Fulfilling Its Promise

The future of Southeast Asia's
digital financial services

BAIN & COMPANY Google TEMASEK

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Introducing the report

"Fulfilling its Promise—The future of Southeast Asia's digital financial services," is a study conducted by Google, Temasek and Bain & Company to shed light on the future of digital financial services in Southeast Asia in a rapidly growing and highly competitive environment. This study forms part of the 2019 e-Conomy SEA report, launched by Google, Temasek and Bain & Company, and covers the six largest markets in the region: Indonesia, Malaysia, the Philippines, Singapore, Thailand and Vietnam.

The report tracks five key verticals of digital financial services: payments, remittance, lending, insurance and investments. It draws on research and analysis by the three sponsor companies, including surveying more than 2,500 consumers on digital financial services usage, Bain & Company's Loyalty in Banking survey of more than 4,000 consumers in Indonesia and Singapore, as well as a survey of more than 250 merchants in Indonesia. The findings were corroborated with multiple interviews with subject matter experts and secondary sources, including the online databases of the World Bank, Euromonitor, Statista and others.

"Fulfilling its Promise—The future of Southeast Asia's digital financial services," would not have been possible without the assistance of subject matter experts who contributed to the research. In particular, the authors would like to extend appreciation to contributors from Advance.ai, Bangkok Bank, BCA, BDO, CIMB Bank, Citibank, Credolab, DBS, Funding Societies, GIC, Golden Gate Ventures, Gojek, Grab Financial, Insignia Ventures Partners, InstaReM, Kasikornbank, KKR, Mastercard, Maybank, Monk's Hill Ventures, OCBC, PayMaya, Ringgit Plus, SingTel, Standard Chartered, StashAway, TrustingSocial, UOB, Visa and WeCash, who shared their perspectives and time in our research and interviews.

Southeast Asia

Digital financial services

Today

US$11B

SEA digital financial services revenue today

(~5% of total SEA FS revenue)

>70%
Consumers
Underbanked or unbanked today

>70%
SME merchants
Accept only cash today

88%
of industry experts believe **digital FS will improve access for the underbanked** by 2025

67%
of industry experts believe the **unbanked will still have limited access to FS** by 2025

70%
of those using only cash are **likely to accept digital** payments by 2025

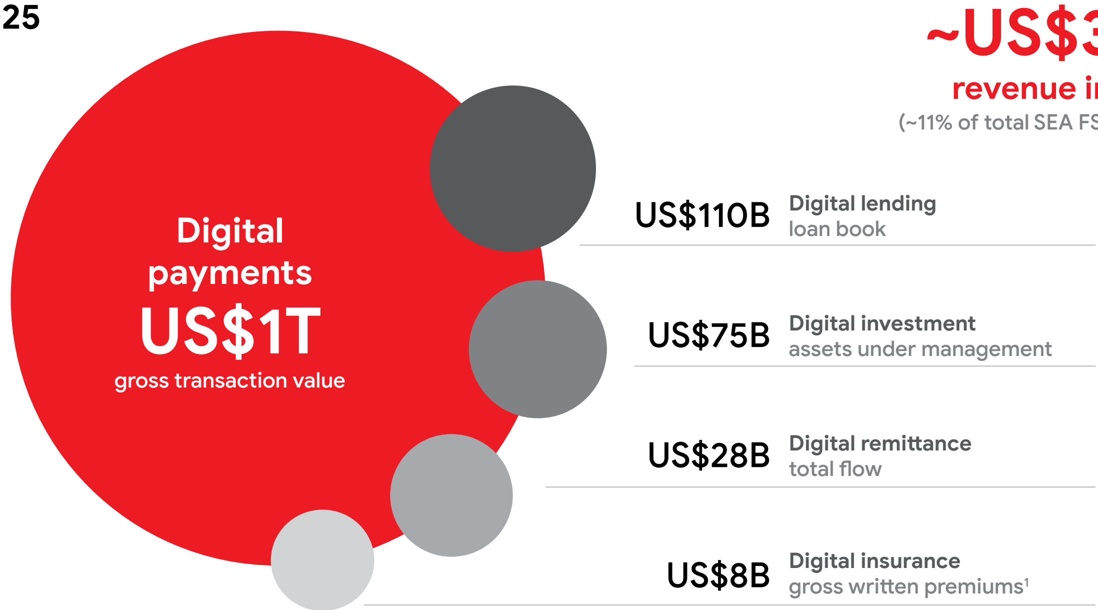
78%
are interested in using an **integrated payment provider** that offers other services, like analytics or lending

2025

~US$38B

revenue in 2025

(~11% of total SEA FS revenue)



14%
of industry experts believe established FS institutions are **well-prepared** for **digital innovation**

53%
of industry experts believe FS disruption will more likely come from **consumer tech platforms** than from pure-play **fintechs**

44%
of industry experts believe **regulators will support** FS innovation

For Southeast Asia to realize full potential

US$60B

revenue in 2025

(~17% of total SEA FS revenue)

Fundamental consumer behavior changes are needed, supported by:

- Supportive regulations
- Financial infrastructure
- Scaled funding

Note: 1) Or annual premium equivalent for life insurance
Source: Bain and Temasek

Executive summary

Southeast Asia's big opportunity. With a population of 570 million and a booming GDP expected to reach $4.7 trillion by 2025, the six largest countries in Southeast Asia represent one of the world's largest and fastest-growing regions. Within the region, the financial services industry holds tremendous potential that could be unleashed if fundamental underlying challenges are addressed. For example, cash is still the primary means of transaction. **More than 70% of the adult population is either "underbanked" or "unbanked,"** with limited access to financial services. In addition, millions of Southeast Asia's small and midsize enterprises (SMEs) face large funding gaps.

Digital payments and remittance at inflection point. Now all eyes turn to digital financial services as the means for overcoming these challenges. **The region's high smartphone penetration and engagement—even higher than banking penetration in most Southeast Asian countries—makes customer adoption of services like e-commerce and ride hailing easier, and provides opportunities to offer embedded financial services.**

Among various services, key inflection points occur over the next five years. Both digital payments and digital remittances are at or approaching inflection points now. Digital payments is the most advanced and will exceed US$1 trillion in transaction value by 2025. The other services—lending, investment and insurance—are still emerging, but each should grow by more than 20% annually through 2025. Digital lending will naturally emerge as the largest revenue contributor led by innovations in consumer lending and SME working capital financing.

> *"Credit is the pot of gold at the end of every rainbow," says Piyush Gupta, CEO, DBS Group.*

A diverse and highly fragmented landscape. The landscape includes four major archetypes of players: established financial services players, established consumer players, pure-play fintechs and consumer technology platforms. As the field of competitors quickly expands, lines are blurring between different categories of players in the ecosystem and partnerships are becoming more common. **Disruption at scale will more likely come from consumer technology platforms than from pure-play fintechs offering niche services. Subscale banks will eventually become regulated deposit utilities.**

The ultimate battle for all: the customer-gatekeeper relationship. Companies that surface as leaders will be those that make themselves the gatekeepers for consumers and merchants. They will earn that role by capturing customer mindshare and trust while building multiple touchpoints with the right use cases, either alone or through partnerships and alliances. Leaders also will continually increase their value by broadening service offerings to meet their customers' evolving needs.

Established players maintain stronghold on the banked. The development of digital financial services will play out differently in three distinct customer segments: the banked, underbanked and unbanked. The banked segment already has adequate access to the full range of financial services. **This segment is a major focus for established players, who are likely to maintain their leadership position.** Companies that are more nimble and technology-savvy will outpace competitors and gain share.

Underbanked: the true growth engine. On the other hand, the underbanked consumer does not have full access to traditional financial services. As such, technology-enabled business models offer a more effective way to serve this segment, creating new market opportunities. This segment represents the biggest potential and the true growth engine in digital financial services. **Consumer tech platforms are well positioned to gain share in the underbanked segment given their large, expanding and engaged customer base. These platforms have the ability to capture broader customer lifetime value via a fuller suite of consumer services.**

No panacea for the unbanked. However, digital financial services will not be a panacea for reaching the unbanked population. **Contrary to common perception, pure-play fintechs and consumer tech platforms are not making a meaningful impact on the unbanked segment.** Governments and telecom companies will need to play a key role in accelerating development of this segment, combining their access with strong product and underwriting capabilities from partners.

The SME merchant opportunity: waiting to be tapped. SMEs remain a largely underbanked segment in most markets. Approximately 80% of surveyed SMEs say they need to borrow but lack access to affordable credit. However, digital technology and more readily available data have given life to new models for serving SME merchants, who are on the cusp of broader digitization. A survey of SMEs in Indonesia found that 76% already accept digital payments or are likely to accept them in the next three years.

Established players are now vulnerable to losing this customer segment to new players that can use nontraditional data sources to create access and supplement underwriting, and offer a broader suite of products and new delivery models (such as offline-to-online platforms) to address the needs of SMEs. Players that serve as a merchant gatekeeper will have a distinct advantage in the battle for SMEs. Those that offer an integrated solution to meet different SME merchants' needs will gain share.

Strong balance sheets will keep banks relevant. Despite the march of new players entering the market, it will be difficult for customers to move away from banks completely. Banks have capital access and regulated deposit arbitrage. Pure-play fintechs will find that balance sheet funding remains a potential risk to scaling business. **Increased data portability through open banking can accelerate a shift in business models with a broader array of opportunities for innovation.**

Supportive regulations critical to meet full potential. By 2025, digital financial services is expected to generate revenues of about $38 billion and account for 11% of the total financial services industry. Attaining the full revenue potential of $60 billion requires several factors to fall into place, including continued investment and incentives to stimulate innovation and user adoption. **But the biggest swing factor will be supportive regulations and government policies.** That means a concerted regulatory push for digitization and financial inclusion, electronic know-your customer (KYC) and licensing to further allow virtual banks. It also means establishing critical infrastructure including digitized national ID systems, real-time payment systems, standardized QR code and effective credit bureaus. Only with these ingredients will Southeast Asia's digital financial services industry reach its full potential.

Southeast Asia's big opportunity

Section 1:
Southeast Asia's big opportunity

- Digital payments and remittances have reached inflection points; other verticals will follow by 2025.
- Digital payments will exceed $1 trillion in gross transaction value by 2025.
- Digital financial services will generate about $38 billion by 2025 in annual revenue, with lending making up about half of that opportunity.

A perfect blend of connectivity, changing customer expectations and innovation has given rise to new business models for financial services around the world. Still relatively nascent in Southeast Asia, digital financial services will grow rapidly across the region and play a key role in boosting the region's GDP, which is expected to reach $4.7 trillion by 2025 for the major economies.

To understand the true opportunity around this important development, and the key enablers, we conducted an extensive research project that focused on five digital financial services verticals (see Figure 1):

Figure 1
What are digital financial services?

Payments

Digital payments includes all digital consumer-to-business payment methods (credit card, debit card, prepaid card, account-to-account transfer and e-wallet)

Remittance

Digital remittance includes all digital consumer-to-consumer cross-border transfer originated through digital channels (no face-to-face, ATM or phone interaction)

Lending

Digital lending includes all SME (small to midsize enterprises) and non-housing, non-credit card consumer loans originated through digital channels (no face-to-face, ATM or phone interaction)

Insurance

Digital insurance includes life, health and general insurance sold through digital channels (no face-to-face, ATM or phone interaction)

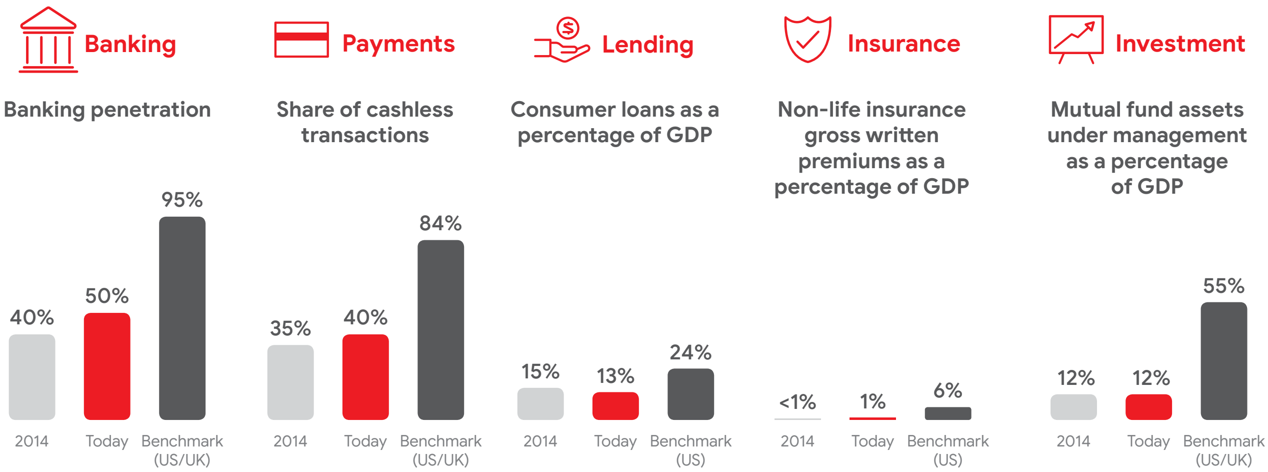
Investment

Digital investment includes retail mutual funds sold through digital channels and wealth management/ advisory services offered through digital channels (no face-to-face, ATM or phone interaction)

Source: Bain, Google and Temasek

It is well known that Southeast Asia's consumers have lower access to financial services than peers in developed markets (see Figure 2). Although banking penetration now is 1.25 times what it was in 2014, it still is only 50% in the region (and as low as 31% in Vietnam), compared with the 95% banking penetration rate in the US and UK. Cash also remains king in this region. Only 40% of transactions are cashless, compared with 84% in the US and UK. Another indicator of the limitations of financial services distribution in the region: In the US and UK, 55% of mutual fund assets under management were invested via digital platforms. In Southeast Asia, that portion is 12%—a percentage that has not grown in the past five years.

Figure 2
Southeast Asia's consumers have less access to financial services than their peers in developed markets



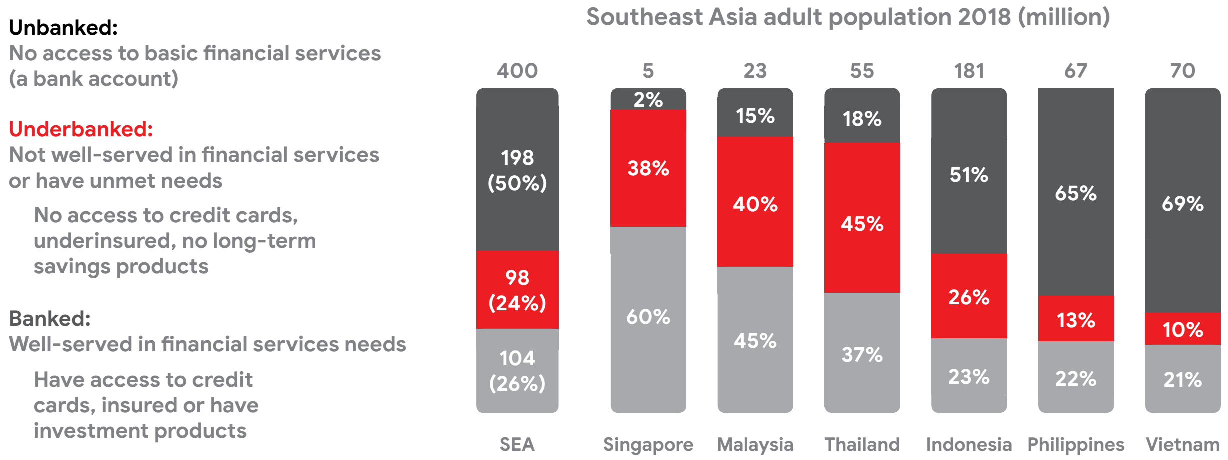
Notes: Benchmark shows current levels in benchmark countries for these services
Sources: World Bank; Euromonitor; GlobalData; Bain and Temasek

Furthermore, the 50% banking penetration level is not representative of the underlying picture. More than 7 out of 10 adults in the region are either "underbanked"—they have no access to credit cards or have no long-term savings product, for example—or are "unbanked," without access to a basic bank account (see Figure 3).

Digital financial services can accelerate the current trajectory. Digital payments offer great convenience to consumers—through "one-tap" payment via mobile phone, for example—and an opportunity for merchants to reduce both the cost of handling cash and unfulfilled orders. Digital distribution channels create a platform for product and channel innovations supported by richer data sets and greater efficiency, to expand market penetration. The region's high smartphone penetration and engagement—even higher than banking penetration in most Southeast Asian countries—makes customer adoption of services like e-commerce and ride hailing easier, and provides opportunities to offer embedded financial services. This will be seen most clearly within the underbanked, and digital financial services will open up new battlegrounds, including an increasingly competitive market to serve SMEs.

Figure 3

More than 70% of Southeast Asia's population is either underbanked or unbanked



Note: Population of individuals above age 18
Sources: Euromonitor; World Bank; Bain and Temasek

Regulatory policies across the region are becoming more open, with governments supporting the development of digital financial services. In fact, supportive and consistent regulations and government policies will be the biggest swing factor in the development of digital financial services throughout the region. Consider Singapore and Thailand's regulatory sandbox, which allows companies to test innovations in a controlled environment under regulators' supervision. Singapore and Thailand established standardized QR codes for mobile payment to increase the efficiency of financial services. Singapore built a centralized online identification system through which citizens can store, view and manage personal data that has been provided to the government. Indonesia introduced a National Strategy for Inclusive Finance aimed at developing the economy by expanding the market for banking services. Vietnam has announced similar intentions.

New entrants and established players alike are upping the competition. Regional tech players like Grab and Gojek have pushed into financial services. Chinese tech companies like WeChat and Alipay have entered through local partnerships. Pure-play fintechs such as Funding Societies, InstaReM, PayMaya and StashAway offer digital financial services in specific verticals like lending, remittance, payment and investment.

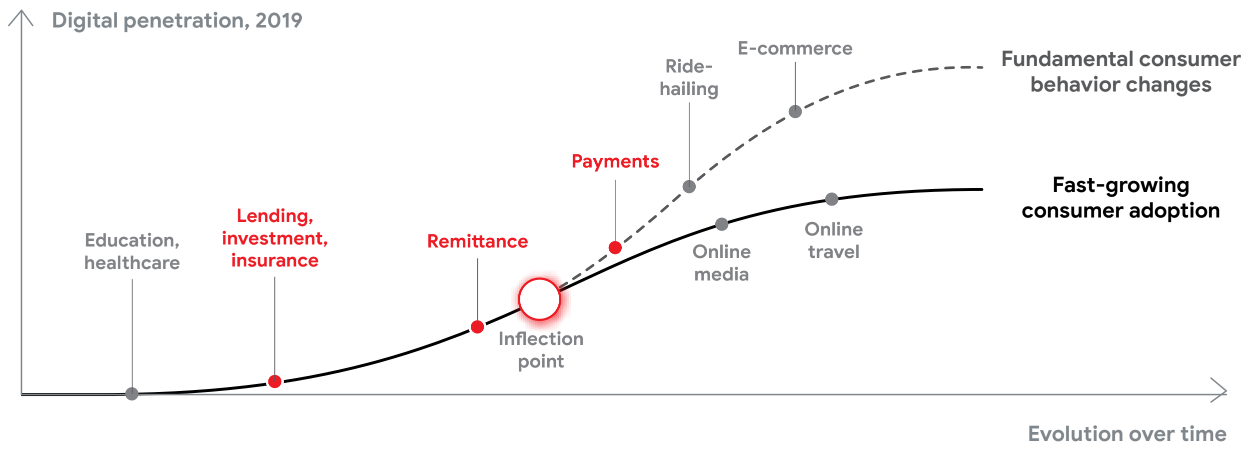
The activity is fueled with readily available funding. Fintech investment in Southeast Asia grew by almost 140% annually from 2016 to 2018. Fintech players raised over $2 billion dollars in funding over the last three years, with over $1 billion dollars raised in 2018 alone. Consumer tech platforms like ride-hailing and e-commerce companies raised over $24 billion over the same period, and their investments to build digital financial services most likely surpassed the amounts raised by the standalone fintech players.

Meanwhile, established banks across the region are not satisfied with the status quo —they are spending sizable IT budgets to rapidly transform their core and forging alliances. However, only 14% of the industry experts that we interviewed believe that established financial services players are well prepared for digital financial services disruption. Most established players still require significant investments to fundamentally digitize in order to fend off new competition.

Among the five key financial services verticals, payments and remittances are the most advanced, with the highest digital penetration rates. Digital payments and remittances are now reaching an inflection point and experiencing similar rapid adoption with consumers that was seen in other digitally enabled industries like e-commerce, ride hailing and online media (see Figure 4).

Figure 4

Digital payments and remittance are at inflection point; other digital financial services are nascent, but gaining momentum



Source: Bain, Google and Temasek

Four factors have limited the growth of digital financial services in the region. The services could accelerate if the factors are addressed (see Figure 5). These include:

(i) Consumer and merchant adoption

In many situations, it is difficult for consumers to adopt cashless payments (e.g., for small-ticket transactions). Cash also offers more privacy and is used in the "informal" economy. As a result of such cash resilience, merchants may see little benefit in adopting digital payments. Cash will remain prevalent in certain countries, unless governments and regulators are successful at implementing policies aimed at reducing the use of cash.

"Access does not equal usage," says Jochen Nimtschek of Mastercard. "Consumers and merchants need to see the value of going cashless and be educated and incentivized to use and accept digital payments."

(ii) Personal identification system

The absence of a reliable digitized identification system in most Southeast Asian markets makes it difficult for businesses to confirm their customers' identity digitally without face-to-face interaction.

Figure 5

Four factors have limited the growth of digital financial services in Southeast Asia

1 Consumer and merchant adoption

Cash resilience. Cash use cases not easily converted into digital; cash remains prevalent in the gray economy

Lack of capabilities. Merchants need different workflows and capabilities to digitize

"It is unlikely for SEA consumers to be 100% cashless. A typical consumer will carry cash, debit/credit card and use e-wallet."

Regional Lead, Global Payment Scheme Company

2 Personal identification system

Absence of reliable digitized identification system. Prevalence of fake identities and lack of basic identification for certain populations in rural regions

"This challenge is identification. For example; we need to do KYC in Philippines through over 23 different types of ID, each with nuances when it comes to fraud."

Chief Operating Officer, Digital Payment Solution Company

3 Regulatory constraints

Consumer protection. Regulators taking a cautious approach to disruption, for consumer protection

Incumbent protection. Some regulators remain protective of incumbents

"In the short run, regulators tend to be open and supportive of digital disruption in financial services. But in the longer run, regulations will still tend to favor the incumbents banks."

Senior Investment Executive, Global Private Equity

4 Financial system infrastructure

Absence of effective credit bureau. Unavailability of robust credit data hinders credit access

Limited interoperability in payment systems. Limited options for moving funds between accounts at zero or low cost and lack of standardized QR code in certain countries slows down consumer adoption

"Better data availability on credit history is positive for consumer lending where credit quality has historically been constrained by lack of information."

S&P Global Ratings

Sources: Bain, Google and Temasek

(iii) Regulatory constraints

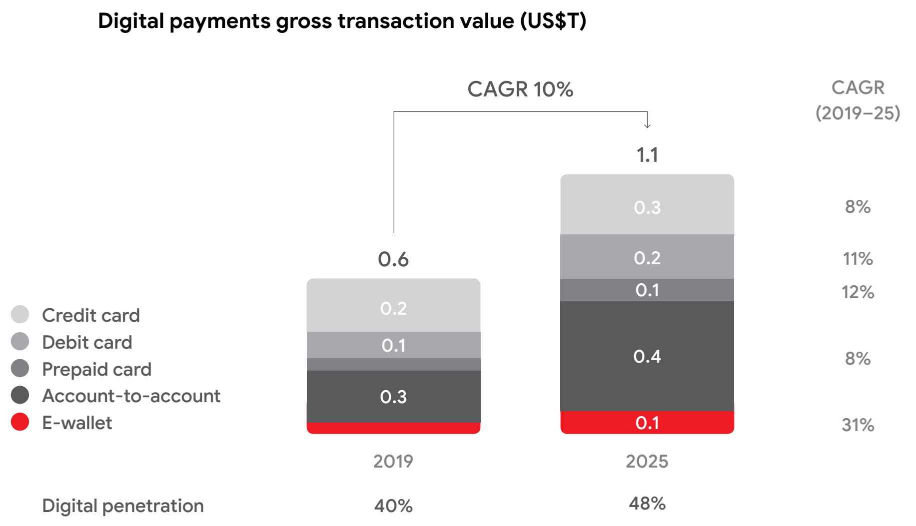
Regulators' more cautious approach, emphasizing consumer protection over innovation, has favored the established players, which have been slower to introduce digital options. "In the short run, regulators tend to be open and supportive of digital disruption in financial services. But in the longer run, regulations will still tend to favor the incumbent banks," predicts a private equity executive. Among the industry experts we surveyed, 44% believe that regulations will be very supportive of new players experimenting with new financial services models, while 17% believe that regulations will not be supportive.

(iv) Financial system infrastructure

The supporting infrastructure for financial markets is less developed in Southeast Asia outside of Singapore. This includes the absence of robust credit bureaus, as well as a lack of reliable traditional data like tax filing and formal employment documentation. As a result, both consumers and SME merchants are hampered in their ability to access credit or demonstrate credit worthiness.

Despite these impediments, the market opportunity in each of these five financial services will continue to grow exponentially and each will pass inflection points by 2025. Digital payments will exceed the $1 trillion mark in gross transaction value by 2025 (see Figure 6).

Figure 6
Digital payments will exceed US$1 trillion by 2025

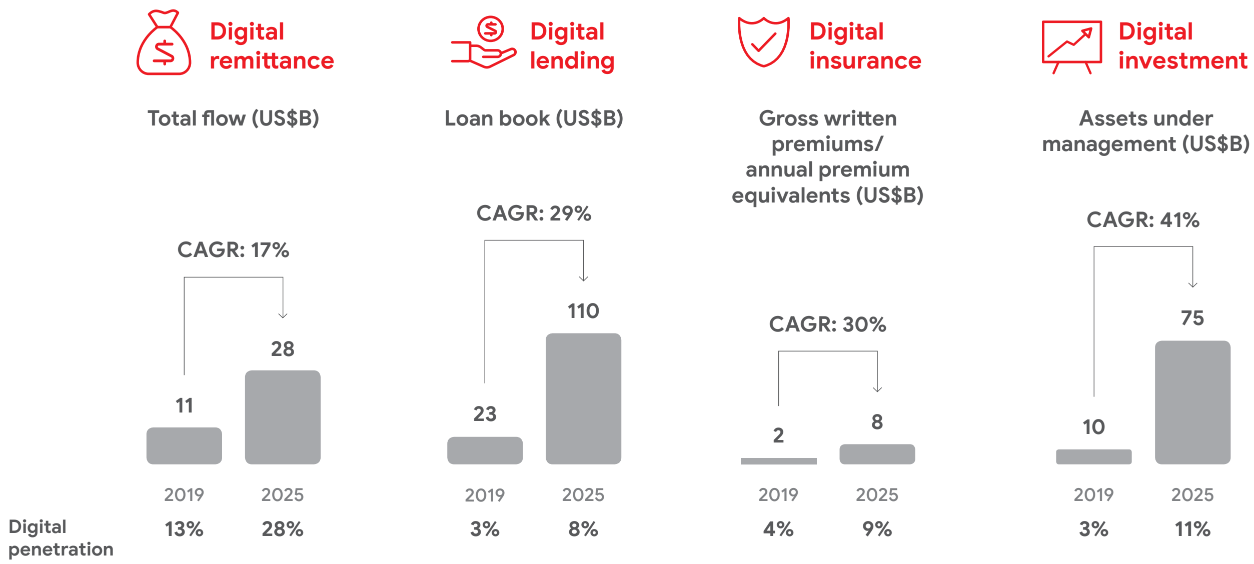


Sources: Euromonitor; GlobalData; Bain and Temasek

Digital remittances is also at an inflection point. It is at a 13% penetration rate that will grow to 28% by 2025. The other services—lending, insurance and investment—are still digitally nascent, but each should grow by more than 20% annual through 2025, passing inflection points over the next five years (see Figure 7).

Figure 7

Digital lending, insurance and investment are growing by more than 20%



Note: Insurance number reflects annual premium equivalents for life insurance and gross written premiums for health and general insurance

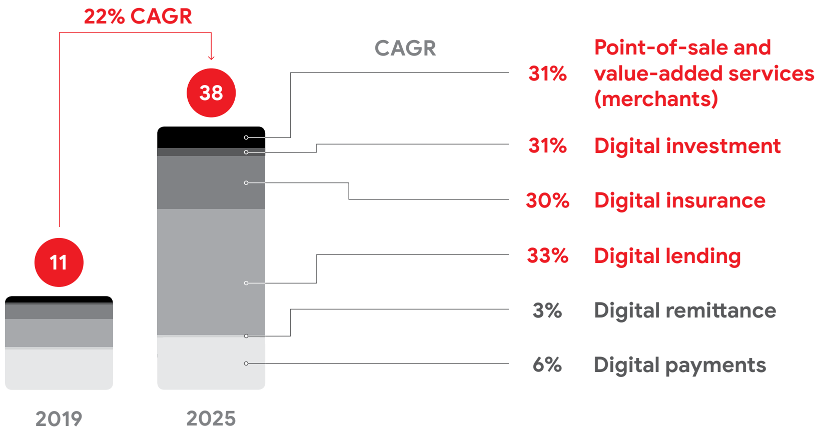
Sources: Euromonitor; GlobalData; Bain and Temasek

As transaction volumes increase, revenue pools will also shift across different financial services in the years ahead. The total revenue generated from digital financial services is expected to be about $38 billion by 2025. The "ultimate prize," lending, will offer the majority of revenue opportunities, while growth in payment revenues will be smaller due in large part to the continuing decline in merchant discount rates and time required for improved delivery and monetization of value-added services (see Figure 8).

Figure 8

Digital financial services represent a US$38 billion opportunity by 2025; lending will represent the largest revenue pool

Southeast Asian digital financial services revenue (US$B)



Note: Combined revenue across six markets: Singapore, Malaysia, Thailand, Philippines, Indonesia and Vietnam
Sources: Euromonitor; GlobalData; Bain and Temasek

While we use strict definitions for sizing the overall digital financial services market, the reality is that many of the services are omnichannel—a hybrid of online and offline.

> *In Southeast Asia, the bulk of commerce and customer engagement still happen offline. Securing ubiquitous offline presence is critical for any payments player to be successful," says Reuben Lai, Senior Managing Director, Grab Financial Group.*

A unique, diverse, and fragmented competitive landscape

Section 2:
A unique, diverse and fragmented competitive landscape

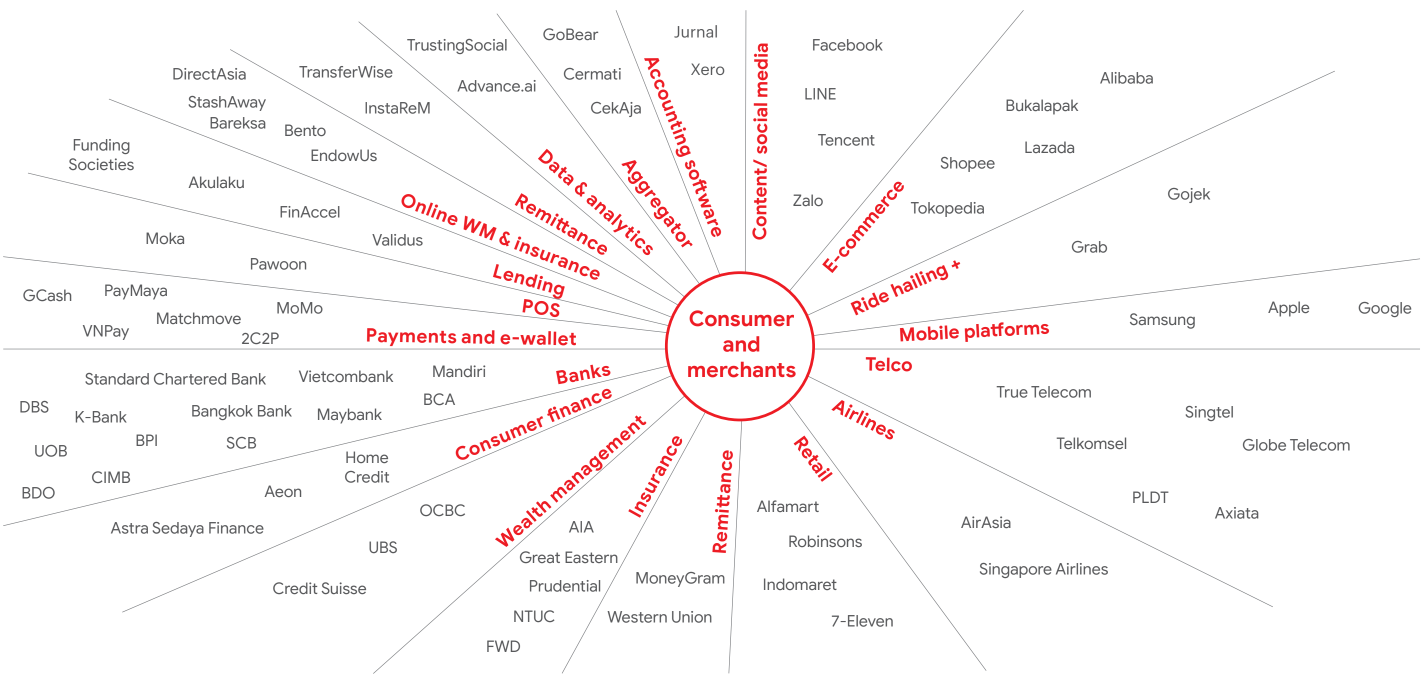
- As the field of competitors quickly expands, lines are blurring between different categories of players in the ecosystem, and partnerships are becoming more common.
- Disruption will more likely come from consumer tech platforms than from pure-play fintechs.
- Subscale banks will eventually become regulated deposit utilities.
- The ultimate battle for all: the customer-gatekeeper relationship.

Southeast Asia's digital financial service industry stands out for being far more fragmented than its counterparts in most regions of the world, with a vast number of players pursuing this market from many different angles. In addition to the types of competitors that one would expect—banks, remittance companies and insurance companies, for example—the ecosystem spans airlines, telcos, ride-hailing companies, retailers and social media players, among many others (see Figure 9).

Figure 9

The Southeast Asian digital financial services sector is highly fragmented

Non-exhaustive



Note: WM refers to wealth management
Source: Bain, Google and Temasek

We view these participants as falling into four archetypes (see Figure 10):

(i) Established financial services players. These are traditional institutions such as banks, money transfer operators, insurance companies and asset management firms.

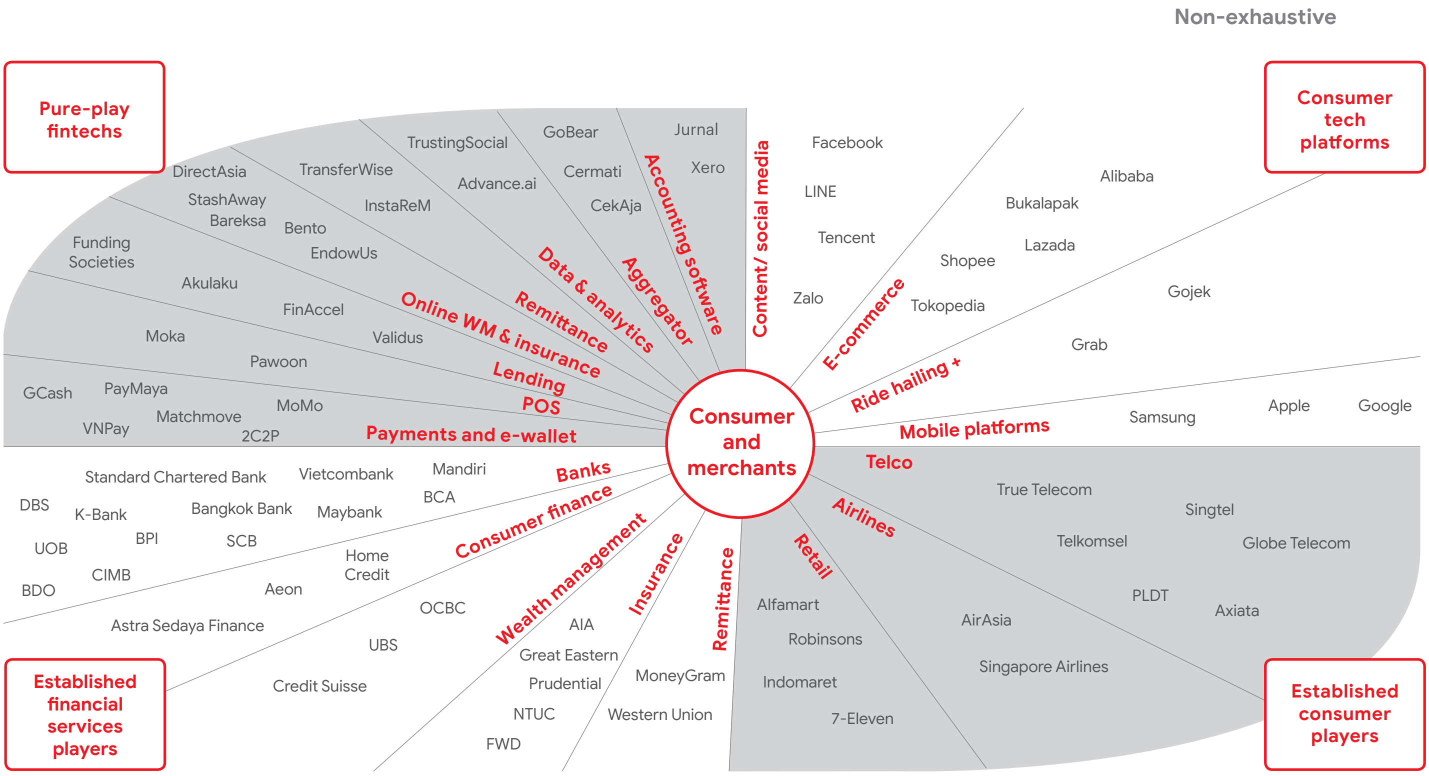
(ii) Established consumer players. These are traditional players in other consumer industries with large customer bases—telcos, airlines, retail companies, for example—that are expanding their product offerings to include financial services.

(iii) Pure-play fintechs. A new generation of independent players that has emerged to compete with digital financial services offered through new business models.

(iv) Consumer technology platforms. Digital economy platforms providing consumer services such as ride hailing, e-commerce and gaming are embedding financial services products within their existing services.

Figure 10

Four archetypes of players are emerging in digital financial services



Note: WM refers to wealth management
Source: Bain, Google and Temasek

As this industry rapidly evolves and companies expand their offerings, the lines that define these archetypes are quickly blurring. We anticipate three key trends continuing over the next five to seven years.

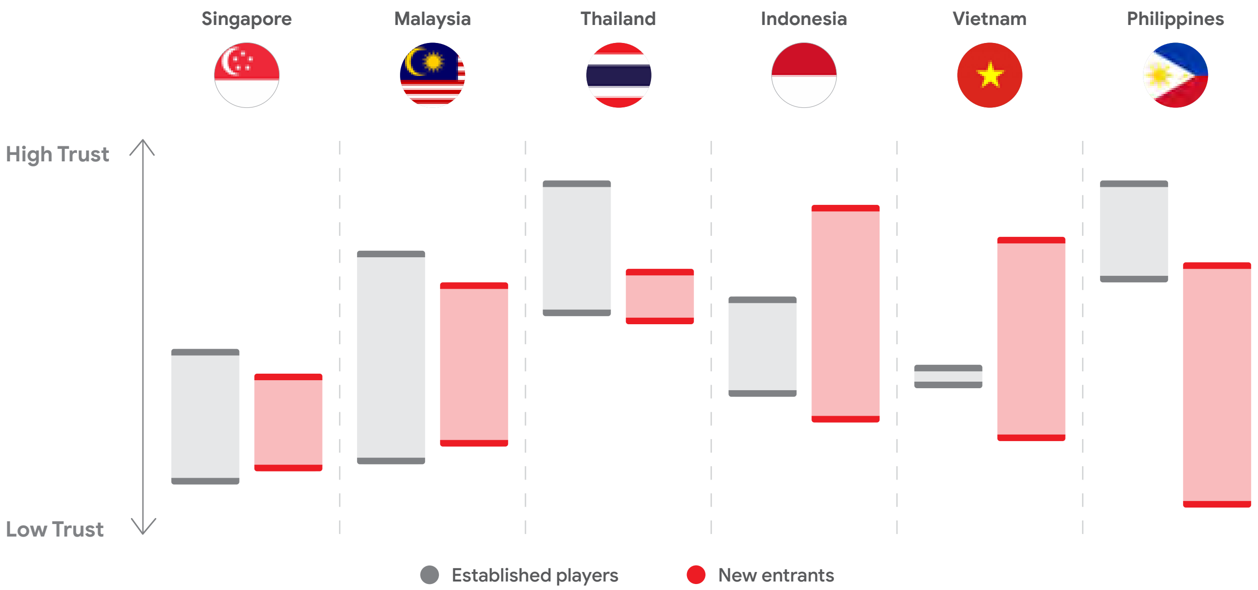
(i) Established consumer players and consumer tech platforms hoping to monetize their customer relationships are partnering with established financial services players and fintechs seeking additional distribution channels.

(ii) We expect that an increasing number of banks, especially subscale platforms, will seek growth by partnering with established consumer players or consumer tech platforms to expand their user base and build volume through those new distribution channels. This represents a move away from their traditional notion of directly owning the customer relationship, in an attempt to reach a larger customer base and gain share, which has proved to be difficult for subscale banks through traditional branch-based model. In the long term subscale banks without their own digital capabilities will become regulated deposit utilities.

(iii) We anticipate growing consumer acceptance in Southeast Asia of fintechs and consumer tech platforms, with new entrants closing the trust gap to established players in certain markets like Indonesia and Vietnam (see Figure 11).

Figure 11

New entrants are gaining consumers' trust, catching up with established players quickly, especially in Indonesia and Vietnam



Notes: Question: "How would you rate the e-payment service providers based on your trust of its brand for payment of your products/services?"; lines show range of highest and lowest scores
Source: Bain SEA Digital Platform Consumer Survey, 2019 (n=2800)

A number of success factors will influence any participant's ability to win (see Figure 12). The best competitors will maintain differentiated customer access—building a large base of end users and merchants and honing their ability to win customers' share of mind through value-added services, loyalty and trust.

"The right customer use cases, especially those that offer convenience, are key to winning in digital financial services," says Aldi Haryopratomo, CEO of GoPay.

Winners will invest to access and analyze valuable customer data or partner with those who own such capabilities and deliver a superior customer experience. All while continuing to transform their core operating platform and improve cost efficiency.

"Value will shift away from the payment processing and increasingly towards value-added services such as loyalty, security and data. Funding sources will also start to diversify beyond cards," says Ciyi Lim, Senior Director at Visa.

Figure 12

Several factors will influence a company's success in digital financial services

Differentiated customer access	Customer base	Frequent use cases	Loyalty	Trust	
Superior product and experience	Financial services expertise	Digital experience	O2O experience		
Competitive operating model	Pricing	Low-cost structure	Partnerships	Distribution network	Balance sheet
Data	Customer data	Data analytics			
Enablers	Regulatory support	Funding	Financial infrastructure		

Source: Bain, Google and Temasek

No single archetype meets all the success factors to win (see Figure 13). For example, established financial services players have broad financial services expertise, a large customer base, customer trust and access to low-cost funding. But fintechs benefit from a more flexible cost structure and ability to build cleaner technology stacks, allowing them to provide competitive pricing and better user experiences. Established consumer players have a broad distribution network and massive amounts of customer data, but may lack the digital capabilities to leverage those assets. Lastly, consumer technology platforms have a large online customer base for cross-selling of financial services, frequent use cases and digital capabilities, and they offer an online-to-offline (O2O) experience.

Increased data portability through open banking can accelerate a shift in business models with a broader array of opportunities for innovation.

Figure 13

No single archetype meets all of the key success factors

Pure-play fintechs

- Focused financial services expertise
- Digital user experience
- Flexible cost structure

Consumer tech platforms

- Large online customer base
- Digital user experience
- Customer data
- Equity funding
- Frequent use cases
- Online-to-offline experience

Established financial services players

- Large customer base
- Broad financial services experience
- Balance sheet
- Regulatory support
- Merchant network
- Customer trust

Established consumer players

- Large customer base
- Distribution network
- Customer data

Source: Bain, Google and Temasek

We have seen highly successful players across all archetypes in other global markets (see Figure 14).

Figure 14
In different markets, successful players have emerged under the four archetypes as a result of unique enablers in those markets

Pure-play fintechs

Square
Offers payment processing and point of sales solution via phone or tablet, business financing, and a peer-to-peer payment app

- Offers a unique value proposition to meet small business needs, including credit card payment acceptance and value added services
- Leveraged its large merchant base to expand its peer-to-peer payment app to millions of consumers

Consumer tech platforms

Alibaba, Tencent/WeChat
Chinese super-apps that embed payments, lending and a host of financial services

- Broad ecosystem with frequent use cases (social media, gaming and e-commerce)
- Less developed payments system
- Open regulations for innovation
- Regulations that banned foreign competition

Established financial services players

Swedbank, Nordea, Handelsbanken, SEB
Four leading Swedish banks with more than 70% in loans and deposits

- Successful early banking transformations
- Payments infrastructure shared among large banks
- Successful partnerships with innovative start-ups

Established consumer players

M-Pesa, Safaricom
Kenyan mobile phone-based money transfer, financing and microfinancing

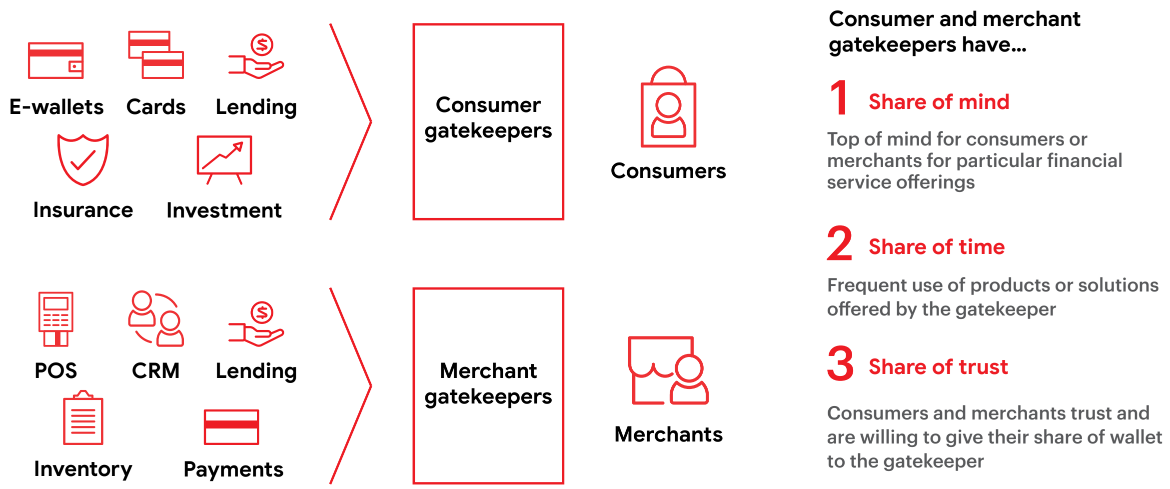
- Available funding from one of largest telcos in Kenya
- Government law requiring identification for all SIM card owners
- Large distribution network for cash-in and cash-out

Sources: Company websites; Bain, Google and Temasek

Southeast Asia is quite different from other regions. Each Southeast Asian market is charting its own course given different financial services market maturity, incumbent readiness and regulations. The jury is still out on the winners. However, in our view, winning players will be those who own the customer relationship (see Figure 15). With intense competition and a high degree of fragmentation, companies that gain an outsized share will be those that become gatekeepers for both consumers and merchants. That means a focus on winning three key battles.

Figure 15

While the jury is still out on the leading archetype, winning players will be those who own customer relationships



Source: Bain, Google and Temasek

First, they will excel in becoming top-of-mind for consumers or merchants for specific financial services offerings. One way is to be positioned with the right nonfinancial-services offerings. For example, a platform that provides multiple touch points such as ride hailing and food delivery may be better poised to become a gatekeeper than a pure payment provider. Second, they will win the battle for share of time. Finally, they will gain share of trust and surpass competitors in gaining share of wallet. By doing so, gatekeepers stand to gain a disproportionate share of profit pools and monetize customer relationships through additional services.

Access, convenience and value for consumers

Section 3:
Access, convenience and value for consumers

- **Digital financial services will evolve differently among the three distinct customer segments: banked, underbanked and unbanked.**
- **The banked segment is the major focus for established players, who are likely to maintain their leadership position. More nimble and technology-savvy companies are outpacing competitors and will gain share.**
- **The underbanked segment is the true growth engine in digital financial services. Consumer technology platforms, with their large, expanding and engaged user base, are well positioned to gain share in this segment.**
- **While governments aspire to use digital financial services to expand financial inclusion for the unbanked, the segment will remain underserved by most companies in the foreseeable future. Governments and telecom companies have direct distribution access and need to spur this segment's development.**

The gaps in service are fundamentally different among the banked, underbanked and unbanked segments of the population.

(i) Banked: Twenty-six percent of the population that is relatively well-served, with access to such financial services as credit cards, insurance and investments.

(ii) Underbanked: Twenty-four percent of the population with bank accounts but underserved in broader financial needs. For example, they may have a bank account but limited access to credit.

(iii) Unbanked: Fifty percent of the population outside the formal financial system, i.e., without access to a bank account or other basic financial services.

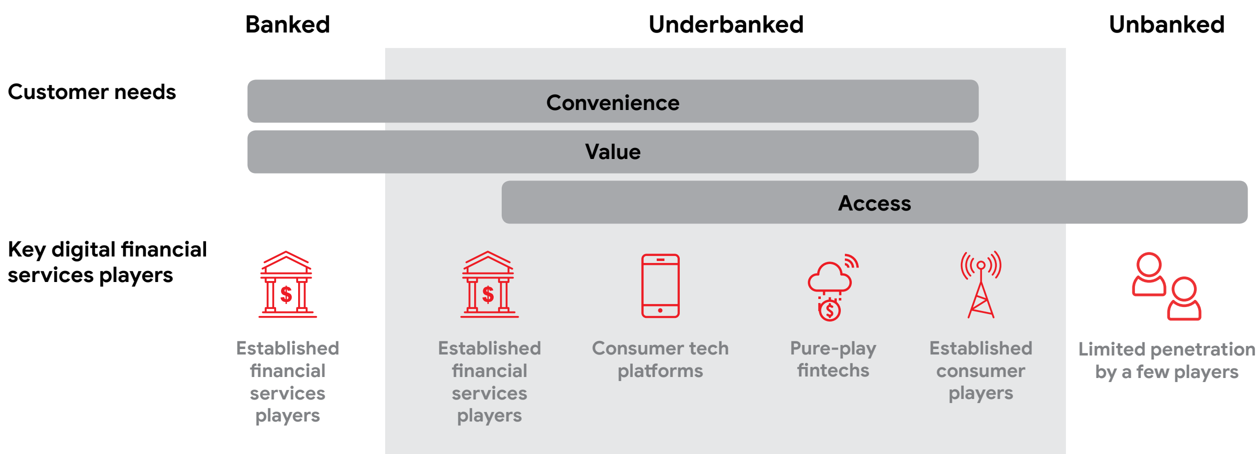
Banked segment: This segment accounts for about 26% of the population but makes up about 50% of total income today. Most established players view the banked population as their key focus. With consumers looking for greater convenience and value shaped by other experiences, most established financial services players are transforming their operations and offerings to meet changing customer expectations. Established players will need to accelerate this journey to survive the intensifying competition and the power shift to consumers. Companies that are more nimble and technology-savvy will outpace competitors and gain share.

As an example, DBS has targeted the tech-savvy population in Indonesia, including both banked and underbanked, through Digibank, a digital-only bank that offers uncollateralized loans to certain limits, instant international remittances and 24/7 virtual in-app assistance. New players will emerge with the announcement of digital banking licenses by the Monetary Authority of Singapore (MAS) and other regulators in the region announcing similar plans. We expect to see new digital-only banks in this region targeting customers based on value and convenience, replicating the trend seen in Europe and the Americas. Our view is that in Southeast Asia digital-only banks will play a larger role in addressing the needs of the underbanked than of banked consumers.

Underbanked segment: Digital financial services brings with it the promise of accelerating broader financial services access for the underbanked and opening up a potentially large market for both established players and new entrants. Of the industry experts surveyed, 88% believe digital financial services will transform the livelihood of the underbanked by 2025.

Serving the underbanked will be the main opportunity for all four archetypes of competitors—it's the true engine behind the growth in digital financial services (see Figure 16). Consumer technology platforms, with their large, expanding and engaged user base, are well positioned to gain share in this segment.

Figure 16
The underbanked segment is the main battleground for both established players and new entrants



Source: Bain, Google and Temasek

Established financial services players have been unable to serve this segment well. For starters, the cost to serve has been too high and distribution has not evolved along with customer needs. Also, the absence of credit history has meant limited risk appetite for lending to this segment. In addition, the low savings rate in developing Southeast Asia has made the segment unattractive for investment services (see Figure 17). The underbanked have also traditionally deprioritized paying for insurance protection.

Figure 17

Established financial services companies face challenges in serving the underbanked

High cost to serve

Difficulty setting up traditional physical distribution

Distribution has not evolved along with customer needs

Limited credit history

Established financial services providers will either exclude the underbanked or charge a very high price to offset lending risks

Low savings rate

A low savings rate makes it difficult for established financial services providers to offer investment services

Savings rate (% of disposable income)

2–9% Developing Southeast Asia

14% World average

Limited ability to plan financial risks

Low priority for, and awareness of, purchasing insurance products

Sources: Euromonitor; Bain, Google and Temasek

While all competitors can pursue this market, consumer technology platforms have some distinct advantages. They have leaner cost structures supported by shared distribution for a broad suite of products, no antiquated legacy technology systems, access to rich data sets, and digital native customer engagement. We are seeing new business models in unsecured consumer lending and merchant lending emerge. For example, Indonesian online marketplace Tokopedia provides consumer purchase financing in partnership with pure-play fintechs such as OVO, and has begun lending to its merchants in partnership with both established players and pure-play fintechs.

Unbanked segment: Serving the unbanked population has been a lingering challenge in the region, and 67% of the executives surveyed believe access to unbanked will remain limited by 2025 (see Figure 18). Low financial literacy is one of the primary reasons behind this. Moreover, the wide swath of the population that lives in rural areas has been prohibitively expensive for established financial services players to serve. The population's low disposable income limits the revenue potential. In addition, there is a lack of data for credit scoring and underwriting.

> *"Digitization is not happening in the unbanked segments, mainly due to cultural reasons, customer mindset and the cost of acquiring such customers," says Prajit Nanu, Cofounder and CEO, InstaReM.*

Figure 18

Digital financial services are unlikely to solve the challenge of financial inclusion for the unbanked by 2025

Low financial literacy

Lack of understanding of financial services results in limited adoption

Financial literacy ranking shows four of six SEA countries in the bottom half (of 144)

12th	Singapore	102nd	Thailand
66th	Malaysia	115th	Philippines
85th	Indonesia	118th	Vietnam

High cost to serve

Current financial services delivery model to the unbanked is costly; building scale for rural areas is especially difficult

Low revenue generation

Low disposable income of this segment results in limited revenue potential to serve

Sources: Euromonitor; Standard and Poor's; Bain, Google and Temasek

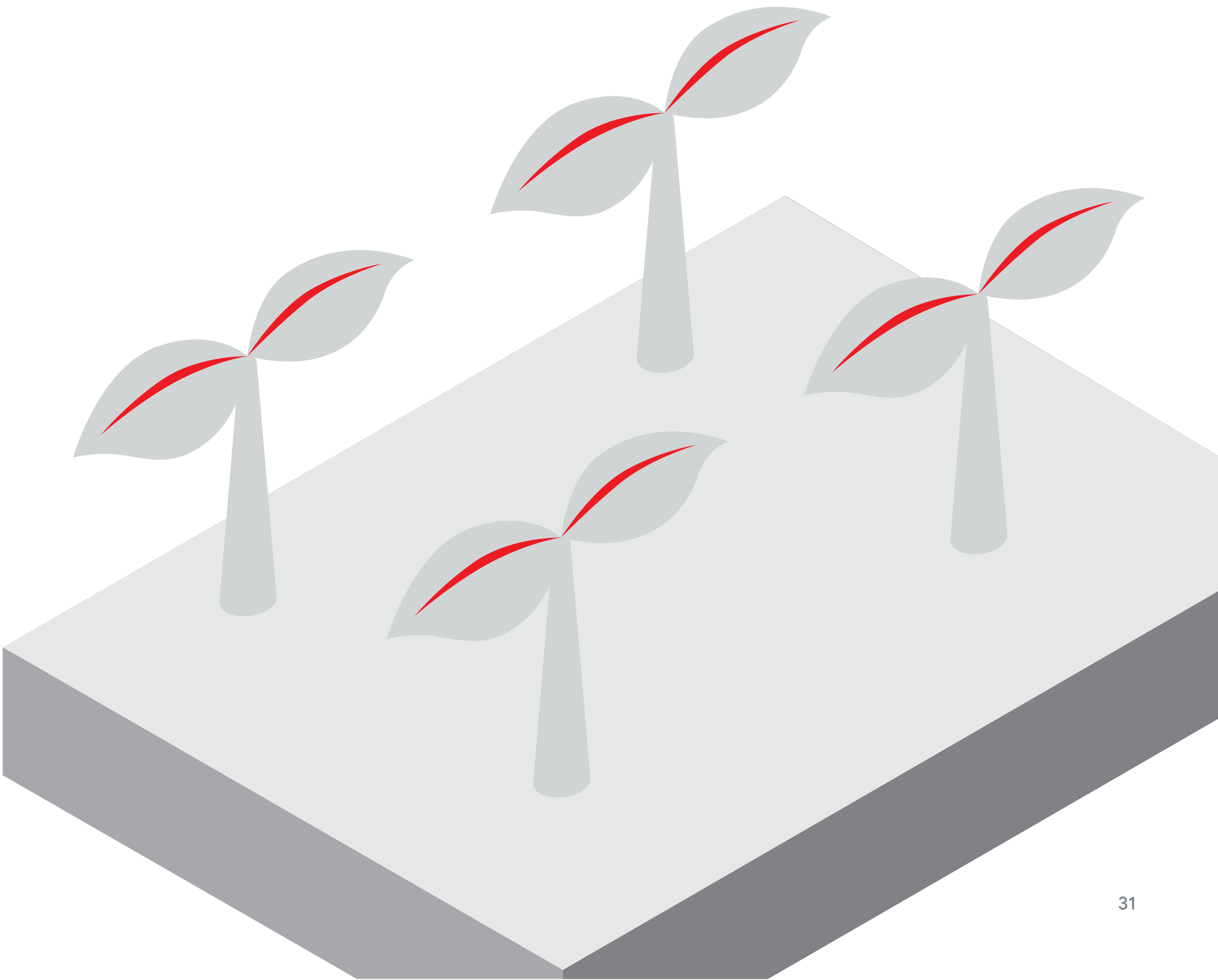
The opportunities to address the full needs of the unbanked will remain limited for the next six years, as the customer base of established financial services players and consumer technology platforms does not naturally scale into this segment. Telecom companies and governments have direct distribution access to the unbanked population and need to do more to spur financial services access for this segment.

In particular, telecom companies have the potential to improve access for the unbanked given their wide customer reach and data. Some have started working with fintechs in the credit scoring space. For example, a number of telecom companies have partnered with TrustingSocial to provide access to their data. TrustingSocial uses telecom data to build credit scores for underbanked and unbanked consumers.

In markets such as Indonesia, the government has an explicit financial inclusion mandate that has led to initiatives by established players. Banks such as BRI, BTPN, BCA and Bank Mandiri have launched branchless banking initiatives aimed at serving the unbanked population using an agent-based model. However, more can be done by governments to accelerate access to the unbanked.

Some fintechs have achieved early success attempting to reach this segment in Southeast Asia. For example, with 3 million customers across rural Indonesia, financial disrupter Mapan (under the Gojek umbrella) brings financial literacy to the unbanked through a unique program in which participants take turns making interest-free loans from pooled money to buy white goods. Mapan generates revenue on the markup of the white goods. Meanwhile, Smart Padala, owned by Voyager in the Philippines, reaches the unbanked population in Sari Sari stores, where it maintains a network of 27,000 agents enabling cash-out for digital domestic remittance.

The SME merchant opportunity: waiting to be tapped



Section 4:

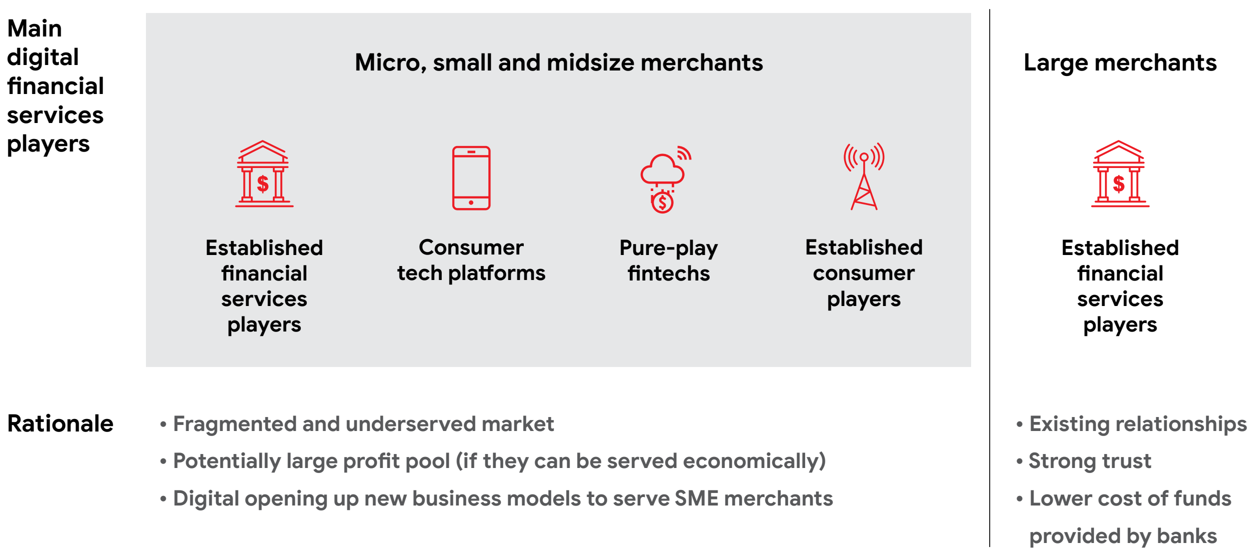
The SME merchant opportunity: waiting to be tapped

- SMEs remain a largely underbanked segment in most markets. Eighty percent of SMEs say they need to borrow but lack access to affordable credit.
- SMEs are at the cusp of digital adoption. A survey of SMEs in Indonesia found that 76% already accept digital payments or are likely to accept them in the next three years.
- Players that successfully offer integrated solutions for SME merchants will gain share.

SME merchants, such as independent restaurants and shops, and large merchants, such as modern retail chains and petrol stations, have divergent financial services needs. Digital advances are rapidly opening up new business models to serve this fragmented, underserved and potentially huge market. While established players and specialty players continue to focus on large merchants, with whom they have existing relationships built on strong trust, all four of the digital services archetypes will fight it out for the vast SME market. SME merchants will likely become the main digital financial services battleground in Southeast Asia in the years ahead (see Figure 19).

Figure 19

The main digital financial services battleground is for small and midsize merchants



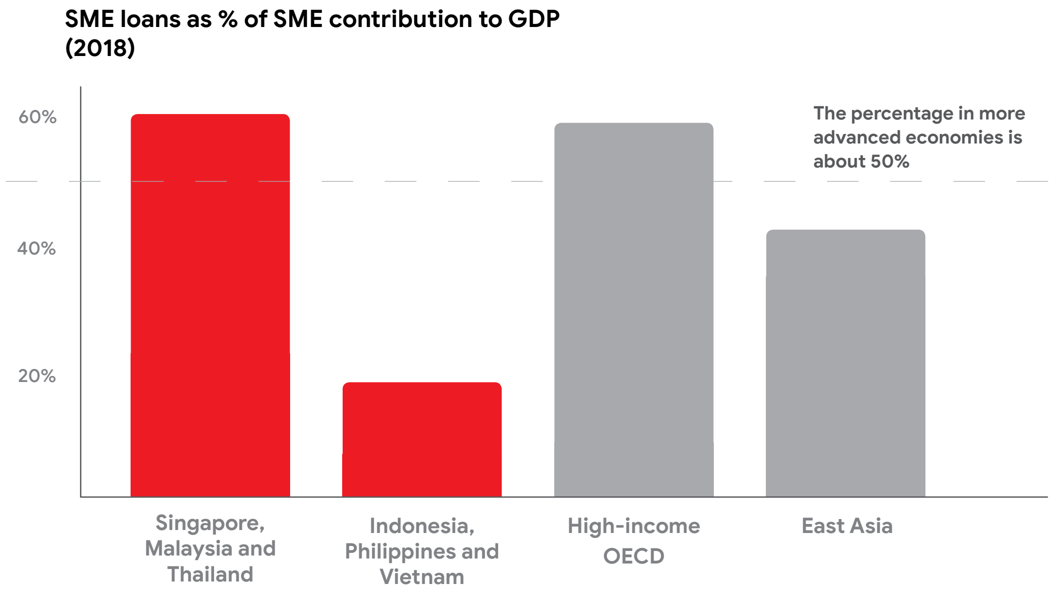
Source: Bain, Google and Temasek

Until now, SME merchants have been inadequately supported by established financial services players. These companies are now vulnerable to losing this customer segment to new players that can use nontraditional data sources to create access and supplement underwriting, and offer a broader suite of products and new delivery models (such as offline-to-online platforms) to address the needs of SMEs.

In much of Southeast Asia, the value of loans to SMEs (as a percentage of SME contribution to GDP) lags that of more developed countries (see Figure 20). SMEs are costlier to serve than large merchants are—lower loan sizes mean higher unit transaction costs. They also typically come with higher risk—and the higher costs that entails. Many SMEs lack credit information and history. This raises the cost of credit-risk assessment and makes it less acceptable for a financial institution to service them. In a survey of 240 SMEs, 80% needed to borrow but did not have the access to do so (see Figure 21).

Figure 20

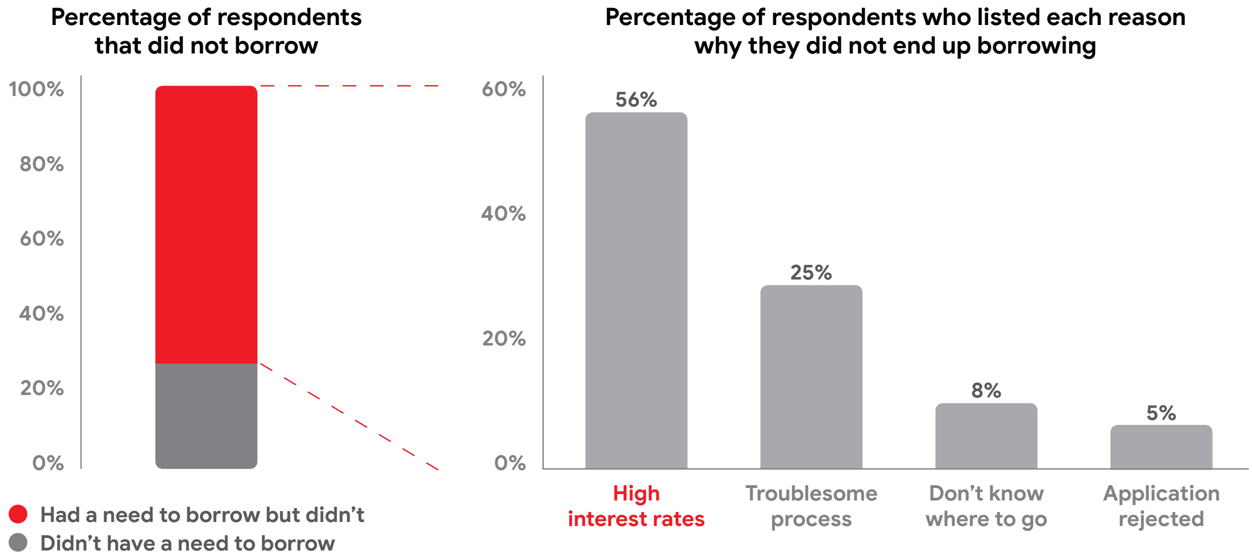
Small and midsize enterprise merchants are underserved by established financial services players in some markets today



Sources: WorldBank; Bain and Temasek

Figure 21

About 80% of small retailers who didn't borrow said the lack of access to affordable credit was the primary reason



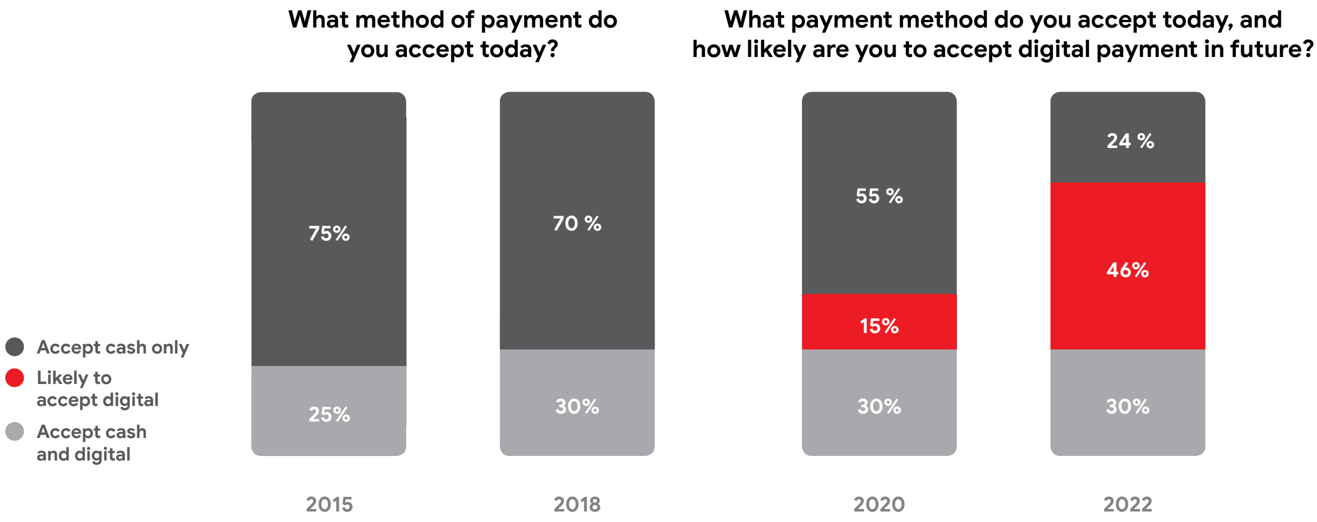
Source: Bain SEA Digital Platform SME Survey, 2019 (n=240)

At the same time, digital technology and more readily available data have given life to new models for serving SME merchants. Alternative lending platforms offer viable options to fill financing gaps. Technology platforms can easily analyze data for small business loans, reducing risk and credit analysis time. As an example, MyBank can work with Alipay data to speedily assess the risk of a small business loan applicant. Another advantage for tech platforms is their ability to extend the reach of an O2O SME business. Meanwhile, point-of-sale providers can use SME transaction data to offer working capital financing based on a merchant's monthly sales.

SME merchants' adoption of digital financial services is expected to dramatically increase. In a recent survey, more than 250 SME owners in Indonesia were asked about their payment acceptance methods today and how likely they are to accept digital payments in the future. About 30% already accept digital payments today, and another 46% said they would be likely or very likely to accept digital payments in two to three years (see Figure 22).

Figure 22

Small and midsize enterprises are at an inflection point on digital adoption



Sources: Industry participant interviews; Bain Indonesia SME Merchant Survey (n=259)

Who will become the gatekeeper for SME merchants? Those that can offer a more integrated solution to meet needs beyond financial services and acquire SMEs in a cost-effective way will gain significant share and be positioned to cross-sell other financial services, such as lending and insurance. We can see this globally. iZettle, a Swedish fintech that began as a micro- and small-merchant mobile point-of-sale (mPOS) solution for card payments, then expanded to offering credit to merchants with automatic approval and funding within 48 hours.

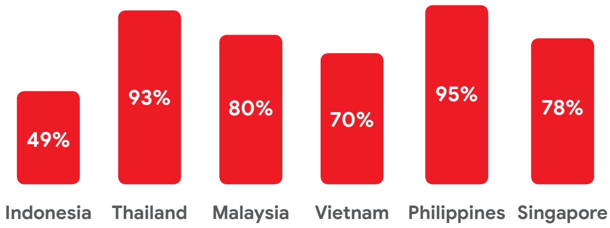
We asked 240 SME executives if they would be interested in a single payment provider that offers customer/sales analytics, lending and inventory management in addition to offline and online payment processing (see Figure 23). The most enthusiastic responses came from the Philippines and Thailand: 95% of the respondents in the Philippines and 93% in Thailand expressed interest in integrated solutions.

Figure 23

Players that successfully offer integrated solutions for SME merchants will gain market share

SMEs interested in consolidating service providers

Would you be willing to use a single payment provider for offline and online payment processing needs and other value-added services (customer/sales analytics, lending, inventory management, campaign management)?



Integrated solution providers offer a better value proposition:

Better customer experience

Solves for multiple SME business needs

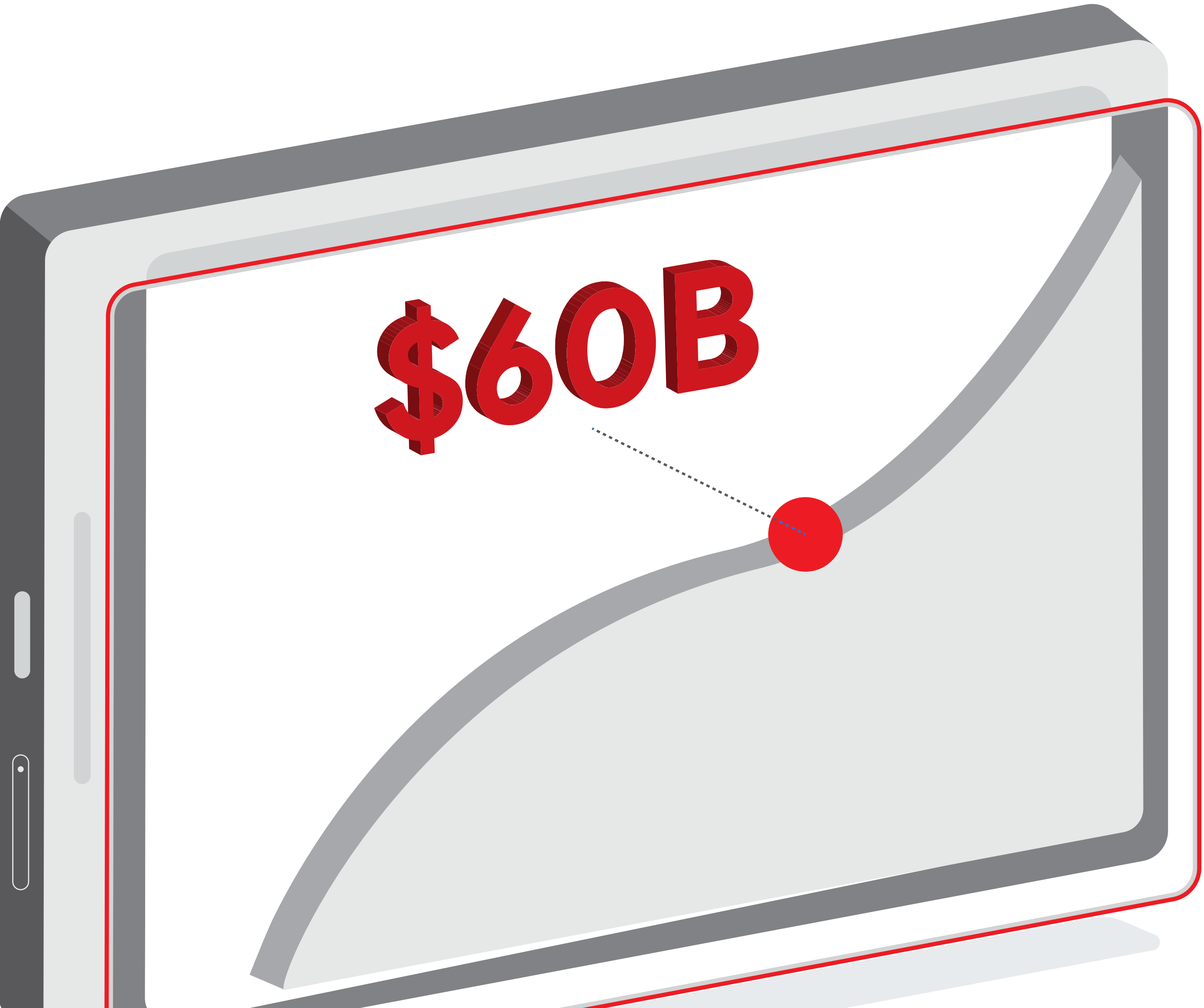
Ability to offer lending by leveraging payment flow data

Source: Bain SEA Digital Platform SME Survey, 2019 (n=240)

Two basic integrated solution models have emerged: industry-specific offerings and broad-based functional offerings. Industry-specific solution providers strive to offer purpose-built solutions solving end-to-end needs in particular industries. One example is Toast, which offers an integrated solution for the restaurant industry in the US. Broad-based functional solutions offer a range of capabilities, for example, point-of-sale, payment acceptance, financial reporting and analytics, which can be applicable across different industries. A global example of this is Stripe, which offers online payment processing for SMEs, as well as financing and other value-added services.

In Southeast Asia, integrated solutions are still nascent, with a few emerging in Indonesia. One such example is Moka, which offers cloud-based point-of-sale solutions, payment acceptance and SME lending (in partnership with digital lenders) to different types of businesses.

Full potential beyond the inflection point



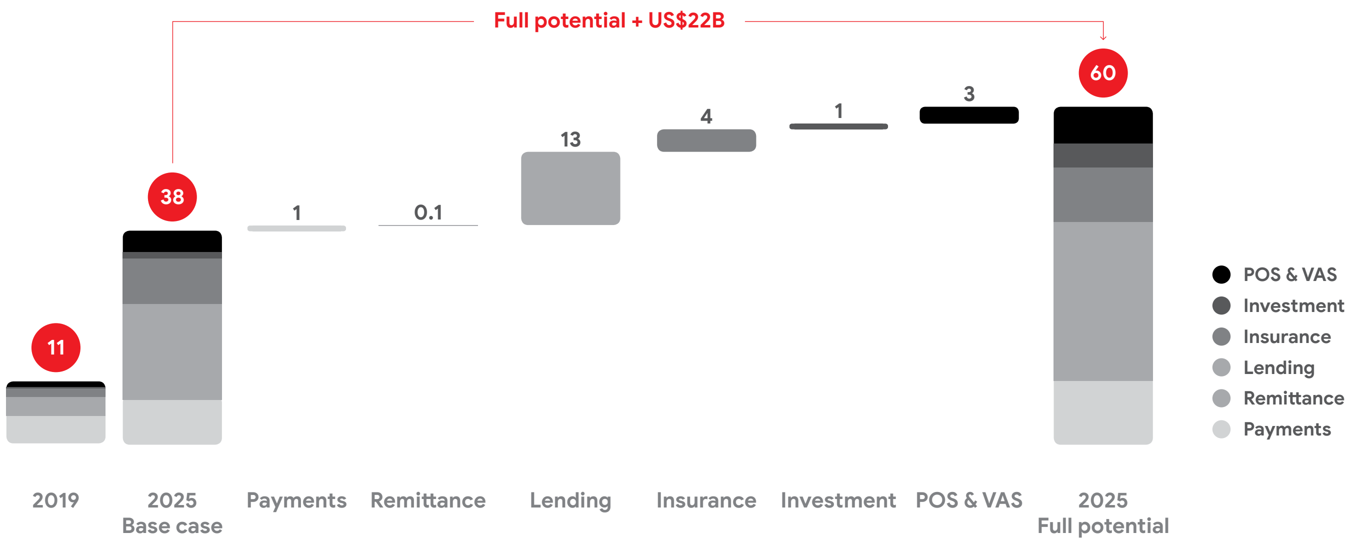
Section 5:
Full potential beyond the inflection point

- **While we expect the market to grow to $38 billion in revenue, the full potential could increase that to $60 billion by 2025 with the right regulatory support, financial market infrastructure development and scaled investments.**

Digital payments and remittances, the most advanced of the five verticals, are at inflection points and will develop at a pace set by changes in consumer behavior (see Figure 24). The other verticals will experience growth at annual rates ranging from 29% to 41% to reach their respective inflection points closer to 2025. However, the challenge of financial inclusion for the region's large unbanked population will not be fully solved. That requires overcoming significant hurdles in widening distribution, KYC capabilities, infrastructure and data availability.

Figure 24
Digital financial services could achieve a full potential of US$60 billion by 2025

Southeast Asian digital financial services revenue (US$B)



Note: Combined revenue across 6 markets: Singapore, Malaysia, Thailand, Philippines, Indonesia and Vietnam
Sources: Euromonitor; GlobalData; Bain and Temasek

As the industry evolves in the years ahead, it is unlikely to become highly concentrated. The intense level of competition, diverse business environment and different regulatory frameworks make it prone to continued fragmentation. Yet there are opportunities for large, panregional ecosystems such as Grab and Gojek to further monetize their business and capture share by adding financial services beyond their core offerings, especially in the underbanked segment.

Despite the multitude of new players entering the market, it will be difficult for customers to move away from banks completely. Established banks have capital access and regulated deposit arbitrage. Pure-play fintechs on their own will find that balance sheet funding remains a potential risk to scaling digital financial services.

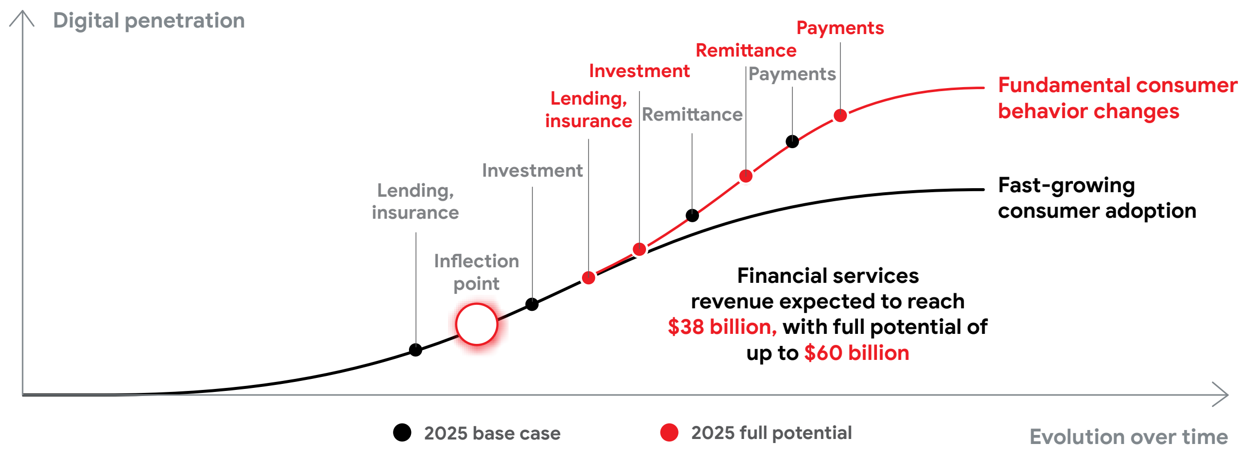
Given the market dynamics, it also is unlikely that any player will win on its own. Instead, leaders will build ecosystems through strong partnerships or deeply integrated alliances to establish multiple touchpoints with customers and ultimately bundle offerings.

Established players will need to accelerate the transformation of their core operations and offerings to survive the intensifying competition and the power shift to consumers. Increased data portability through open banking can accelerate a shift in business models with a broader array of opportunities for innovation.

By 2025, we expect digital financial services' full potential could reach up to $60 billion in revenue and contribute up to 17% of the total financial services industry's revenue (see Figure 25). This assumes a few important criteria are in place. The industry requires continued investment to promote innovations as well as incentives to stimulate adoption and use. But the biggest swing factor will be supportive and consistent regulations and government policies. That means a concerted regulatory push for digitization and financial inclusion, electronic KYC and licensing to further allow virtual banks. It also means establishing critical infrastructure including digitized national ID systems, real-time payment systems, standardized QR code and effective credit bureaus. Only with these ingredients will Southeast Asia's digital financial services industry reach its full potential.

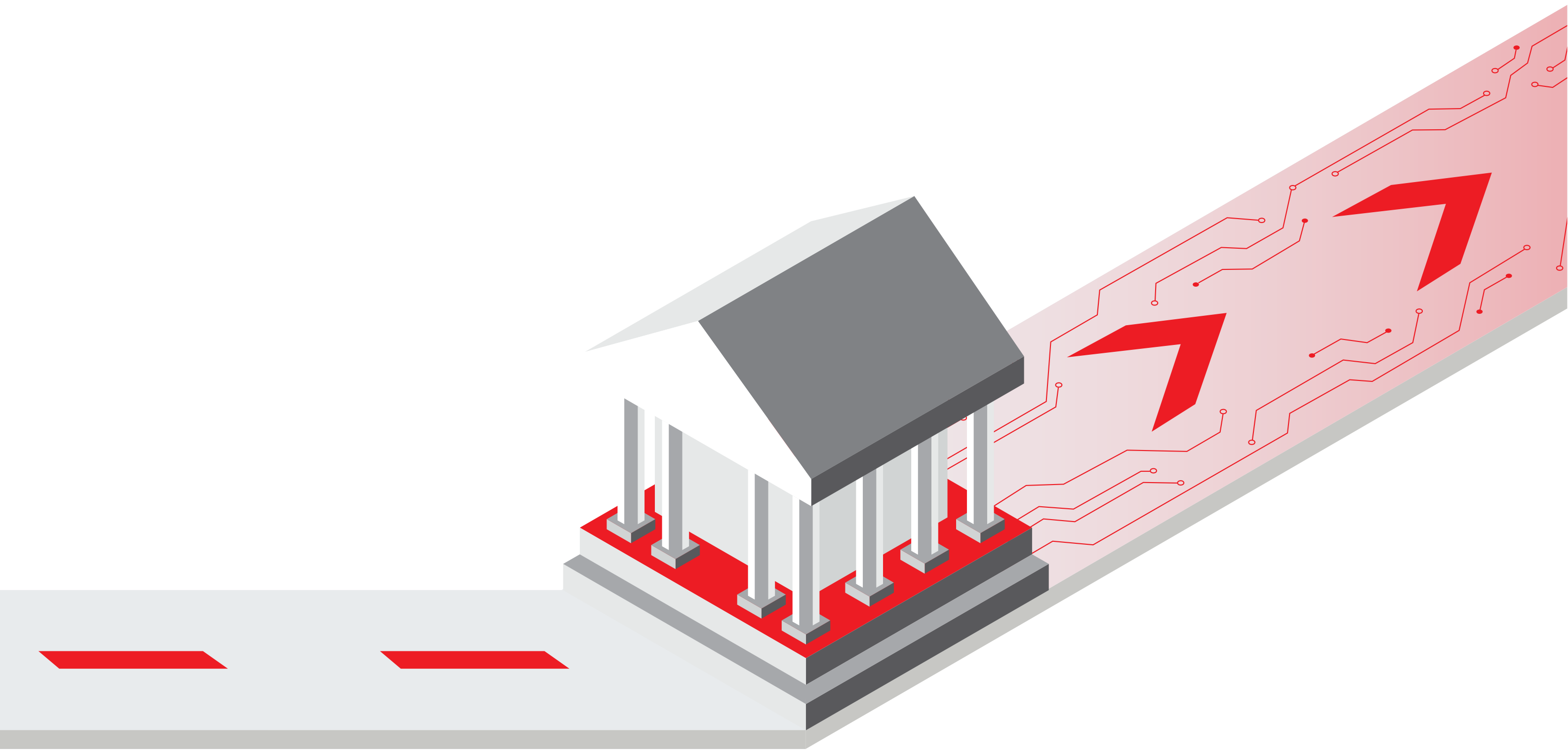
Figure 25

Digital payments will develop at a pace set by consumer behavior, while other services will accelerate growth toward an inflection point in 2025



Source: Bain and Temasek

Appendix

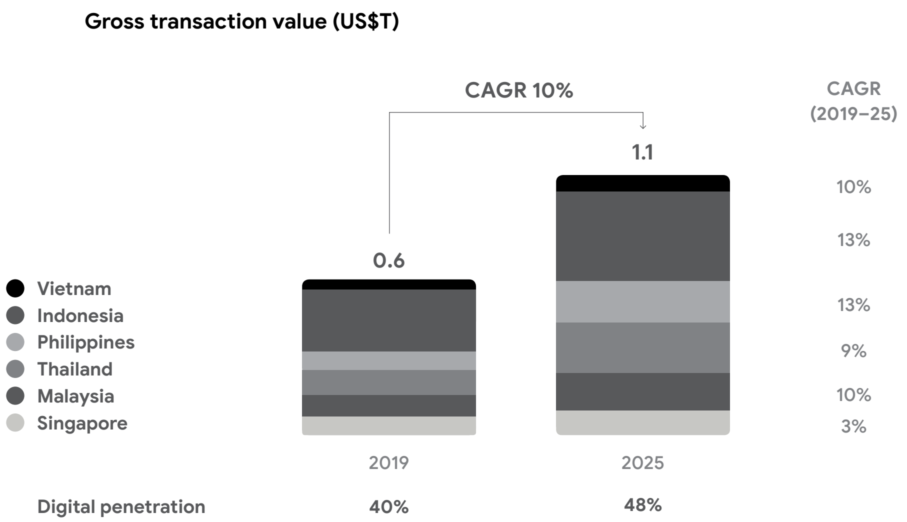


Appendix:
Looking forward to 2025

- Payment transaction volumes will continue strong growth momentum and exceed $1 trillion, but margin pressures will limit revenue growth.
- Other verticals will grow at 17%–41% and approach inflection points by 2025.

What is the path of growth for each digital financial services vertical? Across the region, much of the growth in digital financial services will come from Southeast Asia's developing markets. For example, Vietnam, Indonesia and Philippines digital payments gross transaction value will grow by 10%–13% CAGR until 2025 (vs. 3% in Singapore). The total amount of digital loans in these three countries is expected to grow by more than 50% CAGR to 2025 (compared with 17% in Singapore) (see Figures 26 and 27).

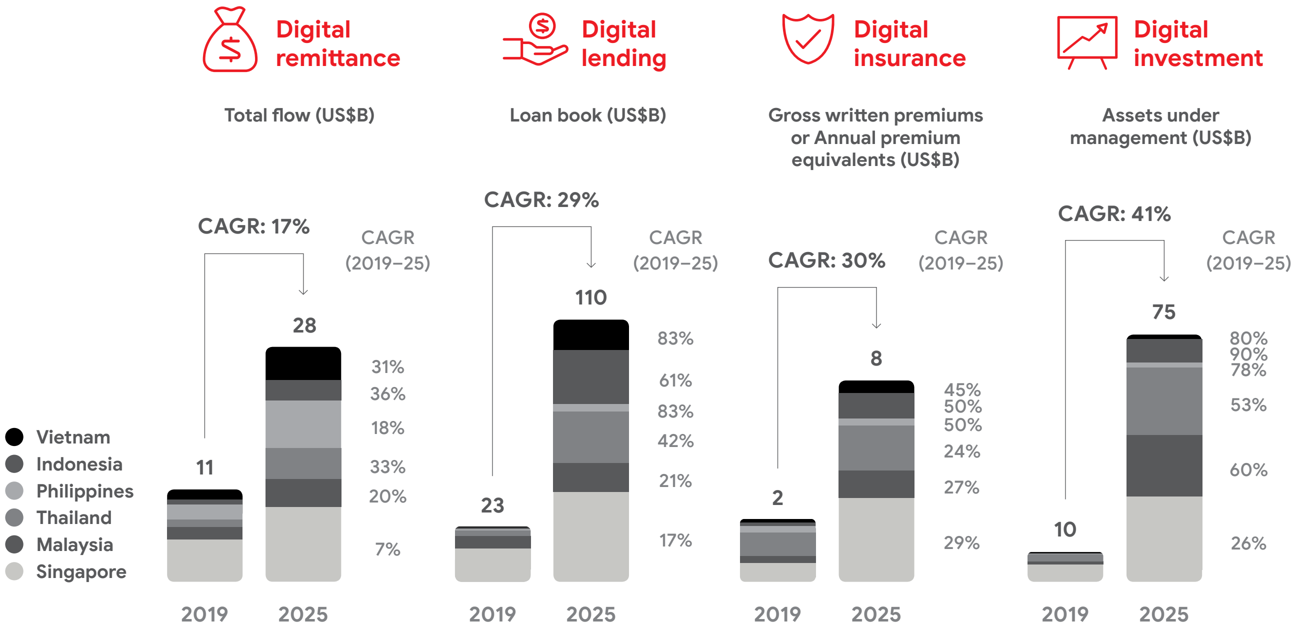
Figure 26
Digital payments will exceed US$1 trillion by 2025



Sources: Euromonitor; GlobalData; Bain and Temasek

Figure 27

Emerging markets in Southeast Asia will create more incremental digital opportunities

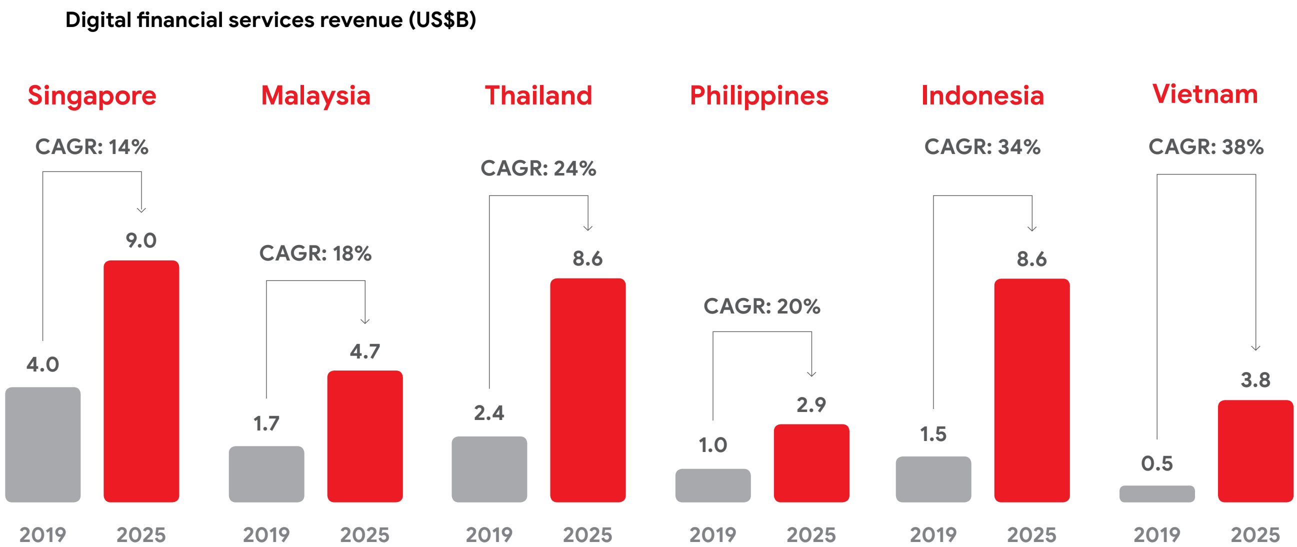


Note: Insurance number reflects annual premium equivalents for life insurance and gross written premiums for health and general insurance
Sources: Euromonitor; GlobalData; Bain and Temasek

Digital financial services present a business opportunity for financial service providers that aim to drive transaction values and monetize such services through different mechanisms, e.g., imposing a merchant discount rate to merchants for payments, charging fees and earning a foreign exchange spread for remittances, earning interest charges on lending, earning premium on insurance, as well as sales charges and management fees for investments. Indonesia and Vietnam are predicted to grow the fastest in the region in terms of digital financial services revenue (see Figure 28).

Figure 28

Indonesia and Vietnam are projected to grow the fastest in digital financial services revenue



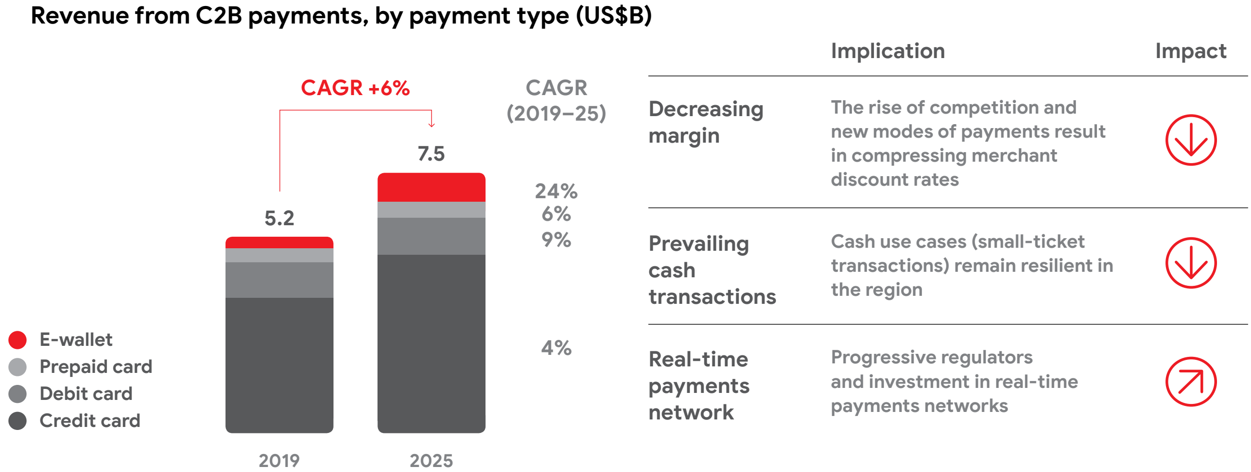
Sources: Euromonitor; GlobalData; Bain and Temasek

Digital payments. Digital payments will exceed $1 trillion in transaction value by 2025, driven by payment providers offering incentives and rewards to gain customer loyalty and own customer relationships. However, digital payments revenue will grow at a slower pace, at 6% CAGR, as increased competition in this space causes a reduction in merchant discount rate (MDR), the primary revenue source for payment providers (see Figure 29).

MDR may decline even faster than forecasted if regulators in the region take more direct measures to lower the cost of payments. This was the situation that took place when Malaysia imposed a cap on credit card and debit card interchange fees in 2015. In addition to lower MDR, increased adoption of debit cards and e-wallets, and Southeast Asia's particularly strong cash resilience, will also contribute to limited revenue growth. While the revenue pool from digital payments will moderate, most players are establishing digital payments as a beachhead to offer other financial services, such as lending, insurance and investment.

Figure 29

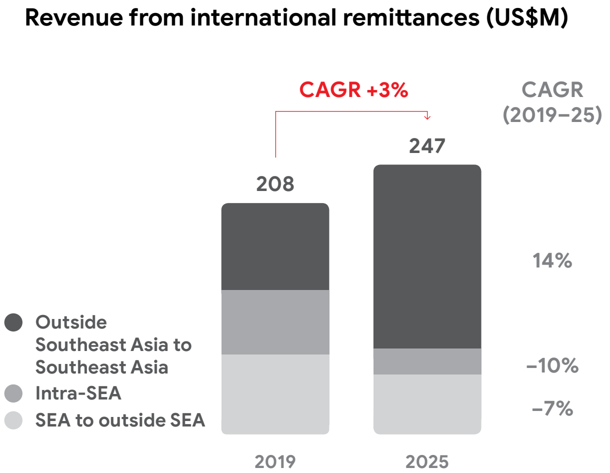
Revenue from digital payments will moderate as merchant discount rates decline



Sources: Euromonitor; GlobalData; government statistics; Bain and Temasek

Digital remittances. The volume of remittances will rise steadily with the sustained presence of overseas foreign workers, especially from the Philippines. These workers will continue to send remittances to their families at home—the flow of money to Southeast Asia from other countries remains the largest portion of digital remittance revenues. However, the total revenue from remittances will grow only marginally by an annual 3% through 2025, as transaction processing margins decline amid rising competition from lower-priced digital-only players and the industry grapples with stringent regulation (see Figure 30).

Figure 30
Digital remittance revenues will grow driven by transaction volumes, but growth will be reduced by competition on fees



	Implication	Impact
Foreign workers	Growing demand from other countries for Southeast Asian white- and blue-collar professionals increase demand for international remittances	↗
Decreasing margin	Eroding transaction processing margins due to rising competition from digital-only players with lower prices	↓
Regulation	Stringent regulations, from license requirement to minimum paid-up capital	↓

Sources: Knomad; government statistics; expert network; Bain and Temasek

Digital lending. Digital lending, including nonhousing consumer loans and SME loans, is poised to grow 33% annually to reach $18 billion by 2025 (see Figure 31), replacing digital payments as the largest contributor to the digital financial services revenue pool. The growth in nonhousing consumer loans and SME loans will be accelerated by three major factors.

(i) New business models will enable companies to lend to a larger share of the population that historically has been unprofitable to serve.

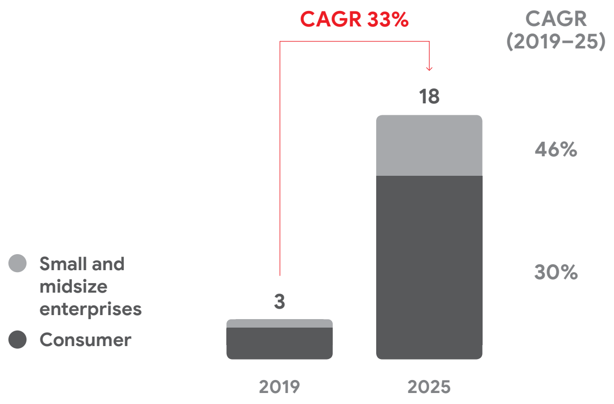
(ii) Technology has automated the loan origination process. Financial services products can be embedded in customers' digital journey, such as checkout financing for online shopping and travel, or deferred payments for ride-hailing trips, providing greater convenience to customers and unlocking new business opportunities.

(iii) Availability of funding from banks that are willing to work with consumer tech platforms or established consumer players as a new distribution channel.

Figure 31

Robust data, convenience and supportive regulation will help boost digital lending revenues beyond US$18 billion by 2025

Revenue from digital lending (US$B)



	Implication	Impact
Cost structure	Digital lending has potential to lower costs, providing access to populations that were historically less profitable	↗
Convenience and speed	Rise of automated technology has enabled digital lending to be embedded in consumer digital transactions and eased complexity of origination	↗
Enabling regulation	Supportive regulation and national financial inclusion agenda tapered by a cautious approach following Chinese P2P market fraud and significant defaults	→

Sources: Euromonitor; government stats; expert network; Bain and Temasek

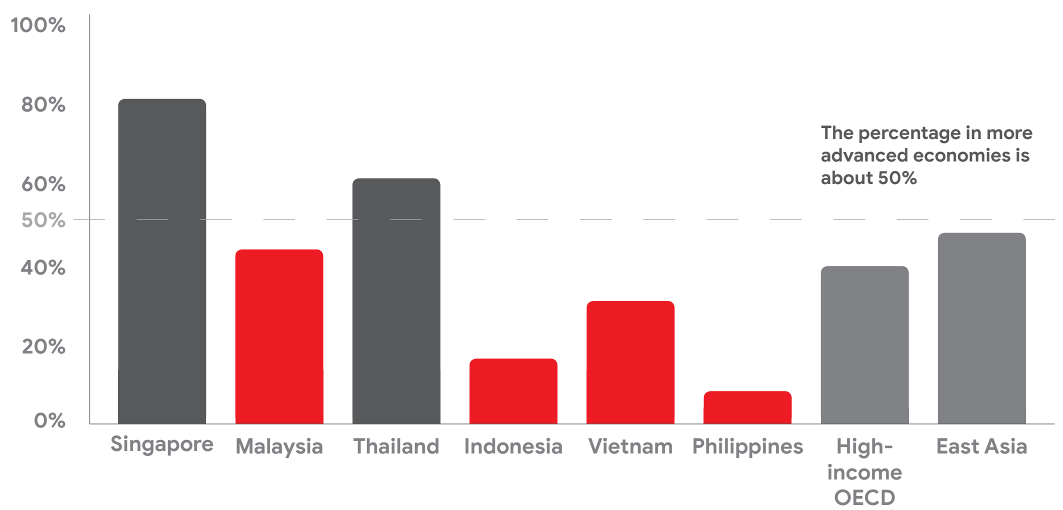
This combination of access, convenience, channel innovation and supportive regulation will help companies meet the unmet demand for nonhousing consumer and SME loans. Indonesia and the Philippines are particularly promising markets. Both countries lag others in the region in nonhousing consumer debt-to-household income (see Figure 32).

Nonfinancial services companies with a large customer base, such as telecom operators, retailers, e-commerce and online travel companies, are also showing strong interest to offer lending and other financial services products to their customers in order to enhance user stickiness and monetize customer relationships and data. These additional channels will further support volume growth.

Figure 32

There is significant unmet demand for nonhousing consumer loans

2018 nonhousing consumer loans as a percentage of total household income



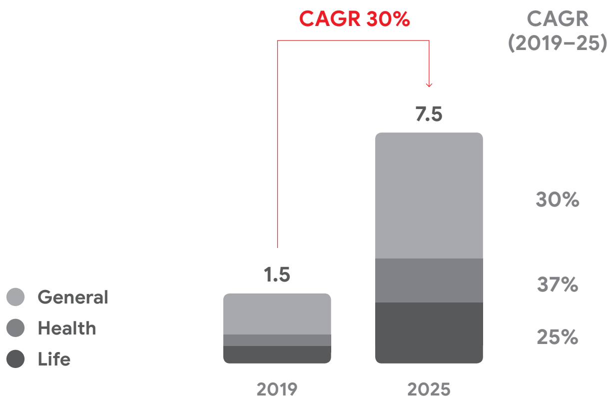
Sources: Government statistics; International Finance Group (World Bank) report; World Bank statistics; Euromonitor

Digital insurance. Insurance businesses will see a strong revenue growth trajectory, especially given a low base. Digital insurance will grow annually by an estimated 30% until 2025 (see Figure 33). Emergence of new distribution capabilities, channels, better data-supported underwriting, simpler products at attractive pricing levels, and improved customer service supported by technology-enabled operations will contribute to this growth. Digital penetration will be more prominent in general insurance that can be embedded in customers' digital transactions, whereas life insurance will require more product standardization and overall improvement in product awareness and education to be sold without human interaction.

Figure 33

New distribution channels, an abundance of data and process digitization will propel growth in the insurance sector

Revenue from digital insurance, by product type (US$B)



	Implication	Impact
New distribution channel	Emergence of new digital channels (aggregator, e-wallet, online purchase transactions) will open up access for new markets and standardized products	
Abundance of data	Emergence of data-based technology (telematics) enables insurers to structure products differently and offer lower prices to consumers	
Process digitization	Claim digitalization can help insurance companies expedite the process (improved customer experience) and manage costs better	

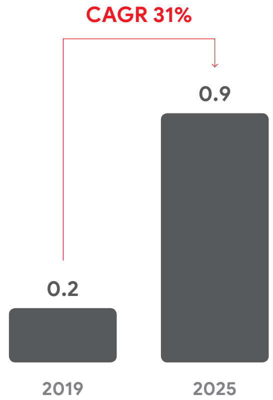
Sources: GlobalData; expert network; Bain and Temasek

Digital investment. Finally, the coming years will see 31% annual growth in digital investments and wealth management revenue (see Figure 34), generated by fees and expenses earned on increasing volumes of assets under management. Similar to insurance, new distribution channels will provide better access to digitally enabled investments. Technology helps to automate investment allocation decisions while lowering the cost and barrier of entry into wealth management for consumers. The standardization of investment options and ease of pooling consumer funds for investments through digital distribution channels will open access to individuals who previously were unable to meet the minimum investment asset threshold requirements.

Figure 34

Digital investment will grow with the help of distribution channels, digital wealth management and product modularization

Revenue from digital investment (US$B)



	Implication	Impact
New distribution channels	New distribution channels provide access for people who were previously unaware of investment products (wallet balance as means to investments)	
Emergence of digital wealth management	Digital wealth management, which automates investment decisions based on consumer preference and risk profiles, has lowered costs and barriers to entry for investments	
Product modularization	Standardization of investment options and aggregation of pools of funds have given access to individuals who previously could not meet investible-asset requirements	

Sources: GlobalData; expert network; Bain and Temasek

Appendix:
Taxonomy and definitions

Key terms	Definitions
Digital financial services	
Digital payments	All digital consumer-to-business payment methods (credit card, debit card, prepaid card, account-to-account transfer and e-wallet)
Digital remittance	All digital consumer-to-consumer cross-border transfer originated through digital channels (no face-to-face, ATM or phone interaction)
Digital lending	All SME (small to midsize enterprises) and non-housing, non-credit card consumer loans originated through digital channels (no face-to-face, ATM or phone interaction)
Digital insurance	Life, health and general insurance (retail and SME only) sold through digital channels (no face-to-face, ATM or phone interaction)
Digital investment	Retail mutual funds sold through digital channels and wealth management/ advisory services offered through digital channels (no face-to-face, ATM or phone interaction)
Digital financial services players	
Established financial services players	Existing financial institutions in the market, such as banks, consumer finance companies, money transfer operators, insurance companies and asset management companies
Established consumer players	Large enterprises offering consumer services (usually with significant possession of consumer data), and offering forms of financial services, including telecommunication, airline and retail companies
Pure-play fintechs	New or emerging technology-driven players disrupting established financial services industry with new business models and/or solutions. Examples include P2P lenders, pure-play payment players and digital remittance companies
Consumer tech platforms	Technology companies offering consumer services through a platform, in areas ranging from e-commerce, ride hailing, food delivery, social media and content, among others
Consumer segments	
Banked	Population of individuals that are relatively well served in their financial services needs (e.g., having access to and owning credit card, insurance, investment products, etc.)
Underbanked	Population of individuals that are not well served or have unmet needs in financial services (e.g., limited access to credit card or lending; underinsured; no access to long-term savings products)
Unbanked	Population of individuals that have no access to basic banking (e.g., bank account)

Merchant segments	
SME merchant	Micro, small and midsize business-to-consumer (B2C) enterprises that provide goods and services to consumers and receive payment directly from consumers, e.g., restaurants
Large merchant	Large B2C enterprises that provide goods and services to consumers and receive payment directly from consumers
Merchant services	
POS	Point-of-sale solution that allows merchants to process sales at offline stores, typically in the form of a cash register
mPOS	Mobile point-of-sale solution that can be served wirelessly on a smartphone or tablet
Other terminology or abbreviations	
Digital penetration	In payment, refers to percentage of credit card, debit card, prepaid card, digital account-to-account transfers and e-wallet payments, out of total payments In remittance, lending, insurance and investments, refers to percentage of transaction volumes, loan book, insurance premiums or asset under management that are originated digitally (with no face-to-face, ATM or phone interactions)
Know-your-customer (KYC)	A process of verifying the identity of financial services customer to ensure providers are aware of the background and any potential risks the customer may have
Gross transaction value (GTV)	Total dollar value of transactions
Merchant discount rate (MDR)	Fee charged to a merchant for payment processing services, which includes acquiring services fee, processing fee, scheme fee, interchange fee and value-added-services fee
Assets under management (AUM)	Total market value of investments managed by financial services providers on behalf of customers
Gross written premium (GWP)	Total revenue (or premiums) of all insurance policies that have been taken out by the customers
Annual premium equivalent (APE)	Measure used for life insurance premium that normalizes the total policy premium to the equivalent of regular annual payments
Value-added services (VAS)	Additional services that are offered to customers beyond the core product or service, for example reporting, analytics, or lending, among others

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