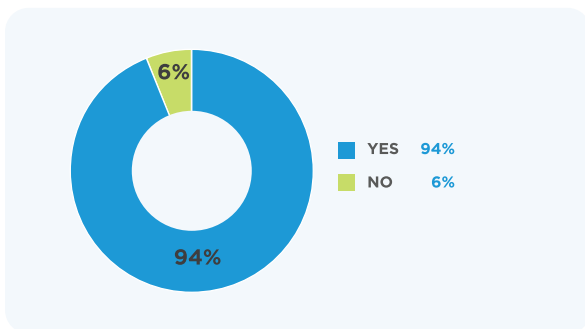
## Figure 38. Channels for Consumer Complaints



| | |
|---|---|
| CALL CENTER/ HOTLINE | 51% |
| EMAIL | 14% |
| SOCIAL MEDIA | 35% |
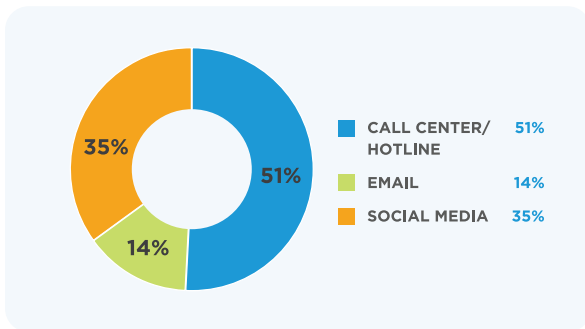
Source: AFTECH Secretariat Analysis, 2020

94% of the respondents have a policy for complaint handling process. This figure is higher than last year (84.6%).
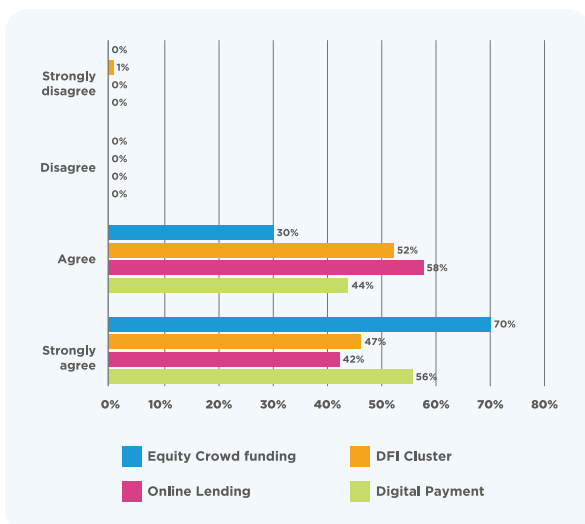
## Figure 39. Complaint Handling Policy



| YES | 94% |
|---|---|
| NO | 6% |

Source: AFTECH Secretariat Analysis, 2020

## D. Consumer Protection

Almost all of the respondents (99%) think that consumer protection is vital for the development of fintech industry.
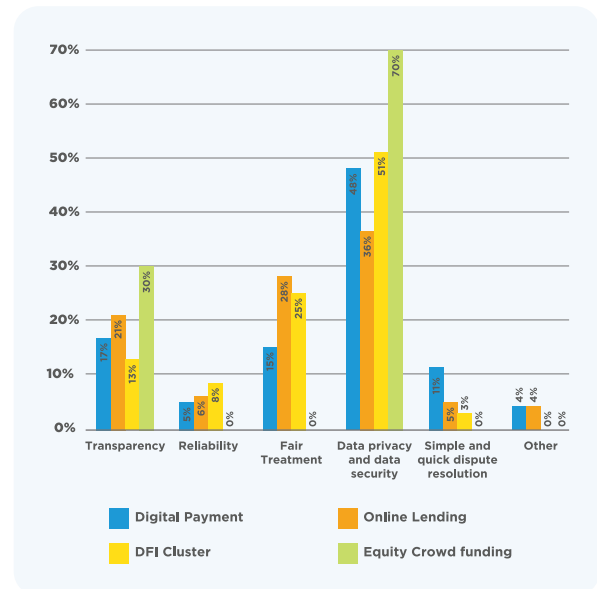
## Figure 40. The Importance of Consumer Protection in Fintech Industry



Source: AFTECH Secretariat Analysis, 2020

Amongst the principles of consumer protection, data privacy and security, transparency, as well as fair treatment are considered the most important by the respondents.
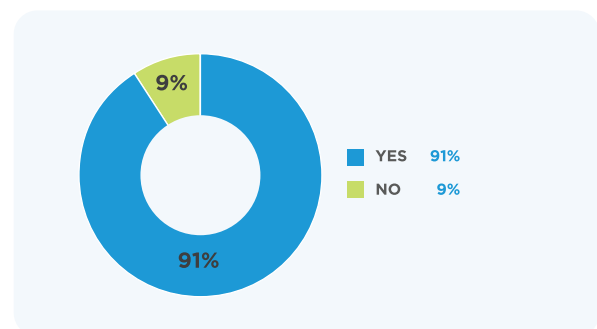
## Figure 41. The Principles of Consumer Protection (Percentage of Respondents)



Source: AFTECH Secretariat Analysis, 2020

Majority of the respondents (91%) think that existing regulations on consumer protection are already optimum. This number increased compared to last year (78%).

## Figure 42. The Optimality of Consumer Protection Regulations



| YES | 91% |
|---|---|
| NO | 9% |

Source: AFTECH Secretariat Analysis, 2020

The top three consumer protection initiatives implemented by the respondents include:
i.    data security and data privacy;
ii.   insurance; and
iii.  training for customer services.

## E. Implementation of International Standards and Regulations

More than half of the respondents (54%) have implemented international standards and regulations in their business operation. Meanwhile, 15% of the respondents are planning to implement it. This indicates an increasing awareness of compliance to international standards and regulations among the respondents.

Figure 43. Implementation of International Standards and Regulations
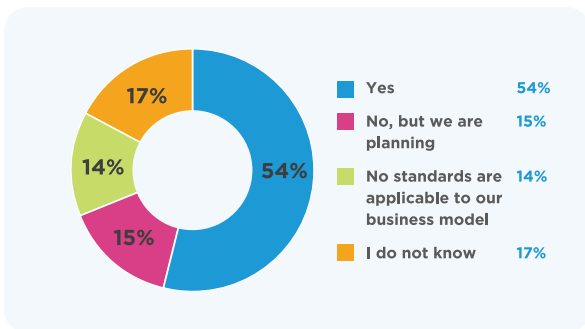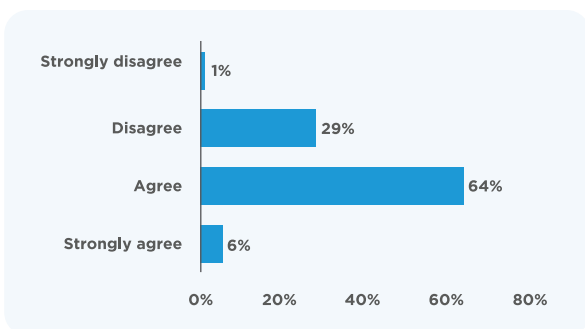


Source: AFTECH Secretariat Analysis, 2020

Majority of the respondents (70%) understand and accept the international standards in fintech industry. Amongst these standards are:
(i) ISO 27001;
(ii) GDPR; and
(iii) PCI DSS.

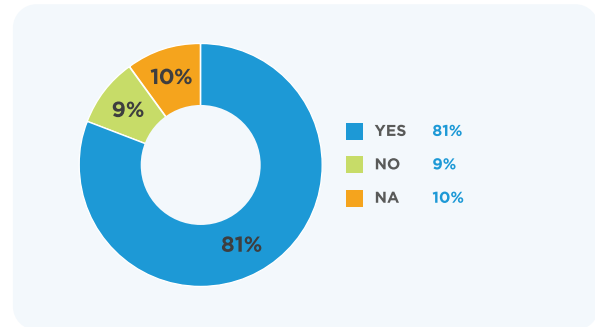Figure 44. Respondents' Opinion on International Standards



Source: AFTECH Secretariat Analysis, 2020

## F. Implementation of Code-of-Conduct

Majority of the respondents (81%) have implemented industry Code-of-Conduct. This figure has increased compared to last year (78%).

Figure 45. Implementation of Code-of-Conduct



Source: AFTECH Secretariat Analysis, 2020

## BOX. 2
## Creation of Fintech Industry Standard and Code-of-Conduct

In order to uphold good governance principles, fintech companies are developing industry standards and Code-of-Conducts. Through its task force and working groups, AFTECH is currently finalizing fintech industry standard on data privacy and data security, as well as specific Code-of-Conduct for Aggregator, Innovative Credit Scoring, and Financial Planner clusters. Below are the highlights:

## Draft of Fintech Industry Standard for Data Protection and Privacy

Data protection and privacy are fundamental for good governance in fintech. The European Union General Data Protection Regulation (EU GDPR) is often referred as the best practice for data protection and privacy. Indonesian government is currently finalizing Draft Law on Personal Data Protection (Draft PDP Law). The fintech industry standard that is currently being developed uses EU GDPR and Draft PDP Law as the main references. Below are the principles adopted in the draft of fintech industry standard:
- Compliance with Law, Justice and Transparency
- Purpose Limitation
- Data Minimization
- Storage Limitation
- Accuracy
- Integrity, Confidentiality, and Data Security
- Accountability
- Good intention

Furthermore, the draft of fintech industry standard also covers the rights of personal data owners, obligation to control personal data, data processing, complaint handling and sanction, as well as compliance and supervision.

### Final Draft of Code-of-Conduct for Aggregator Cluster

This final draft of Code-of-Conduct is a set of principles and processes developed based on collective agreement among the members of AFTECH Aggregator Working Group. This document binds all AFTECH members from Aggregator cluster and provides guidelines for responsible business conduct. Following are the principles adopted: integrity and quality, transparency, independence, and standard of security.

### Final Draft of Code-of-Conduct for Innovative Credit Scoring Cluster

This final draft of Code-of-Conduct is a set of principles and processes developed based on collective agreement among the members of AFTECH Innovative Credit Scoring Working Group. This document binds all AFTECH members from Innovative Credit Scoring cluster and serves as a guideline to develop a reliable credit scoring based on these following principles: transparency, independence, and standard of security.

### Final Draft of Code-of-Conduct for Financial Planner Cluster

This final draft of Code-of-Conduct is a set of principles and processes developed based on collective agreement among the members of AFTECH Financial Planner Working Group. This document binds all AFTECH members from Financial Planner cluster and adopts the following principles: integrity and quality, data source and transparency, independence, standard of security, as well as Anti-Money Laundering/Combating the Financing of Terrorism (AML/CFT).

# 5 Regulatory Outlook

The survey shows that current regulatory framework is conducive for innovation and more than half of the respondents believed that the government has provided sufficient investment support to the industry. However, improvement in regulations is still needed to ensure optimum growth in fintech industry. The top three improvements needed are on regulations clarity, speed of licensing process and elimination of red-tape, as well as e-KYC regulations.

In 2019, the government, including BI, OJK, and the Ministry of Home Affairs RI, have issued series of regulations relevant to fintech industry. Such development will continue in 2020 as the Draft Law of Personal Data Protection, Masterplan for Financial Services Sector 2020-2024, G2P 4.0 Architecture, and Masterplan for Financial Inclusion are being finalized.

Majority of the respondents (73%) claimed that the current regulatory framework is conducive for innovation. This finding is similar across all fintech business models.

Figure 46. Perception of Current Regulatory Framework on Innovation
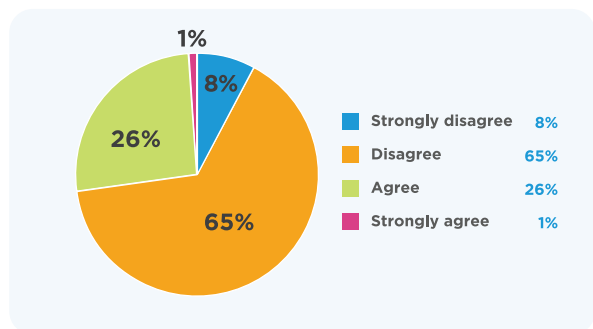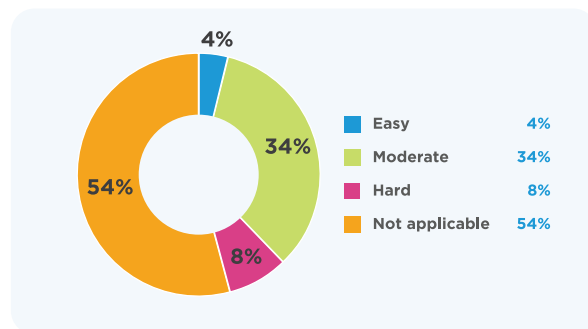


Source: AFTECH Analysis, 2020

Figure 47. Perception of Current Regulatory Framework on Innovation (by Fintech Business Model)
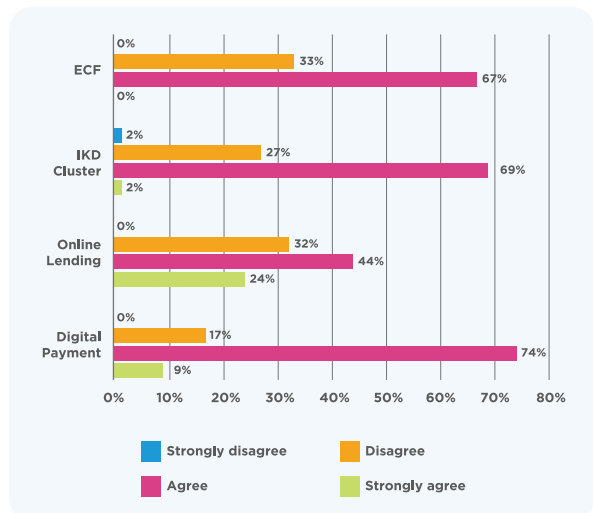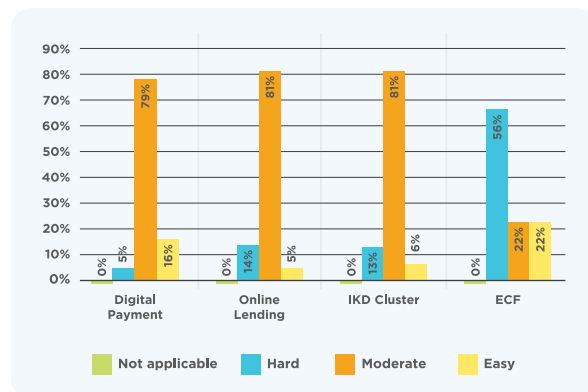


Source: AFTECH Analysis, 2020

More than half of the respondents (54%) claimed to have moderate level of challenges in regulatory compliance. This figure has declined compared to last year (76%).

Figure 48. Level of Challenges in Regulatory Compliance
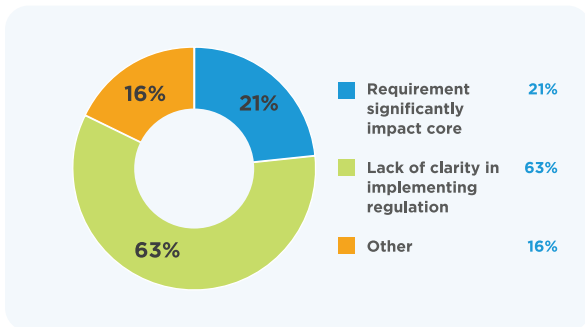


Source: AFTECH Analysis, 2020

Figure 49. Level of Challenges in Regulatory Compliance (by Fintech Business Model)



Source: AFTECH Analysis, 2020

More than 60% of the respondents mentioned that the main challenges for regulatory compliance is lack of clarity in implementing regulation.
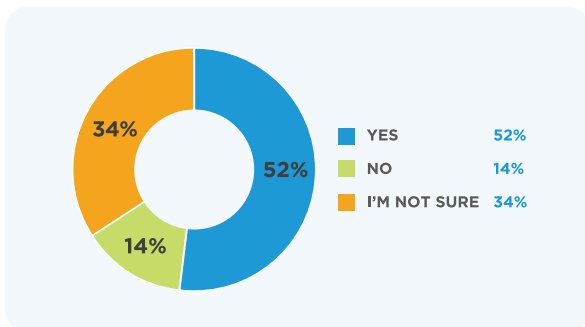
Figure 50. Challenges in Regulatory Compliance



Source: AFTECH Analysis, 2020

More than half of the respondents (52%) believed that the government has provided sufficient investment support to the industry. This figure has increased compared to last year (40.8%).

Figure 51. Perception on Government Support for Investment


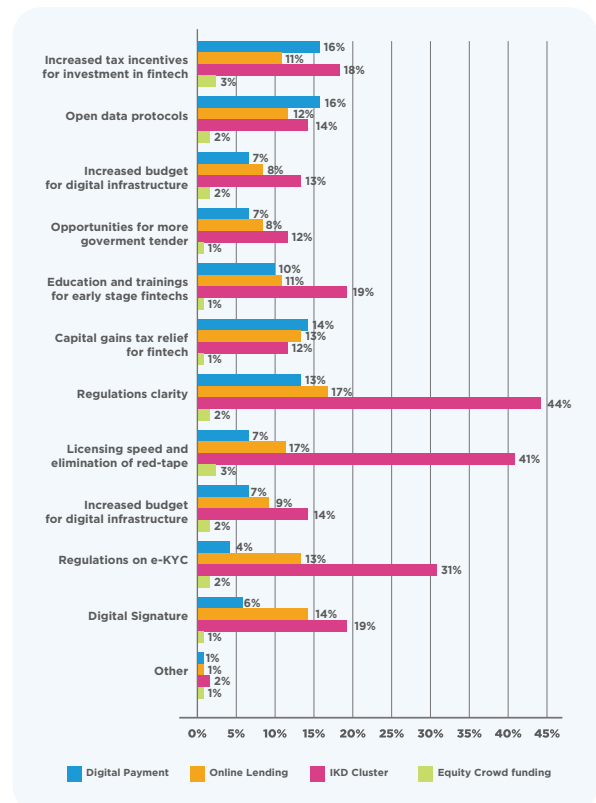
Source: AFTECH Analysis, 2020

In order to optimize the growth of fintech industry in Indonesia, several improvements are needed. According to the survey, the top three improvements needed are on regulations clarity, speed of licensing process and elimination of red-tape, as well as e-KYC regulations. Such finding is identical across all business fintech models.

Figure 52. Regulatory Improvement Needed to Optimize the Growth of Fintech Industry
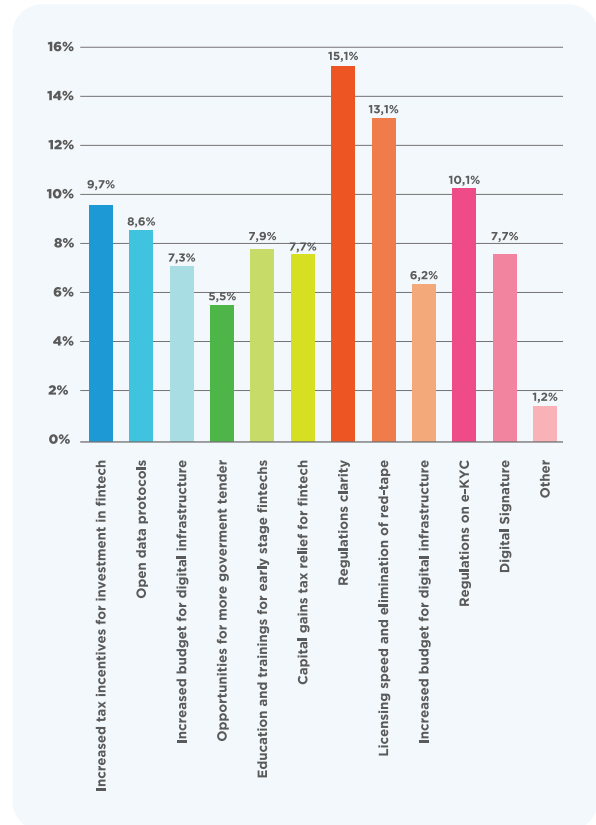


Source: AFTECH Analysis, 2020

Figure 53. Regulatory Improvement Needed to Optimize the Growth of Fintech Industry
(by Fintech Business Model)



Source: AFTECH Analysis, 2020

## List of Relevant Government Regulations and Initiatives Issued in 2019 and Q2 2020

| Regulation | Issuer | Remarks |
|---|---|---|
| Government Regulation No.71 of 2019 concerning the Implementation of Electronic Systems and Transactions | Government | **Purpose:** To regulate the use of information technology in electronic transactions. **Highlight:** This regulation amends Government Regulation No. 82 of 2012, and includes new provisions such as: (i) new concept of public and private electronic system operators; (ii) new data localization requirements for public electronic system operators; (iii) further explanation on electronic data cancellation; (iv) electronic certificates and electronic reliability certificate; and (v) new scope for electronic certification services. |
| Indonesia Payment System Blueprint 2025 | BI | **Purpose:** To achieve the five visions of the Indonesia Payment System 2025 and ensure the flow of digitization developed in a conducive digital economic and financial ecosystem. **Highlight:** The blueprint covers five initiatives to achieve the 2025's visions: (i) open banking; (ii) retail payment system; (iii) market infrastructure; (iv) data; and (v) regulatory, licensing, and supervision. These initiatives will be implemented in parallel by five working groups under BI. |
| The Minister of Home Affairs Regulation No. 102 of 2019 concerning the Granting of Access Rights and the Utilization of Population Data (Dukcapil) | Ministry of Home Affairs Regulation | **Purpose:** To offer an easier experience in utilizating population data for public service, planning and development, law enforcement, and other activities. **Highlight:** This regulation specifically addresses requirement and procedure to grant the access rights; utilization of population data; monitoring and supervision; and sanctions. |
| OJK Circular Letter No. 20/SEOJK.02/2019 concerning the Recordation Mechanism of Digital Financial Innovation (DFI) | OJK | **Purpose:** To support the implementation of OJK Regulation No. 13/POJK.02/2018 concerning Digital Financial Innovation. **Highlight:** This Circular Letter describes the recordation mechanism for fintech under DFI category. |
| OJK Circular Letter No. 21/SEOJK.02/2019 concerning Regulatory Sandbox | OJK | **Purpose:** To support the implementation of OJK Regulation No. 13/POJK.02/2018 concerning Digital Financial Innovation. **Highlight:** This Circular Letter describes the Regulatory Sandbox process. |
| OJK Circular Letter 22/SEOJK.02/2019 concerning Appointment of Association for fintech under DFI category. | OJK | **Purpose:** To support the implementation of OJK Regulation No. 13/POJK.02/2018 concerning Digital Financial Innovation. **Highlight:** This Circular Letter describes the pre-requisites of the appointment, process, as well as the role and administrative obligation of the Association. |
| Digital Finance Innovation Roadmap and Action Plan 2020-2024 | OJK | **Purpose:** To support the government's financial inclusion strategy. **Highlight:** OJK sees its role as an accelerator, facilitator and incubator in fintech with five main initiatives: (i) policy and regulatory framework; (ii) Regulatory Sandbox; (iii) capacity building; (iv) facilitation; and (v) collaboration. |
| Digital Financial Literacy Roadmap Program | OJK | **Purpose:** To enhance digital financial literacy. **Highlight:** Syllabus developed to enhance digital financial literacy through book, e-Book, animation video, interactive game, and other educational means. |

Subsequent to the issuance of these regulations, Indonesian government will also issue the following documents:

- Draft Law in Personal Data Protection:
  Highlight: The Draft Law includes chapters on personal data, stakeholder rights and obligations, data process and transfer, the appointment of Data Protection Officer (DPO), dispute resolution, as well as administrative and criminal sanctions.

- Masterplan for Financial Services Sector in Indonesia 2020-2024
  Highlight: This Masterplan will focus on:
  i. strengthening resilience and competitiveness;
  ii. accelerating digital transformation;
  iii. developing financial services ecosystem;
  iv. accelerating financial literacy and consumer protection;
  v. strengthening the application of technology-based supervision.

Together with the government's plan to reform G2P Payment (G2P 4.0 Architecture) and develop Masterplan for Financial Inclusion, these documents are expected to create a more conducive regulatory environment and support more adoption of fintech.
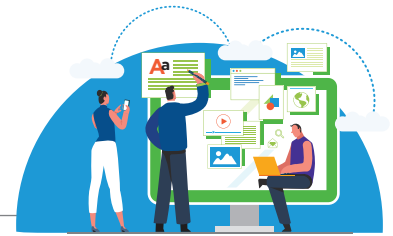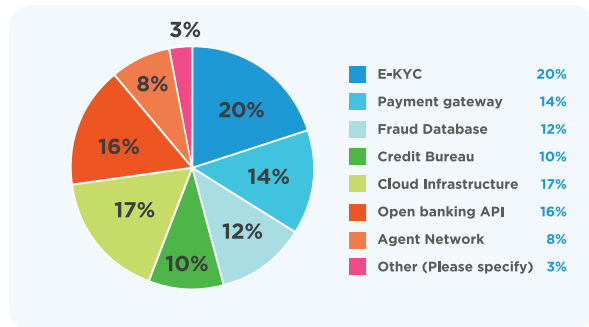
E-KYC, Cloud Infrastructure, Open Banking API, Payment Gateway, and Fraud Database are key infrastructures essential to all fintech business models. However, there are still challenges in procuring these infrastructures. The top three challenges are: (i) expensive price; (ii) regulatory hindrance; and (iii) insufficient basic infrastructure.

Overall, the survey shows that the top five infrastructures for fintech are:
i. e-KYC (20.26%);
ii. Cloud Infrastructure (17.37%);
iii. Open Banking API (16.05%);
iv. Payment Gateway (14.21%); and
v. Fraud Database (11.84%).

Figure 54. Key Infrastructure for Fintech Operation



| E-KYC | 20% |
| Payment gateway | 14% |
| Fraud Database | 12% |
| Credit Bureau | 10% |
| Cloud Infrastructure | 17% |
| Open banking API | 16% |
| Agent Network | 8% |
| Other (Please specify) | 3% |

Source: AFTECH Secretariat Analysis, 2020

For Digital Payment, e-KYC, Open Banking API, and Payment Gateway are the three most essential infrastructures. For Online Lending, the top three are e-KYC, Cloud Infrastructure, and Fraud Database.

For fintech under DFI category, e-KYC, Open Banking API, and Cloud are considered the most important. Meanwhile, for ECF, e-KYC, Payment Gateway, and Cloud are on top of the list.

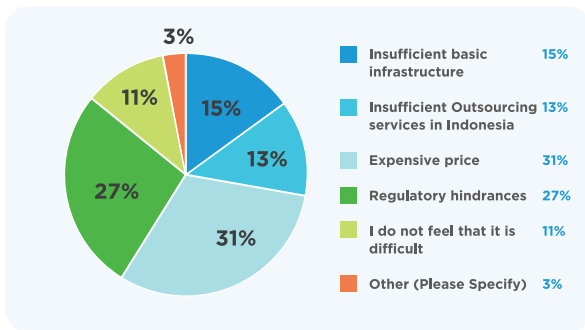Figure 55. Key Infrastructure for Fintech Operation (by Fintech Business Model)
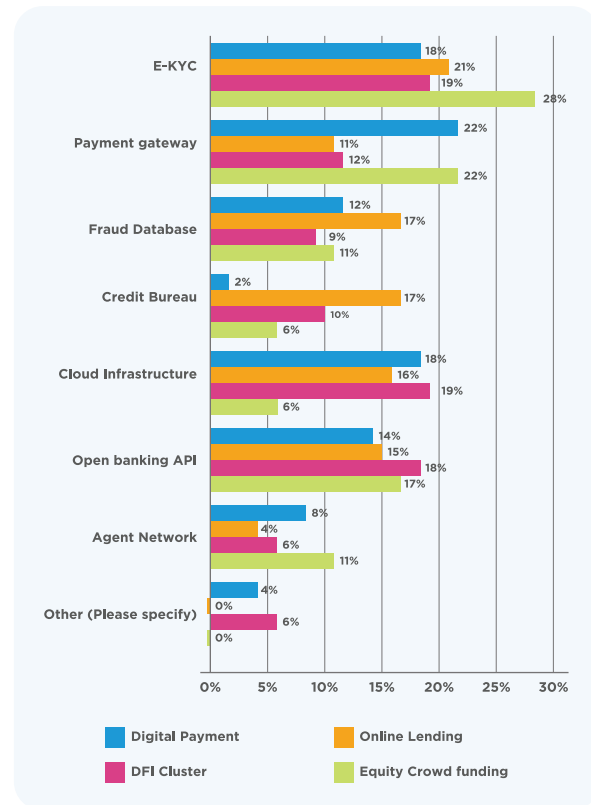


Source: AFTECH Secretariat Analysis, 2020

In aggregate, the top three challenges in procuring these infrastructures are:
i. expensive price;
ii. regulatory hindrance; and
iii. insufficient basic infrastructure.

Compared to last year, number of respondents who considered expensive price as the main challenge has increased.

## Figure 56. Challenges in Infrastructure Procurement



| | |
|---|---|
| Insufficient basic infrastructure | 15% |
| Insufficient Outsourcing services in Indonesia | 13% |
| Expensive price | 31% |
| Regulatory hindrances | 27% |
| I do not feel that it is difficult | 11% |
| Other (Please Specify) | 3% |

Source: AFTECH Secretariat Analysis, 2020

## Figure 57. Challenges in Infrastructure Procurement (by Fintech Business Model)



Source: AFTECH Secretariat Analysis, 2020

# 7 Skills Gap & Gender Equality
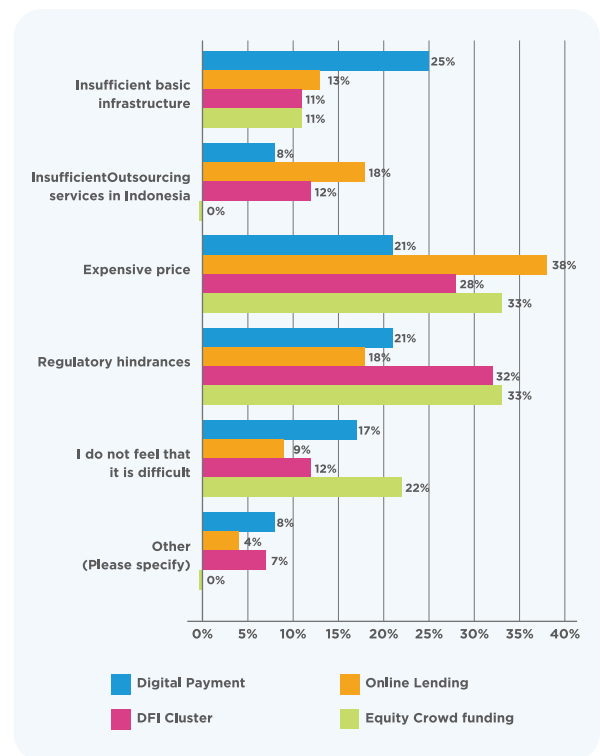
Skills gap remains as a challenge in fintech industry. The main areas of skills gap are Data and Analytics, Programming, and Risk Management. In response to this situation, most respondents conducted in-house training and recruited talents from financial institution.

In terms of gender equality, 32% of the respondents have around 20-40% of female senior managers, whilst 22% of the respondents have around 50-60%. In terms of user, 55% of the respondents have 20-40% of women customers.

## Skills Gap

The survey indicates that the respondents found it difficult to find talents in data and analytics, programming, and risk management. This situation is similar to last year.

Figure 58. Skills Gap in Fintech Industry (percentage)
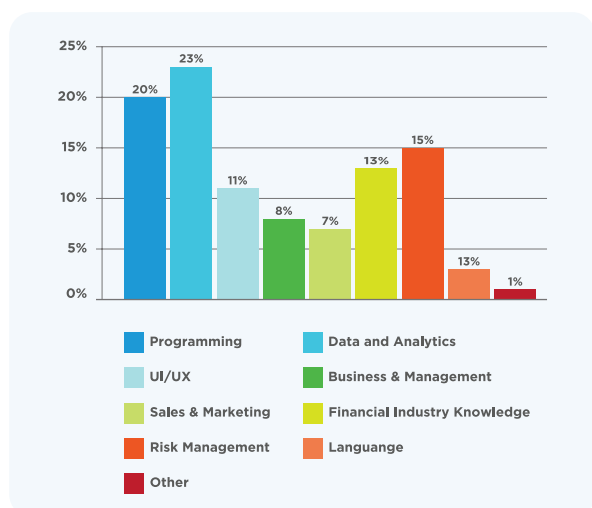


Source: AFTECH Secretariat Analysis, 2020

Despite the existing skills gap, 67% of the respondents were not hiring foreign talents. In order to address this challenge, most respondents conducted in-house training and recruited talents from financial institution.

Figure 59. Strategy to Address Skills Gap (percentage)
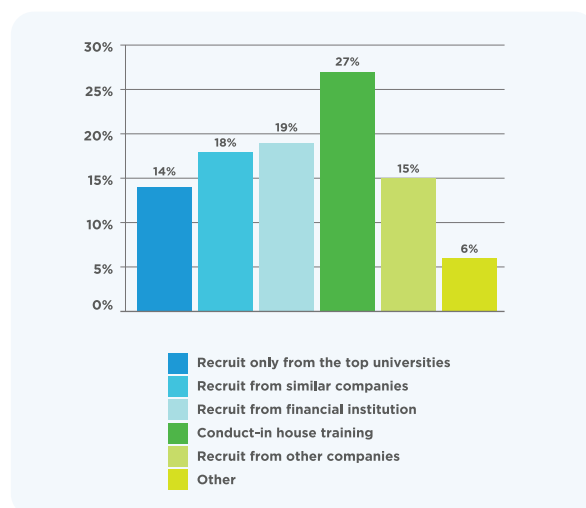


Source: AFTECH Secretariat Analysis, 2020

The survey also found that 56% of the respondents perceived the current regulatory environment as insufficient in helping companies addressed the skills gap.

Although this number is lower than last year (78.3%), current government programs/initiatives, especially the short to medium term ones, are still needed to address this challenge.

Figure 60. Perception on Regulatory Support in Addressing Skills Gap
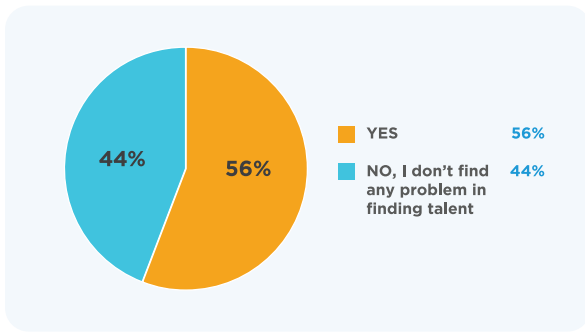


Source: AFTECH Secretariat Analysis, 2020

## Gender Equality

The survey shows that 32% of the respondents have around 20-40% of female senior managers, whilst 22% of the respondents have around 50-60%. Only 8% of the respondents have more than 60% of female senior managers.
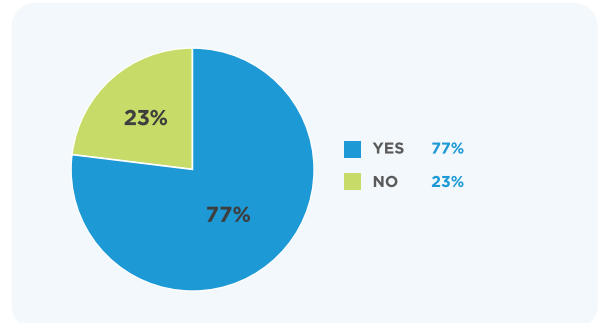
Figure 61. Female Senior Managers in Fintech Industry
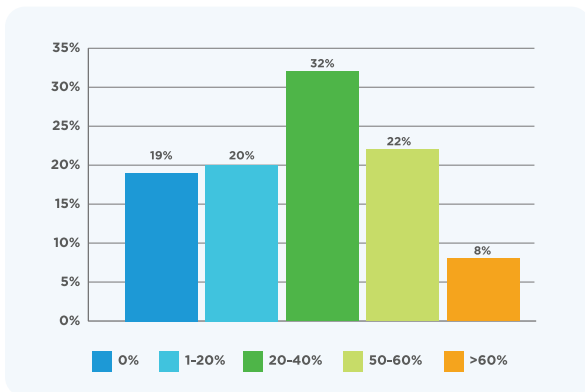


Source: AFTECH Secretariat Analysis, 2020

77% of the respondents found that it is easier to find IT male talent. This number is lower compared to last year (91%). These statistics also show that it has become easier to find female talent in IT.

Figure 62. Ease of Finding IT Male Talents



Source: AFTECH Secretariat Analysis, 2020

In terms of users, it is interesting to note that more than half of the respondents (55%) have 20-40% of women customers. Only 7% of the respondents have more than 60% of women customers.

Figure 63. Average Percentage of Women Customers in Fintech Industry



Source: AFTECH Secretariat Analysis, 2020

# 8 Fintech for Financial Inclusion
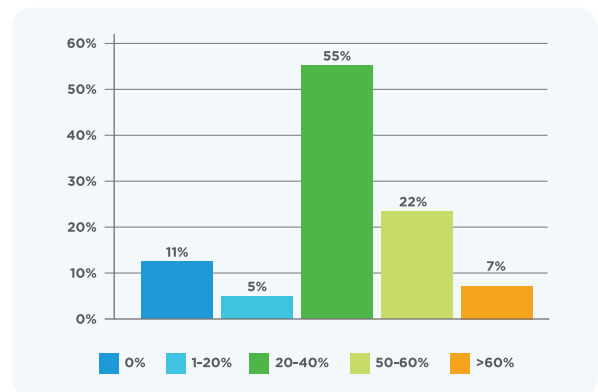
Two-third of the respondents are targeting unbanked and underbanked segment. More than half of the respondents already served rural areas in Indonesia. However, there are still challenges in financial literacy, basic infrastructure, and capital/resources. In order to address the challenges in financial inclusion, 45% of the survey respondents have collaborated with banks and 23% of the respondents have undertaken strategic partnership with the government. These findings are similar to the initiatives taken to address the challenges in financial literacy.

## A. Targeting Unbanked and Underbanked Segment

67% of the survey respondents targeted unbanked and underbanked segment. Further, more than half of the respondents (55%) served rural areas.

Figure 64. Unbanked and Underbanked Segment as Direct Target of Fintech Companies



| | |
| --- | --- |
| YES | 67% |
| NO | 33% |
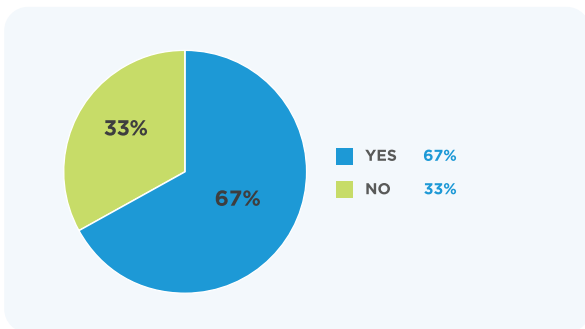
Source: AFTECH Secretariat Analysis, 2020

Figure 65. Rural Areas as the Target of Fintech Companies



| | |
| --- | --- |
| YES | 55% |
| NO | 45% |
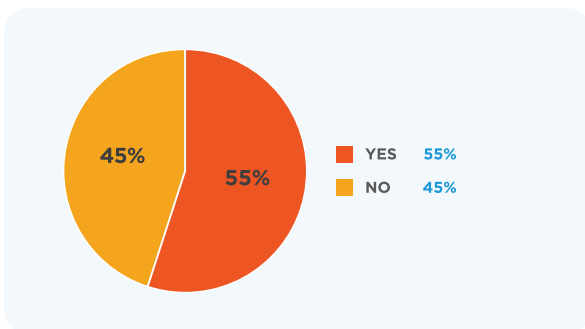
Source: AFTECH Secretariat Analysis, 2020

Relatively low financial literacy, basic infrastructure, and limited capital/resources are the top three challenges that fintech companies faced in serving rural areas in Indonesia.

Figure 66. Challenges in Serving Rural Areas (percentage)



| Challenge | Value |
| --- | --- |
| Other (Please specify) | 12 |
| Not aligned to business expansion | 18 |
| Basic infrastructure problem | 57 |
| Non-business friendly local goverment regulations | 17 |
| Low financial literacy of target market | 75 |
| Lack of potential profits | 19 |
| Limited capital/resources | 44 |
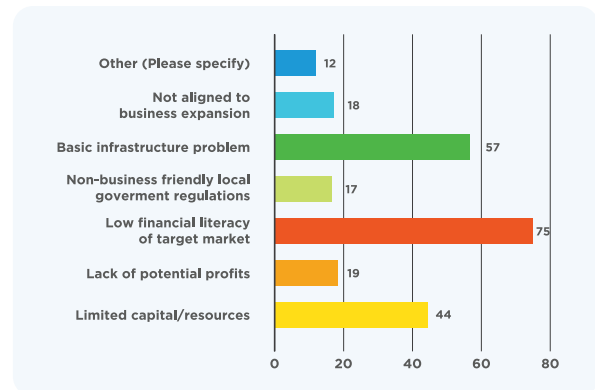
Source: AFTECH Secretariat Analysis, 2020
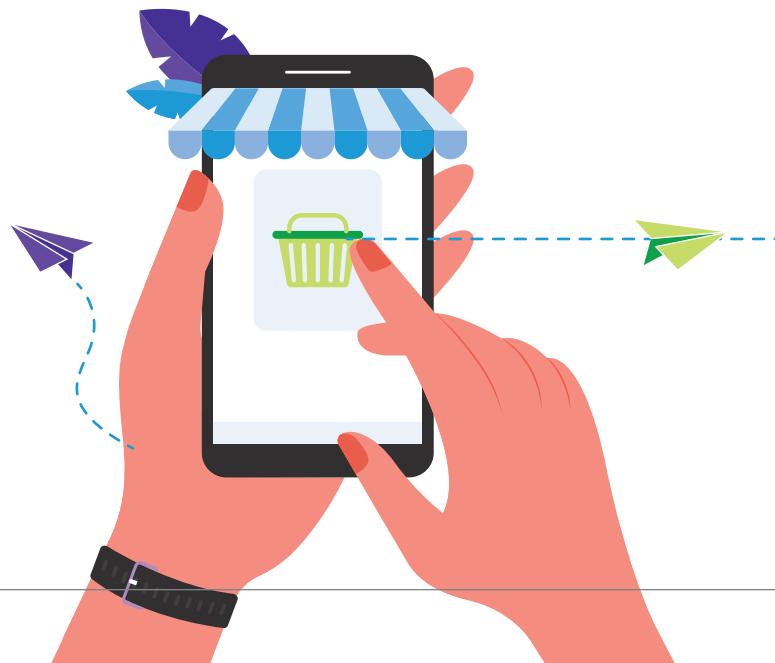
## B. Action Needed to Address Challenges in Financial Inclusion

This year, the survey aims to identify initiatives to increase financial inclusion and financial literacy.

In order to address the challenges in financial inclusion, 45% of the survey respondents have collaborated with banks and 23% of the respondents have undertaken strategic partnership with the government.
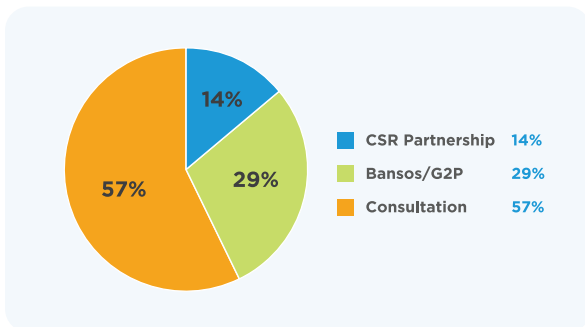
Figure 67. Initiative Taken by Fintech Companies to Address Challenges in Financial Inclusion
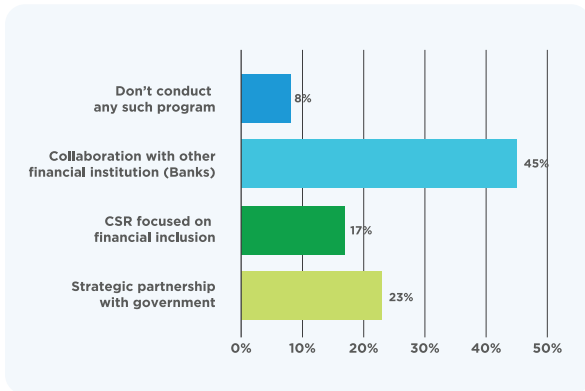


Source: AFTECH Secretariat Analysis, 2020

Strategic partnership between the government and fintech companies to address challenges in financial inclusion can be done through Corporate Social Responsibility (CSR) program, delivery of Social Assistance/Bansos, and consultation. 57% of the respondents claimed to provide consultation in supporting the government agenda on financial inclusion, while 29% helped the delivery of Bansos.

Figure 68. Fintech Companies–Government Collaboration to Address Challenges in Financial Inclusion



Source: AFTECH Secretariat Analysis, 2020

To address the challenges in financial literacy, 44.5% of the respondents have collaborated with banks (mostly through PR Campaign and Seminar or Training) and 22.5% have undertaken strategic partnership with the government.

Figure 69. Initiative Taken by Fintech Companies to Address Challenges in Financial Literacy
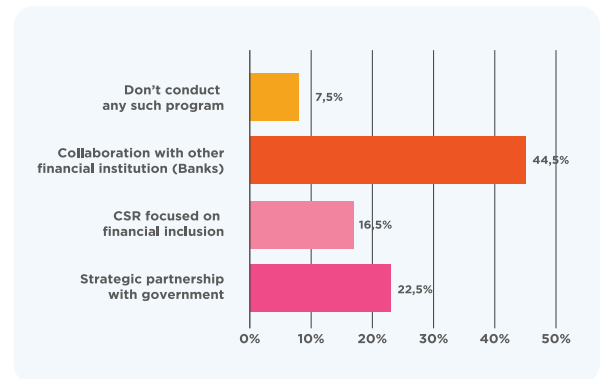


Source: AFTECH Secretariat Analysis, 2020

Figure 70. Fintech Companies-Banks Collaboration to Address Challenges in Financial Literacy
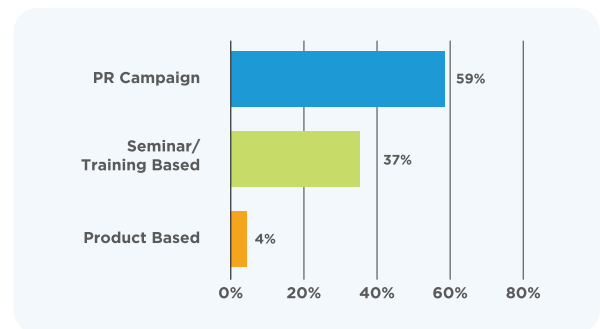


Source: AFTECH Secretariat Analysis, 2020

# 9 Fintech during the COVID-19 Pandemic: Impact on the Industry and Potential Support to National Economic Recovery

Almost 70% of the respondents were affected by the COVID-19 pandemic. The impacts include (i) declining number of users in some fintech business models, (ii) lower sales for some business models; (iii) operational challenges, including lower productivity and efficiency; (iv) difficulties in fundraising; and (v) delay in business expansions. In coping with this situation, fintech companies have implemented mitigation measures.
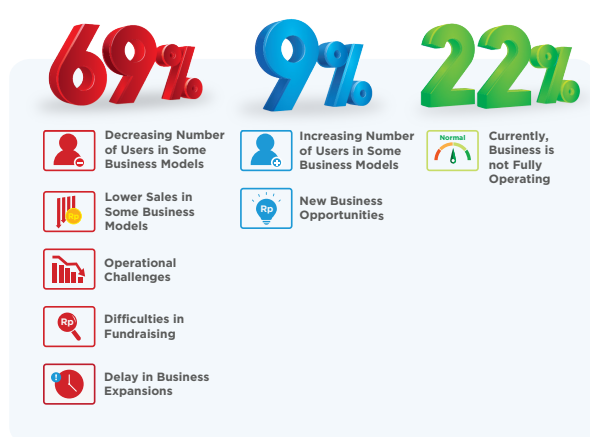
Fintech is potential in supporting national economic recovery. During the COVID-19 pandemic, Digital Payment has helped more individuals and MSMEs in doing transactions, while Online Lending continued to provide access to finance. Fintech has also offered various initiatives to help MSMEs and public. In addition, fintech provided support to the disbursement of social assistance programs/Bansos such as Kartu Pra-kerja.

## A. Impact of the COVID-19 Pandemic on Fintech Industry

The COVID-19 pandemic has significantly affected majority of the respondents (69%). The impacts include: (i) declining number of users in some fintech business models, (ii) lower sales for some business models; (iii) operational challenges, including lower productivity and efficiency; (iv) difficulties in fundraising; and (v) delay in business expansions.

Meanwhile, 9% of the respondents, which include some Online Lending and Digital Payment companies, claimed that they gained new users and business opportunities during the pandemic.
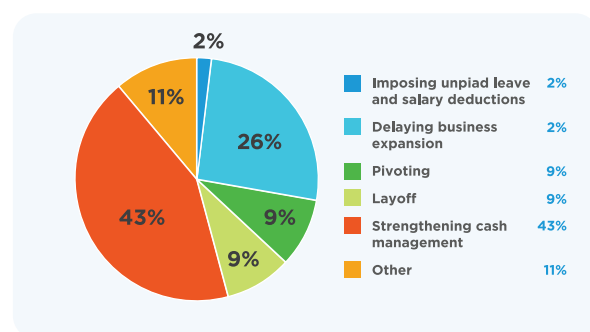
In response to the situation above, fintech companies have implemented the following mitigation measures:
i. strengthening cash management;
ii. delaying business expansion;
iii. layoff;
iv. pivoting; and
v. imposing unpaid leave and salary deductions.

Figure 72. Mitigation Measures Implemented by Fintech Companies During the COVID-19 Pandemic



| | |
|---|---|
| Imposing unpiad leave and salary deductions | 2% |
| Delaying business expansion | 2% |
| Pivoting | 9% |
| Layoff | 9% |
| Strengthening cash management | 43% |
| Other | 11% |

Source: AFTECH Secretariat Analysis, 2020

Figure 71. How Our Members Have Been Affected by the COVID-19 Pandemic (percentage)



**69%**
- Decreasing Number of Users in Some Business Models
- Lower Sales in Some Business Models
- Operational Challenges
- Difficulties in Fundraising
- Delay in Business Expansions

**9%**
- Increasing Number of Users in Some Business Models
- New Business Opportunities
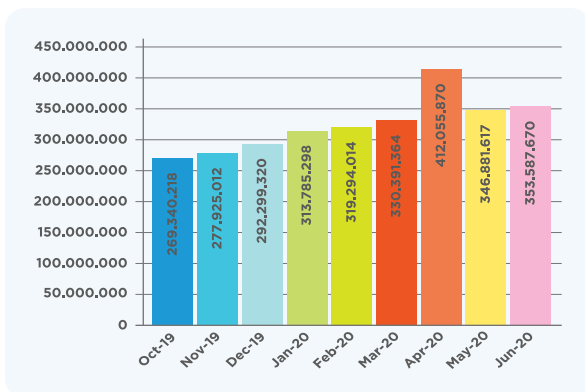
**22%**
- Currently, Business is not Fully Operating

Source: AFTECH Secretariat Analysis, 2020

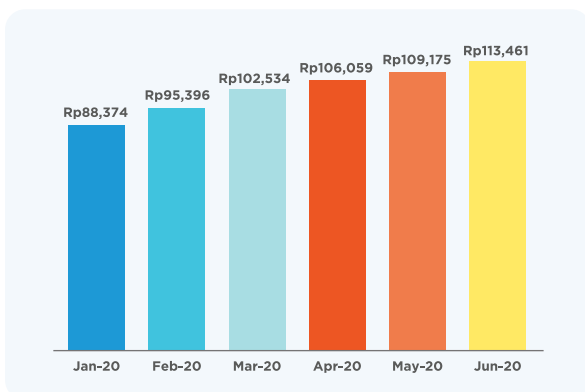## B. Potential Support of Fintech to National Economic Recovery

The pandemic has pushed for increasing adoption in some business models, including Digital Payment and Online Lending as shown by the below statistics:

Figure 73. Number of e-Money Instruments



Source: Bank Indonesia, 2020

Figure 74. Total Amount of Loan Disbursed by P2P Lending, 2020



Source: OJK, 2020

Number of e-Money instrument used have increased during the implementation of large scale social restrictions program (PSBB). In April 2020, the number reached all time high at 412,055,870. Total amount of loan disbursed through Online Lending also continued to increase. In June 2020, the amount reached IDR 113.46 trillion (or approximately US$ 7.6 billion) or 152.23% higher compared to the same month last year.

As shown by these statistics, fintech is potential in supporting national economic recovery. During the COVID-19 pandemic, Digital Payment has helped more individuals and MSMEs in doing transactions, while

Online Lending continued to provide access to finance. Further, fintech has also offered various initiatives to help MSMEs and public.

AFTECH survey on the impact of the COVID-19 pandemic recorded 55 implemented initiatives from 52 fintech companies. For MSMEs, the initiatives focused on:
i. reducing operational cost through implementation of lower interest rate, provisions of free transfer facilities, free digital signature, provision of discounts for monthly invoices, and implementation of 0% MDR;
ii. strengthening financial management through free financial consultation programs, and review credit policy; as well as
iii. facilitating finance through provisions of low interest rates, relaxation of loans, and zero platform free for projects (namely those in the health sector).

For public, the initiatives, amongst others, focused on:
i. providing flexibility of financial services;
ii. providing support to Personal Protective Equipment/APD's supply; and
iii. offering free personal finance advice.

In addition, fintech also provided support to the disbursement of social assistance programs/Bansos such as Kartu Pra-kerja.

## BOX. 3
## G2P 4.0: Future of Social Support Programs in Indonesia

### Introduction

In Indonesia, social assistance programs/Bansos have been developed since 1990s until the recent COVID-19 pandemic. In 2005, Cash Transfer Program was introduced for the first time as counter measure to oil subsidy reduction. Challenges in implementing social assistance programs so far include: (i) disbursement of funds to appropriate beneficiaries; (ii) appropriate distribution of value and amount of assistance; (iii) program duration; (iv) fiscal capacity and socio-political aspects; and (v) impact on welfare. To overcome these challenges, the Ministry of National Development Planning (BAPPENAS) and the National Team for the Acceleration of Poverty Reduction (TNP2K) have proposed an integrated social assistance framework and modernized G2P payments (G2P 4.0). The need of modernizing G2P payments in Indonesia is now considered urgent because the size of budget allocation and the number of recipients are certainly increasing due to additional government social assistance programs in response to the COVID-19 pandemic.

On 9 April 2020, President Joko Widodo announced these new social assistance programs: (i) Assistance in basic groceries (Bantuan Khusus Bahan Pokok Sembako) for beneficiaries in DKI Jakarta; (ii) Assistance in basic groceries (Bantuan Sembako) for beneficiaries in Bogor, Depok, Tangerang, and Bekasi; (iii) Direct cash (Bantuan Sosial Tunai) for beneficiaries outside Jabodetabek area who have not received Bansos or PKH programs; (iv) Assistance for villages (Bantuan Sosial bagi Desa-Desa); (v) Labour-intensive cash program (Program Padat Karya Tunai) for labours; as well as (vi) Program Keselamatan (similar to Kartu Pra-Kerja) for taxi, bus and truck drivers.

### The Evolution of G2P Programs in Indonesia

Before the 1997/1998 economic crisis, Bansos was delivered under the government poverty alleviation programs by subsidizing agriculture sector and people in rural areas, as well as increasing supply of public services. After the economic crisis, Bansos focused on reducing risks and vulnerabilities of low-income individuals, families, and communities (OECD, 2019).

In 1998, Indonesia has refined and scaled up grant assistance by targeting poor rural sub-district (Kecamatan) and urban precincts (Kelurahan) based on the principles of community-driven development (CDD) and the Social Security Net (Jaring Pengaman Sosial/JPS) program (World Bank, 2012). Grant funds were intended to expand temporary-employment generation through financing of small-scale and labor-intensive civil works, as well as providing subsidized credit to support SMEs. On the other hand, JPS programs included: (i) subsidized rice to poor families; (ii) scholarships for elementary and junior secondary students from poor families; (iii) grants for health centers and schools (Bantuan Operasional Sekolah/BOS) for operational expenses; (iv) nutritional supplements for infants and children; (v) a set of labour-intensive activities (Padat karya); and (vi) regional development scheme known as Pemberdayaan Daerah Mengatasi Dampak Krisis Ekonomi (PDM-DKE), which provided funds to village-level representative bodies (Lembaga Ketahanan Masyarakat Desa/LKMD) for village-level projects that contribute to economic resilience.

In mid 2007, Indonesia introduced two conditional cash transfer (CCT) pilot projects with objectives to reduce short-term poverty and interrupt inter-generational transmission of poverty (World Bank, 2012). Program Keluarga Harapan/PKH is a traditional-household-targeted CCT, where payment of benefits is conditional depending on the use of education and health services. Other social protection program, PNPM Generasi Sehat dan Cerdas, provides blocked grants to poor communities depending on their collective achievement of education and health targets (similar to those in PKH).

Since 2017, fund transfer was disbursed through the state-owned banks (HIMBARA) as regulated by the Presidential Regulation No. 63/2017 concerning Disbursement of Non-Cash Social Assistance. According to recent assessment, the government has identified some challenges in delivering G2P programs. To further ensure that these programs

are delivered following the 6T's principles (right target, right amount, right timing, right quality, right governance, and right cost) BAPPENAS is now working on a plan called G2P 4.0, which will allow fintech companies to take part in the disbursement of social assistance programs. This new architecture will require improvement on infrastructure and regulations

**BAPPENAS G2P 4.0: Future of Social Assistance Programs in Indonesia**

Modernization of G2P payment is guided by two key documents: (i) Presidential Regulation No. 63/2017 concerning Disbursement of Non-Cash Social Assistance; and (ii) National Medium-Term Development Plan (RPJMN) 2020-2024. Based on these documents and consultation with key stakeholders (including the Coordinating Ministry for Human Development and Cultural Affairs RI, the Ministry of Social Affairs RI, and TNP2K), BAPPENAS has drafted G2P 4.0 architecture.

There are four main features in the G2P 4.0. First, freedom for beneficiaries to select bank accounts. Second, wider range of payment instrument (from Combo Card, Debit Card to e-Money). Third, revision of incentives for banks and non-banks. Fourth, build or modify infrastructure. These features emphasize the role and contribution of fintech to G2P payment.

# Fintech Companies' Initiatives to Decrease COVID-19's Negative Impacts Towards the Nation's Economy

**fintech indonesia**

## Aggregators
KOINWORKS, PAPER, alumak, ReLi, KPR Academy, cermati, waqara

## Credit Scoring
ACURA LABS, CredoLab, TONGDUN, PYXIS

## Financial Planner
Finansialku, halofina, pede, Arkana

## Online Lending
KOINWORKS, UANGTEMAN, modalku, CROWDO

## e-KYC
digisign, VIDA, privyid

## Digital Payment
DANA, PayTren, ShopeePay, faspay, gopay, xendit, LinkAja!, OVO, PAY OTTO, netzme

## ECF
BIZHARE, santara, CrowdDana

## Project Financing
Likuid

## Verification non-CDD
ILUMA

## Claim Service Handling
Qoala

## Online Distress Resolutions
amalan

## Property Investment Mangement
PROPERTILORD

## Financial Agent
GIVB, VOSPAY

## Tax & Accounting
jurnal, NEBULA Surya Corpora

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**INITIATIVE PROGRAM**

ECF **8%**
Others **2%**
Digital Payment **19%**
Fintech under DFI category **61%**
Online Lending **10%**

There are 55 initiatives/programs from 52 AFTECH members.

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## Fintech companies are collaborating with regulators

MSMEs ▶▶ The Society ▶▶ The Goverment ▶▶ Financial Services

to decrease COVID-19's negative impacts towards the nation's economy as well as to ensure sustainable and responsible Fintech ecosystem growth.

### 25 initiatives to assist MSMEs

Decrease operational costs through: implementation of lower interest rates, provision of free transfer facilities, free digital signature, provision of discounts for monthly invoices, and implementation of 0% MDR.

Support the enhancement of MSMEs' financial management through free financial consultation programs, review credit policy, accompaniment and optimization of business, as well as promotions for MSMEs in platforms

Facilitate payment through: provision of low interest rates, relaxation of loans, zero platform fee for projects (namely those in the health sector) as well as accompaniment for restructuration of loans and assistance in application for business loans.

**Respondents based on Fintech verticals**
Fintech under DFI category (13),
Payments System (6), Online Lending (3), and ECF (3)

5 Fintech companies have 3 initiatives to **support the government in carrying out its protection enhancement and economic stimulation programs to the society.**

In this case, **E-Money, eKYC and Fintech Agents** are examples of Fintech services that can encourage efficiency, effectiveness and accountability in distributing the government programs to the society.

1 initiative from a Fintech company targeted to assist other financial services ecosystem players through facilitating API utilization.

### 26 initiatives to assist the society

Procurement support for health protective gear (APD) and other needed health products.

Provide updates on COVID-19 including prevention and handling methods, as well as other relevant information to the society through Fintech platforms.

Support the implementation of social distancing through: free online training, online financial education classes, as well as free digital payments system for privates schools for school tuition payments.

Provide ease and flexibility towards financial services to the society, such as: benefits program, financial support, credit payment relaxation and lowering of interest rates.

**Respondents based on Fintech verticals**
Fintech under DFI category (15),
Digital Payment (4), Online Lending (3), and ECF (2)

## Acknowledgement

## About AFTECH

Indonesia FinTech Association (AFTECH) is officially appointed by the Financial Services Authority (Otoritas Jasa Keuangan/OJK) as the Association for Digital Financial Innovation players in Indonesia based on POJK No. 13/2018. AFTECH also serves as an umbrella organization for all fintech verticals. AFTECH has 360+ registered members (as of Q2 2020), which consist of fintech startups, financial institutions, as well as knowledge and technology partners.

AFTECH is working closely with the government, regulators, and other stakeholders to develop a responsible fintech ecosystem, which can serve all segments of consumers and improve financial inclusion in Indonesia.

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