

ANNUAL MEMBERS SURVEY 2022/2023

English



**ANNUAL
MEMBERS
SURVEY
2022/2023**



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STRATEGY

PLAN

STEP1

STEP2

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ANALYSIS

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CHECK

CONTROL

STEP5

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STEP6

STEP6

LIST OF ACRONYMS

AFTECH	Indonesia Fintech Association/ <i>Asosiasi Fintech Indonesia</i>	KemenPPPA	Ministry of Women's Empowerment and Child Protection/ <i>Kementerian Pemberdayaan Perempuan dan Perlindungan Anak</i>
AMS	Annual Members Survey/ <i>Survei Anggota Tahunan</i>	IMF	International Monetary Fund
APJII	Association of Indonesian Internet Service Providers/ <i>Asosiasi Penyelenggara Jasa Internet Indonesia</i>	IPO	Initial Public Offering
BI	Bank Indonesia	ITSK	Technology Innovation in Financial Sector/ <i>Inovasi Teknologi Sektor Keuangan</i>
BI-SNAP	BI Payment Open API National Standard/ <i>BI Standar Nasional Open API Pembayaran</i>	LPBBTI	Information Technology-based Co-Funding Services/ <i>Layanan Pendanaan Bersama Berbasis Teknologi Informasi</i>
BHI	Indonesian legal entity/ <i>Berbadan hukum Indonesia</i>	NGO	Non-Government Organizations/ <i>Lembaga Swadaya Masyarakat</i>
BPS	Statistics Indonesia/ <i>Badan Pusat Statistik</i>	OJK	Otoritas Jasa Keuangan
CERT	Computer Emergency Response Team	PBI	Bank Indonesia Regulation/ <i>Peraturan Bank Indonesia</i>
DFI	Digital Finance Innovation/ <i>Inovasi Keuangan Digital</i>	PDB	Produk Domestik Bruto
Dukcapil	Directorate General of Citizenship and Civil Registration/ <i>Direktorat Jenderal Kependudukan dan Pencatatan Sipil</i>	PHK	Layoff/ <i>Pemutusan Hubungan Kerja</i>
DPO	Data Protection Officer	POJK	Indonesia Financial Services Authority Regulation/ <i>Peraturan Otoritas Jasa Keuangan</i>
DRP	Disaster Recovery Plan	SCF	Securities Crowd Funding
EV-DCI	East Ventures - Digital Competitiveness Index	SFA	Singapore Fintech Association
GMV	Gross Merchandise Value	SMEs	Small and Medium Enterprises
GRC	Good governance, Risk management, and Compliance	SNLIK	National Financial Literacy and Inclusion Survey/ <i>Survei Nasional Literasi dan Inklusi Keuangan</i>
HNWI	High Net Worth Individual	SOP	Standard Operating Procedure
Kemenkominfo	Ministry of Communication and Informatics/ <i>Kementerian Komunikasi dan Informatika</i>	WNA	Foreigners/ <i>Warga Negara Asing</i>
		WNI	Indonesian Citizen/ <i>Warga Negara Indonesia</i>
		QRIS	Quick Response Code Indonesia Standard
		WWB	Women's World Banking

CHAPTER 1

OUR

CHAIRMAN'S

NOTE



Established in 2016, the Indonesia Fintech Association (AFTECH) is a forum for Fintech providers in Indonesia to carry out advocacy and collaboration with various stakeholders to encourage technology innovation and strengthen the competitiveness of the national Fintech industry. AFTECH has four main pillars of Fintech activities, namely policy advocacy, community collaboration, literacy and education, as well as a knowledge hub for intelligence.

AFTECH has been regularly initiating studies to discuss the growth of the Fintech industry and its impact on the Indonesian community. One example is the AFTECH Annual Member Survey (AMS) Report, which has been being published consistently since 2017.


AFTECH AMS Report is produced to illustrate Indonesia's Fintech industry and its potential economic impact, to determine the priority topics, and to discuss a vast range of challenges in utilizing financial technology to accomplish financial inclusion and improve community welfare.

AFTECH collaborates with Katadata Insight Center (KIC) and with the support of the Women's World Banking (WWB), compiles the AFTECH AMS Report 2022/2023 that emphasizes the theme "Indonesia's Fintech: Moving Boldly towards Sustainability and Inclusion"

AFTECH AMS 2022/2023, among others, highlights the development of the Fintech industry, the tech winter phenomenon, digital talents, contribution to the economy (particularly, investment), implementation of good governance, equal distribution of digital infrastructure, gender equality, and a conducive regulatory landscape. More specifically, this survey reports several findings as follows.

In the midst of a business environment tainted with global recession, the Fintech industry plays a vital role in responding to the existing challenges. In this context, we have observed how Fintech has become the key solution for the company to maintain its efficiency and effectiveness under the economic pressure. For example, some respondents state that they have implemented changes or expansion to their business models. It is a significant improvement from 2021 when most Fintech companies put off their business expansion due to the pandemic. In addition, the transaction value of almost half of the respondents amounted to IDR5 billion to IDR500 billion, indicating a positive improvement from the results of the previous survey.

In terms of the challenging global environment, namely the tech winter phenomenon, the majority in the Fintech industry have reduced the size of their workforce, and delayed recruitment plans. Encouragingly, however, Fintech companies in



Indonesia also perceives tech winter as a momentum for innovation. A number of AFTECH members interviewed state that they have launched innovative products and services to retain their company performance.

Digital infrastructure also attracts the attention of our Fintech industry. Compared to the previous survey, more respondents have their own data centres. In this survey, all respondents' data centres have been registered with the Ministry of Communication and Informatics. In the cybersecurity context, more companies have their own Computer Emergency Response Team (CERT), as compared to results from the 2021 survey. Clearly, the Fintech Industry is serious in facing the challenges of cybersecurity.

The survey result shows that respondents expect the government will develop the network infrastructure in rural areas that is viable for industry. Half of the respondents are certain of sufficient technological development in rural areas in the future. This report also indicates that most respondents agree that the current regulations stipulated by the government and the regulators have been conducive to support Fintech industry growth.

Majority of the respondents have a positive perception of the regulation development related to the current

Fintech and digital economy ecosystem with the issuance of Law Number 27 of 2022 on Personal Data Protection, and Law Number 4 of 2023 on Financial Sector Development and Strengthening.

In summary, the survey result shows that Indonesia's Fintech industry is ready to move boldly towards sustainability and inclusion, demonstrate strong social responsibility, and provide positive impacts on the national digital economy. Despite the lingering challenges, the Fintech industry will continue to innovate, develop, encourage financial inclusion, and strengthen the national digital ecosystem. This report findings will be used as a reflection and evaluation to direct our steps in the future, and a reference for Fintech companies, regulators, investors, and academics.

The publication of Fintech AMS Report 2022/2023 is supported by Otoritas Jasa Keuangan (OJK) and participating members in the survey and in-depth interviews, KIC, WWB, and Bill & Melinda Gates Foundation (BMGF). On behalf of AFTECH, I express my gratitude to all parties involved and supportive in this report production.

Warm Regards,

Pandu Sjahrir
Chairman of Indonesia Fintech Association

CHAPTER 2

EXECUTIVE

SUMMARY



The Indonesia Fintech Association (AFTECH) has since 2017 regularly published the AFTECH Annual Member Survey (AMS) Report to disseminate the current development, opportunities, and challenges of Indonesia's Fintech industry. AFTECH collaborates with Katadata Insight Center (KIC) and is supported by the Women's World Banking (WWB) to publish the AFTECH AMS 2022/2023 Report.

The AFTECH AMS 2022/2023 Report emphasizes the theme "Indonesia's Fintech: Moving Boldly towards Sustainability and Inclusion." The report among others highlights the development of Indonesia's Fintech industry, the Tech Winter phenomenon, digital talents, contribution to the economy, implementation of good governance, equal distribution of digital infrastructure, gender equality, and the conducive regulatory landscape.

Indonesia's Fintech industry is relatively dominant in Southeast Asia. The "Fintech" in ASEAN: Finance, reimagined" report published by UOB, PwC and the Singapore Fintech Association (SFA) in 2022 indicated that funding to Fintech in Indonesia amounted to 33% of total funding recorded in Southeast Asia. This was an 11-percentage point higher than the previous year, making Indonesia the second highest in the region after Singapore, which received 43% of total funding to the region. The sustained growth in funding goes alongside the development of Fintech in Indonesia.

As of end-2022, there are 366 members of AFTECH, up from 352 and 302 at the end of 2021 and 2020 respectively. Based on the cluster business model of Fintech companies, top three business models of AFTECH members are online lending (102 members or 30.0%), Digital Finance Innovation or DFI (88 members or 25.9%), and digital payment (40 members or 11.8%). The growth of Indonesia's Fintech industry is supported by several factors, including a large working-age population, a growing internet-based economy, a sizable unbanked and underbanked population, improvement in literacy and financial inclusion, as well as digitalization, supportive regulation, and sustained investment in Fintech.

The AFTECH AMS 2022/2023 Report suggests that 64.0% of Fintech players and members of AFTECH were established in the past 0-5 years, or still at the stage of being a startup. From an employment point of view, about 50.7% of the respondents have fewer than 50 employees. Meanwhile, about 92% of the respondents are based in Jabodetabek, which remains to be the center of economy, politics, and culture with a broad access to consumers, businesses as well as technological infrastructure and a dynamic innovation ecosystem.

On the demand side, 42.7% of Fintech users are individuals, majority of which are in the 26-35 age



group. Additionally, most users are individuals with a monthly income of IDR5-10 million, based in Java, particularly in Jakarta, Bandung, and Surabaya. Apart from individuals, about 28% of Fintech users are from small and medium enterprises (SMEs).

The AFTECH AMS 2022/2023 Report indicates that companies with low and medium transaction value have seen some improvement in their performance, while companies with high transaction value tend to find the year a challenging one. The survey shows that 25.4% of companies recorded transaction value of less than IDR5 billion per year and 49.2% reported transaction value in the IDR5-500 billion range. This compares to results from the previous period, in which there were 32.0% of companies with less than Rp 5 billion in annual transaction value and only 39.0% of companies in the IDR5-500 billion range. As such, there are indications that there has been a shift up from companies in the IDR5 billion category to the IDR5-500 billion range. On the other hand, at the very top, there were only 3.4% of respondents with annual transaction value of more than IDR50 trillion, a slight drop from 4.0% in the previous year. Meanwhile, in line with the insights from location and main market of Fintech, note that 80.7% of total transaction value has come from Java, a clear indication of the regional gap in Indonesia due to gaps in digital literacy and infrastructure development.

The tech winter phenomenon has led to players in the technology industry and startups to shift their focus to profitability. To increase their revenues, 66.7% of companies chose to focus on high-revenue products while 12% pivoted their businesses and expanded to new sectors. At the same time, some companies also reduced their workforce and stopped recruitment of new workers. 84% of Fintech companies revealed that they have exercised layoffs, and 76% indicated that they are not planning to recruit new employees in the near future.

Nonetheless, despite the tech winter phenomenon, investment in Fintech in Indonesia continued to show improvement as suggested in the optimism among players in the sector. In-depth interviews with several AFTECH members reveal a consensus that the tech winter phenomenon is perceived rather as a momentum to continue to innovate.

The AFTECH AMS 2022/2023 Report shows that 52% of respondents are planning to raise funds in the near future, while 26.7% indicate no current need for additional funds and 18.7% state they have enough funds at the moment. The AFTECH AMS 2022/2023 Report records that 38.7% of respondents obtain funds from venture capital firms, which indicates that investors are highly interested in the potential and opportunities of the Fintech industry in Indonesia.

Meanwhile, 36% utilize self-funding, which reflects their dedication and confidence in their Fintech business models.

Law Number 27 of 2022 on Personal Data Protection and Law Number 4 of 2023 on Financial Sector Development and Strengthening are perceived to be clear examples of the government support for the Fintech industry. The survey states that 10.7% of respondents strongly agree and 76.0% agree that the current government regulations are conducive to innovation, although most respondents would also welcome further policy relaxation and incentives from the policymakers. Regulations that are expected to improve are mainly about privacy and data security (68.0%), regulatory clarity (60.0%), e-KYC (54.7%), speed of licensing and elimination of bureaucracy (49.3%), and digital signature settings (42.7%).

User data protection is inarguably a vital concern of Fintech players. Compared to the previous period, respondents who owned data centers have grown from 37% to 44%. The percentage of data centers registered with the Ministry of Communication and Informatics also increases from 96% to 100%.

In using Fintech, players seek to improve cybersecurity. It is evident from the increasing number of respondents who have a Computer Emergency Response Team (CERT), from only 44% in 2021 to 65% in 2022/2023. In addition, respondents who still complain about system failures have declined from 21% to 13% in 2022/2023. It is indicative of system improvement among the AFTECH members.

AFTECH AMS 2022/2023 Report records that 89.2% of Fintech players have adopted international standards, such as ISO 27001. Additionally, 77.3% state that they have implemented a code of conduct or industry standard to mitigate business risks. As an association, Fintech has also published Code of Conduct for several business models and 66.7% respondents have adhered to the guide.

Improvements in system management and governance also support efforts to protect Fintech consumers. 88.0%, Fintech players have implemented at least 10 special programs to protect consumers in one year, including consumer literacy education, prevention of misuse of personal information, or guarantees and guarantees that protect consumers from financial loss.

Relevant cutting-edge technology is the supporting factor of Fintech products and services. However, 64% of respondents feel that local producers are still incapable of providing such technology. The obstacles include regulatory barriers and inadequate basic infrastructure.

On the topic of human resource, 73.3% of respondents state that they prefer to hire local talent because of the better understanding of the business landscape and ease of coordination. The AFTECH AMS 2022/2023 Report respondents perceive a gap in several key talents in the Fintech industry, particularly in cyber security (57.3%), data analysis (52.0%), and knowledge of the financial industry (49.3%).

Meanwhile, the Fintech industry welcomes efforts to create opportunities for all levels of society, including women, both externally (consumers) and internally (part of the company). However, 96% of respondents do not have gender-specific programs for user retention. From an internal perspective, 53.3% of respondents state that gender diversity in companies consistently increases from time to time. In other words, many women want to participate, and the Fintech industry can absorb the women segment.

The Fintech industry is also considered capable of increasing financial inclusion with relatively easier accessibility than conventional financial services. In increasing public financial literacy, the percentage of respondents implementing their initiatives increases from 85% in 2021 to 88% in 2022/2023. The in-depth interviews reveal that the respondents emphasize the need for greater attention to both financial inclusion and financial literacy.



CHAPTER 3

METHODOLOGY



A. Definition

AFTECH refers to the World Bank's definition of financial technology (Fintech), namely an industry that consists of companies using technology to create more efficient financial systems and financial service delivery.

Fintech, as defined by Bank Indonesia Regulation/*Peraturan Bank Indonesia* (PBI) No. 19/12/PBI/2017 on the Implementation of Financial Technology, means the use of technology in financial systems to manufacture new products, services, technology, and/or new business models that potentially affect the monetary stability, financial system stability, and/or payment system that is efficient, seamless, secure, and reliable.

Meanwhile, Indonesia Financial Services Authority Regulation/*Peraturan Otoritas Jasa Keuangan* (POJK) No. 13/POJK.02/2018 uses the term "Digital Finance Innovation" or *Inovasi Keuangan Digital* (IKD) to define Fintech. Both regulations contain the same overview and definition of Fintech: all forms of innovation that contribute added values in financial services.

Fintech solution has transcended its function as simply a tool for digital payment and online lending. Fintech has adopted diverse technologies based on the existing consumers' needs, multi-stage development, policy stance, and technology infrastructure.

The AFTECH Annual Members Survey (AMS) Report 2022/2023 includes multiple Fintech business models that have been registered as AFTECH members, in particular the following five business model types:

1. Online lending

POJK No.10/2022 defines Information Technology-based Co-Funding Services (*Layanan Pendanaan Bersama Berbasis Teknologi Informasi/LPBBTI*) as the implementation of financial services to connect the lenders and borrowers in either conventional or Sharia funding that is directly carried out using an electronic system via the internet.

2. Payment System

PBI No. 19/12/PBI/2017 defines Fintech in payment system as the use of technology in



financial system to create new products, services, technologies, and/or business models that can affect monetary stability, financial system, and/or payment system that is efficient, seamless, secure, and reliable.

3. Neobank

In general, neobank conducts its operation online using mobile applications, software, and other technology and provides online banking services. POJK No.12/ POJK.03/2021 defines digital bank as an Indonesian legal entity (berbadan hukum Indonesia/BHI) that provides and carries out its business activities mainly through electronic channels without a physical office other than a head office, or occupies a physical office with limited features.

4. Digital Asset

Digital Asset refers to intangible commodities in the form of digital assets for trade as an investment instrument.

5. Digital Finance Innovation (DFI)

POJK No. 13/POJK.02/2018 defines DFI as activities to update business processes, business models, and financial instruments that contribute new added values to financial service sectors by engaging a digital ecosystem.

As of April 2023, OJK records 15 DFI sub-clusters as follows:

- **Aggregator**, a website or app that helps customers obtain information about financial products or services by digitally collecting and sorting information, and comparing products and services across Financial Service Institutions (*Lembaga Jasa Keuangan/LJK*).
- **Credit Scoring**, an institution or entity that processes data other than credit data or its derivatives using a particular algorithm through information technology to produce value or letters that indicate eligibility assessment of a person to receive services in the Financial Service Sector.

- **E-KYC**, a platform that helps provide identification and verification services carried out to customers/prospective customers by using the data derived from the Directorate General of Citizenship and Civil Registration (*Kependudukan dan Pencatatan Sipil/Dukcapil*).
- **Financial Planner**, a platform that helps individuals in financial planning by offering recommendations on matters related to financial products and services tailored to the users' profile in order to reach their financial goals.
- **Financing Agent**, a web-based app or service that helps LJK channel funding to LJK customers or prospective customers.
- **Funding Agent**, a web-based app or service that helps LJK as a marketing platform to get loan customers.
- **Insurance Hub**, the provider of infrastructure in the insurance field that can assist distribution and insurance claims.
- **InsurTech**, a platform that collaborates with insurance brokers/companies to provide information services, purchases of insurance products, and insurance claim services through online channels to the customers/public, and accelerate insurance claim process.
- **Online Distress Solution**, a platform that provides negotiation services for the loan customers who have difficulty to settle their debt with the creditor.
- **Property Investment Management**, an online crowdfunding platform in the form of a particular property rights management scheme without creating derivatives for trade in the secondary market.
- **RegTech - eSign**, a platform that provides official e-certificates from the Ministry of Communication and Informatics that serves financial service sectors with an output of electronic signature.
- **RegTech - PEP**, a service provider platform that is capable of detecting high risk customers (Anti-Money Laundering/AML) by carrying out

background checks (Politically Exposed Persons/ PEP) to every customer.

- **Tax & Accounting**, a platform that helps individual customers or companies by providing services to create a financial statement based on accounting standards or online tax reporting according to the provisions of taxation.
- **Authentication**, a platform that provides services for identification and verification using data other than those derived from Dukcapil.
- **WealthTech**, a platform that integrates multiple financial services and supporting services provided by a conglomerate business and its business partners in one mobile app to offer ease and assistance to the users for accessing and organizing their finances that include banking, financing, insurance, investment, and funding.

B. Survey Design

AFTECH conducted AMS to its members in the second quarter of 2023 to, among others, understand the landscape of the Fintech industry and the opinions of its members about the current development of the Fintech ecosystem, the progress of the policy and regulation framework, and the driving force of Indonesia's Fintech industry. AMS Report 2022/2023 consists of six main components that will be elaborated in the Research Analysis section.

In compiling the questionnaire items, the AFTECH Secretariat Team perceived that discussion about the post-pandemic condition of Fintech was no longer relevant. This year, new discussion topics incorporated into the AMS concern gender equality and an analysis of tech winter. These topics are included in this report to provide new insights into the Fintech industry.

Data Collection

The AFTECH AMS 2022/2023 Report questionnaire was distributed online to all AFTECH members in the second quarter of 2023. There were 75 respondents participating in the study. The questionnaire included sets of required and non-required questions. The non-required questions are generally related to investment, while the required questions are seeking the respondents' opinion. The responses to non-



257,9386

298,6341

174,6748

162,7432

139,5848

159,8739

148,7563

128,2941

86.20

required questions were varied and dependent on how comfortable the respondents were to answer the questions.

It is important to understand that some questions had multiple answers from which the respondents could select more than one option. Therefore, it is likely that the cumulative calculation of some questions resulted in values that are above 100%. Also, some members chose not to answer some questions, so this report will also include analysis of non-responses items.

In contrast with the previous edition's AFTECH AMS 2021 Report, this report is completed with insights from the Fintech industry obtained from in-depth interviews with several AFTECH members about the discussion topics in this report. Such in-depth interviews were aimed to contribute to the depth of the discussion and illustrate the insights of the Fintech industry providers.

Research Analysis

The AFTECH AMS 2022/2023 Report combines the primary and secondary research for data analysis. The first part discusses the overview of the Fintech industry that has been compiled in the secondary research. However, the other part of this survey uses data generated from the survey results. Similarly, the survey analysis shows the insights obtained by AFTECH after years of experience in representing the Fintech industry in Indonesia.

The discussion of this report is divided into five main topics:

1. Review and Landscape of Fintech Industry, which includes the business review of AFTECH members based on clusters, the driving force of the growth of the Fintech ecosystem in Indonesia, and the level of maturity of each vertical business in Fintech sub-clusters. In addition, the main topics also discuss business characteristics and development of the respondents of Fintech companies from multiple lenses, namely business plan, users, customer segmentation, team and partnership structures.

2. Fintech Investment Trend, which focuses on the current development of funding that has been successfully gathered by Fintech companies in Indonesia.

3. Overview of Regulations and Good Governance, which discusses the current umbrella regulation framework for Fintech industry and the challenges to comply with the regulations as per the principles of good governance, risk management, and compliance (GRC). In addition, this main topic also highlights the most relevant, up-to-date topics in the Fintech ecosystem, such as data management, disaster recovery plan (DRP), cyber security, customer complaints, data security, and industry standards.

4. Inclusivity, which discusses the current skills gap and gender equality in the Fintech industry, and the existing gaps in servicing rural and urban areas.

5. Implementing the Strategies of Financial Inclusion, which includes the corporate initiatives and the Government support to improve the level of financial inclusion, financial education and literacy, and the existing challenges to address unbanked and underbanked segments in public.

Further, the AFTECH AMS Report 2022/2023 presents special discussion and analysis of the role of women in the Fintech industry. It is a collaboration between AFTECH and Women's World Banking.



CHAPTER 4 OVERVIEW OF FINTECH INDUSTRY

The massive growth of Indonesia's digital economy cannot be separated from technological disruption over the past few years. Based on the report of SEA e-Conomy 2022 from Google, Temasek, and Bain & Company, Indonesia's digital economic value in 2022 reached US\$77 billion or approximately 5.8% of 2022 GDP¹. This figure is estimated to grow steadily until US\$220-360 billion in 2030, or around 9-15% of 2030 GDP². Digital economy will experience absolute growth and relative growth compared to Indonesia's overall economy.

In the midst of digital economy growth, the Fintech industry in Indonesia experiences steady growth. The number of Fintech companies registered as AFTECH members has increased to 366 in 2022 from 352 in 2021 and 302 at the end of 2020.

The Fintech industry in Indonesia is relatively dominant in Southeast Asia. Around 33% of the total funding for Fintech companies in Southeast Asia in the first nine months of 2022 was distributed to Indonesia, which marks the second biggest funding after Singapore where 43% of the total funding is channeled.

Compared to the same period in the previous year, the amount of funding that was distributed to Indonesia increased by around 11 percentage points.

The increase of Fintech funding in Indonesia in 2022 reflected the investors' trust in the Fintech industry in the country. This development is in stark contrast to the startup business worldwide that is evidently shaken due to global economic slowdown.

The uncertain geopolitical conditions and higher interest rate have led to lack of funding for startups; consequently, many startup founders face difficulty in getting funds to grow their business. This phenomenon is known as the tech winter, marked by the slowdown of startups business due to funding challenges.

According to the Nikkei Asia report, funding for startup businesses in Southeast Asia in 2022 reached US\$17.79 billion³, or a 31% decline from US\$25,75 billion in 2021. Tech winter has made some startups experience deteriorating financial conditions. As a result, startup founders are forced to take efficiency measures, including layoffs.

1 Google, Temasek, and Bain & Company, accessed from <https://www.bain.com/insights/e-conomy-sea-2022/>

2 Based on IMF World Economic Outlook April 2023 and Katadata Insight Center

3 Nikkei Asia, accessed from <https://asia.nikkei.com/Business/Startups/ASEAN-startup-fundraising-slumped-in-2022-but-still-up-from-2019>



Apart from this situation, the increase in funding in 2022 indicates that the Fintech industry still owns a high market potential in Indonesia. Some contributing factors include higher internet penetration, a more digital-savvy community, and consistently improving digital literacy.

The sustainable growth of the Fintech industry in Indonesia is expected to help boost financial inclusion. The World Bank stated that until recently, 97.74 million of the adult population in Indonesia are categorized as unbanked, or people without access to banking financial services⁴.

This condition provides opportunities for Fintech companies to offer more affordable products and services, faster and more efficient procedures, and an array of innovative features. Fintech companies also offer an integrated solution for the digital economy ecosystem, such as banking, non-bank financial institutions, tech companies (e-commerce and ride-hailing), and other companies.

A. Industry Recap

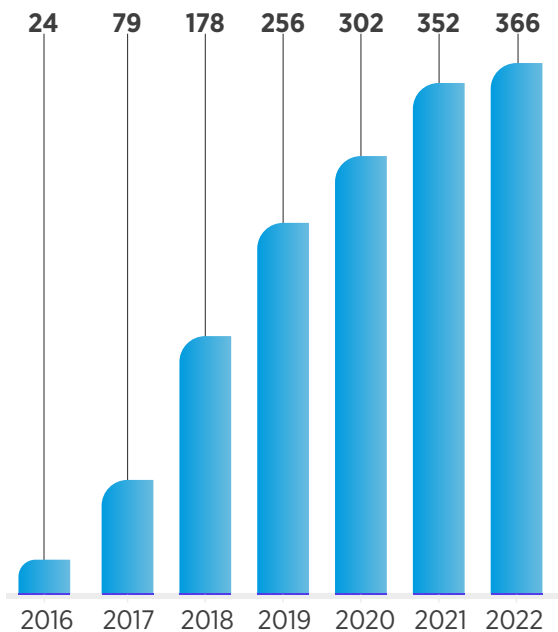
By the end of 2022, AFTECH had 366 company members, including 102 online lending Fintech companies, 84 digital financial innovation, 39 payment Fintech companies, 5 capital markets companies, 4 Fintech digital assets, 13 tech partner companies, 6 financial institutions, and 113 other companies.

As the number of Fintech "firms" grows, investment in this sector increases. In 2022, at least four Fintech companies were recorded to earn unicorn status from nine unicorn startups in Indonesia.

Based on the cluster business model of Fintech companies, the top three business models of AFTECH members are online lending companies (102 members or 30.0%), Digital Finance Innovation or DFI (88 members or 25.9%), and digital payment (40 members or 11.8%). A more detailed illustration of AFTECH business models is below.

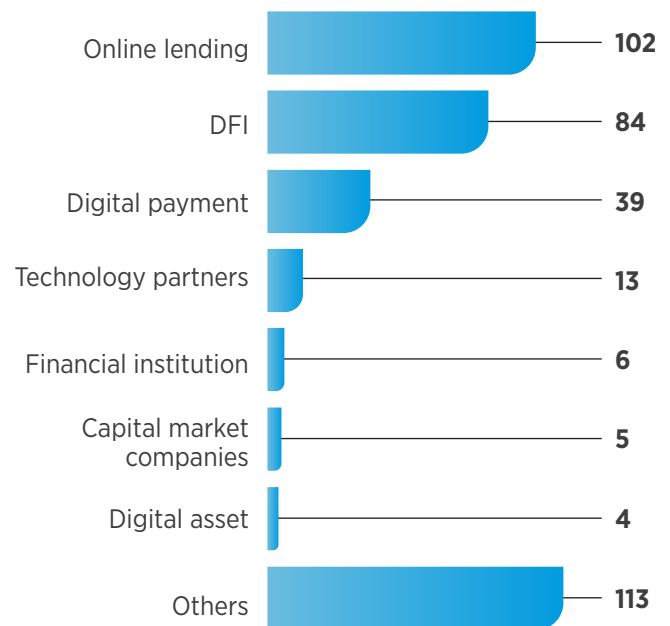
⁴ World Bank, accessed from <https://www.worldbank.org/en/publication/globalindex>

Figure 4.1 AFTECH Members (2016-2022)



Source: The AFTECH Secretariat

Figure 4.2 Clusters of AFTECH Members in 2022



Source: The AFTECH Secretariat

B. Growth Drivers

Reflecting on the trends over the past few years, the fast growth of the Fintech industry in Indonesia is affected by different factors, for example (i) the working-age population; (ii) the internet-based economy; (iii) internet penetration; (iv) opportunities from the unbanked and underbanked population; (v) financial literacy and financial inclusion, and digital literacy and digital inclusion; (vi) conducive regulatory environment; and (vii) investment in Fintech.

Working-age population

Based on the age-based population structure, Indonesia is projected to reap its demographic bonus in 2020-2045, with more than half of the adult population is classified as the workforce group. Statistics Indonesia (BPS) recorded a total of 143.7 million labor force in August 2022⁵ or approximately 68.8% of the working-age population.

The proportion of the working-age population relative to the total population in Indonesia has steadily increased over the past few years. This upward trend

provides opportunities for Fintech companies as either resources or prospective markets.

Internet-based Economy

In line with the immense potential of the working-age population, Indonesia's internet-based economy improves significantly. Indonesia, among others, is the biggest internet economy nation in Southeast Asia and the fastest growth of all countries in the region.

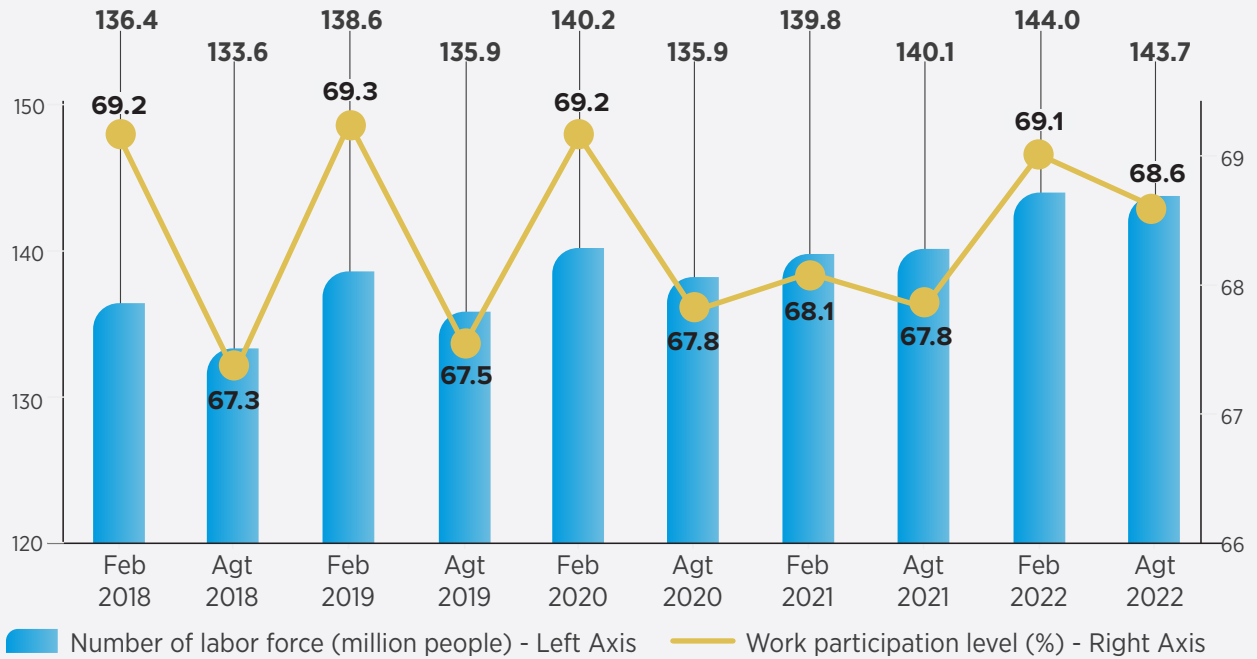
The Gross Merchandise Value (GMV) of the internet in Indonesia reached US\$77 billion in 2022, indicative of a 22% growth from the previous year. This value is estimated to reach US\$220-360 billion in 2030. Along with this, the Fintech industry is projected to grow.

Internet penetration

The growth of the internet economy is supported by different factors, including higher internet penetration and improved digital infrastructure. Internet penetration in Indonesia grows with the internet economy, which is projected to increase steadily. Statistics from the Association of Indonesian Internet

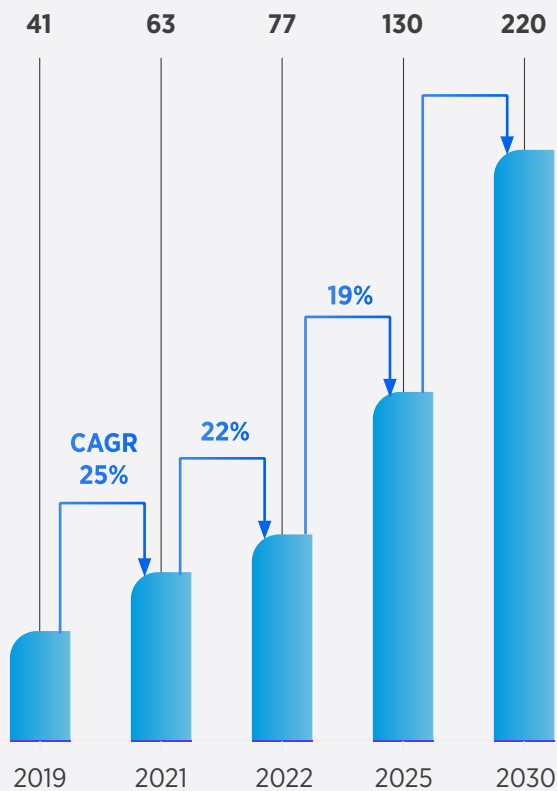
5 Badan Pusat Statistik, accessed from <https://www.bps.go.id/pressrelease/2022/11/07/1916/agustus-2022--tingkat-pengangguran-terbuka--tpt--sebesar-5-86-persen-dan-rata-rata-upah-buruh-sebesar-3-07-juta-rupiah-per-bulan.html>

Figure 4.3 Total Labor Force and Labor Force Participation Rate in Indonesia (2018-2022)



Source: BPS

Figure 4.4 Indonesia's GMV Internet Economy, 2019-2030 (In US\$ billion)



Source: e-Economy SEA 2022

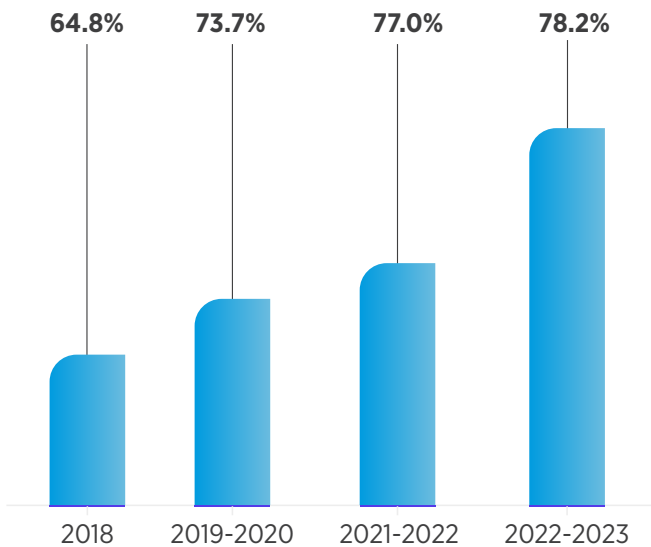
Service Providers (APJII) shows that internet users in Indonesia currently amount to 215.6 million people, or equal to 78.2% of the total population 275.8 million in 2022-2023

The Government of Indonesia has attempted to improve the quality of digital infrastructure. In the East Ventures - Digital Competitiveness Index (EV-DCI) 2023 report, the Coordinating Minister of Maritime and Investment stated that the Government has consistently encouraged telecommunication companies to build infrastructure actively, even in remote areas. The government's engagement is realized in providing the backbone network through Palapa Ring and Satria multifunctional satellite projects. In the downstream channel, the government collaborates with multiple partners to organize digital technology skills training⁶.

The report also mentions infrastructure as one of the key factors in supporting digital competitiveness in Indonesia. Infrastructure is one of nine pillars of the EV-DCI index that consistently maintain the highest score in the past four years. It demonstrates that the infrastructure gap between regions in Indonesia has been reduced.

6 East Ventures, accessed from <https://east.vc/id/reports/east-ventures-digital-competitiveness-index-2023/>

Figure 4.5 Internet penetration rate in Indonesia, (2018-2023)



Source: APJII

Opportunities from Unbanked and Underbanked Population

Apart from the demographic bonus and digital economic growth that provide huge opportunities in supporting the growth of the Fintech industry, not all populations have access to financial products.

The World Bank records that only 52% of adults in Indonesia have access to bank accounts⁷. In other words, almost half of the adult population in Indonesia is categorized as unbanked or those without access to bank accounts. Among all these unbanked citizens, 36% stated that distance is a barrier to getting access to bank accounts, and 55% of them have mobile phones.

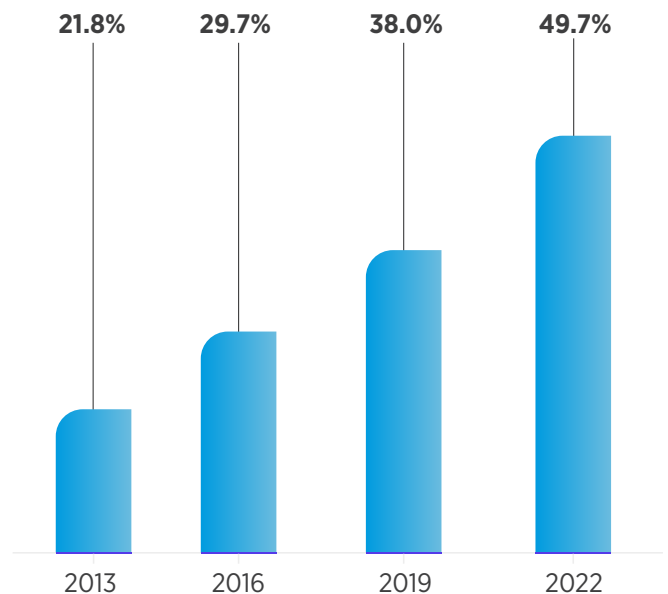
This condition is an opportunity for the Fintech industry to reach out to the unbanked group. Despite the lack of access to bank accounts, having a mobile phone is an opportunity for Fintech companies to offer digital financial services. In addition, most adult populations who have bank accounts are included in the underbanked group, meaning those with limited access to banking services. Therefore, the unbanked and underbanked groups are the potential target market for Fintech actors.

Financial and digital literacy

Although almost half of the Indonesian population is unbanked, the Government keeps encouraging the community to better understand and gain access to financial products. The COVID-19 pandemic in 2020 has been a catalyst for increasing financial literacy in Indonesia.

The OJK Survey stated that the financial literacy index consistently increased between 2013 and 2022. In 2022, the financial literacy index reached 49.7%. This growth reflects the community's better understanding of a variety of financial products and services. On a side note, this increase helps reduce potential risks, including fraud.

Figure 4.6 Financial Literacy Index (2013-2022)

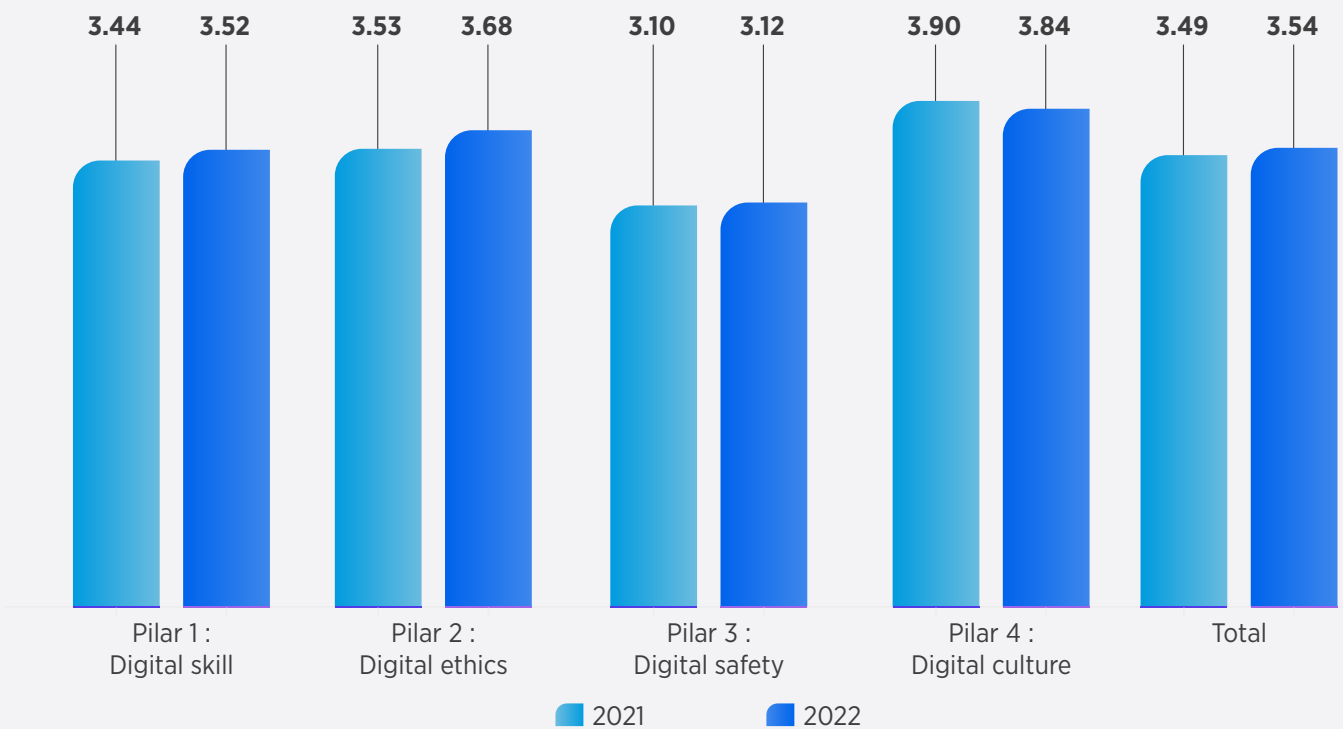


Source: OJK

Aside from financial literacy, digital literacy is crucial to boost the growth of the Fintech industry in Indonesia. The 2022 Digital Literacy Status Report of the Ministry of Communication and Informatics stated that Indonesia's digital literacy rate in 2022 increased from the previous year, from 3.49 to 3.54 (on a scale of 1-4). The scores in 3 out of 4 pillars of digital literacy also increased. It is indicative of improving the digital skills and knowledge of Indonesian people.

⁷ World Bank, accessed from <https://www.worldbank.org/en/publication/globalindex>

Figure 4.7 Digital literacy index, 2021-2022



Source: Kemenkominfo & KIC

Regardless of the increased scores, there remains room for improvement in digital literacy. An interesting finding highlighted in the Digital Literacy Status Report 2022 is that only half of the respondents have developed a good habit of keeping personal data protected. In fact, Law Number 27 of 2022 on Personal Data Protection ratified in October 2022 aims to grow public awareness and secure acknowledgement and respect of the importance of protecting private data. It indicates that some of the community still lack understanding and capacity of protecting their personal data.

As digital participation matures in Indonesia, the sustained improvement of national digital literacy status is one of the supporting pillars of financial inclusion, particularly digital financial inclusion in Indonesia.

A Conducive Regulatory Environment

Bank Indonesia (BI) and Otoritas Jasa Keuangan (OJK), two regulators that maintain the stability of the financial industry, contribute to the growth of the Fintech industry in Indonesia. Over the past few years,

BI and OJK have implemented light-touch regulations and safe harbor policies that support positive development for the Fintech industry in Indonesia.

As the Fintech industry grew, BI launched the Fintech Office in 2016. The Fintech Office was intended to be a space for the assessment of risk mitigation and Fintech services evaluation. In their attempts to ensure Fintech development as an innovation in the financial service sector, BI and OJK independently launched a Fintech regulatory sandbox in 2017 and 2018, respectively. In general, the regulatory sandbox is a tool to assess the reliability of startups’ products, services, and business models in a given period.

OJK launched *Pusat Inovasi Fintech Digital* (Center of Digital Fintech Innovation) in Indonesia in 2018. In 2019, BI launched the 2025 Indonesia Payment Systems Blueprint (BSPI) to create a healthy environment for the digital economy and finance. Starting in 2020, BI launched the Quick Response Code Indonesia Standard (QRIS) for payment with e-money. Then in 2021, BI launched BI Payment Open API National Standard (BI-SNAP) as the standardized open API for data sharing among entities.

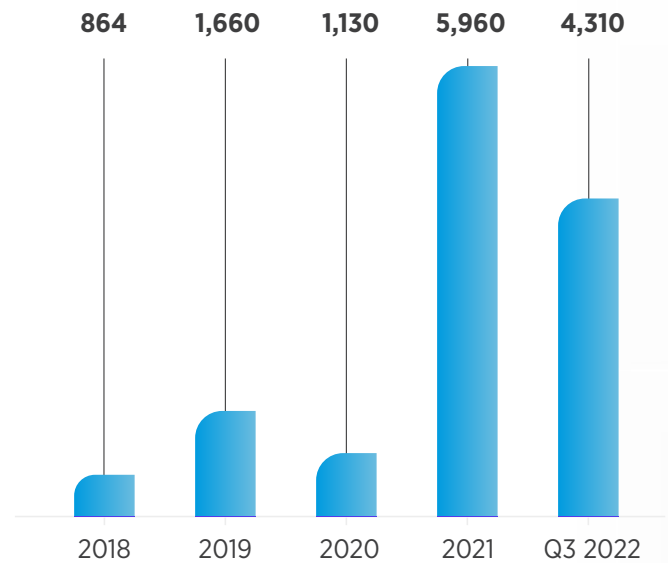
Investment

Fintech companies in Indonesia managed to attract more than US\$ 89 million worth of investment from 194 agreements between 2018-Q3 and 2022. In 2023 alone, Fintech investment in Indonesia accounted for US\$1.4 billion gathered from 41 agreements. Approximately 43% of this investment was channeled to the payment subsector.

C. Maturity stage

Fintech startups in different categories undergo different market dynamics. The maturity stage of an industry is analyzed based on three main indicators: growth rate (transaction volume or value, user acquisition, and others), number of actors in the subsectors, and the environment of relevant regulatory sectors. Startup maturity is categorized into four stages: growth, shakeout, maturity, and decline.

Figure 4.8 Investment value in ASEAN Fintech Sector, 2018-Q3 2022 (in US\$ million)



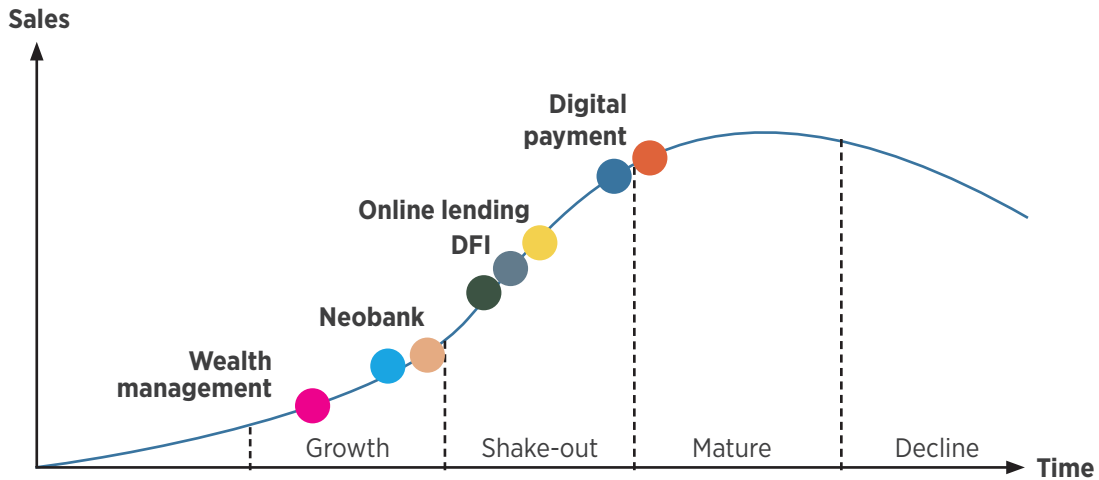
Source: United Overseas Bank (UOB)

Table 4.1 Fintech Maturity Stage at Each Business Vertical, 2022

Fintech Cluster	Maturity stage	Note
Digital payment	Mature	Digital payment is perceived to have the highest maturity of all Fintech clusters. The use of digital payment apps, either e-wallet or e-money, has consistently increased over the past few years. Also, cashless payment has risen to a new trend in the community. The development in this cluster is supported by relevant regulations, such as the Indonesia Payment Systems Blueprint and the Blueprint for Money Market Development 2025. In addition, BI keeps expanding the use of QRIS through partnerships with four ASEAN countries. It was recorded that the digital payment cluster (43%) dominated Fintech funding in Indonesia in Q1-Q3 of 2022.
Online lending	Mature	Online lending holds the second highest maturity due to the escalating number of transactions and players and the stable regulatory environment in this sector. The Internet economy offers the potential to provide digital loan services, particularly for MSMEs and underprivileged communities. Online lending is one of the longest-lasting clusters supported by several regulations. OJK keeps fostering the growth of this cluster by monitoring any actions of illegal online lendings. This cluster is the third biggest Fintech funding recipient in Indonesia (12%) in Q1-Q3 of 2022.
Digital Finance Innovation (DFI)	Shakeout	The number of Fintech companies with DFI business models keeps growing since the regulatory sandbox was first introduced in 2019. By the end of April 2023, OJK recorded 105 DFI companies divided into 15 clusters.
Neobank	Growth	The business model of Neobank is a relatively new development, and any regulations relevant to this business model, particularly POJK which also regulates digital bank activities, tend to be newly issued. This cluster has a large space to grow in the future for the population without bank account ownership (unbanked). Today, Neobank is competing with conventional banks in the retail market, so reaching out to the future corporate market seems to be a long way to go.
Wealth management	Growth	The COVID-19 pandemic has affected the increasing market demand for services tailored to the high net worth individual (HNWI). It encouraged the growth of the wealth management cluster.



Figure 4.9 Maturity stage of Fintech Clusters



Source: The AFTECH Secretariat

Growth. At this stage, several categories/business models of Fintech have gradually gained market traction. Overall, depending on which growth stage, startups have varied experiences from increased revenue to improved profitability.

Shakeout. Shakeout stage is marked by highly fragmented players at the initial stage that continues to player consolidation at the later stage. As this stage moves forward to reach maturity, small and underdeveloped players will naturally lose from bigger, more advanced players through several exit strategies.

Maturity. Market consolidation to several leading players and declining growth rate are some characteristics of the sub sector at the maturity stage. At this stage, the sector has reached a relatively high level of saturation and the newcomers to the market frequently face significant challenges to get market potential.

D. Fintech Landscape 2022-2023

As a continuation from the overview of Fintech industry and its growth drivers, this section of Fintech Landscape will highlight the characteristics of Fintech landscape in Indonesia that include the length of the operation, business location, main users, women customers, market penetration, market expansion and business models, value of transaction, and partnership.

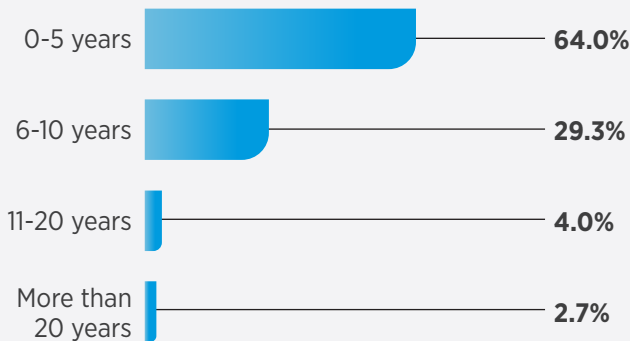
Length of The Operation

Information about the age of the Fintech companies is crucial to understand the maturity stage and the potential development of the Fintech industry. The AMS 2022/2023 recorded that 64.0% of Fintech players and members of AFTECH were established in the past 0-5 years. It demonstrates that the majority of Fintech companies in Indonesia are at the initial stage of a startup company. This stage is usually marked by the extensive innovation and experiment to create products or services, and the search for the most appropriate business models.

At the startup stage, Fintech players usually have more flexibility in adapting technology advancement and market development, and they are frequently the driving force of the industry. They also tend to focus more on product or service development, and need more assistance to access funding and regulatory support.

Meanwhile, 29.3% of Fintech players who are in operation over the past 6-10 years show that they have reached the growing stage (scale-up). These companies generally have reliable products and services and focus on market expansions and operations. Fintech players at the medium stage may need different kind of support, such as access to new markets or assistance in addressing more complex operational challenges.

Figure 4.10 Operational Period of Fintech Companies (n=75)

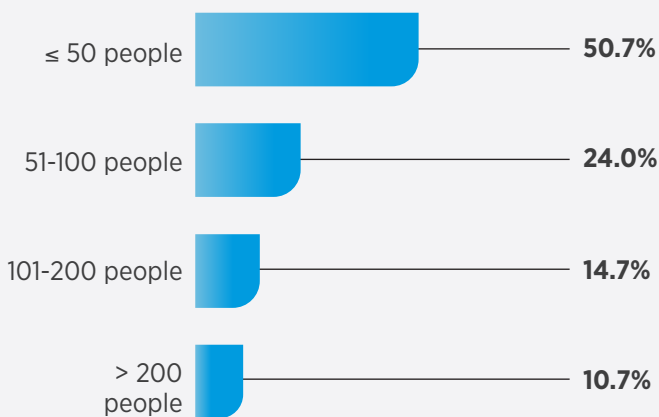


Source: AMS 2022/2023

The initial stage of Fintech players in Indonesia is also reflected in the workforce where the majority of Fintech companies (50.7%) have fewer than 50 workers. Meanwhile, 24.0% of the respondents claim to hire 51-100 workers, and 14.7% hire 101-200 workers. Only 10.7% of the Fintech players in the survey hire more than 200 workers.

Understanding the age of the Fintech companies will help the regulators, investors, and other stakeholders give the most appropriate support according to the needs and challenges of these companies at their respective maturity stages.

Figure 4.11 The Number of Workforce of Fintech Companies (n=75)



Sourcer: AMS 2022/2023

Business Location

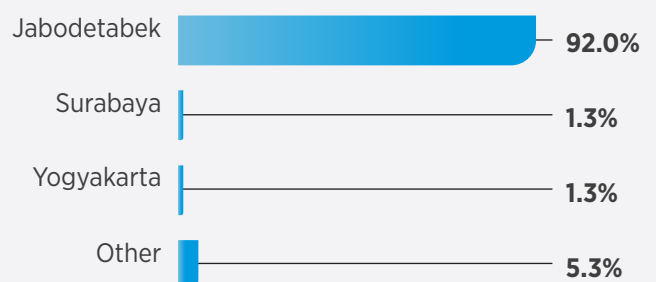
The location of Fintech players is a vital element because it is instantly related to access to markets, resources, technology infrastructure, and innovation ecosystem. The majority of Fintech players in Indonesia (92%) are located in Jakarta, Bogor, Tangerang, Bekasi (Jabodetabek). It indicates that Jabodetabek remains the center for the economy, politics, and culture of the country which provides further access to even bigger consumer markets and business, more sophisticated technology infrastructure, and a dynamic innovation ecosystem that include digital talents, universities, research centers, and startup business community.

Other locations, like Surabaya and Yogyakarta, each selected by 1.3% of Fintech players, also have specific interests. Surabaya is the second biggest economic center in Indonesia with a strong business sector, while Yogyakarta is famous as the center of education and culture.

However, only 5.3% of Fintech players are located outside of Java Island, indicating a geographical gap within Indonesia’s Fintech ecosystem. This condition is caused by multiple factors, including gaps in technology infrastructure, limited access to markets and resources, and regulation challenges.

Accordingly, there is a necessity for increased support and incentives for the development of a Fintech ecosystem outside of Java, including infrastructure development, training and education programs, and relaxed regulations. This support can boost both the growth and diversification of the Fintech ecosystem all over Indonesia and help achieve financial inclusion in a more extensive range.

Figure 4.12 Locations of Fintech Company Main Office (n=75)



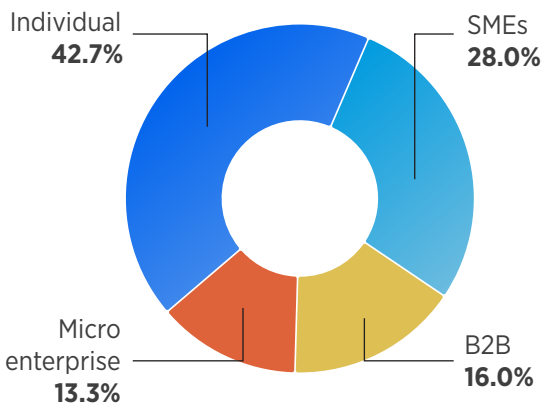
Source: AMS 2022/2023

Main Users

Based on the survey results, the focus that is placed on individuals as the main Fintech users have shown how important financial technology is in helping customers achieve their financial goals. Individuals use Fintech for different reasons, such as ease of transaction, personal financial management, investment, and access to financial products and services that were previously non-existent.

Approximately 42.7% of the respondents indicated that the main users of Fintech services are individuals, and 70.8% of them are 36-50 years old. This age group usually encompasses young professionals who are avid users of technology and who need fast and convenient financial solutions. Fintech is an important innovation to serve the demographic of the young generation who are tech-savvy, have growth potential, and have higher adoption of Fintech.

Figure 4.13 Main Users based on Segments (n=75)

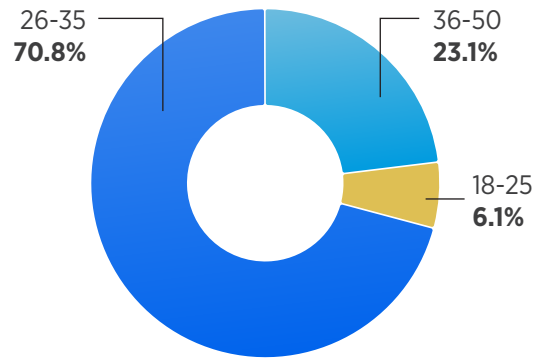


Source: AMS 2022/2023

The use of Fintech services is more significant among small and medium enterprises (SMEs) that account for 28.0% of the users, in addition to 13.3% of micro-enterprises. This survey result illustrates the crucial role of Fintech in supporting financial inclusion and the development of micro, small, and medium (UMKM) groups in Indonesia. Several business models of Fintech also support UMKM, from providing loans or capital funding to offering assistance in ease of transaction, digital bookkeeping, and tax calculation and reporting.

Also, the Quick Response Code Indonesian Standard (QRIS) initiatives of Bank Indonesia that are mostly used by MSMEs also contributes to massive adoption and use of Fintech⁸.

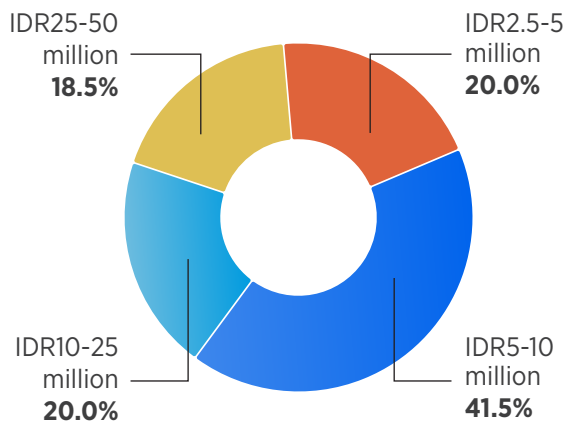
Figure 4.14 Main Users Based on Age (n=65)



Source: AMS 2022/2023

In terms of revenue, most users of Fintech services are individuals who earn IDR5-10 million (41.5%), followed by IDR2.5-5 million and IDR10-25 million (each accounted for 20% of the respondents). The users of Fintech services who mostly come from middle-income groups indicate that Fintech services have been an alternative financial service for the unbanked and underbanked people. Therefore, Fintech carries a significant potential to promote financial inclusion among this income group.

Figure 4.15 Main Users Based on Revenue (n=65)



Source: AMS 2022/2023

8 CNN Indonesia, accessed from <https://www.cnnindonesia.com/ekonomi/20230510134546-78-947741/bi-ungkap-254-juta-pebisnis-umkm-pakai-qr>

Female Customers

The importance of improving gender inclusion and women’s participation in the Fintech sector should not be ignored. AMS 2022/2023 shows that only 28% of Fintech players participating in survey have specific strategies to reach out to women customers, only 24% separate preferences based on gender, and only 13.3% offer products special for women.

Women have different financial demands and often face unique challenges in accessing financial services. For example, women have less access to formal income and credit services, and tend to face socio-cultural challenges in accessing and using financial service products. Accordingly, by offering products and services tailored to women’s needs and specific situations, Fintech will help meet their needs while opening up new opportunities for Fintech players.

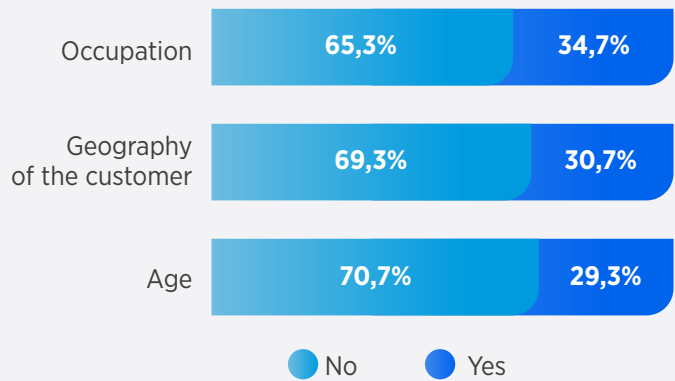
In addition, designing products and services specific for women can assist Fintech companies to reach out to a broader market segment and increase their profits. Women are potential and crucial users in the digital economy and in turn, they can make significant contributions to the growth and development of the Fintech industry.

However, it is important to note that understanding women’s needs and fulfilling them are not simply offering specially-designed products or

services. Fintech players need to have a deeper understanding of the barriers faced by women in accessing and using Fintech services and make efforts to address those challenges through financial education, inclusive product designs, and effective marketing strategies.

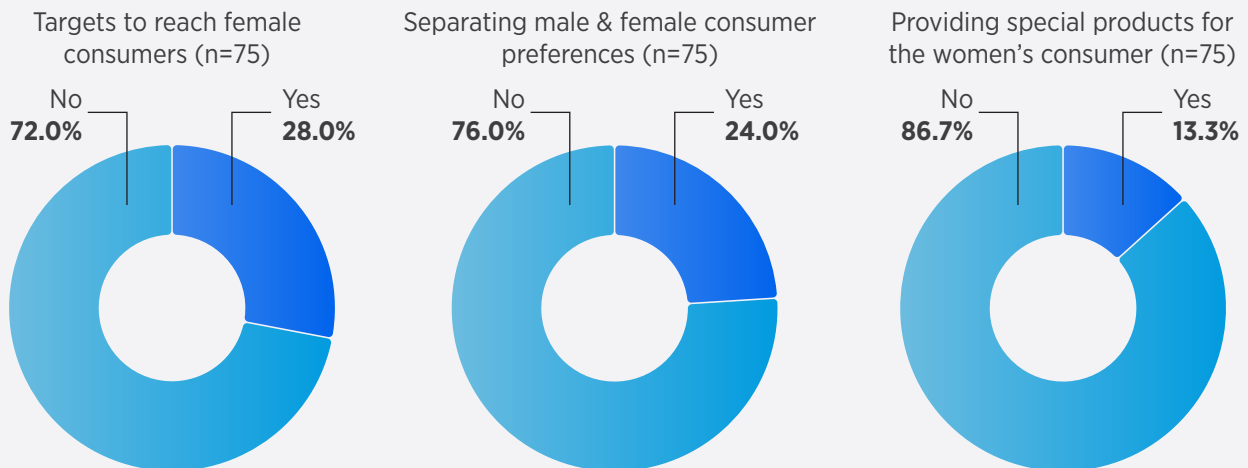
Regarding diversification strategies for Fintech women users, 34.7% of Fintech players have implemented strategies based on the occupation of women users. Meanwhile, 30.7% and 29.3% of users have respectively implemented different strategies to provide services to women users based on their geographical locations and age.

Figure 4.17 Differences in Women’s Consumer Service Strategies



Source: AMS 2022/2023

Figure 4.16 Efforts to Reach Out Women Customer



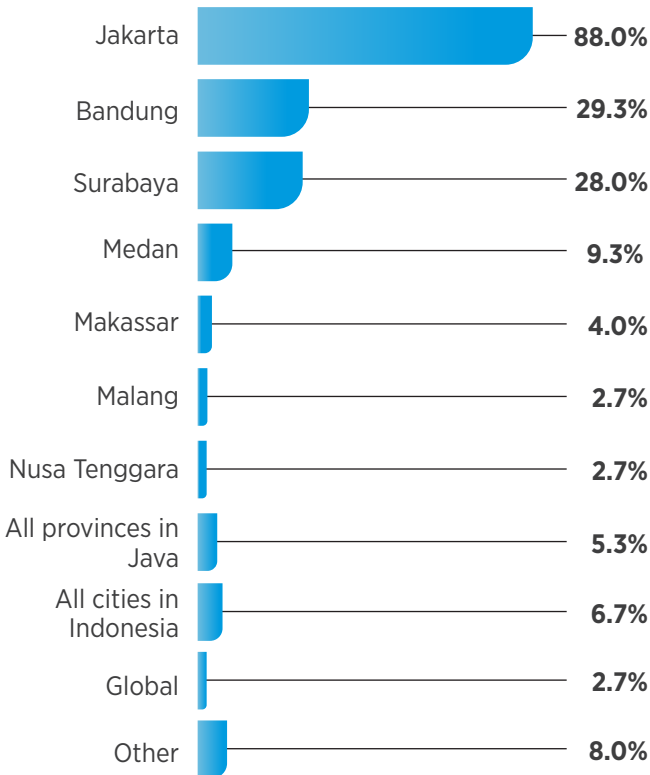
Source: AMS 2022/2023

Market Penetration

Most Fintech companies in Indonesia are concentrated in Java. The AMS 2022/2023 recorded three major prospective markets for Fintech players: Jakarta (88.0%), Bandung (29.3%), and Surabaya (28.0%). Approximately 5.3% of Fintech players serve markets across Java.

There remain vast opportunities for business expansion and increasing financial inclusion across Indonesia. The fact that only 6.7% of Fintech companies serve all cities around Indonesia shows a huge potential for the Fintech industry to grow and expand in the future.

Figure 4.18 The Main Markets of Fintech Companies (n=75)



Source: AMS 2022/2023

Fintech has a unique capacity to address geographical and infrastructure challenges faced by traditional financial sectors, and provide financial services to previously overlooked or underserved communities. Although the current focus is placed on urban areas, 78.7% of the respondents state that they have served users outside of Java Island, and 60.0% serve rural users.

Figure 4.19 Fintech Companies' Service Areas (n=75)



Source: AMS 2022/2023

However, more extensive market penetration requires not only geographic expansion but also a deeper understanding of the needs and behavior of consumers in different locations. For example, the financial needs of users in rural areas may be different from those in urban areas. Therefore, an adjustment in products and services based on the specific needs of local consumers can be an effective strategy.

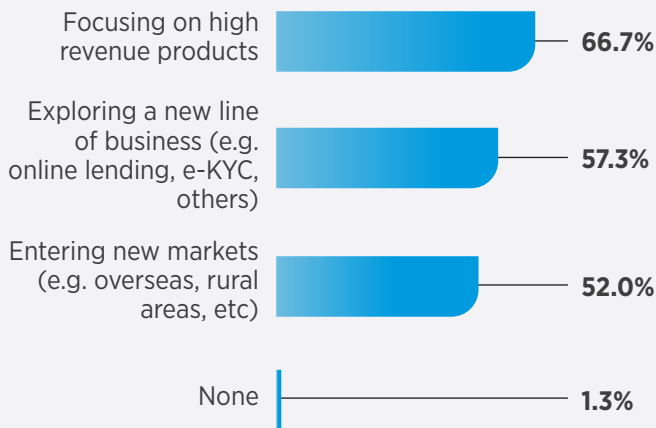
In addition, collaborations with the regional government and local institutions are crucial to promote Fintech adoption and create a supportive ecosystem for financial inclusion. To improve market penetration, Fintech players must be able to address challenges like limited internet access and poor digital and financial literacy in some areas, particularly outside of Java Island and in rural areas.

Market Expansion and Business Models

AMS 2022/2023 observes the operational strategies of Fintech players in terms of markets and business strategies. The respondents' efforts to increase revenue are embodied in three main strategies: focus on products with high-profit margins (66.7%), explore new lines of business (57.3%), and penetrate new markets, including the overseas and rural areas (52%).

Regarding new lines of business, some Fintech companies have implemented business model expansion. The survey shows that 12.0% of the respondents change their business model and perform business expansion. Some of their measures include switching from payment cluster to aggregator, improving risk models and product features, and changing business models to reach new economic sectors.

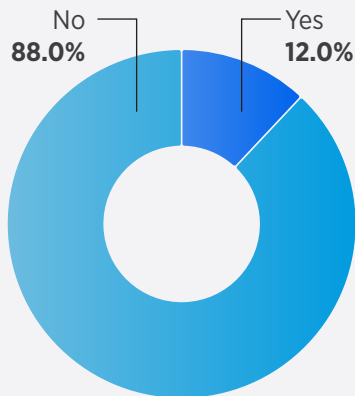
Figure 4.20 Efforts to Increase Fintech companies' Revenue (n=75)



Source: AMS 2022/2023

This condition is relatively different from the results of AMS 2021, when the Fintech industry was severely impacted by the COVID-19 pandemic. Around 53% of the respondents decide to postpone their business expansion as a mitigation measure to minimize the impacts of the pandemic.

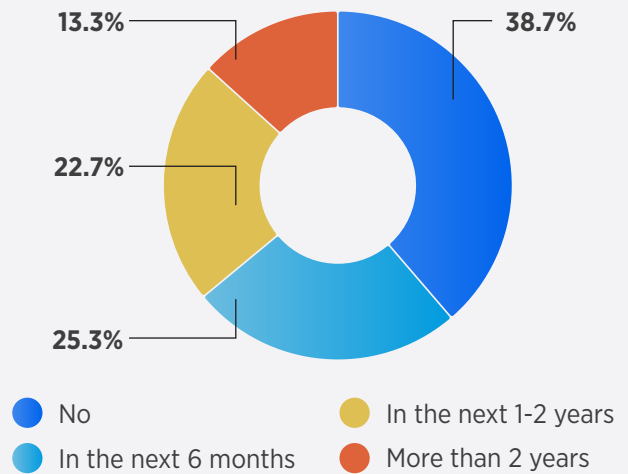
Figure 4.21 Business Model Expansion/Changes (n=75)



Source: AMS 2022/2023

Concerning expansions to the new markets, the majority of the respondents stated that they will perform expansion of Fintech services to rural areas. A total of 25.3% of Fintech players plan to expand to the rural areas within six months to one year, followed by the other 22.7% of Fintech players within the next two years. On the other hand, 38.7% of the respondents stated that they currently have no plan for market expansion to rural areas.

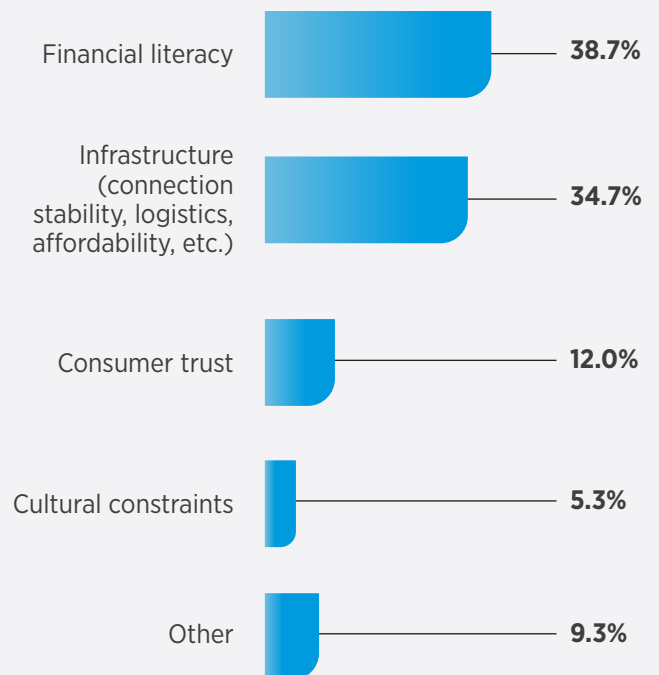
Figure 4.22 Expansion Plans to Rural Areas (n=75)



Source: AMS 2022/2023

The lack of expansion plans to rural areas may be driven by multiple factors, such as low financial literacy of the rural community (38.7%), poor infrastructure (34.7%), and low consumer trust among rural communities (12.0%). The other contributing factors include challenges in cultural differences, information technology, human resource, and even Jakarta-concentrated target markets.

Figure 4.23 Major Challenges for Expansion to Rural Areas (n=75)

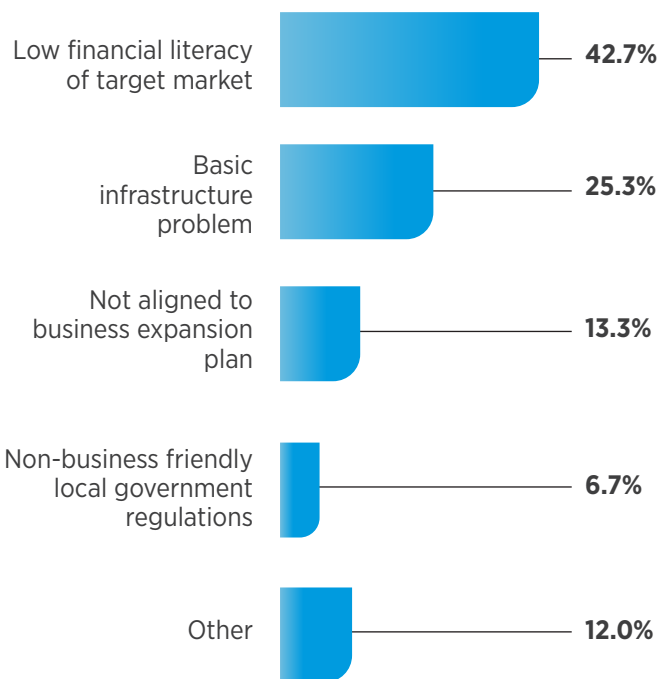


Source: AMS 2022/2023

Similarly, Fintech players face these major challenges in their expansion beyond their current service areas. A total of 42.7% mention low financial literacy and 25.3% of infrastructure conditions. Meanwhile, 13.3% state that the other areas are not fit for their expansion plans, and 6.7% argue that the regulations of the local government pose a challenge for embarking on expansion.

Although the financial literacy index based on OJK's National Financial Literacy and Inclusion Survey⁹ increased from 38.03% in 2019 to 49.68% in 2023 and despite massive development of infrastructure, there remain discrepancies in literacy and development in several areas. Equitable development has been homework for many stakeholders to address. Synergized policy and collaboration of multiple parties are expected to solve issues of discrepancy and inequity in Indonesia.

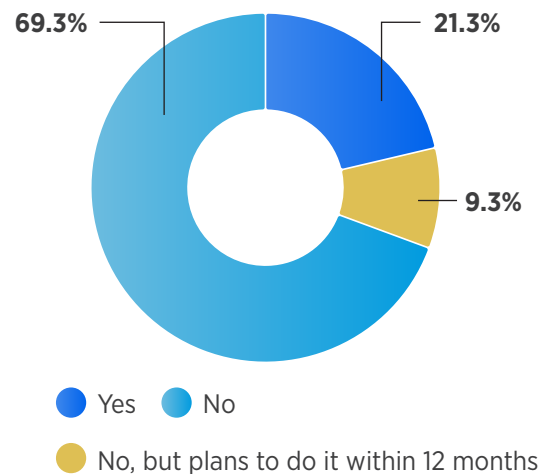
Figure 4.24 Major Challenges for Expansion to Other Areas (n=75)



Source: AMS 2022/2023

In terms of overseas expansion, 69.3% of the respondents do not have plans to enter the overseas market outside of Indonesia. A total of 21.3% of the respondents plan for overseas expansion, and the rest 9.3% are planning for overseas expansion after one year. The Government provides support, including follow-up Letter of Agreement between OJK and the authorities of other countries, like Singapore, to promote Fintech expansion to the countries¹⁰.

Figure 4.25 Plan for Overseas Expansion (n=75)



Source: AMS 2022/2023

Although overseas expansion is not the current priority, 17.3% of the respondents have served foreign users (WNA), and 46.7% admit to having served the Indonesian diaspora (WNI) who reside in foreign countries. Meanwhile, 36.0% serve both WNA and WNI users abroad. Borderless Fintech services have encouraged the use of Fintech by a wider community, even farther from foreign countries.

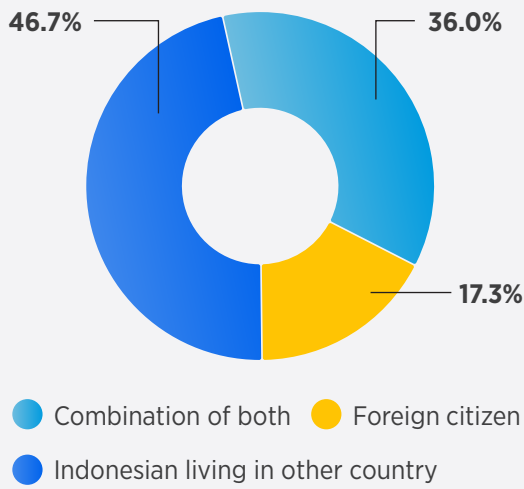
Transaction Values

Transaction value is an important indicator to evaluate the performance and maturity of Fintech companies. Fintech companies with low-to-middle transaction values are observed to undergo improvement in their performance, while Fintech with high transaction value faces some challenges.

⁹ Otoritas Jasa Keuangan, accessed from <https://ojk.go.id/id/berita-dan-kegiatan/info-terkini/Pages/Infografis-Survei-Nasional-Literasi-dan-Inklusi-Kuangan-Tahun-2022.aspx>

¹⁰ Otoritas Jasa Keuangan, accessed from <https://ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Joint-Media-Release-Indonesia-and-Singapore-strengthen-cooperation-in-FinTech.aspx>

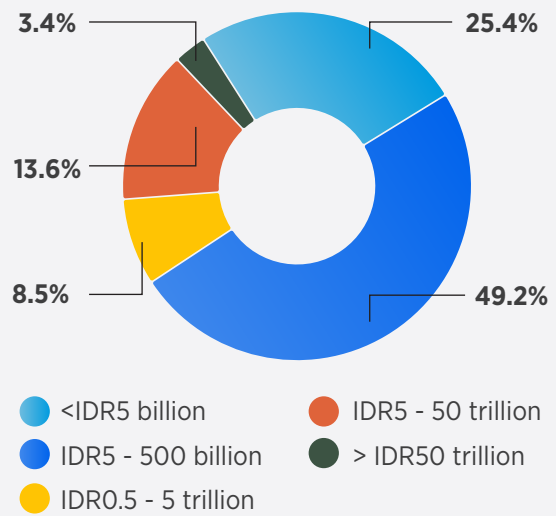
Figure 4.26 Foreigners and Indonesians Overseas Users of Fintech Services (n=75)



Source: AMS 2022/2023

The AMS 2022/2023 records that around a quarter (25.4%) of the respondent have transaction value less than IDR5 billion per year, while almost half of the respondents (49.2%) report that their transaction value is in the ballpark of IDR5-500 billion per year. It indicates an increase from AMS 2021, where only 32% earned >IDR5 billion worth of transactions, and only 39.0% of respondents reported transaction value of IDR5-500 billion. There is an evident shift in Fintech companies that used to earn transaction value of >IDR5 million are now included in the group of IDR5-500 billion transactions per year.

Figure 4.27 Fintech Transaction Values (n=75)



Source: AMS 2022/2023

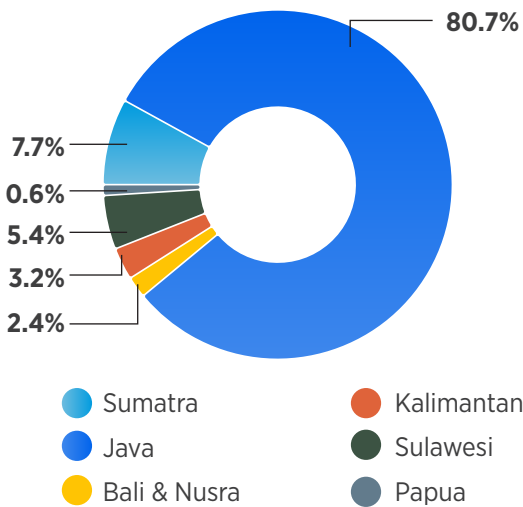
Additionally, the AMS 2022/2023 shows that 8.5% of the respondents report transaction values between IDR0.5 trillion and IDR5 trillion per year, and 13.6% have transactions around IDR5-50 trillion. This condition is relatively improving from AMS 2021, where only 21.0% of Fintech companies earned IDR0.5-5 trillion per year and 4.0% with IDR5-50 trillion.

On the other hand, 3% respondents of AMS 2022/2023 indicated that their transaction values reached above IDR50 trillion per year. This proportion is a decline from 4.0% in AMS 2021.



Geographical factors also influence the transaction values recorded by the Fintech companies. Around 80.7% of Fintech transactions are derived from Java, indicative of a significant domination of this area in Indonesia's Fintech industry. Meanwhile, in other areas, like Sumatra (7.7%), Sulawesi (5.4%), and Kalimantan (3.2%), no significant change occurs in terms of transaction value compared to that of AMS 2021.

Figure 4.28 Fintech Transaction Value Based on Region (n=75)



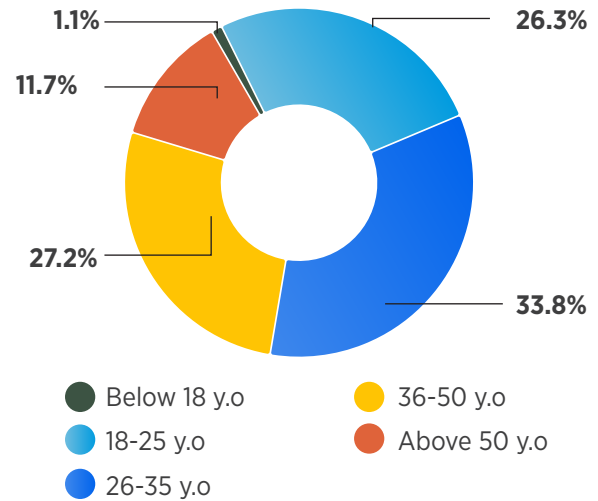
Source: AMS 2022/2023

The development is related to the previous discussion of Market Expansion and Business Models where Java Island is evidently the incumbent market for the Fintech industry. The existing gaps in other areas are attributed to low financial literacy and inequitable infrastructure development. Efforts to improve financial literacy and digital infrastructure development across Indonesia need to be intensified so that Fintech can reach far wider markets and gain higher transaction values.

When observed from the age of Fintech users, the transaction values are mostly derived from Fintech users aged 26-35 years (33.8%), followed by those aged 18-25 years (26.3%) and 36-50 years (27.2%). Compared to the Fintech user groups in the Main Users section, the users in the age group of 18-25 years are considered consumptive users – it accounts for 6.1%, but it contributes 26.3% of the total transaction value. On the other hand, the age group of 26-35 years

shares a smaller retail transaction value – it accounts for 70.8% but contributes only 33.8% of the total transactions.

Figure 4.29 Fintech Transaction Values Based on Users' Age (n=75)

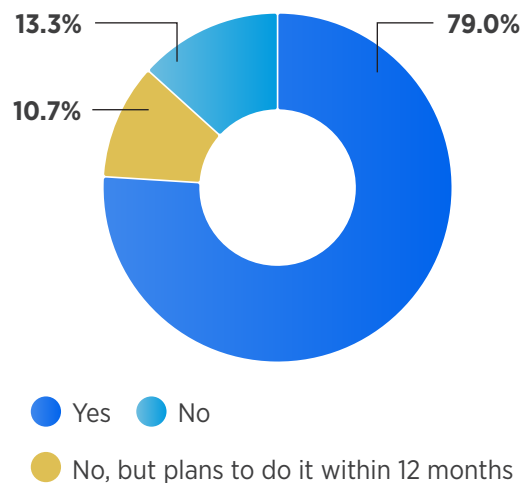


Source: AMS 2022/2023

Partnership

Intercompany partnership in the Fintech ecosystem plays a crucial role in fostering growth and reinforcement in Indonesia's Fintech industry. A total of 79.0% of respondents of AMS 2022/2023 stated that they have partnered with other companies within the Fintech ecosystem. In addition, the other 10.7% already plan to form a partnership in one year.

Figure 4.30 Fintech Company Partnership with Other Companies in the Ecosystem (n=75)



Source: AMS 2022/2023

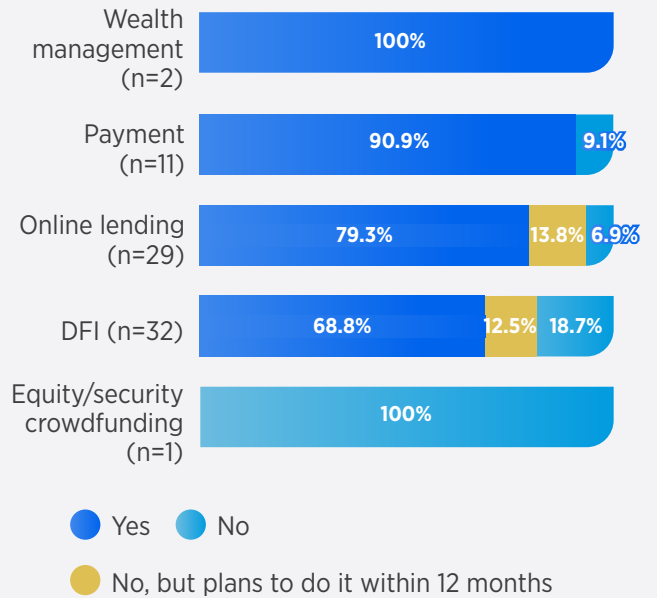
Based on the Fintech cluster, the majority of the companies engaged in business partnerships are from Digital Finance Innovation (68.8%) and online lending (79.3%). Partnership between Fintech companies is crucial to foster mutual leverage of skills, resources, and networks. The partnership can also boost innovation and diversification of products and services offered to the customers.

The benefits of intercompany partnership in the Fintech ecosystem include the exchange of knowledge and technology, risk sharing, access to new markets, and increased operational capacity. In some cases, partnerships can open new opportunities for better synergy of products and services, such as integration between payment services and online lendings.

In addition, partnerships among Fintech companies can also support financial inclusion in Indonesia. For instance, Fintech companies focusing on payment can partner with lending companies to provide more comprehensive services to customers, especially those unserved or underserved by traditional financial institutions.

Therefore, intercompany partnerships in the Fintech ecosystem not only boost growth and innovation in the industry but also potentially improve financial inclusion all over Indonesia.

Figure 4.31 Partnership of Fintech Companies with Other Companies in the Ecosystem Based on Cluster (n=75)



Source: AMS 2022/2023



CHAPTER 5 TECH WINTER AND INVESTMENT



Indonesia's digital economy, including Fintech, is in the midst of tech winter challenges. The tech winter phenomenon has been a trending topic among startups and the technology industry as a whole within the last one year. Tech winter refers to a condition where the increasing capital expenses have forced investors to tighten their investment selection to maximize investment return and minimize risks¹¹.

The tech winter phenomenon has caused the technology industry and startup players to focus on survival and innovation to gain profits. The underpinning principle of “growth at all cost” for Fintech expansions over the past few years has now shifted to the “path to profitability”. The scarring effect of the COVID-19 pandemic¹² and the rise of the cost of funds due to high inflation and interest rates¹³ have put the brakes on Fintech expansions. This delayed expansion has resulted in some necessary adjustments, from changing business strategy to layoffs and hiring freeze.

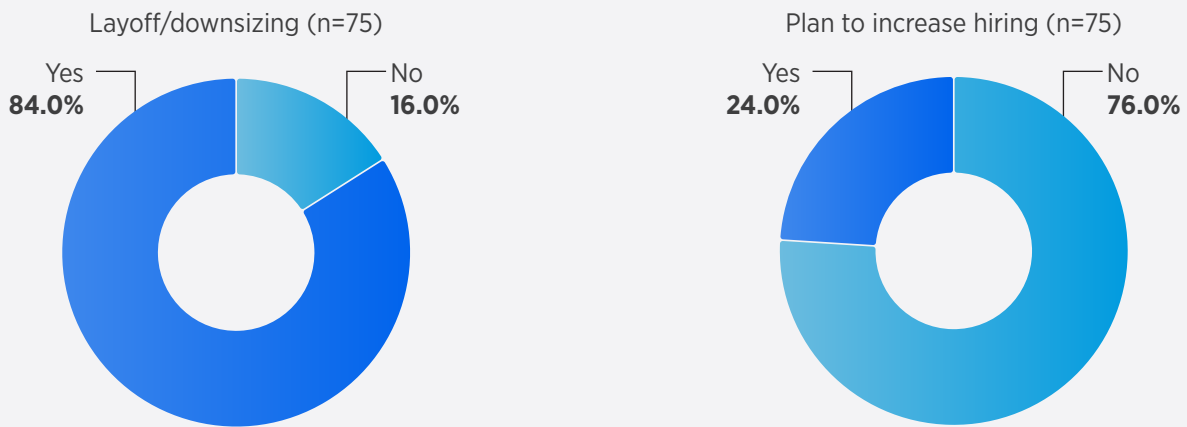
Profitability has now become the main focus of companies in Fintech. As elaborated in **CHAPTER 4 “OVERVIEW OF FINTECH INDUSTRY”**, to increase revenue, 66.7% of respondents opt to focus on products with high-profit margins. Meanwhile, 12% admit to changing their business models and committing to expansion to new economic sectors.

Concerning layoffs, it has been recorded that 201,860 employees in the technology industry around the globe suffered from layoffs or termination of employment within the first five months of 2023¹⁴. Examples of global tech companies that have done layoffs include Google (12,000 employees in January 2023) Meta (11,000 employees in November 2023), and Microsoft (10,000 employees in January 2023). In Indonesia, DSInnovate recorded that 20 startups laid off their employees throughout 2022¹⁵.

11 Harian Kompas, accessed from <https://www.kompas.id/baca/ekonomi/2023/03/15/tech-winter-dikabarkan-masih-akan-berlanjut-pada-2023>
 12 Kementerian Komunikasi dan Informatika, accessed from https://www.kominfo.go.id/content/detail/46282/menkominfo-lima-segmen-Fintech-indonesia-capai-cagr-39-meski-masuki-tech-winter/0/berita_satker
 13 Kontan, accessed from <https://keuangan.kontan.co.id/news/Fintech-p2p-lending-mulai-waspada-pada-dampak-kenaikan-suku-bunga-acuan>
 14 <https://layoffs.fyi/>
 15 Daily Social, accessed from <https://dailysocial.id/post/startup-report-2022-soroti-perlambatan-investasi-phk-hingga-potensi-sektor-hijau>



Grafik 5.1 Layoff and Plan to Increase Hiring



Source: AMS 2022/2023

Layoff Phenomenon

Layoffs and hiring freezes are also evident in Indonesia’s Fintech industry. The AFTECH AMS 2022/2023 Report shows that 84% of respondents have carried out layoffs to their employees. The same survey denotes that 76% of respondents do not plan to recruit new employees in the near future. This result is in contrast with AFTECH AMS 2021 Report, where 72% of respondents indicated that they planned to

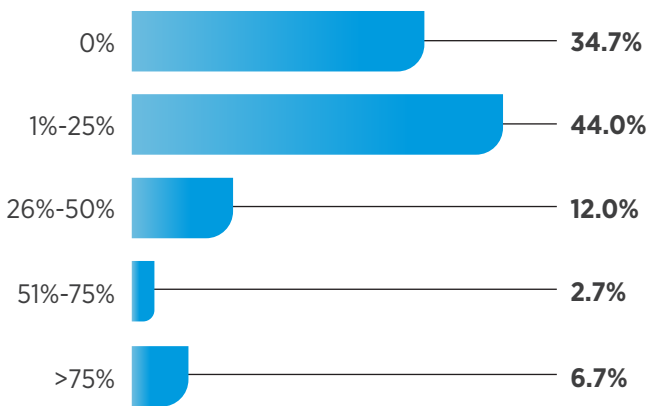
hire more employees in the next 1-2 years: 35% would hire 1-25% more employees, and 15% were ambitious to plan to have more than 75% more workforce.

The employment status of the workforce hired by Fintech players consists of 34.7% permanent employees, and the rest is a mix of permanent and outsourced employees. Concerning the proportion of outsourced employees in Fintech companies, 44.0% of respondents have 1-25% outsourced employees, 12%

have 26-50% outsourced employees, 2.7% have 51-75% outsourced employees, and the rest 6.7% have more than 75% outsourced employees.

If it is mandatory for companies to hire new employees, 61.3% of respondents in AMS 2022/2023 will recruit a mix of permanent and outsourced employees. Meanwhile, 37.3% will recruit only permanent employees, and the rest 1.4% opt for only outsourced employees. In their recruitment plans, respondents state that they would place the top priority on product

Figure 5.2 Non Permanent Employees (n=75)



Source: AMS 2022/2023

development (69.3%), business development (68.0%), and sales and marketing (54.7%).

This trend should be the driving force of quality education and training for technology and digital talents in order to overcome the challenges in national digital transformation. In fact, despite hiring fewer employees, this sector still needs skilled employees, particularly in product development and business development. The ambitious target of President Joko Widodo to produce at least nine million skilled digital talents in 2030 to support national digital transformation¹⁶ needs to be prepared so as to meet industry demands.

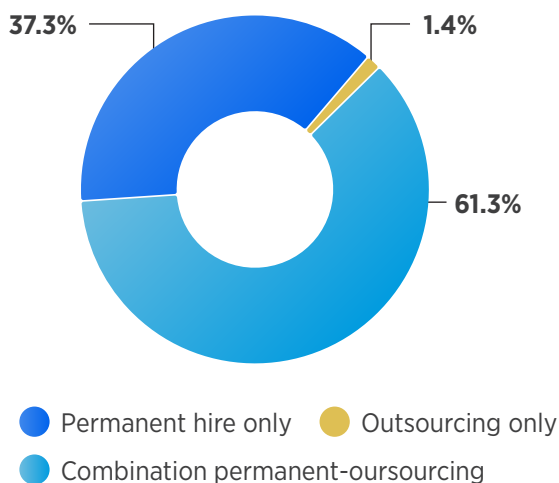
Investment Status

Despite the surge of tech winter, the investment performance of Indonesia’s Fintech sector is relatively stable. It is supported by the perception of Fintech players about tech winter.

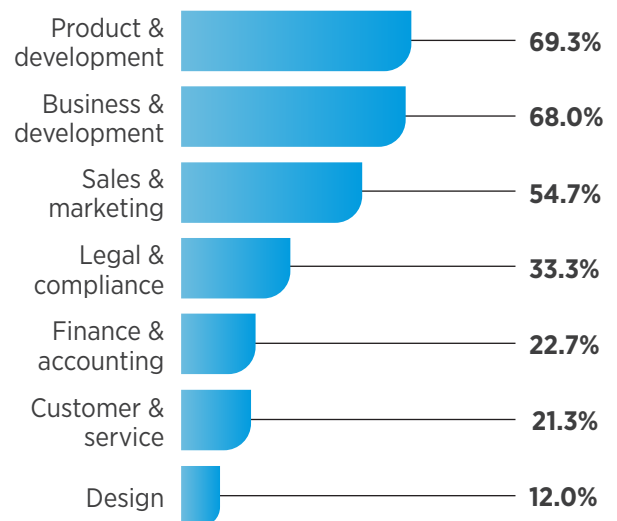
Our in-depth interviews with a number of AFTECH members indicated there is a consensus that the tech winter phenomenon is also perceived as a momentum to continue innovation. In facing tech winter, Fintech

Figure 5.3 Hiring Preferences

Preference hiring outsourcing or permanent (n=75)



Additional manpower area (n=75)



Source: AMS 2022/2023

16 Kementerian Komunikasi dan Informatika, accessed from <https://www.kominfo.go.id/content/detail/42010/kolaborasi-mencetak-talenta-digital-nasional/0/artikel>

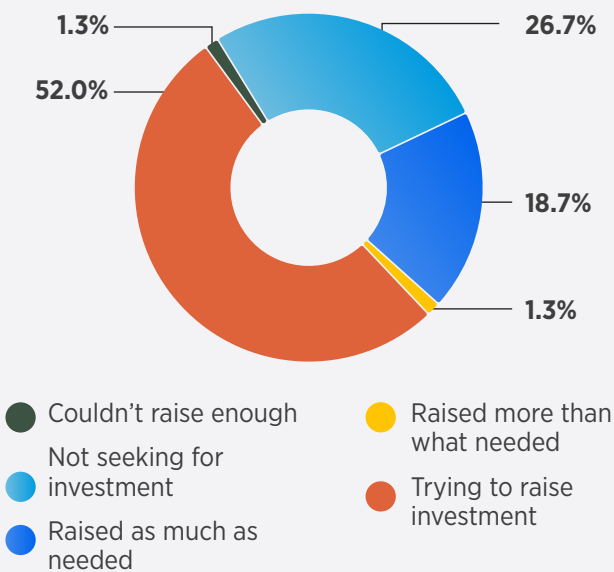
companies in Indonesia have launched an array of innovations for comprehensive products and services to maintain performance, such as establishing collaboration with institutional donors from the banking sector.

The Fintech in ASEAN 2022 Report denotes that Fintech companies in ASEAN have successfully collected a total of US\$4.3 billion in funds within the first nine months into 2022, thus increasing ASEAN’s contribution to global funding from 2% in 2018 to 7% in 2022. Indonesia’s Fintech also recorded US\$1.4 billion in funds in the same period of 2022. Accordingly, Indonesia contributed 33% of the total funding in ASEAN, or the second highest after Singapore (43%). From the total funding earned by the Fintech industry in Indonesia, the payment cluster receives the highest funding proportion at 43%, followed by crypto assets clusters (13%) and online lending (12%).

Indonesia’s Fintech industry is undergoing a dynamic development, as reflected by the results of AMS 2022/2023 Report concerning respondents’ perspectives on the need for funding. The survey results demonstrate that more than half of respondents (52%) are planning to raise funds in the near future. Around 1.3% of respondents state that they still lack funding, while a quarter (26.7%) feel they currently need no additional funds and 18.7% state they have enough funds at the moment. Meanwhile, 1.3% of respondents argue that they have raised more funds than they need.

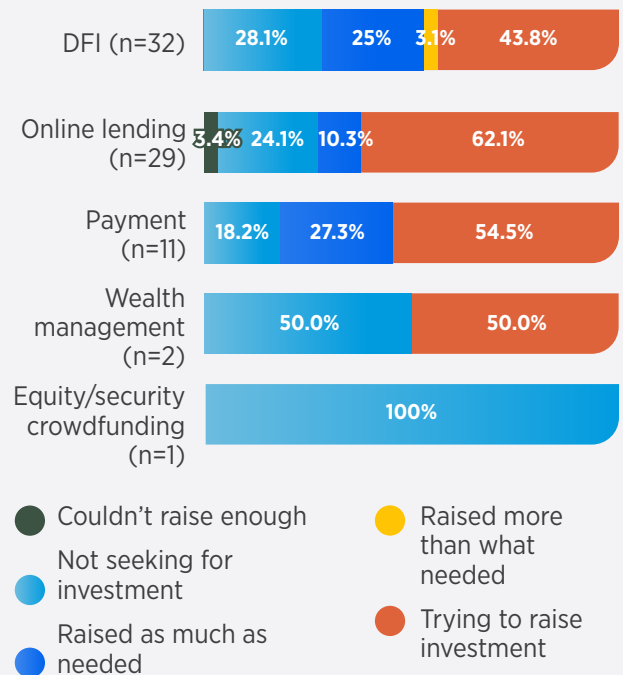
Based on the cluster, most online lending companies (62.1%) and payment companies (54.5%) admit that they still need funding. Fintech companies in the wealth management cluster (50.0%) and Digital Financial Innovations (43.8%) also mention their current need for additional funding. The only respondents who admit not seeking funds, for now, are in the Securities Crowd Funding (SCF) cluster.

Figure 5.4 Investment Status (n=75)



Source: AMS 2022/2023

Figure 5.5 Investment Status Based on Cluster (n=75)

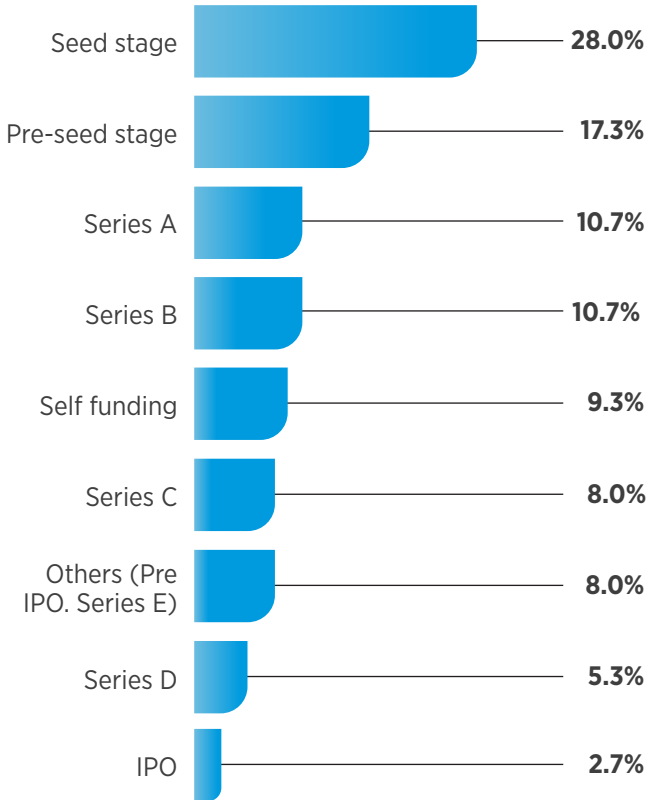


Source: AMS 2022/2023

The fact that many Fintech players are still in need of funding is due to the current stage of funding. Survey results indicate that almost half of the respondents are at the initial funding stage. A total of 17.3% of respondents are at the pre-seed stage, where companies are still brainstorming initial ideas and developing their business plans. Meanwhile, 28% of respondents are at the seed funding phase, which is a crucial growth stage of startup business because the funds are spent on starting operations and proving their business concepts.

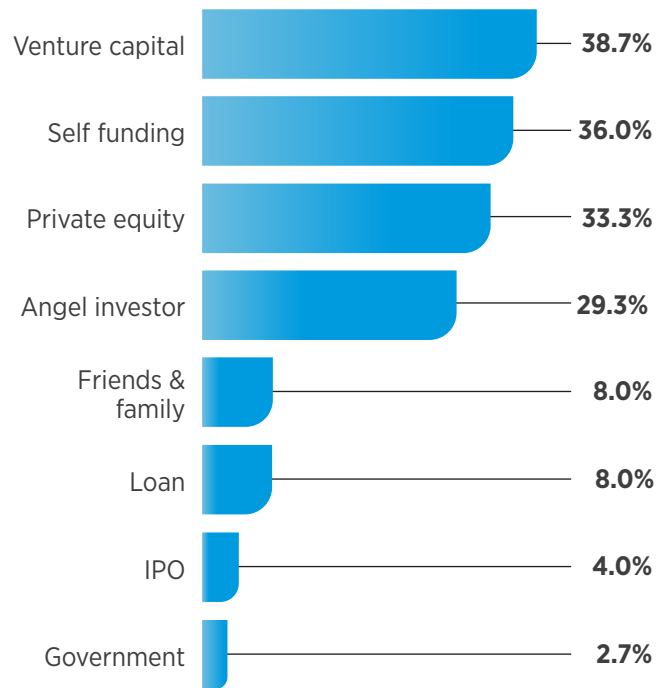
On the other hand, a significant proportion of Fintech players have passed the initial stage and are now at further stage of funding. Approximately 42.7% of respondents are at Series A-E funding, where Fintech actors raise funds for business upscale, further product development, and market expansion. Even 2.7% of Fintech actors have reached the Initial Public Offering (IPO) stage, indicating their significant level of maturity and stability.

Figure 5.6 Funding Stage (n=75)



Source: AMS 2022/2023

Figure 5.7 Source of Funding (n=75)



Source: AMS 2022/2023

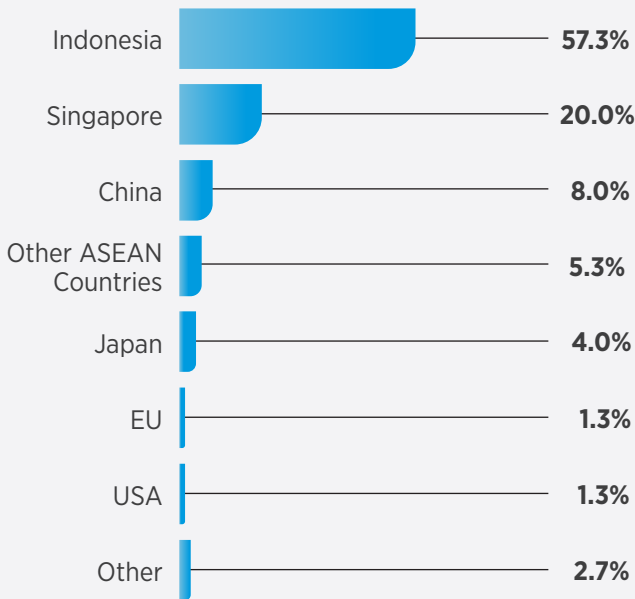
The conducive investment climate in Indonesia has encouraged both domestic and international investors to acknowledge the immense potential of the Fintech industry in the country. This development shows great opportunities for Fintech actors to grow and develop with internet penetration and expansion in Indonesia, along with community acceptance of digital solutions for many aspects of life, including financial services¹⁷.

Source of Funds

In the midst of the dynamic growth of the digital economy in Indonesia, the Fintech industry uses multiple sources of funds as the main contributors to the growth and sustainability of this sector. The AFTECH AMS Report 2022/2023 records that 38.7% of respondents obtain funds from venture capital firms, which indicates that investors are highly interested in the potential and opportunities of Indonesia’s Fintech Industry. Meanwhile, 36% use independent sources of funding, which reflects their dedication and confidence in their Fintech business models.

17 Otoritas Jasa Keuangan, accessed from <https://ojk.go.id/id/berita-dan-kegiatan/siaran-pers/Pages/Bulan-Fintech-Nasional,-1,5-Juta-Masyarakat-Berpartisipasi-dan-Dapatkan-Edukasi-Fintech-dari-Pemerintah,-Asosiasi,-dan-Pela.aspx>

Figure 5.8 Country of Funding Sources (n=75)



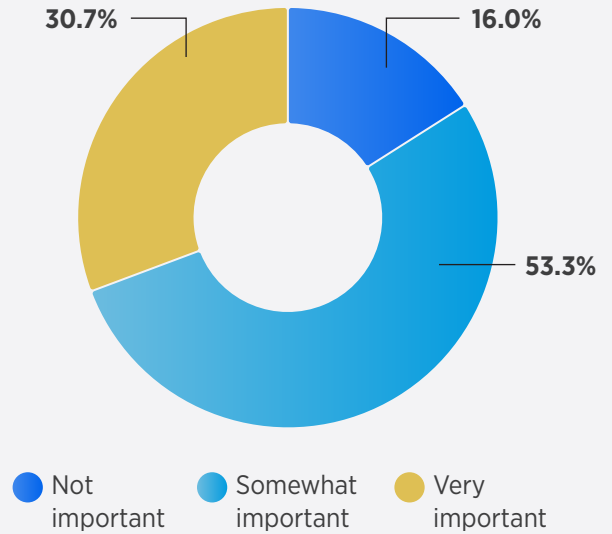
Source: AMS 2022/2023

The funding pattern has shifted from the one reported in AFTECH AMS Report 2021, where independent sources of funding (43.9%) outnumbered funding from venture capital firms (39%). This condition shows investor trust in the Fintech industry despite the ongoing threats of global economic slowdown.

AFTECH AMS 2022/2023 Report identifies the donor countries and source of funding for the Fintech industry in Indonesia. The survey shows that most funding (57.3%) is derived from domestic investors, a decline from 80.0% reported in AFTECH AMS 2021 Report. Foreign investors play a key role in funding the Fintech industry in Indonesia, and the main sources are Singapore (20%) and China (8%).

Funding investment plays a vital role in the sustainability of the Fintech industry in Indonesia. Regardless of tech winter phenomena, Indonesia's Fintech industry has proven its resilience and attractiveness in the eye of investors. It is evident from the success of two of Indonesia's Fintech companies that earn unicorn status in 2023: DANA and Akulaku¹⁸.

Figure 5.9 The Importance of the Female User Market (n=75)



Source: AMS 2022/2023

Demographic factors also significantly affect funding decisions. The survey shows that 84.0% of respondents perceive the need to target women customers in their markets to convince prospective investors. From this figure, 30.7% believe that it is highly important, while 53.3% is relatively important. The women's customer market has been the current focus and is perceived to be a key factor to raise funds. This development reflects the global trend that values women as a customer segment that gains more empowerment and influence in the digital world and Fintech¹⁹.

Government Support

Discussion on funding for Fintech companies is inseparable from the policy support from the Government and regulators. The majority of Fintech actors perceive that the Government has provided sufficient support for investment in Indonesia's Fintech industry.

¹⁸ CB Insights, accessed from <https://www.cbinsights.com/research-unicorn-companies>

¹⁹ Investopia, accessed from <https://investopia.ae/summaries/investing-in-half-the-sky-tapping-into-women-consumer-and-investor-markets/>.

The ratification of Law Number 27 of 2022 on Personal Data Protection is considered to provide clarity on the procedure of personal data protection, which positively impacts the increase of digital trust and conducive Fintech industry. In addition, Law Number 4 of 2023 on the Financial Sector Development and Strengthening is regarded as the legitimization of Fintech actors in the financial services industry. Law reinforcement for Fintech, known as the Technology Innovation in Financial Sector (ITSK), also provides legal security and public protection from Fintech illegal practices.

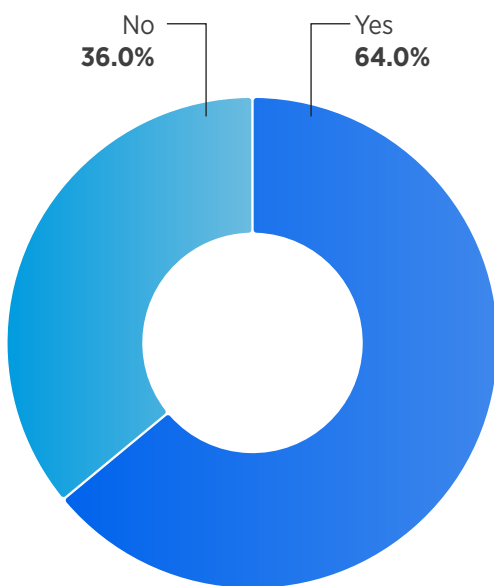
Nevertheless, the survey respondents argue that further support from the Government is crucial to gain optimum investment. The realization of this support is expectedly in the form of policy relaxation or lenient regulations and the provision of specific incentives.

In general, 64% of AFTECH AMS 2022/2023 Report respondents regard the Government as providing sufficient support for the Fintech industry, while the other 36% believe that the support is not enough. These varied responses show that the level of trust of the Fintech industry in the Government has risen from the AFTECH AMS 2021 Report, where only 31% perceived sufficient support from the Government,

23% was insufficient, and 46% were unsure. The AFTECH AMS 2022/2023 Report survey also probes into the necessary support from the Government. A total of 56.0% of respondents argue that they need regulatory relaxation in the future. Regulatory relaxation is needed by the Fintech industry to grow and compete in similar conventional industries without ignoring customer protection. The other important support, as reported by the 13.3% of respondents, may include improving the outreach and accessibility of government funding and providing alternatives to supporting grant schemes. Additionally, 9.3% of respondents argue that the government needs to give incentives to Fintech investors.

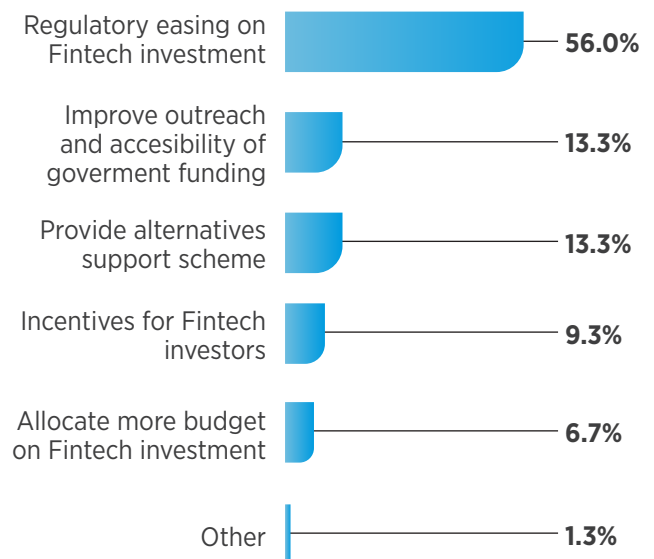
From the in-depth interviews with several AFTECH members, they regard the Government and the regulators have been progressive and supportive of the development of the Fintech industry in Indonesia. However, Fintech actors expect to see regulatory relaxations and fast responses to innovations proposed by them. For example, some Fintech innovations are currently not implementable in Indonesia. Therefore, the Government is expected to impose flexible regulations so that Fintech actors can perform some experiments to create better products and services.

Figure 5.10 Perceptions of Government Support (n=75)



Source: AMS 2022/2023

Figure 5.11 Required Government Support (n=75)



Source: AMS 2022/2023



CHAPTER 6 REGULATION AND GOVERNANCE



Regulation and governance are two coexisting, complementary principles. Regulation is a set of rules compiled and monitored by authorities to ensure orderly, efficient operations while governance is a meticulously designed system to direct operations to ensure that the company complies with the established regulations.

In some industries, including dynamic and flourishing ones like Fintech, regulation and governance are established to provide effective protections to all involved parties, from business owners to customers. Fintech companies that comply with the regulation and carry out good governance tend to have good risk management and high market competitiveness. From the customers' point of view, good regulation and governance can provide a sense of security and increase their trust in Fintech products and services.

The AFTECH AMS 2022/2023 Report indicates that the current regulatory framework has created a conducive environment for innovation and investment in the Fintech industry. However, there remains unexplored potential which, with more support from the Government, will certainly boost further growth of the Fintech industry.

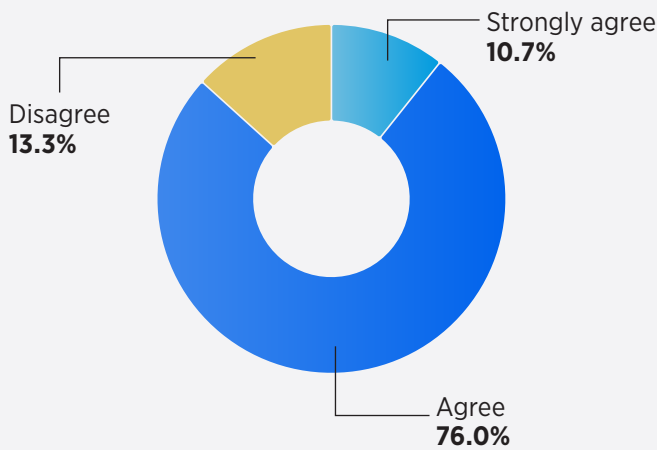
Concerning governance, Fintech focuses on the important roles of good governance in consumer protection and the application of industry standards. Some aspects of concern in consumer protection include (1) data management, (2) cyber security, (3) disaster recovery plan, (4) customer complaint handling, and (5) customer protection. Meanwhile, the application of industrial standards includes (6) application of international standards and regulations, and (7) codes of conduct or industry standards.

Perceptions of the Regulatory Framework

The presence of regulations is expected to be able to support innovation and investment for AFTECH members. Law Number 27 of 2022 on Personal Data Protection is regarded to have helped increase digital public trust in Fintech companies and services. Additionally, Law Number 4 of 2023 on Financial Sector Development and Strengthening, which specifically includes discussions on Technology Innovation in the Financial Sector (ITSK), is perceived as legitimizing Fintech players in the financial services industry.

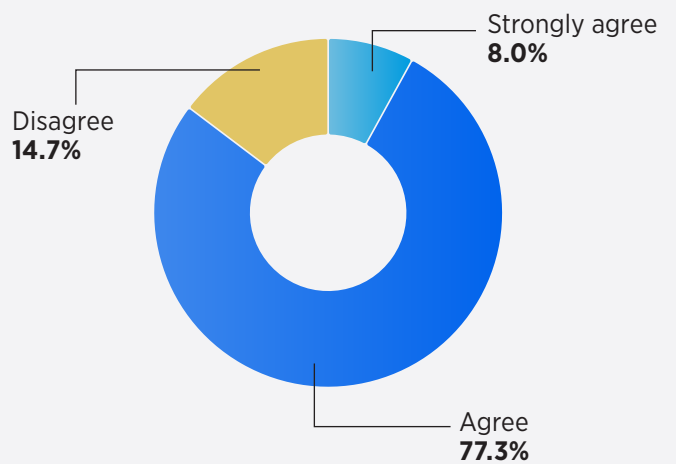


Figure 6.1 Perceptions that The Current Regulatory Framework Can Support Innovation (n=75)



Source: AMS 2022/2023

Figure 6.2 Perceptions that The Current Regulatory Framework Can Support Investment (n=75)

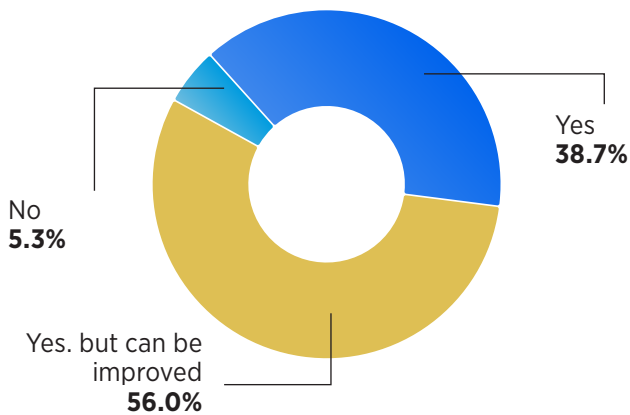


Source: AMS 2022/2023

The AFTECH AMS 2022/2023 Report shows that 10.7% of respondents strongly agree, and 76.0% agree that the current government regulations are conducive to innovation. The report illustrates that most respondents positively perceive regulatory developments related to the current Fintech and digital economy ecosystem.

A total of 8% of respondents strongly agree, and 77.3% agree that the current regulation is conducive to supporting investment.

Figure 6.3 Perceptions that The Current Regulatory Framework Can Support Fintech Industry Growth (n=75)



Source: AMS 2022/2023

Regarding support for the Fintech industry, 94.7% of respondents agree that there have been government initiatives to support the growth of the Fintech industry. Nonetheless, 56.0% note that there remains room for improvement in the current initiatives.

Regulatory Challenges

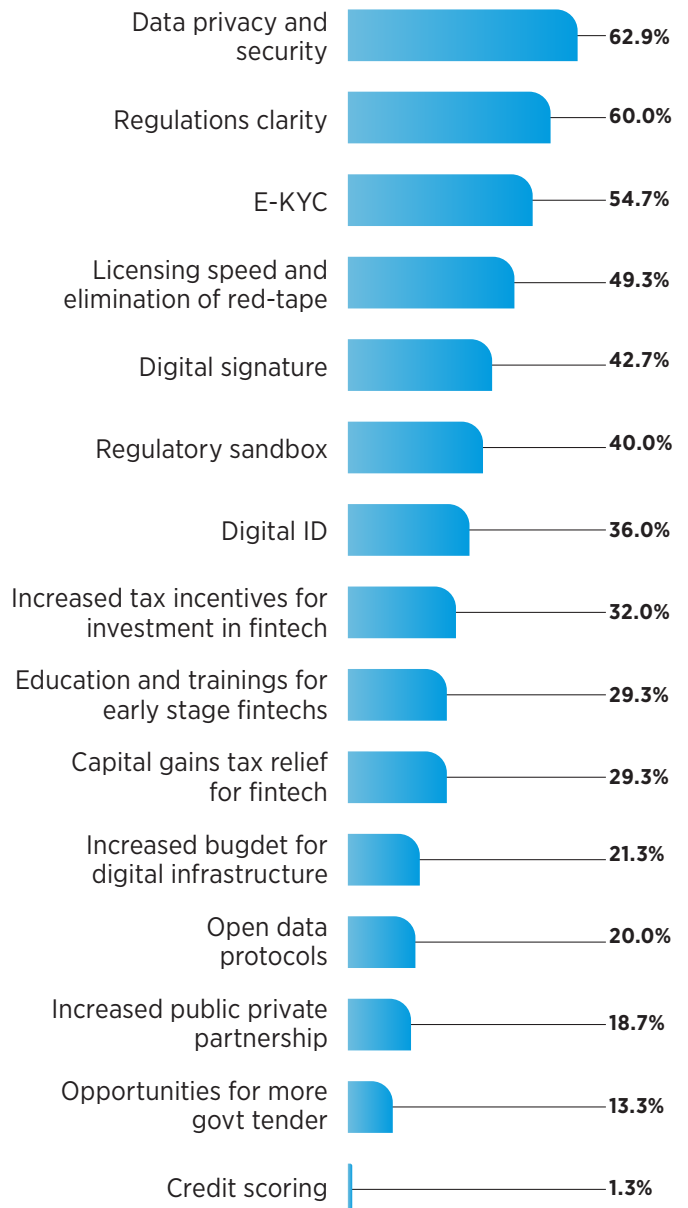
Although respondents feel that the current regulations are sufficient to support innovation and investment in Indonesia’s Fintech industry, other policies are perceived to need improvement. Regulations that are expected to improve are mainly about privacy and data security (62.9%), regulatory clarity (60.0%), e-KYC (54.7%), speed of licensing and elimination of bureaucracy (49.3%), and digital signature settings (42.7%).

Policies aimed at protecting personal data are essential for respondents, especially 77.3% that perceive these policies are in line with their current business models. Derivative regulations of Law Number 27 of 2022 on the Personal Data Protection, especially those related to the obligations of Data Protection Officers, have relatively significant impacts on Fintech companies. Therefore, the majority of respondents are waiting for clarification on further arrangements.

Data Management

Data management is an administrative process that includes data collection, validation, storage, protection, and processing to ensure the availability, reliability,

Figure 6.4 Policies Expected to be Improved (n=75)



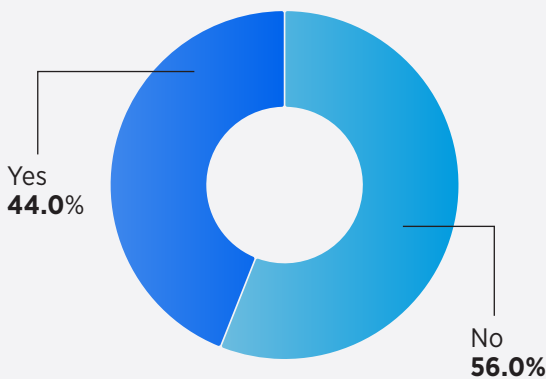
Source: AMS 2022/2023

and relevance of data for business users. Meanwhile, a data center is a facility used to store and manage mass data.

The survey shows that 56.0% of respondents prefer to entrust their data management to third parties. Even so, there has been a significant increase in the number of companies owning their own data center, from 37.0% in The AFTECH AMS 2021 Report to 44.0%

in The AFTECH AMS 2022/2023 Report. Having their own data center, companies can take control of their data, enable reinforced security, and make data monitoring and management easier. All data centers used by respondents are also 100% registered with Kemenkominfo (The Ministry of Communication and Information Technology).

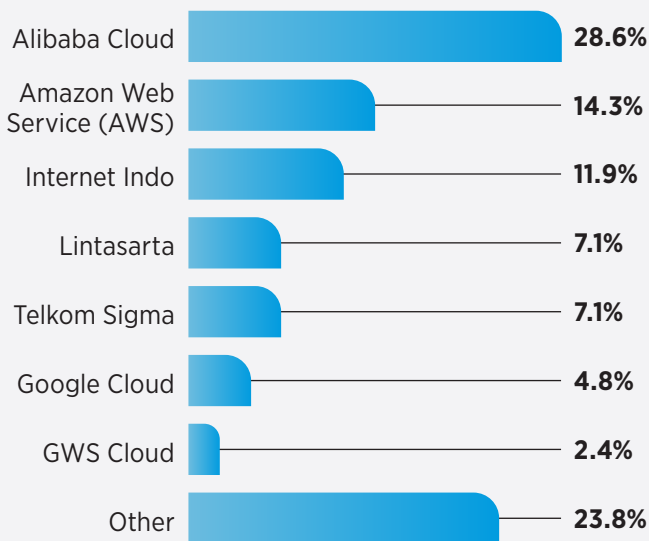
Figure 6.5 Data Center Ownership (n=75)



Source: AMS 2022/2023

Of the 56.0% of respondents who use third-party services, they mostly use data centers provided by Alibaba Cloud (28.6%), followed by Amazon Web Service (14.3%), and Indo Internet (11.9%). A total of 77.3% of respondents argue that they never change their data center.

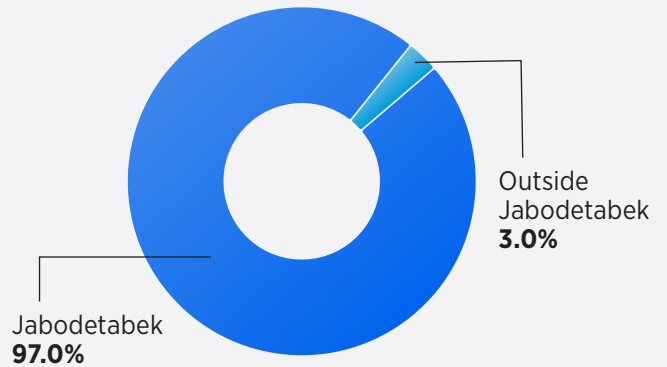
Figure 6.6 The Third Party Used for Data Center (n=42)



Source: AMS 2022/2023

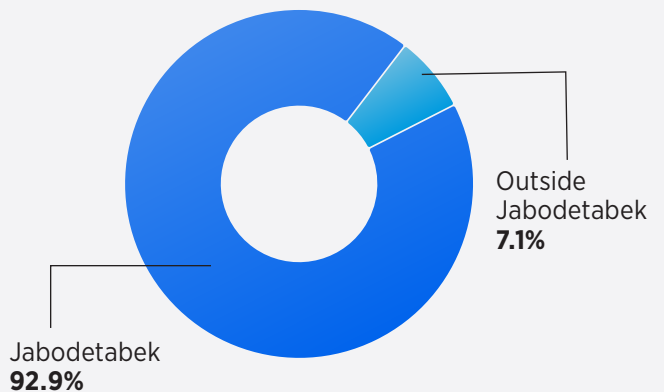
Regarding the data center location, AFTECH AMS 2022/2023 Report records that 97.0% of company-owned data centers and 92.9% of third-party-provided data centers are located in Jabodetabek, an increase from 81.0% and 91.0%, respectively, in the AFTECH AMS 2021 Report.

Figure 6.7 Locations of Company-owned Data Center (n=33)



Source: AMS 2022/2023

Figure 6.8 Company-owned Data Center Locations (n=42)

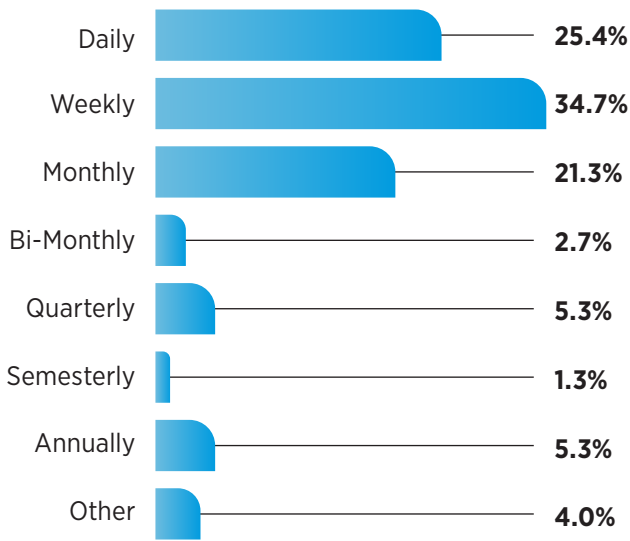


Source: AMS 2022/2023

Cyber Security

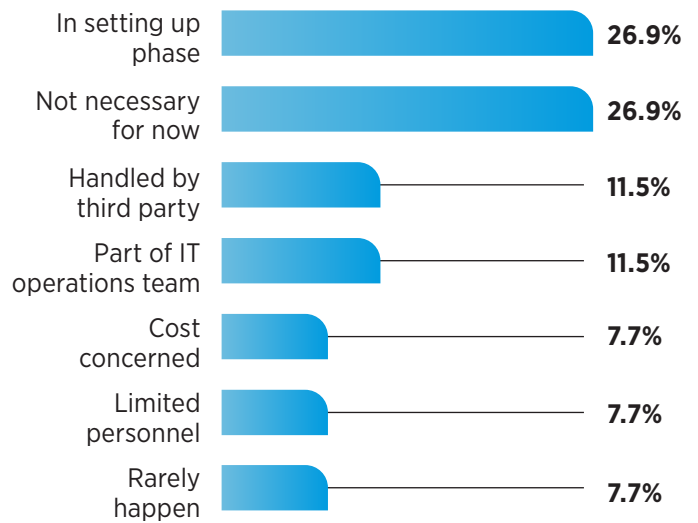
Another aspect of Fintech industry governance is cybersecurity. To improve cyber security, 100% of respondents carry out data backup procedures regularly. Data backups are mostly done weekly (34.7%) and daily (25.4%).

Figure 6.9 Data Backup Frequency (n=75)



Source: AMS 2022/2023

Figure 6.10 Reasons of Not Having CERT (n=26)



Source: AMS 2022/2023

In cybersecurity, the number of respondents who have a Computer Emergency Response Team (CERT) increases to 65.3% in the AFTECH AMS 2022/2023 Report from 44.0% in AFTECH AMS 2021 Report. CERT is an entity that handles issues related to computer security. The CERT team is tasked with responding to cybersecurity incidents, conducting forensic analysis and investigations, and assisting in recovery after incidents.

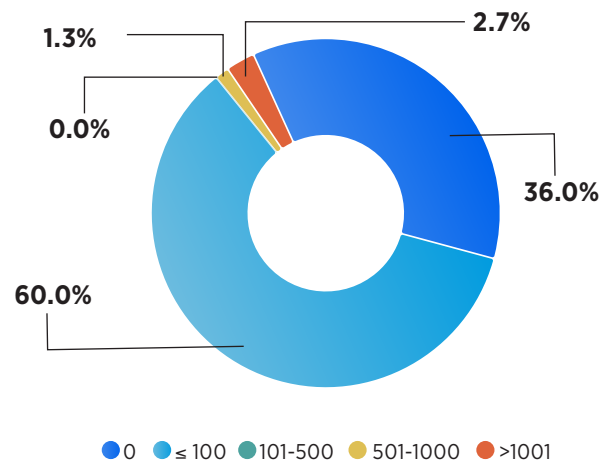
CERT also plays a vital role in preventing security incidents by providing knowledge and guidance on security best practices. This percentage increase indicates that more Fintech companies now understand the importance of cybersecurity and are proactive in dealing with potential threats.

The majority of companies that do not have a CERT team argue that they are in the early stages of building a team (26.9%) and do not need a CERT team at this time (26.9%). Meanwhile, 11.5% state that CERT is handled by either a third party or an integral part of the company's IT team.

Another effort to improve cybersecurity is system maintenance. The majority of respondents (57.3%) perform system maintenance every month.

All these efforts to improve cyber security have been relatively successful. It is demonstrated by the reduced

Figure 6.11 Number of Consumers Experiencing System Failure(n=75)

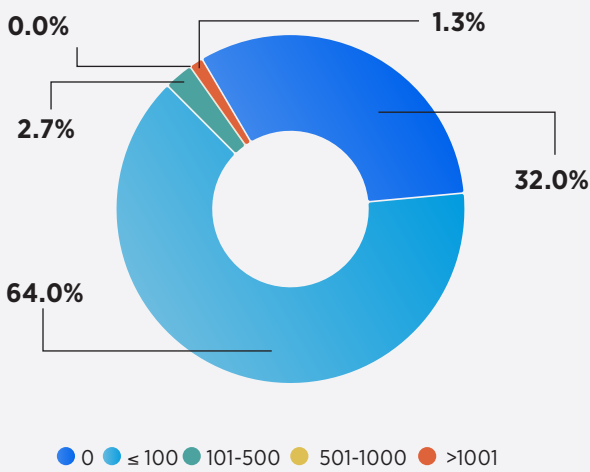


Source: AMS 2022/2023

number of consumers using Fintech services who have experienced system failures and cyberattacks.

The AFTECH AMS 2022/2023 Report records that 96% of the companies are either without system failures or fewer than 100 times system failures. This achievement is an increase from 75% of companies that experienced system failure under 100 times in the AFTECH AMS 2021 Report.

Figure 6.12 Number of Consumers Experiencing Cyber Attacks (n=75)



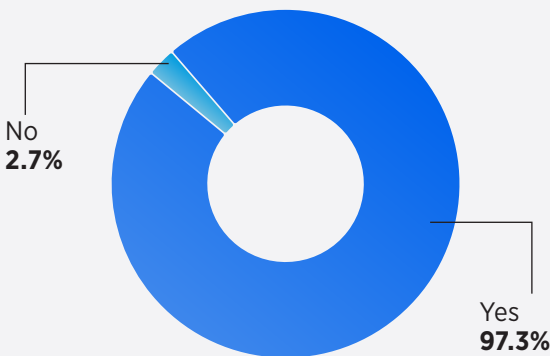
Source: AMS 2022/2023

Meanwhile, up to 96% of Fintech companies indicate that their consumers are not affected by cyberattacks or that they only received cyberattacks less than 100 times per year, indicative of an improvement from 54% in the results of the AFTECH AMS 2021 Report.

Disaster Recovery Plan

The Disaster Recovery Plan (DRP) is a company’s preemptive strategy to address unexpected incidents. DRP is useful to ensure uninterrupted Fintech services during interruptions or downtime.

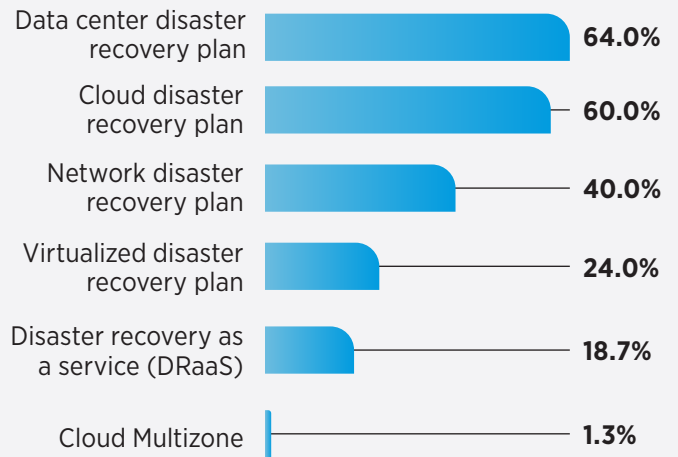
Figure 6.13 Availability of Disaster Recovery Plan (n=75)



Source: AMS 2022/2023

The mandatory DRP is stipulated in POJK No. 4/POJK.05/2021 on the Implementation of Risk Management in the Use of Information Technology by Non-Bank Financial Services Institutions.

Figure 6.14 Types of Disaster Recovery Plan (n=75)

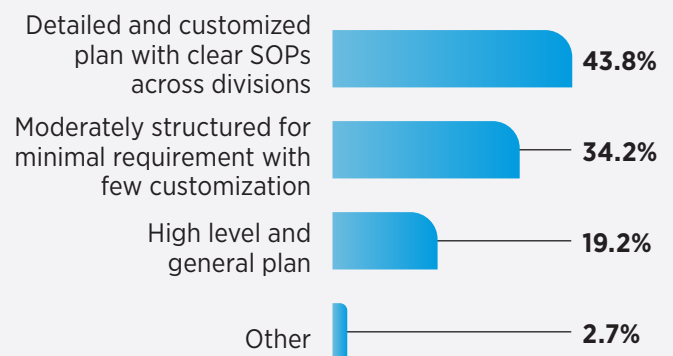


Source: AMS 2022/2023

The survey results show that 97.3% of respondents already have DRP, indicating the importance of DRP in mitigating system failures and cyberattacks. Respondents without a DRP are generally in the early stages of formulating a DRP or collaborating with a telecommunication company.

Respondents generally have DRP types related to data centers (64.0%) and cloud features (60.0%).

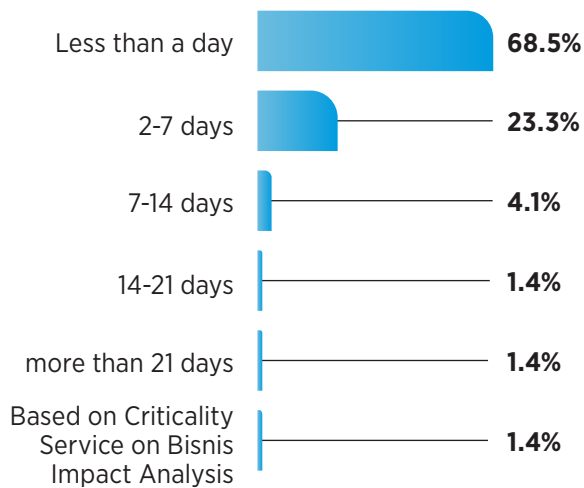
Figure 6.15 Detailed Disaster Recovery Plan (n=75)



Source: AMS 2022/2023

A total of 43.8% of respondents state that they already have a DRP, including plans tailored to their needs and standard operating procedures (SOPs) across divisions. In contrast, 34.2% indicate owning at least adequate DRP with limited adjustments.

Figure 6.16 Average Recovery Time of DRP (n=75)



Source: AMS 2022/2023

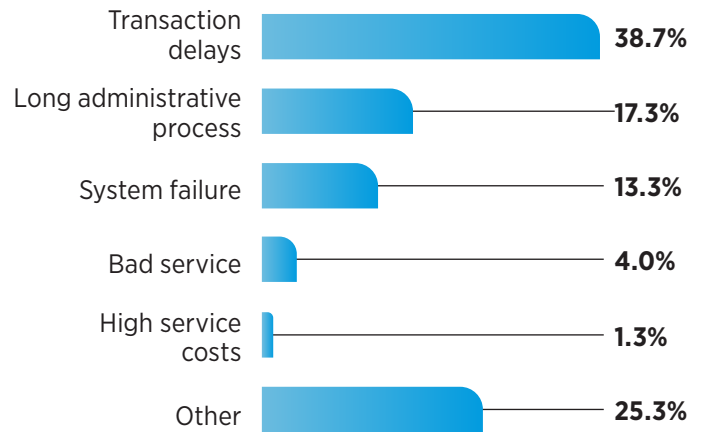
The AFTECH AMS 2022/2023 Report records that 68.5% of respondents who have DRP believe they have less than one-day recovery time to regain normal operations after a disaster. This percentage is an increase from 59% in the AFTECH AMS 2021 Report. This development shows that the quality and effectiveness of DRPs owned by Fintech companies have improved.

Handling of Consumer Complaints

As service providers based on technological innovation, Fintech companies are inseparable from consumer complaints. Fintech consumer complaints in the AFTECH AMS 2022/2023 Report are main obstacles related to transaction delays (38.7%), lengthy administrative processes (17.3%), and system failures (13.3%). The percentage of system failure is less than that in AFTECH AMS 2021 Report, namely 21.0%. This development is indicative of an improvement in the system performed by AFTECH members.

System improvement seems to have contributed to addressing consumer complaints. A total of 14.7% of respondents do not record any complaints from consumers at all, and 80.0% only receive complaints

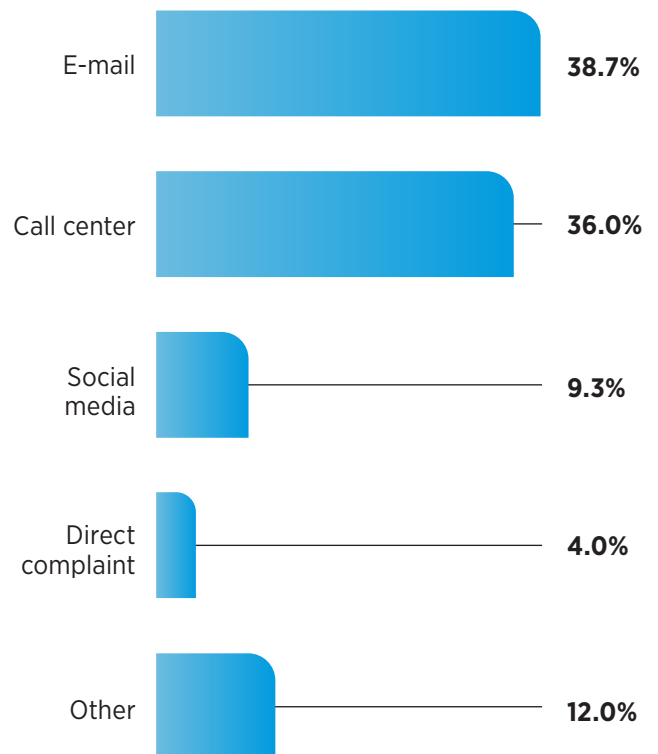
Figure 6.17 Types of Consumer Complaints (n=75)



Sumber: AMS 2022/2023

from 1-20% of consumers. Meanwhile, 2.7% of Fintech companies have a relatively middle-and-high proportion (20-40%) of consumer complaint reports, followed by 1.3% that receive 50-60% and above 60% consumer complaints.

Figure 6.18 Most Used Channels for Consumer Complaints (n=75)



Source: AMS 2022/2023

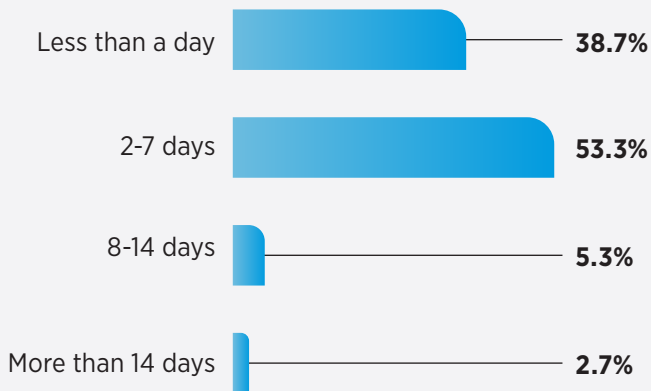
Figure 6.19 Number of Complaints Resolved (n=75)



Source: AMS 2022/2023

Respondents mention that consumers mostly deliver their complaints via e-mail (38.7%), followed by call centers (36.0%), and social media (9.3%). Fintech companies receiving complaints via social media have increased from 3% in the AFTECH AMS 2021 Report, indicative of the vital role that social media has in delivering services to consumers.

Figure 6.20 Average Time to Solve Customer Complaints (n=75)



Source: AMS 2022/2023

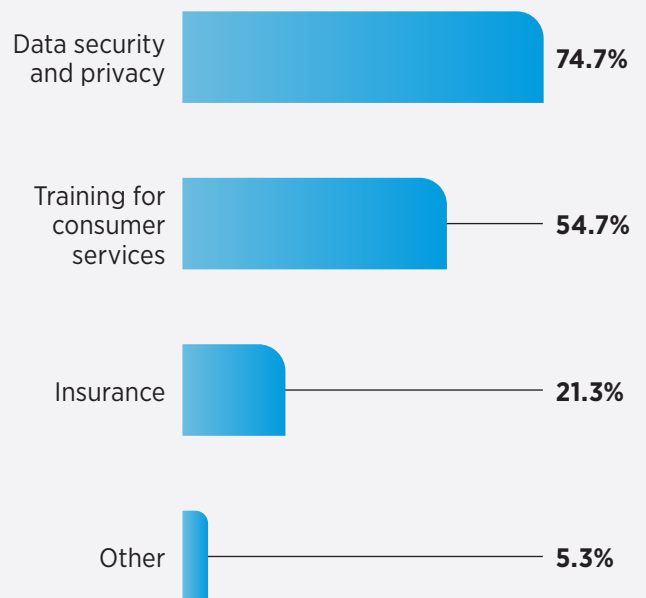
A total of 70.7% of respondents from the AFTECH AMS 2022/2023 Report manage to resolve more than 60% of overall consumer complaints, a stark increase from 31% reported in the AFTECH AMS 2021 Report. This figure shows that Fintech companies have successfully improved the resolution of consumer complaints. However, there remain 13.3% of respondents who admit to being incapable of solving problems proposed by their customers.

As the quality of customer service increases, the capacity and time efficiency of responding to customer complaints improves. A total of 53.3% of respondents admit that they only need 2-7 days to solve customers' problems. Even 38.7% state that it takes them less than a day to address the consumer's problems. Meanwhile, relatively few respondents need between 8-14 days (5.3%) and more than two weeks (2.7%). Companies have invested in staff training, introduced new technology, or streamlined processes to respond to and resolve consumer problems more quickly and effectively.

Consumer protection

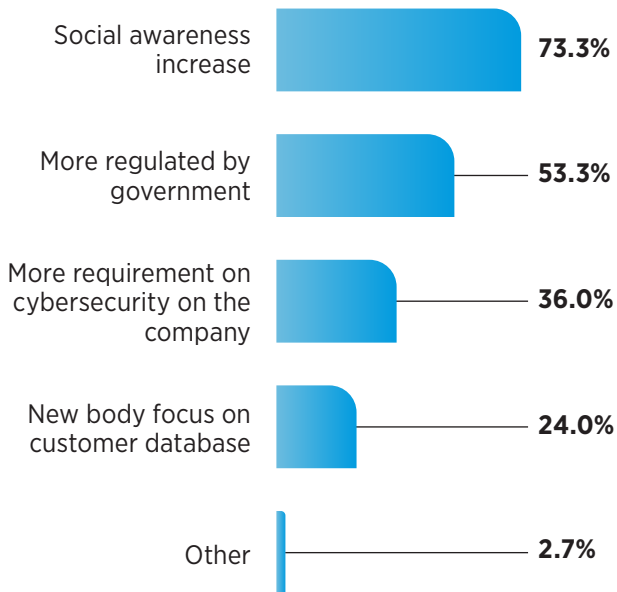
The majority of AFTECH AMS 2022/2023 Report respondents (88.0%) have implemented at least 10 special programs of customer protection in one year. The programs include various initiatives, such as consumer literacy education to help customers use products or services safely and effectively, consumer data protection to prevent misuse of personal information, or warranties and guarantees to protect consumers from financial loss. The implementation of customer protection programs shows that Fintech companies take their responsibility seriously to safeguard consumer interests and build strong trustworthy relationships with consumers.

Figure 6.21 Consumer Protection Program (n=75)



Source: AMS 2022/2023

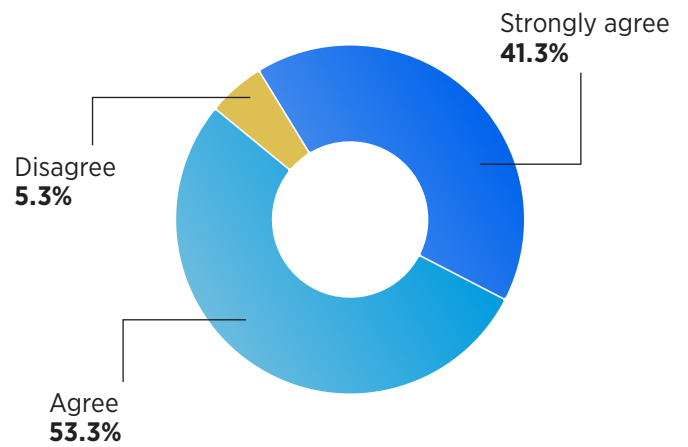
Figure 6.22 Factors Driving Change in Consumer Protection (n=75)



Source: AMS 2022/2023

In accordance with companies' most upheld principles, the most frequently held consumer protection programs are those concerning privacy and data security (74.7%) followed by training for customer service (54.7%).

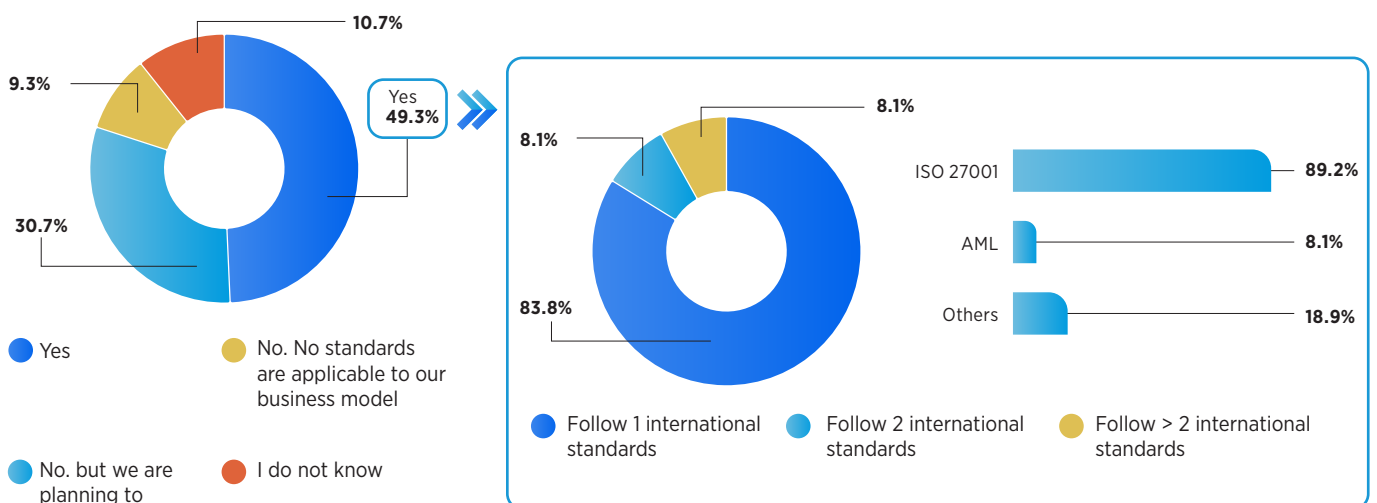
Figure 6.23 The Importance of Following International Standards and Regulations (n=75)



Source: AMS 2022/2023

The future concept of customer protection itself is projected to shift. Respondents believe that the change will be driven by increased social awareness (73.3%), followed by upgraded government regulation (53.3%) and higher cybersecurity requirements (36.0%).

Figure 6.24 Companies Complying with International Standards and Regulations (n=75) and The Types of Standards and Regulations (n= 37)



Source: AMS 2022/2023

Implementation of International Standards and Regulations

The growth of digitalization, as occurs in the financial services sector, is accompanied by higher risks of cybercrime. Therefore, 41.3% of respondents strongly agree, and 53.3% agree on the importance of international standards and regulations.

Based on the AFTECH AMS 2022/2023 Report survey, 49.3% of respondents have implemented international standards and regulations, while 30.7% plan to implement them. Only 9.3% perceive the international standards and regulations as irrelevant to their company’s business model. The majority of respondents who have followed international standards (89.2%) comply with ISO 27001, which is the same percentage as that reported in the previous AFTECH AMS 2021 Report.

Implementation of Codes of Conduct or Industry Standards

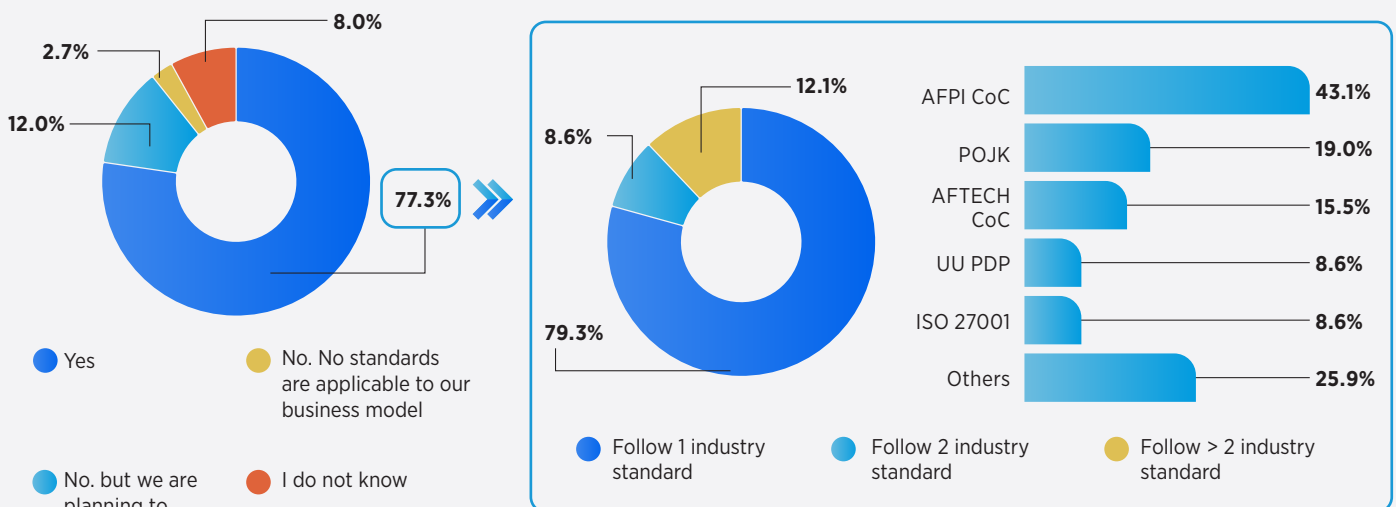
The implementation of a code of conduct or industry standards is an effort to mitigate business risks in the Fintech industry. A total of 77.3% of respondents state that they have complied with the standards,

while 12.0% plan to follow them. Only 2.7% of the respondents consider the code of conduct irrelevant to their company’s business model. The code of conduct complied by the majority of respondents (43.1%) is related to peer-to-peer lending services issued since 2019.

As an association for Fintech providers of Digital Financial Innovation, AFTECH has also issued the Code of Conduct for some Fintech business models of Digital Financial Innovation. A total of 66.7% of respondents who are AFTECH members have followed the AFTECH Code of Conduct, while 17.3% plan to follow it. The AFTECH Code of Conduct most followed by respondents is the Code of Conduct for the Digital Financial Innovation Fintech industry (56.0%) and the Code of Conduct for Financial Technology providers (38.0%). Only 8.0% of respondents consider the AFTECH Code of Conduct irrelevant to the company’s business model, and another 8.0% are unaware of the AFTECH Code of Conduct.

In terms of meeting international standards, 49.3% of respondents state that they have implemented international standards, and 30.7% plan to implement them. The most popular standard is ISO 27001.

Figure 6.25 Companies Complying with International Standards and Regulations (n=75) and The Types of Standards and Regulations (n= 37)

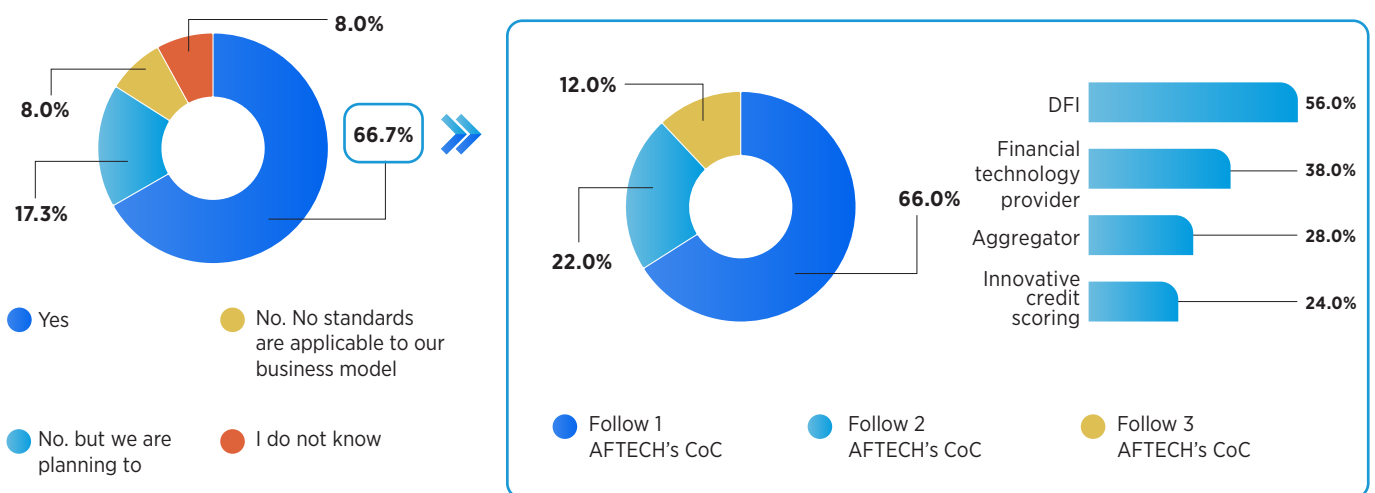


Source: AMS 2022/2023

ISO 27001 is part of the ISO 27000 standard that focuses on information security management. This standard helps organizations understand and manage the security risks they are facing. This involves systematic risk assessment and the design and implementation of a series of security controls or other methods to mitigate the risks. In addition, continuous monitoring and improvement are part of the process to ensure that security risks are managed over time. The implementation of ISO 27001 shows an organization's commitment to maintaining the security and privacy of its customer and business data.

Also, 77.3% of respondents have also implemented the industry code of ethics, and 12.0% plan to implement it in the near future. Industry codes of ethics usually include a set of principles and standards of conduct established by an industry to help guide the behavior and decisions of members of that industry. Implementing a code of ethics can help companies enhance their reputation, promote transparency and encourage ethical behavior among their staff. In the Fintech industry, this code of ethics often encompasses aspects, such as honesty, integrity, customer data privacy, and compliance with applicable laws and regulations.

Figure 6.26 Companies Complying with AFTECH Code of Conduct or Industry Standards (n=75) and The Types of Standards and Regulations (n= 50)



Source: AMS 2022/2023



CHAPTER 7

GAP IN FINTECH ECOSYSTEM



Digital technology brought by the Fintech industry is deemed to have opened doors to the growth of financial inclusion. However, there remain a number of gaps, namely: (1) supporting technology and infrastructure, (2) skills, and (3) gender equality and women's empowerment.

Supporting technology required for product development in Fintech companies includes e-KYC, cloud infrastructure, and digital signature. To meet the need for multiple technologies, Fintech companies still need partnerships with third parties, especially blockchain. While technology procurement in Indonesia is regarded as relatively easy, the gaps in infrastructure and technology remain wide.

Players in Indonesia's Fintech industry also face skill gap issues that can be solved alternatively through in-house training for diverse ranges of skills. The efforts of Fintech companies to consistently provide in-house training stem from their preference for domestic talents over foreign talents.

Fintech companies manage to provide equal opportunities for women to participate actively, either

as users or parts of the companies. Gender diversity and external women's empowerment are considered relevant elements for companies to earn funding.

Availability of Supporting technology

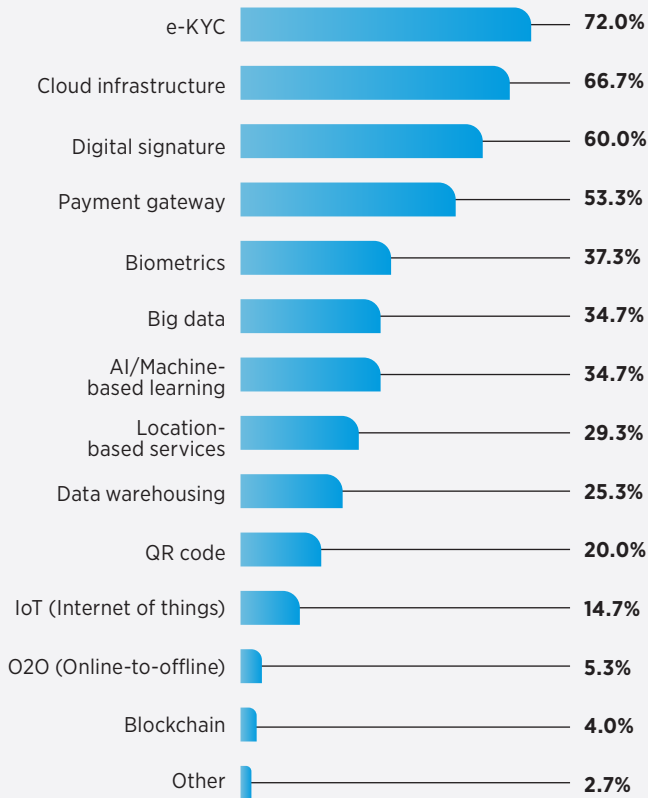
Fintech products need relevant, cutting-edge technology to develop their business landscape. The AMS 2022/2023 respondents state that today's key supporting technologies are E-KYC (72.0%), cloud infrastructure (66.7%), and electronic signature (60.0%).

Each technology has its own level of complexity so procurement from the third party is necessary. While the majority of respondents (46.7%) delegate their in-house talents to create QR code, blockchain is the most outsourced project to the third party (66.7%).

In the local context, the survey shows that the industry perceives local suppliers being suboptimal in providing technology. A total of 64.0% of respondents feel that local technology producers cannot meet all technology demands of the Fintech industry.



Figure 7.1 Most Needed Technology for Product Development (n=75)



Source: AMS 2022/2023

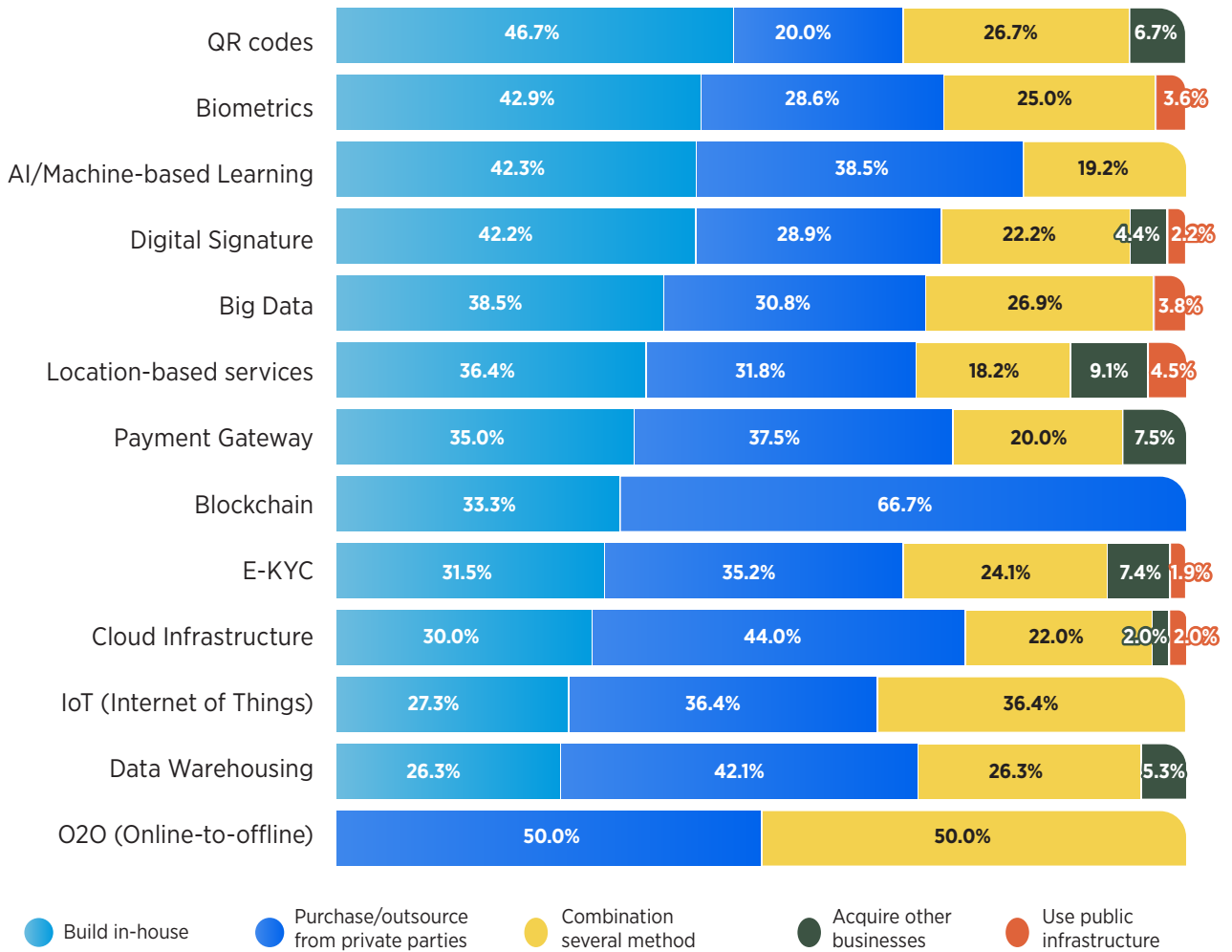
However, 84.0% of respondents feel they do not have difficulties accessing the supporting technology and infrastructure they need. Respondents who answered otherwise mentioned the challenges they face, including regulatory barriers (58.3%), poor basic infrastructure (50.0%), and expensive cost (41.7%).

Comparing this condition with foreign countries, 37.3% of respondents perceive a wide gap in technology and infrastructure between Indonesia and developed countries. However, 57.3% perceive this gap is only at a moderate level.

Technology gaps can directly affect the operational capability and efficiency of the Fintech industry, for example, technology adoption like cloud computing, blockchain, or artificial intelligence. Developed countries with more advanced technology may be able to apply this technology faster and more efficiently, thus giving them competitive benefits in improving productivity, cost efficiency, and innovation capacity.

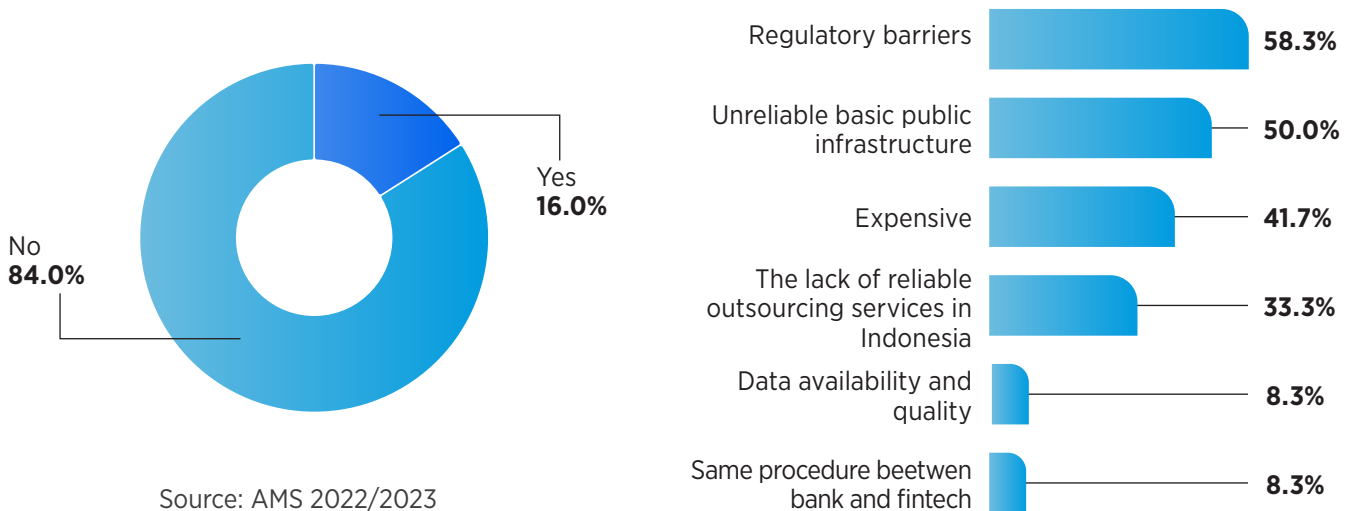
Geographical factors are another concern in technology implementation in Indonesia. Respondents observe a disparity between urban and rural areas. Therefore, the key support needed from the

Figure 7.2 Technology Used and Procurement Method (n=75)



Source: AMS 2022/2023

Figure 7.3 Ease of Access (n=75) and Inhibiting Factors for Access to Technology and Infrastructure (n=12)



Source: AMS 2022/2023

Table 7.1 Needs for Government Support (n=75)

Infrastructure (49%)	Regulation (35%)	Education (12%)
<ul style="list-style-type: none"> • Investment in Infrastructure: Investment in infrastructure, Research and development (R&D) funding, and partnerships • Internet Speed: Internet speed in our country is far behind other countries • Internet for rural: It would be great if Government can build a network infrastructure in rural areas that can be used by industries. • New Technology & Innovation: Support the Improvement of new technology development to move forward 	<ul style="list-style-type: none"> • Incentive: more effectiveness in using government funds for Small and medium entities • Transparency: Priority, Transparency, Commitment • Clear Policies: The government must formulate clear policies and regulations to support infrastructure development. This policy should cover permits, environmental approvals, and spatial planning related to infrastructure projects • Financial Regulation: Improve financial regulation to support all ecosystem actors 	<ul style="list-style-type: none"> • Financial Literacy: Encourage more education to promote financial literacy • Competence Workforce: Improving human resources • Capacity building: The government can increase the capacity of institutions and human resources involved in infrastructure development.
		Others (3%)
		<ul style="list-style-type: none"> • Data Protection: Guidelines and guidance on maneuvering the PDP law • Counseling: Provide real solutions such as direct counseling with practices related to this

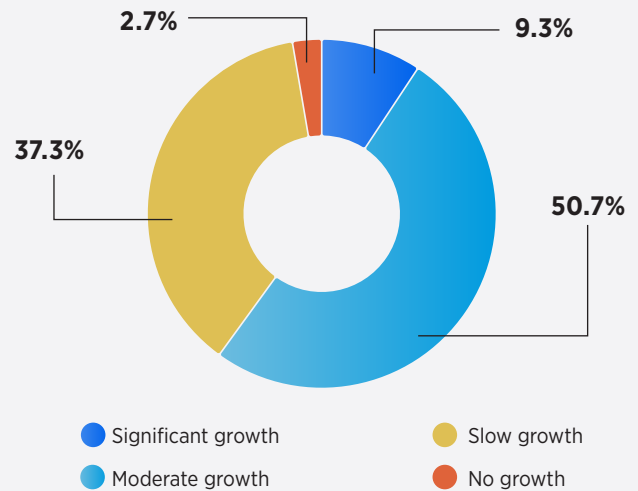
Source: AMS 2022/2023

government is infrastructure improvement (49%), followed by regulatory relaxation (35%), education (12%), and other factors (3%). Infrastructure gaps can affect the accessibility and distribution of Fintech services. Poor infrastructure, such as limited or low internet connection, can impede Fintech companies' provision of services to a wider range of areas, particularly rural or remote areas. Consequently, this condition may withhold market growth and potential revenue for Fintech companies and affect financial inclusion, which is one of the main goals of the Fintech industry.

Closing this gap would need collaborative measures between the Government and the Fintech industry that include investing in technology and infrastructure development, and creating a conducive regulatory environment that supports innovation and growth in the Fintech industry. In addition, promoting partnerships and collaboration between local and international Fintech companies can be an effective strategy to narrow the technology and infrastructure gaps.

The respondents expect the government to develop an infrastructure network in rural areas to be used by industry. A total of 50.7% of respondents are sure of sufficient technology development in rural areas

Figure 7.4 Development of Rural Area Technology (n=75)



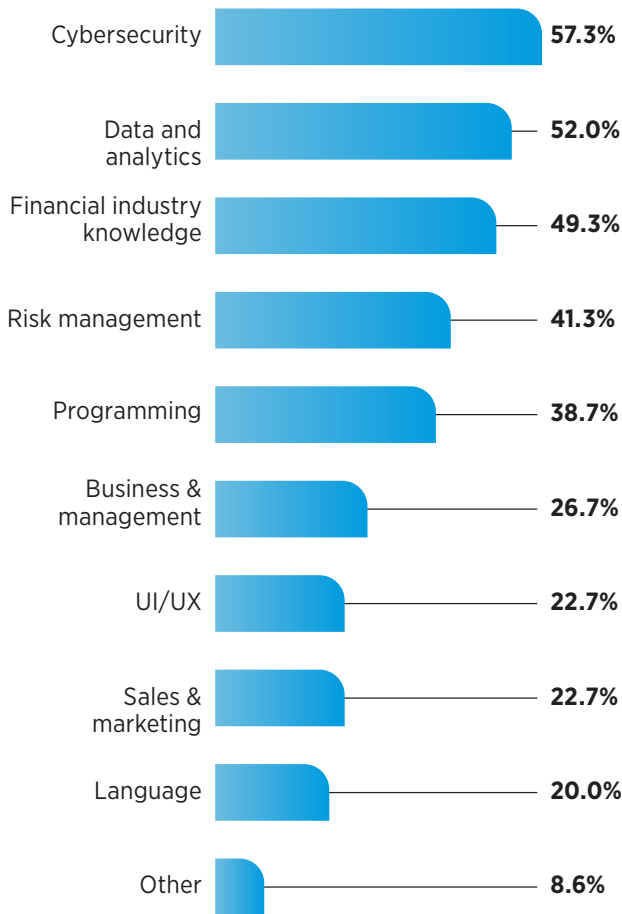
Source: AMS 2022/2023

in the future. However, only 9.3% perceive that the development will be significant.

Talent Gap

AFTECH AMS 2022/2023 Report respondents perceive a gap in several key talents in the Fintech industry, particularly in cyber security (57.3%), data analysis (52.0%), and knowledge of the financial industry (49.3%). However, programming skill is no longer

Figure 7.5 Key Skills Gaps in the Current Talent Landscape (n=75)



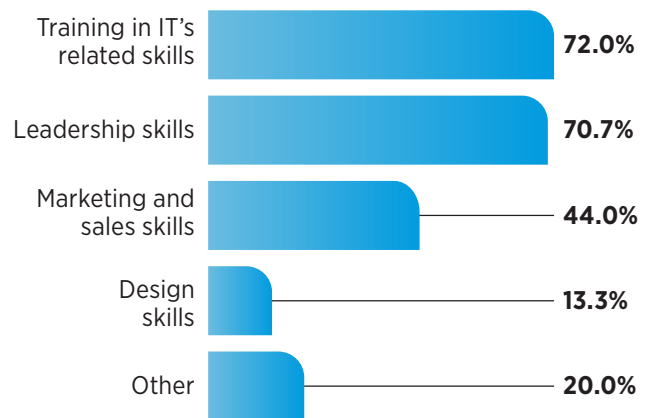
Source: AMS 2022/2023

perceived as lacking. In other words, it is not difficult to find programming experts in the current landscape of digital talent.

In general, respondents rely on in-house training (58.7%) to address the talent gap. The other efforts include recruiting prospective employees from similar companies (54.7%) or other companies (48.0%).

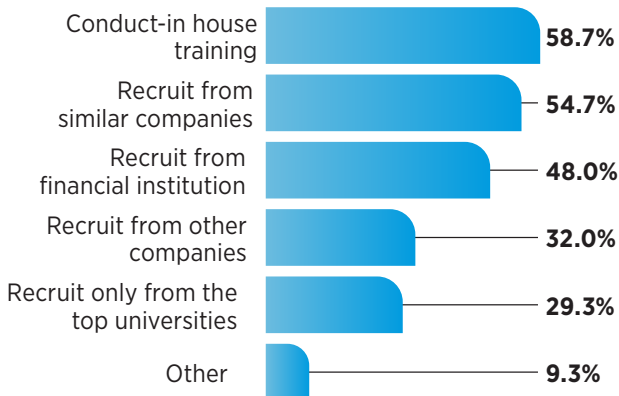
The in-house training program provided by companies is usually related to IT skills (72.0%) and leadership (70.7%). Leadership training has increased dramatically from the previous period (58%). It shows that the respondents gain more interest in regenerative leadership within their companies.

Figure 7.7 Type of In-House Training Given (n=75)



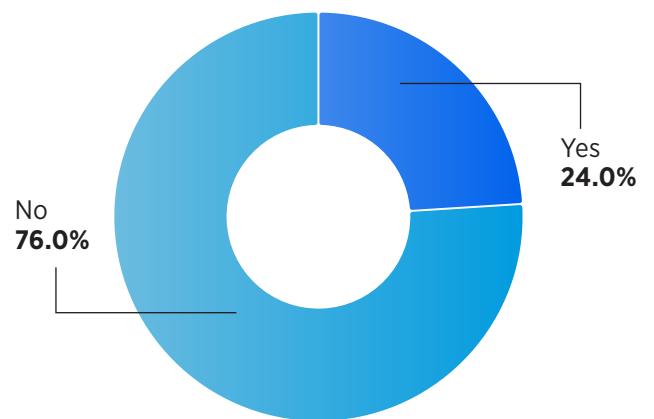
Source: AMS 2022/2023

Figure 7.6 Respondents' Efforts to Deal with the Talent Gap (n=75)



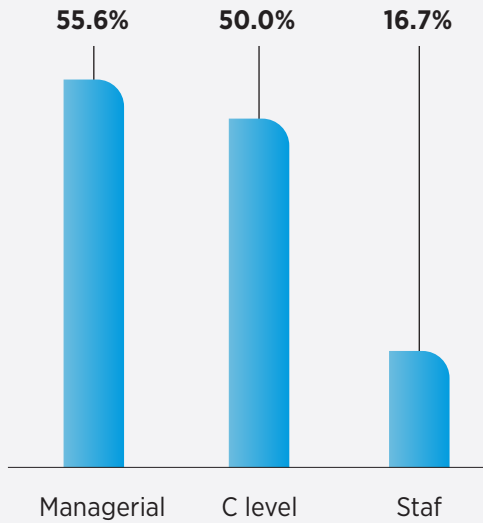
Source: AMS 2022/2023

Figure 7.8 Hiring Overseas Talents in Filling the Talent Gap (n=75)



Source: AMS 2022/2023

Figure 7.9 Level of Overseas Talent Position (n=18)

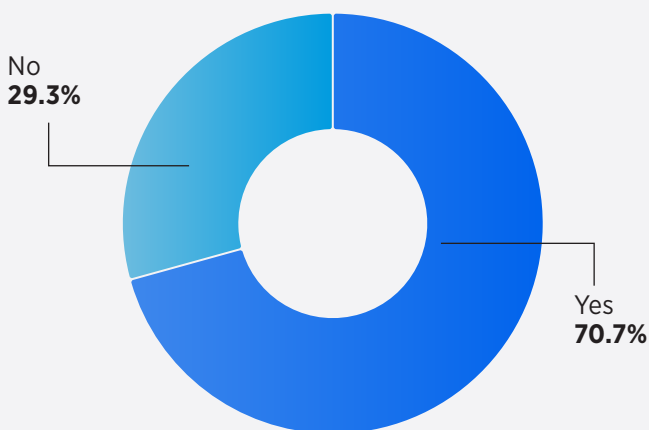


Source: AMS 2022/2023

Referring to the report Global Talent Crunch, while India is projected to have a surplus of digital skill experts by over 200 million people in 2030, Indonesia is predicted to lack 18 million skill experts²⁰. It shows the significant relevance of President Joko Widodo’s program to produce nine million digital talents in 2030 to close the talent gap.

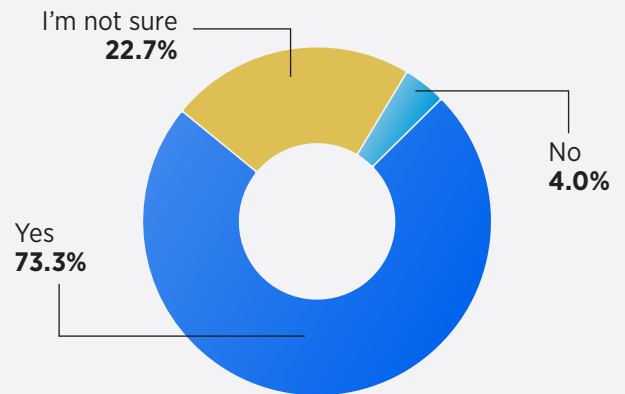
Despite the predicted deficits of digital talent, 76.0% of respondents decided not to hire foreign talent to fill this gap.

Figure 7.10 Digital Talent Gap is Shrinking in the Future (n=75)



Source: AMS 2022/2023

Figure 7.11 Domestic Talent remains Preferred (n=75)



However, some respondents still need foreign talents, who generally sit in the managerial position (55.6%) and C-level position (50.0%).

Indonesia still has immense opportunities to catch up with digital lagging. A total of 70.7% of respondents agree that the gap is narrower now.

Nevertheless, the majority of AFTECH members (73.3%) prefer hiring local talents. They believe that local talents have a better understanding of the local business landscape and an easier coordination process.

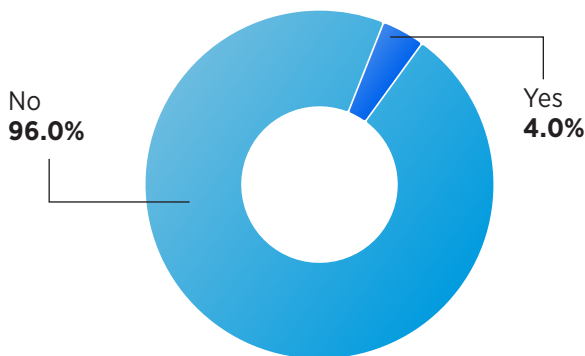
Gender equality dan Women’s empowerment

Technology-involved industries, such as Fintech, are very relevant to the efforts to provide opportunities to all communities, including women. Fintech development is expected to open more opportunities for women’s empowerment, either externally (users) or internally (within the companies).

In external terms, 96.0% of respondents state they do not have a gender-specific program for client retention. It shows equal treatment to all Fintech users without gender discrimination.

20 Future of Work: The Global Talent Crunch Country Perspective: Indonesia. Korn Ferry. Diakses pada Juni 2023

Figure 7.12 User Retention Efforts Based on Gender (N = 75)

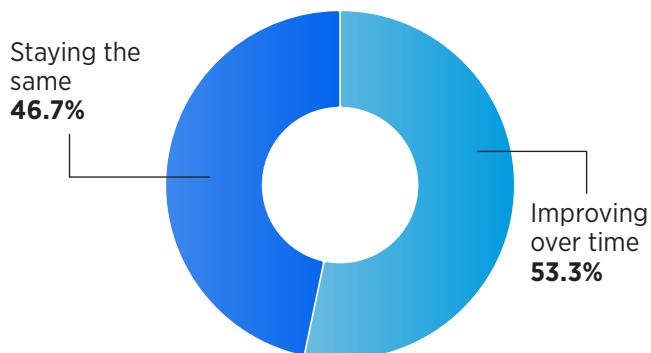


Source: AMS 2022/2023

The Ministry of Women’s Empowerment and Child Protection (KemenPPPA) found that women are vulnerable to violence, particularly illegal Fintech access. KemenPPPA argues that all stakeholders should play a role in providing product services and customer grievances that uphold gender perspectives²¹.

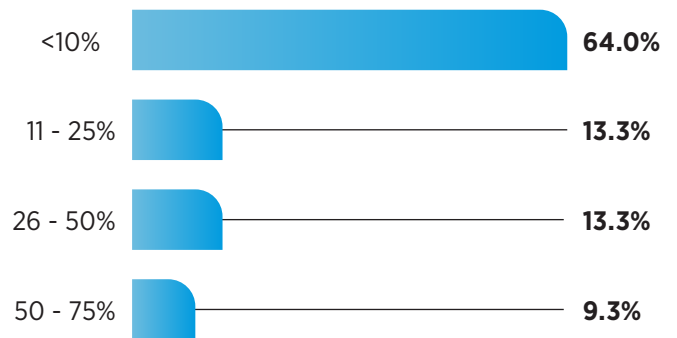
Looking inwards, 53.3% of respondents mention that gender diversity in their companies is improving from time to time. It means that many women are eager to participate and, simultaneously, absorbed in the Fintech industry.

Figure 7.13 Conditions of Companies Gender Diversity (n=75)



Source: AMS 2022/2023

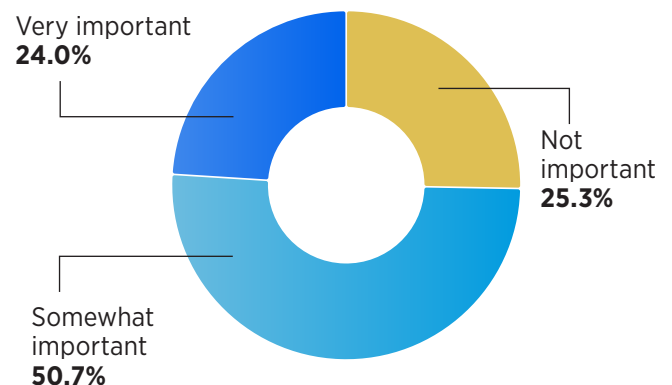
Figure 7.14 Proportion of Female Directors (n=75)



Source: AMS 2022/2023

The opportunity for women to earn career promotions to a higher level is widely open. Compared to the previous period, where only 19% of respondents had 11-50% women on their board of directors, it is now 26.6%. The Fintech industry places more importance on competence than gender-based evaluation in selecting employees for strategic positions.

Figure 7.15 The importance of Gender Diversity for Investors (n=75)



Source: AMS 2022/2023

In addition to embodying the meaning of opportunities in the Fintech industry, gender equality significantly affects funding. A total of 24.0% of respondents state that prospective investors perceive gender equality as very important, and 50.7% believe in the importance of considering gender diversity in business before providing investment funds.

21 Diskusi Publik dan Diseminasi Hasil Penelitian: Perempuan, Risiko, dan Perlindungan Konsumen dalam Platform Pinjaman Online di Indonesia. Siaran Pers Nomor: B-126/SETMEN/HM.02.04/3/2023



ENGINEERING

Efficiency
Technical analysis

Innovation
Technological
Environmental
Research
Material
Technical

CHAPTER 8

FINTECH FOR

FINANCIAL

LITERACY AND

FINANCIAL

INCLUSION

Financial inclusion for everyone is one of 12 Fintech principles proposed by the International Monetary Fund (IMF) and the World Bank in 2018²². Fintech is considered capable of improving financial inclusion with relatively easier access compared to conventional financial services.

OJK has also issued regulations for the Financial Services Providers (PUJK) to accomplish the target of 90% Financial Literacy Index in 2024²³. Through this regulation, Fintech and its technology are expected to improve financial literacy and financial inclusion in Indonesia.

Despite this, efforts to encourage financial inclusion through Fintech is not a risk-free measure, particularly when considering security and effectiveness. Accordingly, all parties engaged in the ecosystem of digital economy and Fintech need to collaborate to create an efficient approach.

Discussions in this chapter will focus on: (1) The current financial literacy and financial inclusion and the need

for the government support, (2) Fintech initiatives to advocate financial literacy and financial inclusion, and (3) Expectations placed upon the associations, particularly AFTECH.

The financial literacy and financial inclusion indices released by OJK have seen an improvement year to year. On the other hand, the Fintech industry that was originally expected as one of the driving forces to boost both indices is still facing multiple challenges, particularly concerning regulations, infrastructure, and education to the community.

Education is significantly relevant with the results of the National Financial Literacy and Financial Inclusion Survey released by OJK in 2022. The survey showed that Indonesia's financial literacy index was only 49.7%, a stark difference from the financial inclusion index that reached 85.1%. Accordingly, the Fintech industry still needs government's support to mitigate these challenges.

22 IMF Policy Paper - The Bali Fintech Agenda, 2018

23 POJK Number 3 of 2023 on Increasing Financial Literacy and Financial Inclusion in the Financial Services Sector for Consumers and Communities.



In the in-depth interview sessions, our respondents stated that the low level of financial literacy has posed a specific challenge. It is evident that having access to financial services without sufficient knowledge of how to use them will become a core issue in the community, such as the escalating investment scams and illegal online lending platforms.

Financial literacy and financial inclusion have attracted the attention of Fintech providers. AFTECH AMS 2022/2023 Report shows that 88.0% of the respondents conducted multiple initiatives to encourage the growth of financial inclusion, and 82.7% of them participated in the initiatives to improve public financial literacy. The most common initiative done by the respondents was partnership with other financial institutions (52.0%). Similarly, to increase financial literacy, most of the respondents (72.2%) also collaborated with financial institutions. Efforts to form partnerships included partaking in the government projects, although only 9.3% of the respondents admitted their participation. A total of 64.0% respondents have engaged in education programs for the community through diverse activities and social media platforms.

Nevertheless, efforts to provide products for unbanked and underbanked people have declined from 73% in AFTECH AMS 2021 Report to 66.7% in AFTECH AMS 2022/2023 Report.

AFTECH is among many associations recognized by the regulator as a forum for Fintech companies. As the members of AFTECH, 70.7% of the respondents expect AFTECH to play a more critical role in handling issues with external parties rather than boosting internal development (36.0%).

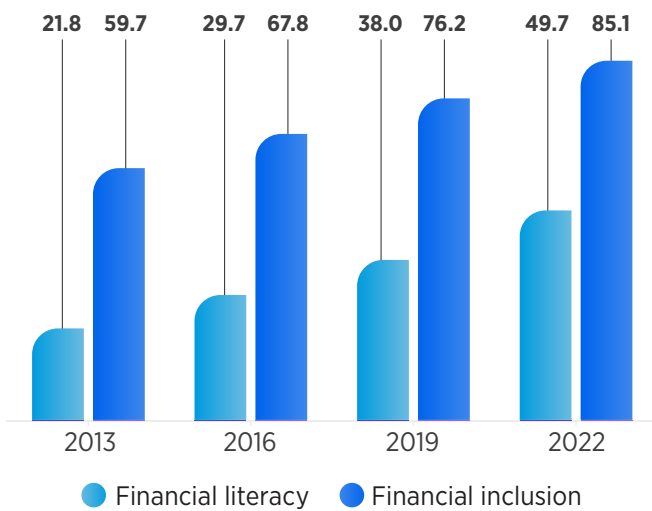
Concerning the external parties, the majority of the respondents (77.4%) expect to see AFTECH prioritize mitigation on issues with the government/regulator/policymakers instead of the general public (22.6%) and other parties (7.5%).

However, AFTECH is expected to internally provide constructive activities for its members, such as creating space for discussion and mentoring, maintaining conducive organizational environment, and encouraging collaborative programs among its members.

The Current Financial Literacy and Financial Inclusion and The Need for Government Support

The Financial Literacy and Financial Inclusion Indices released by OJK in 2022 was higher from that of 2019. It increased significantly from 38% in 2019 to 49.7% in 2022. Meanwhile, the financial inclusion index of 2022 reached 85.1%, rising from 76.2% in 2019.

Figure 8.1 Financial Literacy and Financial Inclusion Indices in Indonesia (2013-2022)



Source: 2022 National Financial Literacy and Financial Inclusion Survey - OJK (Processed by Databoks)

The Fintech sector carries the potential to improve financial literacy and financial inclusion in the community. However, the results of AFTECH AMS 2022/2023 Report highlighted the respondents' opinion that regulations remained the existing challenges in advocating financial literacy and financial inclusion through Fintech. The government has managed to increase public trust in Fintech and its financial services through Law Number 4 of 2023 on the Development and Strengthening of Financial Sector and OJK Regulation Number 3 of 2023 on Increasing Financial literacy and financial inclusion in the Financial Service Sector for Consumers and the Community. In addition, the government has implemented the regulatory sandbox, an evaluation mechanism used by OJK on Fintech ecosystems before implementing the policies. The purpose of regulatory sandbox is to create policies using a dynamic approach that conforms to the consumers' needs.

In addition to regulations, another need proposed by the respondents is the support for infrastructure development to reach out to more customers. This need is considerably relevant with the target of improving public financial literacy and financial inclusion, considering Indonesia's geographical factors as an archipelago. Access, stability, and quality of internet connection as the primary need of the Fintech industry is expected to be more equitable across Indonesia.

Compared to financial inclusion, the financial literacy index was relatively lower. Therefore, the respondents expected that the Government would support the improvement of education and mentoring to the community. A more massive reach out of the government education program to the community is expected to bridge the government interest and the needs of Fintech providers.

Fintech Initiatives in Advocating Financial Literacy and Financial Inclusion

Fintech companies have tried to carry out diverse initiatives to boost financial literacy and financial inclusion. Regarding financial literacy, 82.7% of the respondents mentioned that they conducted a number of initiatives. A total of 62.9% of the respondents engaged in financial literacy initiatives established partnership with financial institutions, such as banks. For financial inclusion, 88.0% of the respondents were engaged in several initiatives, including 72.7% who partnered with financial institutions like banks.

Advocating financial literacy and financial inclusion can be carried out through partnership with the government by participating in relevant projects. Based on the survey results, 9.3% of the respondents participated in the government projects. Some Fintech joined different programs, such as distributing the Pre-Employment Card, Covid-19 social assistance, and Wage Subsidies; using e-sign for taxpayer documents; providing e-KYC services; implementing e-procurement for government goods and services; and advocating Proud of Indonesian Products (BBI) campaign.

Figure 8.2 Financial Literacy Initiatives (n=75)



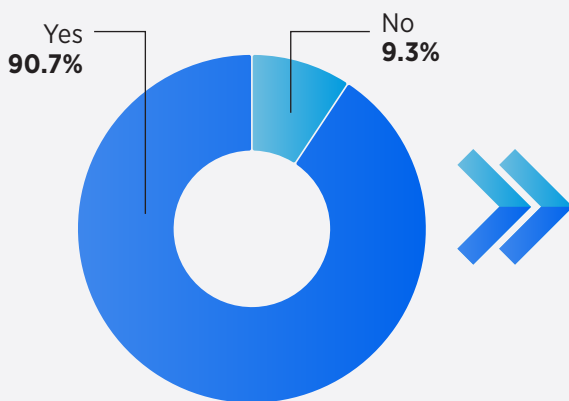
Source: AMS 2022/2023

Figure 8.3 Financial Inclusion Initiatives (n=75)



Source: AMS 2022/2023

Figure 8.4 Participations in the Government project (n=75) and the Projects (n=7)



Source: AMS 2022/2023

- 1 Distribution of the Pre-employment Card - Coordinating Ministry of Economic Affairs of the Republic of Indonesia
- 2 BBI
- 3 Procurement of electronic service - know your customer (E-KYC) - PT Antam Tbk (BUMN/State Enterprise)
- 4 Partnership with DJP Regarding digital certificate for taxpayers.
- 5 Mass Transportation - Ministry of Transportation
- 6 Ministry of Cooperation and Small and Medium Enterprises/ *KemenkopUKM RI*, SMESCO
- 7 eProcurement based financing with LKPP
- 8 Distribution of Bansos/Social Assistance for COVID-19 - Ministry of Social Affairs/*Kementerian Sosial RI*
- 9 Distribution of Bantuan Subsidi Upah/Wage Subsidies - Ministry of Manpower/*Kementerian Ketenagakerjaan RI*

Pre-employment Card Boosts Financial Inclusion

The Pre-employment Card (*Kartu Prakerja*) is one of the government programs aimed to improve public competence in facing digital transformation and the Covid-19 pandemic.

Based on the results of an internal performance evaluation survey, the distribution mechanism of aid and assistance through bank account and e-wallet has facilitated the acceleration of financial inclusion.

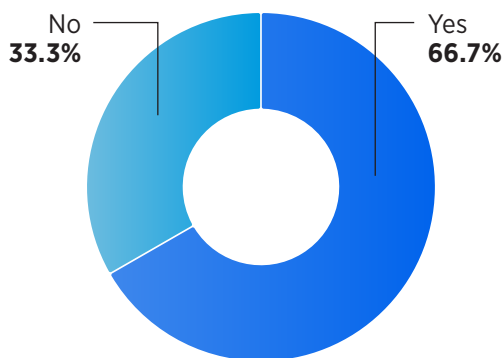
Since the program launched in 2020 up to December 2022, 16 million people received incentives via bank account and e-wallet. From this figure, 29% were new users because they never had any bank account or e-wallet before participating in the Pre-employment Card Program.

Evaluations performed by the external party reported the same results that the Pre-employment Card policy has improved financial inclusion among the community. In their report, JPAL stated that the Pre-employment Card increased e-wallet ownership up to 53%.

Source: Pre-Employment Card Program Evaluation Survey

Although financial literacy education and mentoring for the community can be facilitated by the Government, AFTECH AMS 2022/2023 Report found that 64.0% of the respondents have carried out their own education program independently. Some of these independent education programs were conducted by Fintech providers, such as roadshow/workshops, the “Financial Inclusion Month of 2022” event, and the use of social media platforms.

Figure 8.5 Special Products for Unbanked and Underbanked People (n=75)



Source: AMS 2022/2023

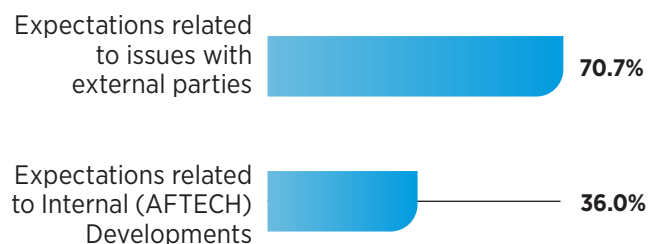
The other strategy conducted by the respondents to improve financial literacy and financial inclusion was by providing products or services dedicated to people categorized in the unbanked and underbanked segments. Nevertheless, based on the results of the AFTECH AMS 2022/2023 Report, only 66.7% of the respondents actually targeted these community segments, indicating a decline from the previous period (73.0%).

Expectation for the Associations

Law Number 4 of 2023 on the Financial Sector Development and Strengthening requires the providers of Fintech financial services to join respective associations. AFTECH, one of the associations that is officially appointed by OJK as the Association of the Providers of Digital Finance Innovation, is a forum for its members to discuss and collaborate to strengthen the national Fintech industry.

AFTECH members hoped that by signing up to the association that upholds strategic roles, their visions to achieve an advanced Fintech industry can be actualized through either external or internal approaches. Approximately 70.7% of the respondents expected more of external role of the association in facing issues related to stakeholders rather than promoting internal development, which was advocated by only 36.0% of the respondents

Figure 8.6 Expectation for AFTECH to Develop Fintech Industry (n=75)



Source: AMS 2022/2023

All types of industries, including Fintech, must have faced multiple issues with stakeholders. AFTECH AMS 2022/2023 Report showed that the Fintech providers generally have issues with external parties, including the Government (77%), public (23%), and others (conventional financial service providers and non-government organizations or NGO (7%). The respondents hope to see the spirit of increasing the competitiveness of Indonesian Fintech that can be accomplished with the role of associations like AFTECH to mitigate the issues faced by Fintech providers with external parties.

The majority of the AFTECH AMS 2022/2023 Report respondents perceived that issues with external parties were more important compared to the internal issues of the association. However, they also expected the internal role of AFTECH to carry out two particular matters: (1) Carry our attempts or activities that contribute added values to its members, such as education of regulation, research of market conditions, fostering connection with investors or business partners, and guidance for new members; and (2) Maintain a healthy, conducive, and collaborative organizational environment among its members through forum and communication platforms.

Figure 8.7 Relevant Stakeholders in Fintech and the Expected Roles of AFTECH (n=75)

Issues related to the Government/ Regulator/Polycymakers (77%)	Issues related to the Community (23%)	Issues related to the other parties (Conventional financial service providers, NGO) -(7%)
Improve communication and build a bridge between players in Fintech industry and the government/regulator/policymakers: <ul style="list-style-type: none"> • Policies that are increasingly in line with the current needs and conditions of Fintech industry. • Feedback mechanism of the current policies that include give suggestions, get explanation/clarification, discuss the needs and challenges of the industry. 	Actively advocate the growth of financial literacy, and public awareness and knowledge of Fintech products.	Collaborate with relevant parties to increase financial literacy and public access to its financial products.
Encourage and advocate the government of equitable and accelerated development of internet network infrastructure as the backbone of Fintech industry.	Mediate conflicts between Fintech industry providers and the consumers	

Source: AMS 2022/2023

CHAPTER 9

GENDER ANALYSIS

A. Staff Gender Diversity

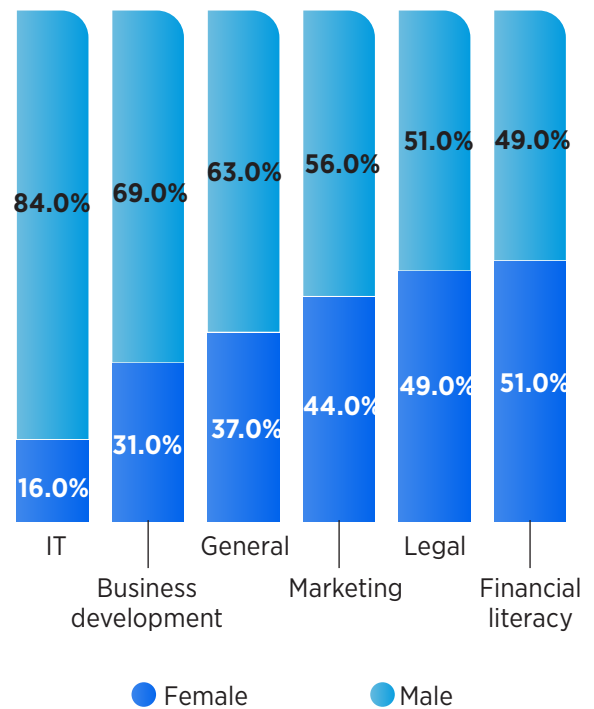
Women's Representation

Among the 75 companies that participated in the AFTECH Annual Member Survey 2022/2023 Report, an average of 37% of staff are women. 61% say they have between 26-50% female employees in all positions, representing an increase from 53% of respondents to AFTECH Annual Member Survey 2021 Report.

Functional business areas with the largest concentration of women employees are Financial Literacy, with slightly more women than men overall and Legal which nears gender parity. Women lag slightly behind in Marketing, where 66% of team members are men. Women are underrepresented in IT and Business Development.

Breaking down respondents by company business type, the segment with the lowest representation is wealth management where women comprise only 15% of total staff.

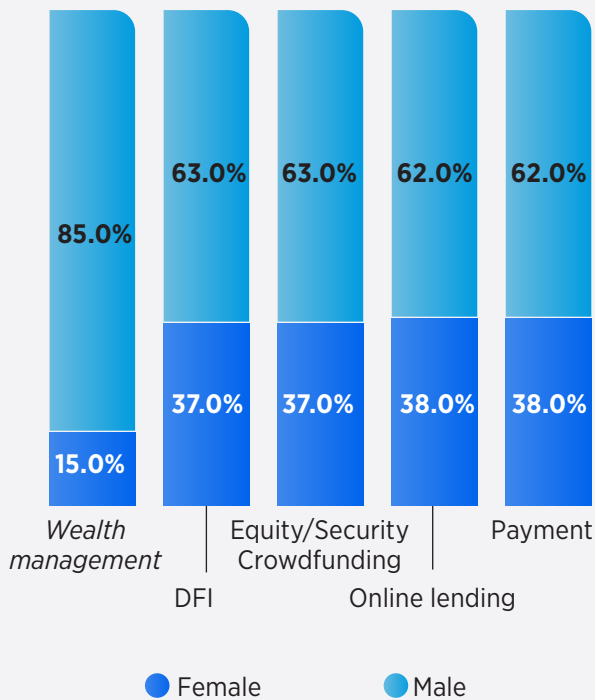
Figure 9.1 Comparison of Male and Female Employees (n=75)



Source: AMS 2022/2023



Figure 9.2 Comparison of Male and Female Employees Based on Clusters (n=75)



Source: AMS 2022/2023

Women in Leadership

According to research conducted by the International Monetary Fund (IMF) women represent less than 10 percent of leadership of Fintech firms globally, at the level of founders and board directors.²⁴ The sample of data from AFTECH members is consistent with this finding. 67% of companies reported having less than 10% women on their board of directors. Digital Payment companies report the least gender representative boards, followed by Digital Financial Innovation (DFI) and Online Lending wherein nearly two-thirds report less than 10% women on their boards.

Only 13% of companies in the survey (n=9) have a woman CEO or equivalent position. More promising, 21% of companies report that at least one of their founders is a woman.

Institutional Policy

The majority of AFTECH AMS 2022/2023 Report respondents are following best practice when it comes to anti-discrimination and sexual harassment

24 <https://www.imf.org/en/Publications/WP/Issues/2022/07/15/Women-in-Fintech-As-Leaders-and-Users-520862>

policies in the workplace. 91% of Fintechs have an equal opportunity or anti-discrimination policy in place and more than 77% report having an anti-sexual harassment policy. Having a sexual harassment policy in the employee handbook and onboarding materials is a minimum requirement for ensuring a safe working environment for all employees and also ensures that companies are in compliance with Ministry of Manpower Decree No 88 Year 2023 regarding Guidelines for the Prevention and Handling of Sexual Violence in the Workplace, which includes the new obligation to establish a task force for the prevention and handling of sexual violence in the workplace, and provide compensation to victims.

Nearly 1-in-4 of the companies surveyed have a recruiting strategy to target women employees. DFIs and Online Lending are less likely than average to have a recruiting strategy to target women employees. This is an area for improvement, as intentional targeting is a critical step towards ensuring parity in recruitment and hiring processes.

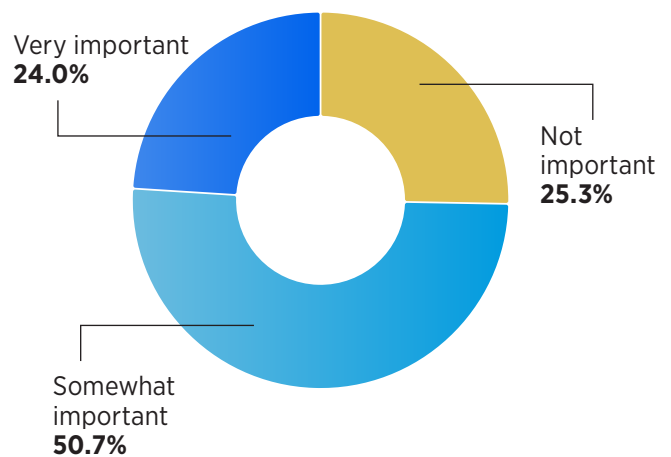
While Indonesian law guarantees female workers 13 weeks of paid maternity leave, many survey respondents also provide paternity leave benefits. The new maternal and child welfare bill contains provisions to raise maternity leave to 6 months and grant paternity leave to fathers for a maximum of 40 days after the birth of a child. Those AFTECH members already offering paternity leave, such as Payment Companies, 64% of which offer paternity leave, and DFIs, over 56% of which offer paternity leave, are ahead of the game. From the sample, 9% of companies report offering gender neutral parental leave. This is a best practice for companies seeking to enhance gender inclusion and equity and can be used to further encourage men to take parental leave, thereby normalizing the sharing of care responsibilities.

Importance of Gender Diversity and Gender Lens Investing

Nearly 51% of survey respondents believe that gender diversity is somewhat important to current and potential investors. Despite the growth in gender lens investing strategies, 25% believe that investors

are not prioritizing gender diversity. According to research from Project Sage, the number of gender lens funds has increased by nearly 50% since 2020 and 255% since 2017. The 206 funds that provided data to Project Sage 4.0 have raised a total of 6 billion in capital and have set fundraising targets of 13.2 billion.²⁵

Figure 9.3 Gender Diversity Importance to Investors or Potential Investors (n=75)



Source: AMS 2022/2023

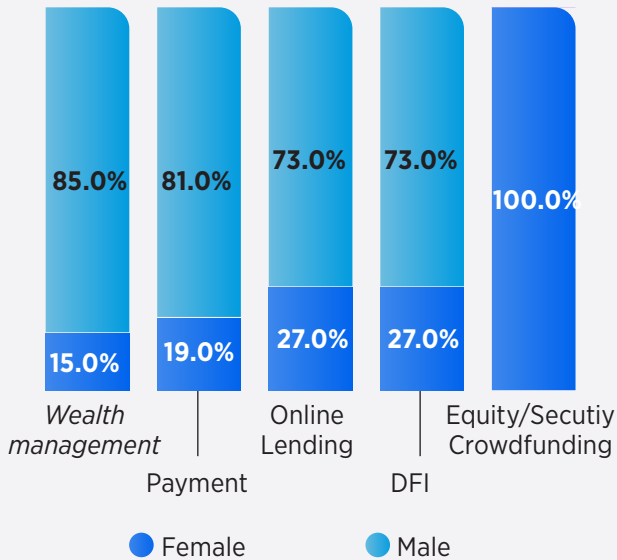
Trends Over Time

Slightly more than half of respondents say that gender diversity in their company is improving over time. In nearly 60% of DFIs and 40% of Online Lending, respondents indicate that gender diversity is improving. The presence of more board gender diversity does not appear correlated to increasing gender diversity among Fintech staff overall.

While women represent a little over one third of Fintech employees overall in the sample, men continue to be promoted at a higher rate. Lower overall representation of women coupled with lower promotion rates can slow progress towards gender parity over time.

25 <https://www.wharton.upenn.edu/story/new-gender-lens-investing-research-insights-from-project-sage-4-0/>

Figure 9.4 Comparison of Promotion of Male and Female Employees Based on Clusters (n=75)



Source: AMS 2022/2023

B. Serving the Women’s Market

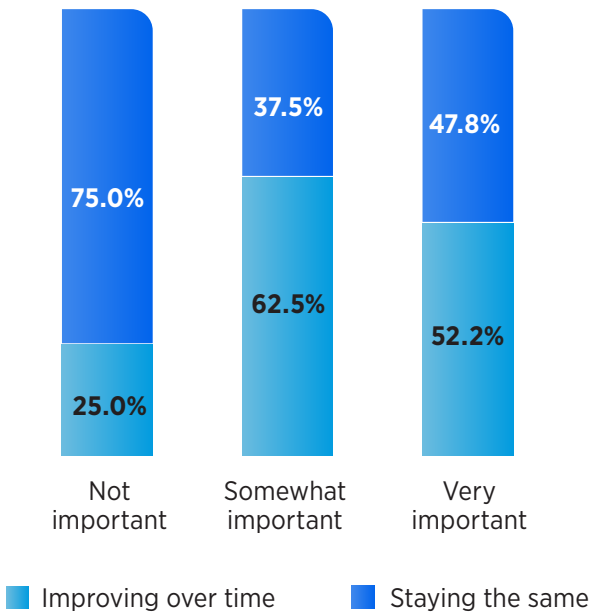
Serving the Women’s Market

In the sample, nearly two thirds of the Fintech companies who directly serve end users have at least 25% women customers. Among these companies, those that see more value in serving women tend to also have greater gender diversity inside their organization. For example, nearly half of the Fintech companies who reported that serving women clients is ‘Somewhat important’ or ‘Very important’, also report that gender diversity within their company is improving over time.

Companies with a woman founder or co-founder may also more likely to prioritize serving the women’s market.

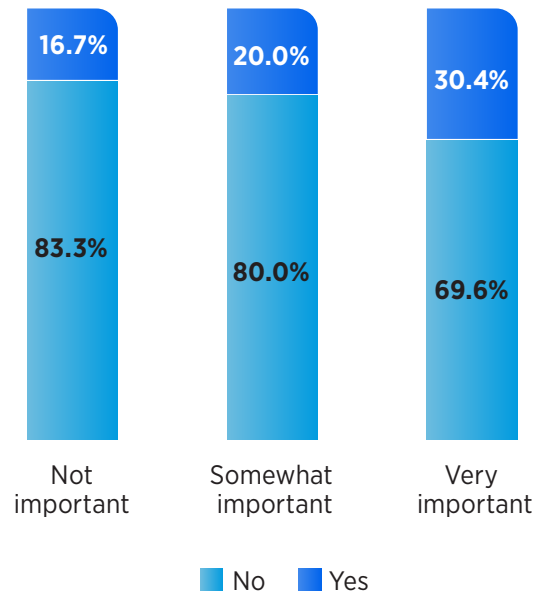


Figure 9.5 The Importance of Targeting Women Customers (n=75)



Source: AMS 2022/2023

Figure 9.6 The Importance of Targeting Female Users by Companies with Female Founders (n=75)



Source: AMS 2022/2023

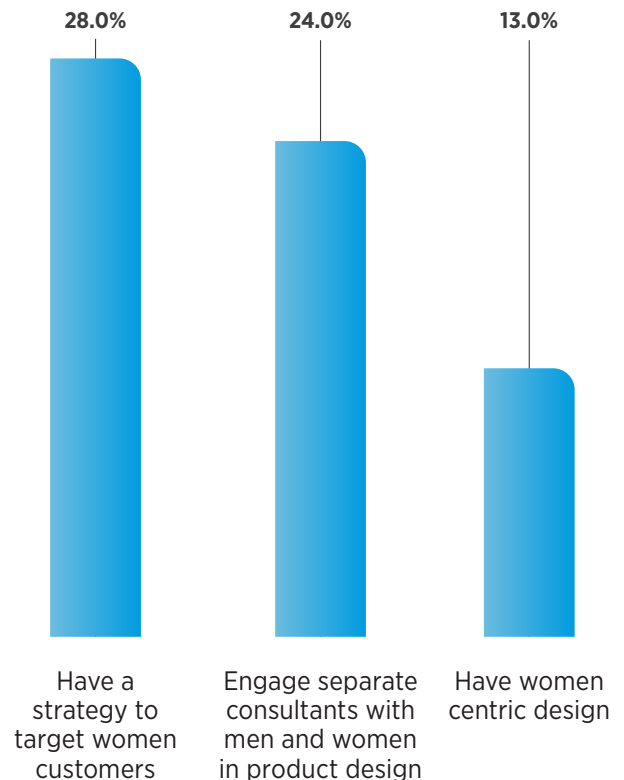
Strategy and Targeted Approach to Serving Women

AFTECH AMS 2022/2023 Report shows AFTECH members with a strategy to target women are poised to take advantage of a large and untapped market opportunity. 28% of survey respondents have a strategy to target women customers and only 24% include separate consultations with men and women in their product design process to understand differences in behavior, needs and preferences. Finally, only 13% provide products, services or channels that are designed with women specifically in mind.

Customer Segmentation

As with all clients, women cannot be viewed as a homogenous group. Therefore, the survey also asked Fintechs to indicate what additional segmentation, if any, they use when seeking to understand the needs of and design financial products and services for their clients. 29% of Fintechs segment women customers by age, 31% segment women customers based on geography and 35% take occupation of the clients into consideration.

Figure 9.7 Strategies for Targeting Female Customers (n=75)



Source: AMS 2022/2023

Conclusion & Recommendations

Although moving in a positive direction, there is still a way to go until reaching gender parity in terms of women staff and in leadership roles in Fintech. While there are promising practices in terms of internal diversity policy and serving the women's market, companies can do more to embed a focus on women in their strategy and product design process.

Data collected in the survey indicates a relationship between the presence of women on staff and the importance of serving women clients – including when companies have a woman co-founder or founder. This relationship also points to an opportunity for investors to direct capital to more women Fintech founders to enhance the sector's focus on serving the women's market and promoting internal gender diversity, equity and inclusion within Fintech companies.



ACKNOWLEDGMENT

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- Saat Prihartono, Country Director Indonesia Trusting Social
- Chiragh Kirpalani, Chief Operating Officer Ayoconnect
- Andi Taufan Garuda Putra, Chief Executive Officer & Founder Amartha

AFTECH:

The Indonesian Fintech Association (AFTECH) was officially appointed by the Financial Services Authority (OJK) as the Association of Digital Financial Innovation providers in Indonesia based on POJK No. 13/2018. AFTECH also serves as the umbrella organization for all Fintech verticals. AFTECH has 366 registered members (as of 2022), which include Fintech startups, financial institutions and knowledge and technology partners.

AFTECH works closely with the government, regulators and other stakeholders in order to build a responsible Fintech ecosystem that can serve all consumer segments and increase financial inclusion in Indonesia.

KIC:

Katadata Insight Center (KIC) is a business unit of Katadata that focuses on data research and analysis. KIC provides in-depth information to garner insights on markets, customers, business landscape and decision making. Our research is exclusively designed to meet your specific needs.

Our expertise is to simplify complex things without losing the essence, based on data and research. We have a strong national network, a solid and professional team. Our work becomes a reference for strategic stakeholders such as policy makers, business people and opinion makers.

WWB:

Women's World Banking is a global, not-for-profit organization working to enhance economic growth, inclusion and power of low-income women, by assisting them to access financial services, knowledge and markets. We work with financial institutions, service providers, policy makers, investors and donors to provide products, services, marketing practices and policies that use a gender lens in their development.

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