Emerging Challengers and Incumbent Operators Battle for Asia Pacific's Digital Banking Opportunity

June 2021
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At A Glance

The digital banking space continues to attract a diverse range of industry players, from incumbent banking operators to emergent new challengers. There are now 249 digital banking players globally, but of those, just 13 have been successful in generating a positive bottom line. Of those 13 successful players, ten are based in the Asia Pacific (APAC) region.

Digital Challenger Banks continue to gain traction with consumers looking for increased personalization and value-added services. This evolution is being supported by growing liberalization by banking regulators. As the landscape expands in coming years, operators will need to consider not just how to win in this market, but also how to play the game in the way that suits their business.

Markets to Watch in Southeast Asia and India

There are five key markets in Southeast Asia, alongside India, which offer potentially fertile ground for growth, framed by positive market moves and encouraging demographics. Our research identifies Malaysia, Philippines, Indonesia, Vietnam, and Thailand in Southeast Asia, as well as India, as countries to consider launching a successful Digital Challenger Bank. Leveraging BCG's substantial experience working with digital banks across the globe, we explore critical insights and best practices for leaders looking to succeed in their journey to establish a digital bank.

A Strategic Path to Success

The path forward remains challenging for both incumbent banking operators and emerging players looking to establish a Digital Challenger Bank. Success will require a nuanced and focused strategic approach that targets the specific needs and considerations of the desired market segments. In our conclusion, we raise key questions that must be answered in charting this journey, and critical considerations around adoption of the right technology, culture, and business plan to succeed.



The banking landscape has experienced significant transformation over recent decades, as connected technologies unlock new banking opportunities.

The early 2000s witnessed an important period of transition, as the rapid growth in global internet users triggered the rise of e-banking and internet banking services. These early online banks were largely seen as additional services or new distribution channels for existing incumbent banking operators.

Digital banking however was to transform this landscape even further, as the widespread use of smartphones saw the rise of new banking models in the early 2010s. This necessitated a fresh repositioning for existing banking players as they shifted to meet the growing digital needs and expectations of customers, often requiring front-end to back-end digital transformations.

The rapid rise of a connected digital economy has created new impetus in recent years. Major digital brands such as Amazon, Grab, and Lazada have inspired expectations of always-on digital services and personalized customer experience. Customers increasingly expect to receive responsive customization in all their digital experiences, triggering changing expectations around their banking services.

"My bank is always on. I can open accounts instantly, just like same-day deliveries from Amazon... only better!" Asian Digital Challenger Bank customer

"I have not seen my bank branch. My bank simply follows me wherever I am, whatever I need." Asian Digital Challenger Bank customer

"My bank has the best offers, personalized specially for me." Asian Digital Challenger Bank customer

"I try to maximize the use of my bank to 'earn' the most value... just like I use [Amazon] Prime for all my shopping." Asian Digital Challenger Bank customer

This fresh landscape of digital expectation has driven the rise of a new banking model that forms the focus of this report. These Digital Challenger Banks (DCBs) are increasingly emerging from what are non-financial institution (NFI) players (such as fintechs and tech players), and look to be transforming the banking ecosystem.

A Changing Banking Landscape

In this changing landscape, incumbent banks have faced pressure to continuously upgrade their digital capabilities to cater for evolving customer expectations.

This digital evolution has emerged in many forms, from conservative approaches which seek simply to improve existing digital channels, to more aggressive launches of stand-alone digital banking businesses that look to cater for new or existing customer segments with independent operations.

Banks which embrace a channel-expansion approach are often seeking to target existing customers with similar or related products, leveraging online channels such as an application (app) or website. The multi-channel approach is now largely seen as standard for traditional banking operators, and almost all legacy banks now boast some form of online presence. Some banks have sought to establish an independent business unit, with separated operations and leadership. This is often done in an attempt to target new market segments and build success by providing a fresh customer experience.

Competition for market leadership remains wide open in the majority of countries across the globe. This competition is compounded by the emergent challengers of Digital Challenger Banks—with digital-only delivery that can quickly reach target customers at scale.

DCBs come in a number of formats, and provide a full bank service or bank-like service depending on their operating structure and banking licenses.

BCG analysis indicates that there are 249 DCBs in existence globally as of the end of 2020. It's estimated that more than two-thirds of that number entered operations since 2010, showing the rapid rise of these emerging operators

These banks seek to serve customers with diversified and personalized offerings, but are unified by key traits that incorporate electronic client servicing, a comprehensive digital infrastructure underpinning operations, and 100% digital delivery to customers.

Exhibit 1 - 50 Digital Challenger Banks in APAC



While evolving consumer expectations and demand were primary drivers in the growth of DCBs, regulatory support through introduction of digital banking policies have provided a framework to nurture this journey. Virtual bank licenses are becoming increasingly common across the globe, championed by regulators as a way to drive innovation, improve service quality, and boost financial inclusion for both consumers and small and medium enterprises (SMEs).

APAC'S Digital Challenger Banks

Asia Pacific (APAC) is home to 20% of global DCBs identified by BCG as of the end of 2020, with 50 DCBs operating in markets in the region. Many of these operators are relatively new to the market, with more than 70% established in the five years from January 2016 to December 2020. (See Exhibit 1.)

The majority of market entrants in APAC are consortium players backed by technology giants and non-financial institutions such as telecoms companies, seeking to leverage competitive advantages around existing user bases, data, and technology.

Success Is Not Guaranteed

While the number of DCBs is growing, success as defined by profit generation remains limited. Our analysis reveals that just 13, or less than 5%, of all DCBs have clearly achieved break-even globally. (See Exhibit 2.) Out of these 13 players, ten are based in APAC.

Exhibit 2 - 13 profitable identified out of 249 Digital Challenger Banks in the world



Source: BCG FinTech Control Tower.

Those DCBs which have achieved profit generation have navigated well through challenges, managing operations in a sustainable way. Most of them have strong lending propositions, and a leveraged ecosystem on which to base their customer acquisition and operations. Notably, many of these players are in China—WeBank, MyBank, Aibank, XW Bank—and Japan—Rakuten Bank, Sony Bank, Jibun Bank, PayPay Bank—while two are in the UK, one in Russia, one in India, and one in Korea. Despite being leaders in the digital banking space, none of these successful DCBs have yet to capture a market share greater than 2% in terms of total value of deposits and loans of their target segments—typically retail customers and SMEs.

Of APAC's ten profitable DCBs, four entered from a digital payment space first, then evolved to reach the status of a Digital Challenger Bank with extended financial services.

What unites these ten profitable players is that they are all backed by established companies with substantial ecosystems. The investors backing these digital players boast significant business experience and valuable ecosystems that unlock significant advantage. This has been a major factor of success as they leverage on strong brand recognition with established customer bases and rich data to drive customer insights and customization. (See Exhibit 3.)

Exhibit 3 - Ecosystem of profitable Digital Challenger Banks

Bank	Origin	Ecosystem	Nature of ecosystem	Launch Year	# of users in 2020 (Million)
MeBank 微众银行	*1	Wechat	Instant msg/social media	2011	1,200
网商银行 MYbank	*}	Taobao	E-Commerce	2003	800
XW 新网银行	*):	Xiaomi	Mobile phone/ Smart home	2010	32 ¹
百信银行 AIBANK	*1	Baidu	Search engine	2000	1,000
Payim Payments Bank	•	Paytm	E-Commerce/Payment	2009	350 ²
Rakuten 楽天銀行		Rakuten	E-Commerce	1997	100
U.3."人銀行		KDDI	Telecommunications	1984	60
PayPay 銀行		Yahoo JP	Internet	1996	34 ³
与 ソニー銀行		Sony	Conglomerate	1946	NA
kakao bank	**	KakaoTalk and KakaoPay	Conglomerate	1995	46 ⁴

Source: Omdia; Informa Tech; App Annie; Press articles; Desktop research; BCG analysis.

¹Total user of MiJia (Smart Home) app;

²Registered users;

³Monthly user;

⁴Total registered user of KakaoTalk.



Understanding Success at Digital Challenger Banks

n order to understand what success looks like for DCBs, we have undertaken a comprehensive analysis of key factors and metrics of success. Our analysis reveals that these operators have performed well in relation to most, if not all, three main factors of success. They are leveraging and utilizing existing assets, building and scaling the bank, and sustaining success. (See Exhibit 4.)

Leveraging and Utilizing Assets

Successful Digital Challenger Banks leverage and utilize existing assets such as brand recognition, existing customer networks, and financial services experience as a crucial competitive advantage.

This success is often based on strong alliances and partnerships that enable players to combine different strengths and reinforce their own position. Successful DCBs extract value internally from parent companies, and externally from deep partnerships, operating with ready access to an established customer base, data, technology, and other factors to gain competitive advantage.

Strong brand recognition. Client trust is critical to the success of financial service providers. It is imperative that operators gain a reputation that engenders trust in customers, and that reinforces the belief that both money and personal information will be tightly protected.

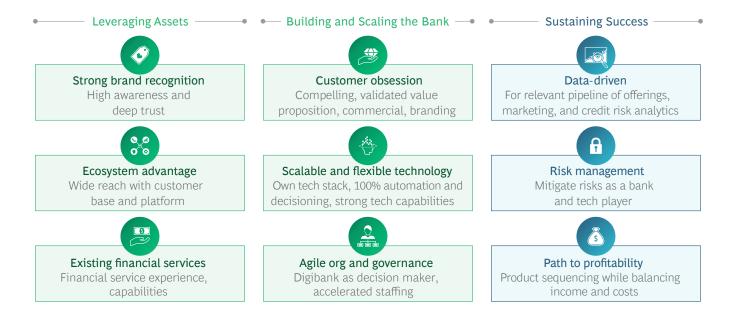
Consumer trust often takes time for new brands to build. Some successful DCBs have leveraged the reputation of parent brands or financial partners to rapidly develop this trust. This has enabled players to acquire customers at a faster and often more affordable rate, with less resources having to be directed to building brand awareness and trust

Ecosystem of users. Access to a large established customer base offers an invaluable head start for emerging players seeking to target a digital-native customer base. This avoids any need to transition customers to digital channels, and provides a cheaper, faster avenue to customer acquisition. Once a DCB is fully embedded in an existing ecosystem, it provides seamless digital financial service delivery across the ecosystem.

Alongside customer acquisition benefits, these ecosystem players can also leverage the huge wealth of existing data to build better customer insight and more customized service delivery. This provides a highly-effective platform for both cross-selling and personalized offers. Rich data also adds a further benefit of enabling operators to build higher quality credit underwriting models.

Experience in financial services. Pre-existing knowledge of financial service delivery offers a strong foundation for success, built on understanding of an often complex financial industry, including risk management and regulatory requirements. This experience also contributes to an existing pool of transaction data and working credit scoring models which offer an informed starting point.

Exhibit 4 - Success factors that drive a new Digital Bank



Source: BCG analysis.

Building and Scaling a Digital Bank

Successfully building and scaling a digital bank will require a focus on three core pillars of success that stimulate customer engagement and ensure critical business agility.

Customer obsession. It is important to focus on a compelling value proposition and product features, strengthened through continuous market testing. Successful DCBs employ many of the same tactics and focused efforts that customers expect from leading customer-oriented technology companies today. This allows operators to go beyond simple event-based engagement relied on by traditional operators, to grow and scale at a far more accelerated pace. (See Exhibit 5.)

DCBs should embrace a holistic approach that incorporates the end-to-end customer journey, covering acquisition, engagement, deepening relationship, and customer referral. It's not enough just to focus on product features. User-friendly and intuitive user interface (UI) and user experience (UX) are an essential prerequisite, and not a differentiator.

Successful DCB KakaoBank introduced social features to build customer obsession, including its popular 'Eat Lover Club' which allows users to easily split expenses among a group of friends. Payments linked to social media make for a seamless money transfer experience in a chat room. These offerings build on a sense of community engagement to ensure convenience and strong customer loyalty.

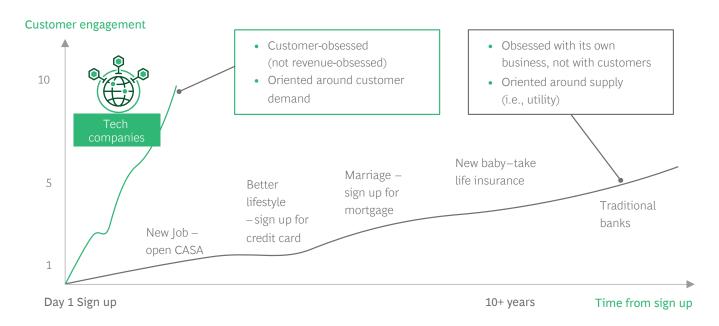
Scalable and flexible technology. Operators should develop a robust banking architecture built on scalable and flexible technology and cloud-native components. This should incorporate five key layers: 1) integration layer with standard APIs, 2) front-end consistent engagement layer, 3) integrated data and advanced analytics layer, 4) operational layers, and 5) security layer with secure-by-design features. These layers are built on key technology principles. (See Exhibit 6.)

Agile organization and governance. Agility is critical to the success of digital banks. They should be run independently, and focus on their own success with full speed of decision making and action taking.

Organizational structures should be designed to enable collaboration between digital talent and agile bankers. A core of talented IT staff should be established at the outset. Management should embrace an agile structure as it scales, echoing the growth of successful technology firms.

The bank organization should be flexible and efficient, embracing an iterative process of testing and execution. It is vital that this is captured in the governance framework of systems, controls, and processes. Clear division of roles and corresponding decision rights and responsibilities among business functions will legitimize and balance interactions.

Exhibit 5 - Tech vs banks on engagement



Source: BCG case experience.

Exhibit 6 - Technology Principles



Lean, flexible, scalable cloud native component

Modularized and componentized with containerized microservices



Collaborative with ecosystem

· Mandated use of integration layer



Hybrid data platform

- Support for structured and unstructured data, with sufficient computing power for real-time analysis
- Single source of data platform



Automated and iterative

Built for minimal manual operations and toil



Secure by design

 DevSecOps pipelines across all products built. (Cyber-) security concepts applied across all layers to protect systems and data

Source: BCG case experience.

Sustaining Success at a Digital Bank

Once a bank is established and scaled, sustaining success will require a renewed focus on key areas of service delivery.

Data and analytics. Unlocking the value of consumer data insights is critical to a successful digital bank. This is key to meeting expectations of personalized and customized product offerings, and identifying the correct approach to target specific markets. Successful banks often leverage both internal and external resources to build out this consumer understanding.

Risk management. Digital banks fundamentally succeed on the value of data and digital service delivery. That means they must manage both financial and data threats effectively. It is important to define, agree, and formalize policies covering end-to-end access and information security. Operators should adhere to risk management principles which are specifically tailored to digital banks, incorporating the additional risks around data and technology.

Successful digital banks learn to leverage automation and big data to quickly and effectively manage risk. This includes automated credit risk assessments of loan applicants which incorporates information such as social data, online behavior, transaction data, and buying behavior. This has proven to be effective in managing non-performing loans (NPL). WeBank achieved a net interest spread of 6%, significantly higher than the Chinese industry average of 2-3%, with NPL less than half the industry average at 0.64%, by leveraging such data points.

Path to profitability. There is no single, proven path to profitability for a digital bank, but analysis of successful operators reveals the importance of the right product release sequence. Revenues and costs are also monitored and managed in parallel to identify areas where the bottom line can be improved.

Digital bank players should gradually introduce curated products that match the desires of the target market in order to avoid bombarding customers with a confusing array of product types or features at launch. This should initially begin with a simple but essential product such as payments, personal loans, or retail current account saving account (CASA). Payments will ensure regular customer usage, personal loans can generate earnings and hook customers, and CASA will enhance profitability as a low-cost source of funding.

Ethnographic research to deeply understand pain points and identify unmet needs is critical in ensuring operators offer the right product features to the right customers.

As a bank expands, it should continuously innovate apps to maintain customer engagement and ensure daily usage. This should be balanced against a target of consistently low customer acquisition costs that operate below those of traditional incumbent banks. Revenue sources should also be clearly identified.

Our research shows the most successful plays rely more on interest-based income at early stages, requiring strong lending propositions. A clear strategy on how to achieve maximum profit margins while serving underserved segments with low-fee or free services is crucial. Given the essential role technology plays in DCBs, lowering IT and operational costs is also critical.



Case Study: KakaoBank

akaoBank offers a valuable study of success, revealing the significant potential for Digital Challenger Banks even in a highly-banked and mature market such as South Korea.

Since its launch in 2017, KakaoBank has gained over 13 million customers. It reached a customer penetration rate of 26% with a far lower acquisition cost per customer than traditional banks, leveraging the significant ecosystem of parent company Kakao Corp. That includes the extremely popular chat platform KakaoTalk.

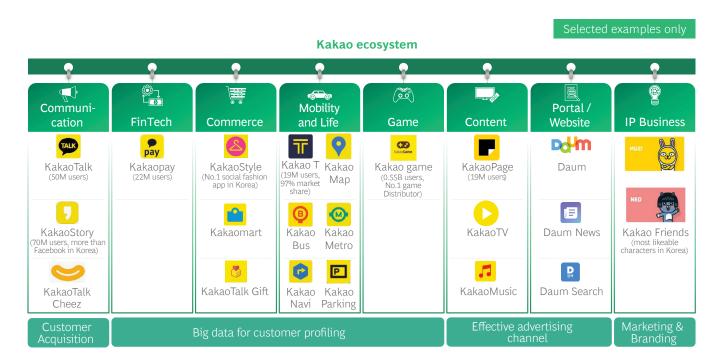
KakaoBank has increased its loan book annually since its launch, and interest income continues to be a major driver of its profitability. Of the company's ~USD603 million revenue, 66% is contributed by lending activities. KakaoBank also successfully targets underserved segments through its instant unsecured lending to sole proprietorship, addressing pain points from existing offerings that require long turnaround times or offer limited access. (See Exhibit 7.)

KakaoBank leveraged KakaoTalk—South Korea's most popular social network service—to rapidly on-board new customers. With 97% market share amongst smartphone users, KakaoTalk provided a pathway to KakaoBank acquiring more than five million customers within six months of launch. A personalized approach that targeted millennials through a popular Kakao Friends character offering saw 70% of customers acquiring debit cards over this period.

KakaoBank also leveraged platform familiarity to deliver effective UI/UX with customer-centric design. The KakaoTalk and KakaoPay mobile applications are both based on established ecosystem design, with innovation driven by the product features and customer experiences that are targeted at providing a highly-engaging customer experience.

This familiar product design enabled easy sign-up processes, providing rapid on-boarding that saw 300,000 customers joining on the day of launch. Just three products—checking and savings account, time deposit, personal loans—were offered to avoid confusion in customers. Simple, convenient, digital processes underpin the success of KakaoBank's offering, including later products such as housing rental deposit loan services, which can be delivered far faster than similar products from legacy banks.

Exhibit 7 - KakaoBank ecosystem



Source: Rise of Digital Banking in Southeast Asia; Press search; BCG case experience.



Case Study: WeBank

eBank is a digital bank operating on an 'open banking' approach which leverages open APIs to create an integrated digital ecosystem. WeBank's primary source of income comes from interest accrued from its lending products. It focuses on smaller loans with high volumes of customers driven by an extensive user base captured from a variety of ecosystem partners such as WeChat. (See Exhibit 8.)

WeBank utilizes its open banking model to connect financial institution incumbents and ecosystem partners to serve underbanked/unbanked individuals and SMEs. This shared business infrastructure is a direct result of the open banking system, backed by continuous collaboration with business partners.

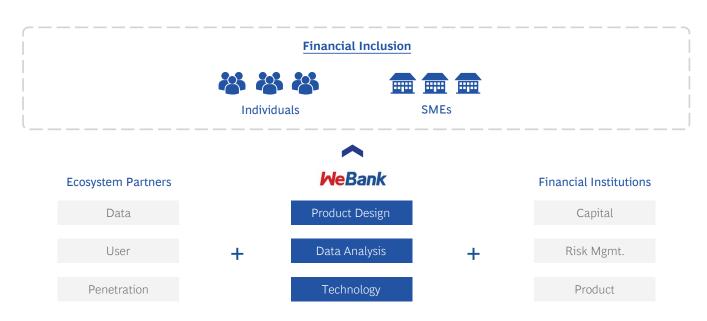
WeBank successfully embeds the product journey for products such as loan applications in other popular apps like WeChat Pay and QQ Wallet, allowing users to complete the full application process in these partner apps. WeBank has also developed a digital inclusive financial product matrix to serve the general public and SMEs, which includes consumer loans, SME loans, auto loans, the WeBank app, and other key offers.

WeBank further benefits from a technology-driven approach founded on an ABCD—AI, blockchain, cloud computing, big data—strategy. This enabled WeBank to significantly lower its IT costs during expansion, contributing to a shorter break-even period and more sustainable growth.

WeBank steered its journey to profitability by introducing products sequentially, rather than crowding users with initial offerings. Income from interest on loans continues to be the main driver of revenue, and the bank has continuously lowered its cost-to-income ratio.

Leveraging its outstanding data analytics and robust modeling capabilities, WeBank has achieved an NPL less than half the industry average at 1.20%.

Exhibit 8 - Tencent ecosystem





Potential markets for success in Southeast Asia and India

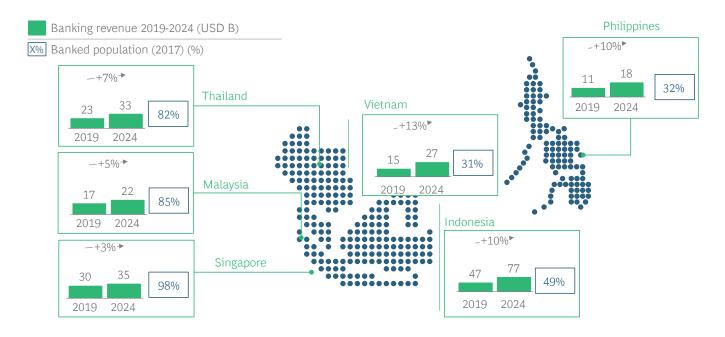
outheast Asia (SEA) and India offer notable opportunities for Digital Challenger Banks, building on the momentum of consumer digital trends and evolving regulatory frameworks.

COVID-19 has further accelerated this potential, driving greater digital adoption and the pathway to digital banking growth. Consumer perceptions have shifted more positively towards digital service delivery in areas such as banking, largely founded on a growing demand for speed and convenience.

Southeast Asia's banking sector is projected to deliver significant growth in coming years, with Vietnam, Philippines, and Indonesia expected to register double-digit growth from 2019 to 2024. (See Exhibit 9.) These countries also represent markets with significant underbanked populations, ripe for disruption by successful DCBs. India's significant population and large underserved demographic echoes many of these opportunities.

Through our analysis of the core success factors for Digital Challenger Banks, we have identified six key markets which offer the greatest potential in Southeast Asia and India. (See Exhibit 10.)

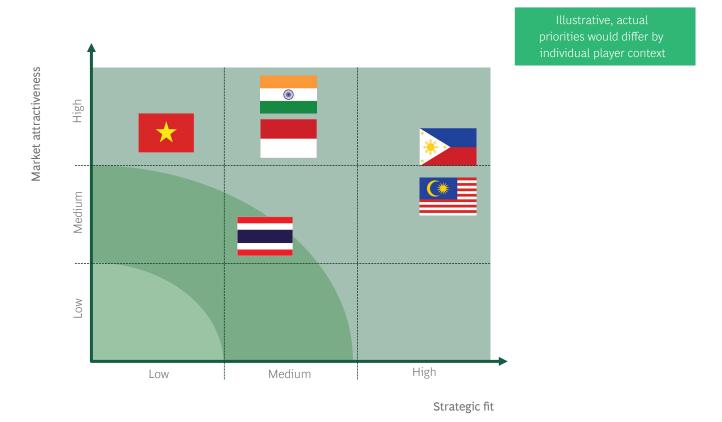
Exhibit 9 - Banking revenue and unbanked population in SEA



Sources: BCG Global Revenue Pools; BCG ASEAN Banking Revenue Pool; Central banks; World Bank; Global Findex.

Note: (i) Banked population = Account ownership at a financial institution or with a mobile-money-service provider (% of population ages 15+); (ii) Exchange rate of 4.14 USDMYR used; (iii) Banking revenue includes both retail and wholesale (covering SME and corporate banking)

Exhibit 10 - Country prioritization framework



Source: BCG analysis.

Malaysia

Malaysia boasts a digitally-savvy population, and despite high banking penetration of 85% currently, there is still room for significant growth, particularly in the area of underserved individuals and SMEs.

The recent opening up of applications for digital banking licenses provides a positive framework, in a population where studies reveal more than 30% of consumers and businesses are willing to adopt digital banking.

The nation's payment market remains cash-resilient, but offers high growth potential as the shift towards digital payments continues. Debit cards account for 81% of total cards in circulation in 2019.

Banks have been amplifying efforts to improve digital and technological capabilities, with significant outspending on IT infrastructure. There have as yet been no identifiable winners taking advantage of the digitally-engaged population, and no financial technology company has yet achieved true scale beyond the payment space.

Digital banks have a number of opportunities to target market share according to ethnographic research conducted by Dalia Research in 2019:

- **Payments.** Boost engagement, offer lower fees, enhance service quality.
- **Personal loans.** Improve access, offer more favorable terms, reduce length of application processes.
- **SME loans.** Improve access for wider range of business types, reduce service rates, provide customizable products that fit business needs.

The digital banking license application in Malaysia is open through the first half of 2021, and is expected to be highly competitive given relatively low minimum paid-up capital requirement of ~USD72 million.

Philippines

Philippines is a market with encouraging demographics around the potential for digital banking adoption. The release of the Digital Banking Guidelines by the regulator in April 2021 offers further opportunity in this regard. As of the time of publication, one banking license had been granted to OFBank in March 2021.

Philippines is the second-most populous country in SEA, with a predominantly younger consumer group. More than half of the population are aged 24 or younger, and the market is extremely digitally-engaged with an average ten hours per day spent online.

Onboarding new banking customers through digital channels does present some challenges however. The lack of national photographic ID is the most prominent of those, and ID uptake more broadly is extremely low with only 2.5 million people possessing birth certificates. A new national ID system is currently being piloted, but is not expected to be fully rolled out until 2023. Tight data management and privacy laws will also necessitate robust data management systems.

Prior to the COVID-19 pandemic, Philippines had the second-highest GDP growth rate in the region at 6%. The banking sector also demonstrates significant room for growth, with cash the dominant payment of choice. More than two-thirds (70%) of the population also remains unbanked, stretching across demographics and income levels. (See Exhibit 11.)

Exhibit 11 - "Which of the following banking products and services are you currently using?"



Source: BCG CCI Philippines consumer survey, 2018.

Philippines provides a favorable setting for rapid development and adoption of digital financial services

- It has a young population of 110M people, with a large emerging middle class
- Its economic growth is expected to revert to its pre-COVID healthy trajectory of 6% per annum
- Filipinos are among the most 'digitally engaged', spending an average of about 10 hours daily online
- Over two thirds of its population are unbanked, with local banking offering not considered suitable or accessible by too many Filipinos
- There is a clear will by local authorities to develop digital financial services to stimulate financial inclusion. The release of the Digital Banking Guidelines by the regulator in April 2021 illustrate this commitment

Some challenges remain to maximize adoptions, but several initiatives underway to address them

- The lack of national photographic ID and effective credit bureau make challenging for customer authentication and lending risk assessment more complex, but a new ID system is being piloted and should reach mass adoption by 2023
- The economy is still largely cash based but the fast rise of e-Wallets illustrates the consumer readiness to adopt digital services that effectively address some of their paint points

Three well-established e-wallet payers—GCash, Paymaya and Coins.ph—are trying to digitize everyday transactions. Numerous parties including legacy bank digital channels, digital only banks, start-ups, and large tech companies are also positioning to enter the space, backed by local conglomerates or local partners. New entrants should note key points:

- **Tailored strategy.** A strategy tailored to the nation's polarized wealth structure is key, with 30% of the population in the lower segment. Future growth projections position a dominant affluent segment by 2030.
- **Partnerships.** The right partnerships to build customer reach and local brand presence is vital. Local partners can provide large customer base, rich data sets, point of presence, and brand equity.
- **Serving unbanked.** The ability to penetrate the dominant informal banking market will be essential in driving adoption, with non-bank and informal institutions the primary providers of financial services currently.

There are a wide range of entry modes available, including digital, subsidiary, branch, and with minimum paid-in capital and favorable policies. However, the Digital Bank Act is not yet finalized, and current regulation might be changed to apply specific regulation for digital banks.

Indonesia

Indonesia offers a huge market opportunity. Regulation for digital-only banks is currently under revision. This regulation may take some time to design, with release potentially expected in 2021.

Indonesia's demographics reveal the nation's significant potential, as the region's most populous nation where half the population is aged 30 or younger. The middle and affluent class is also expected to grow 1.3x from 2019 to 2024.

The country demonstrates a growing appetite for digital financial services solutions, with digital transactions expanding 30% to 50% per annum between 2015 and 2018. As of the end of 2019, Indonesia boasted the second highest e-payment penetration in Southeast Asia, next to Singapore.

Indonesia's banking industry is fragmented and competitive, with about 100 banks fighting for ~50% market share. Local incumbents began their digital transitions in 2012, with digital financial service players such as Link Aja, OVO, and GoPay beginning to enter the market in 2014. The market remains significantly cash-driven, but offers opportunities in the fast-growing credit sector. Loan growth from 2019 to 2024 is projected at around 11% CAGR.

Mobile applications designed by traditional banks remain behind non-bank entities in both scale and coverage, although some banks are partnering with FinTech players, for example BCA partnering with OVO and multiple FinTech operators to enhance their value propositions through collaborative ecosystems.

Indonesia's regulators recently announced a revision to OJK Regulation No. 19/POJK.03/2014 on Branchless Financial Services is ongoing.

It might not be currently practical to enter via a new subsidiary, but mergers and acquisitions offer an avenue for market penetration. Such a path to market entry is currently being explored by technology leaders via acquisition of a small local bank, as is the case with Gojek's Bank Jago and Shopee's SeaBank. Both operators are very aggressive in the e-wallet space. This route is likely to become more expensive as competition increases. Current national regulations stipulate:

- Able to invest 40% in a new subsidiary (99% aggregate foreign ownership)
- Minimum paid-in capital of ~USD206 million for a new subsidiary
- Require ~USD206 million committed to branches

Vietnam

Vietnam's high GDP growth makes it an attractive market to watch, particularly given its relative success in curbing the COVID-19 pandemic. In the near term, the Central Bank (SBV) is not looking to provide separate digital banking licenses, but instead angling to issue regulatory documents which guide banks on how to launch specific products online.

This is one of the fastest growing economies, with extremely strong foreign direct investment inflow and high productivity growth. The banking sector is also expanding rapidly, and while cash is dominant currently, use of banking is expanding at a substantial pace, and more than 40% of the population is now banked. Bank cards are also seeing accelerating penetration, with more than 90 million active cards of various types in 2018, up from almost zero in 2001. A photographic national ID system was also recently put in place.

The current banking landscape is fragmented, with many small players. It is likely industry consolidation will occur in future. Many banks are currently digitizing, but there is no clear dominant winner in the digital banking space yet identified. Incumbents are digitizing to maintain market share and competitiveness, but these efforts have not yet gained significant traction with consumers. (See Exhibit 12.)

New banks are faced with minimum capital requirements and potential limitations on new licenses. Aggregate foreign ownership is capped at 30% for commercial banks (whether listed or unlisted). Shareholding in commercial banks is regulated such that:

- A strategic foreign investor may hold no more than 20%
- An institutional investor and its related persons may hold no more than 20%
- An institutional investor may hold no more than 15%.
- Foreign investors that are not financial institutions or that do not meet other capital requirements are limited to holding less than 10% of the shares in a commercial bank.

Exhibit 12 - Vietnam banks digitizing

						Non Canadative	
	Bank	Digital initiative	Туре	Launched/ updated	Number of Customers	Target segment	
Digital channels — existing bank	Vietcombank		Mobile app	Jul 2020	6M ¹	Existing users	
	VIB		Mobile app	Mid 2019	N/A	Existing users	
	VietinBank		Mobile app	Dec 2019	2M	Existing users	
	TPBank	LiveBank	Virtual branch banking	Feb 2017	$2M^2$	Existing users	
	VietCapital Bank	Timo	Acquired fromVPBank	May 2016	250K	Unclear	
	VPBank	Yolo	Digital channel	Aug 2018	<100K	GenZ	
	VPBank	Ü	Digital channel	Dec 2020	<10K	Young professionals	
	VPBank	Cake	Digital channel	Jan 2021	N/A	Genz, Young professionals	
	CIMB Bank	Octo	Digital channel	Dec 2019	N/A	GenZ	
	MSB	TNEX	Standalone	Dec 2020	N/A	GenZ	

Sources: Vietcombank AR, 2019; VIB AR, 2018, 2019; Vietin Bank AR, 2019; TP Bank AR, 2019; Yolo, 2020; Timo, 2020; VPBank, 2019; MSB, 2020; CIMB, 2019; OCTO, 2020; SBV, 2020.

Thailand

Thailand offers a steady and more mature economy than some regional neighbors. Existing financial institutions have a high penetration rate, with more than 80% of locals having some form of account. Thailand also utilizes a photographic national ID system.

Thailand is one of Southeast Asia's most receptive markets to DCBs, with a recent study by The Asian Banker commissioned by data analytics company FICO showing 78% of respondents expressing positive sentiment to digital banking.

There are no dedicated digital bank licenses yet issued in Thailand, however, the regulatory environment is broadly welcoming to foreign banks. Foreign shareholder limits have been lowered for foreign banks in order to strengthen the banking sector, with 49% of an existing local bank able to be owned subject to regulatory approval. Current regulations stipulate:

- Foreign entity may own up to 49% of existing local bank, subject to approval of The Ministry of Finance of Thailand
- Foreign entity may invest 100% in a new subsidiary
- Minimum paid-up capital THB10 billion for new subsidiaries, but much lower for branch

Banking Liberalization in Southeast Asia

Southeast Asia is undergoing a period of banking liberalization, unlocking new opportunities for Digital Challenger Banks. The Regional Comprehensive Economic Partnership (RCEP) is likely to further benefit digital players, providing a regulatory framework for inter-regional market entry and further shaping digital banking policy.

Non-exhaustive

RCEP encompasses over three billion people, and 30% of the world's GDP. It builds on ASEAN's existing free trade agreements, with a core focus on empowering the SMEs that make up to 90% of businesses across all RCEP countries.

It will drive liberalization throughout the services sector, and encourage equal access for foreign service providers within signatory countries. This also covers the transfer and processing of data, information, privacy, and consumer protection.

RCEP will also provide a framework for positive transformation in key areas relating to digital banking. That includes easing of restrictions in financial services, foreign shareholder limits, and number of foreign financial service companies operating within RCEP markets. It will help nurture potential entry structures for foreign entrants, allow usage of electronic authentication, and provide more open markets that encourage positive cross-border data flows.

¹From existing mobile banking application (out of 14.7M total customers).

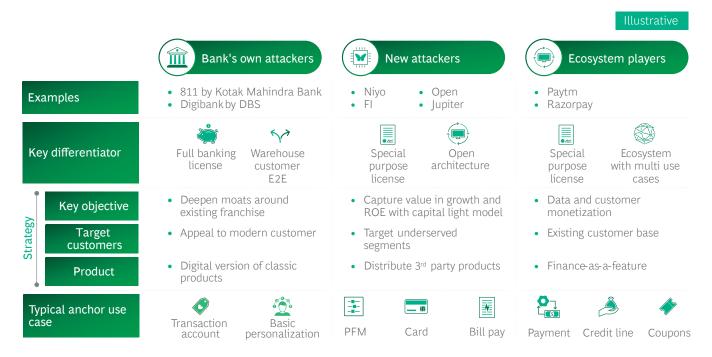
²Out of 3M total banking customers.

India

India offers a very dynamic market with huge potential. In terms of revenue pool, it is an order of magnitude larger than other South East Asian markets. Three types of strategies are emerging. First, banks are launching their captive challenger entities. There aren't yet any pure challenger banks with no legacy and a full universal banking license. Second are players who compete by providing a completely modern customer experience for financial services products. They often acquire limited purpose licenses but rely on partner banks for majority of products. Third are existing digital ecosystem players with large customer base and multiple use cases who focus on finance as an added feature. They often also have limited purpose licenses and distribute products of other institutions. Strong digital capabilities are common across all categories. There are choices on who warehouses the risk originated digitally vs. who acquires and presents the front-end to the customer.

The local Indian market is large enough for domestically-focused, balance-sheet-led Digital Challenger Banks to create value, while the substantial local technology talent provides a welcoming pathway for technology-driven operators. Which model will prevail is as yet uncertain, but it's clear from existing market players that both approaches are currently active currently. (See Exhibit 13.)

Exhibit 13 - Digital challenger banking plays in India



Sources: Press search; BCG analysis.

DBS' Digibank is a strong global player present in India. Other global players like Revolut are also becoming more active. However, there are a vibrant ecosystem of home grown digital challenger banks. This situation is driven by three main reasons. Firstly, India has a strong digital utility in the form of India Stack, which removes many friction points. Secondly, Indian banks are rapidly adopting micro-API architecture for both risk and transactions, with emerging players attempting industry-wide standardization. Thirdly, Indian regulation has made it critical for unregulated pure-play FinTech operators to team up with regulated entities to access key national protocols such as eKYC, as well as certain products such as savings and current accounts and cash transactions, thus ensuring greater collaboration.

Foreign players typically face three strategic hurdles. One, Indian markets cannot absorb developed markets cost structures, especially on technology costs which tend to be an order of magnitude cheaper domestically. Foreign players can overcome this hurdle by building the majority of the technology stack locally while leveraging global experience for the design principles, customer experience, and security layers.

Two, India is perceived as a diverse and geographically dispersed market. There may be concerns that building meaningful scale requires significant capital and operational investment. This is more a perception than reality on a relative basis. One way to address this is to pick niches and build scale within them. Even niches are extremely large in relative terms. For example, India's MSME lending market is concentrated predominantly around the top 30 centers and outstanding credit is north of USD 300 billion.

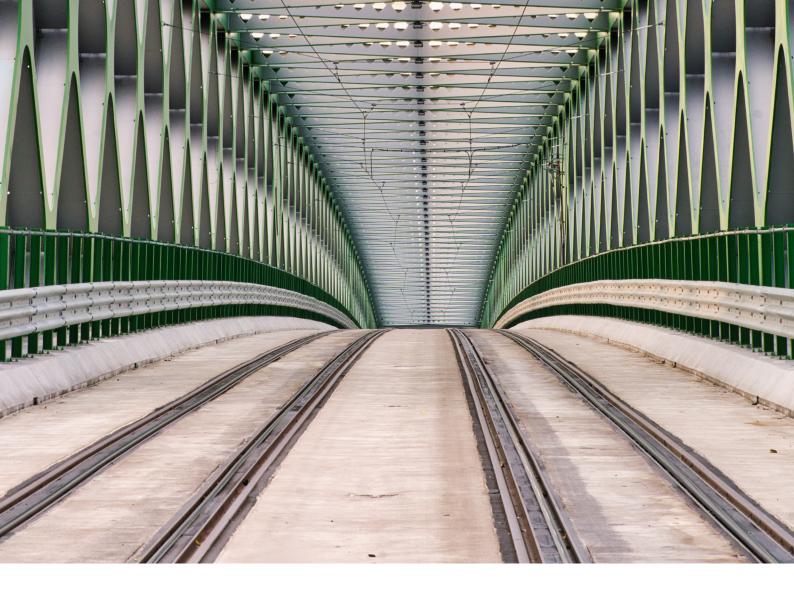
Three, Indian regulators place significant emphasis on financial inclusion and priority sectors, which can limit the potential model and opportunity. Not all licenses carry this constraint, for example non-bank finance company (NBFC) licenses are significantly flexible. For an NBFC, partnering with a traditional bank is one way to find best of both worlds.

In financial terms, there remain considerations around currency depreciation and its impact on dollar-denominated returns. However, these considerations are true for multiple other developing economies. India's attractive demographics and high growth potential needs to be built into the return expectations to form a comprehensive view of local market opportunity.

Winning a License to Operate

Gaining a digital banking license is a critical step for DCBs. It is essential that applicants stand out and demonstrate to regulators an ability and intention to meet the needs of local consumers, as well as evidencing the capacity to deliver on this commitment. Applications must also clearly show an ability to successfully run a digital bank. We have identified six qualities that an applicant should exhibit to regulators.

- Innovative. Demonstrate an ability to enhance financial provision through innovative features and delivery to improve both customer service and the quality of the broader financial industry. This should not come at the cost of disrupting operations of the existing banking industry.
- **Committed.** Clearly show commitment to digital banking success. Demonstrate locked-in funding sources, and the presence of key leadership and personnel to run the bank, as well as the buy-in of shareholders.
- **Relevant.** Evidence a strategy designed to deliver a positive economic and societal impact. This must include provision to boost financial inclusion and accessibility of banking products to target underserved markets.
- **Sustainable.** Show that the banking model is secure and sustainable, and not subject to volatility. Present the ability to prudently build and operate a sustainable business. This should include a strong corporate governance plan, including systems, controls, and processes to show effective management and security of the digital bank.
- **Prepared.** Act one step ahead of the competition with a clearly prepared strategy that includes support of specific plans or steps that signify an application is ready to quickly enter operations if a license is received.
- **Engaged.** Collaborate and communicate with regulators to show an applicant is engaged. Regulators are often open to shaping this emerging digital banking landscape in partnership. This also allows an applicant to more robustly understand the process, requirements, and any significant regulatory concerns.



Planning a strategic path forward

esigning the right strategy for success is not easy. Incumbent banks must weigh up the challenges of transitioning legacy IT infrastructure and organizational processes against the significant hurdles of establishing a winning solution to compete against these new entrants. Non-financial institution operators on the other hand must reflect on the significant complexity of the financial services industry, and how best to leverage their existing skillsets and experience to succeed in this space.

Considerations for Incumbent Operators

Steering a modernization journey is a major challenge for incumbent banking operators. These legacy institutions often struggle to transition away from aging core IT infrastructure with trapped data in order to embrace the agile approach fundamental to success when competing against DCBs. Lack of digital talent, outdated IT, and traditional financial industry mindsets are often further hampered by rigid governance structures. Building a true Digital Challenger Bank is often seen as an attractive alternative to such a jarring internal transition.

Legacy banks have begun to realize they sit on massive lake of data, which can be extracted as a basis for success of a DCB. They may also benefit from significant cost savings and productivity improvements, as well as accessing enhanced risk and financial management through data and automation.

Top tier banks—accounting for ~70% of market share—may also look favorably on the fresh, agile potential of a Digital Challenger Bank. These sidestep inflated and complex organizational structures, avoiding potential conflicts of interests. It also provides an opportunity to project a fresh DCB brand that can attract digitally-savvy customers.

In the current landscape, many legacy banks continue to focus on improving existing digital channels rather than establishing a new DCB. Capital and investment needs for a fresh digital build, customer acquisition costs, and high uncertainty of returns remain the main concerns. With their established market positions, many may consider winning customers through a full omni-channel presence as the preferred route, particularly as full digital penetration is not yet the norm in APAC.

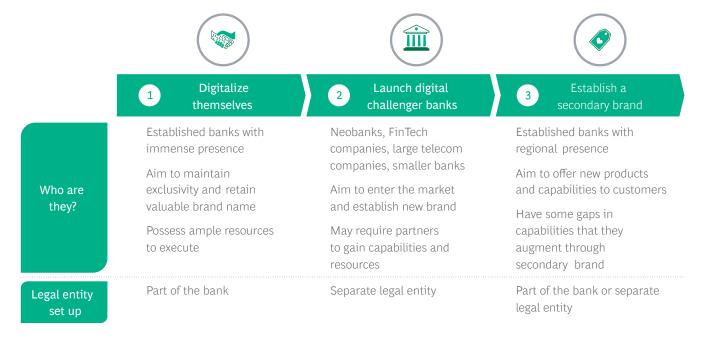
For smaller banks, size is likely the main driver in entering the DCB space. With these banks operating at a more limited scale, there is less threat of stealing market share from the legacy operating unit. New DCBs have the freedom to more accurately target any market segment, providing a pathway to engage digitally-savvy customers.

Regardless of whether a bank seeks to expand existing digital channels, or enter into a fresh DCB build, significant short-term investment will be required. That means it is crucial for banks to figure out the right way to invest and extract value. (See Exhibit 14.)

There are a number of banks which have successfully taken on a fresh-build DCB approach. Singapore's UOB created a Digital Challenger Bank, TMRW, expanding on plans to competitively build a digital retail bank to scale outside Singapore while achieving lower cost-income ratio. With these goals in mind, TMRW was launched in Thailand in August 2020. The digital bank focuses on user experience, and continues to rapidly evolve to meet customer wants and increase engagement. The bank has focused on emotional engagement and personalization to drive customer growth.

We have also seen banks that collaborate with FinTech players to launch a DCB in partnership, a route often used by small banks to augment their digital capabilities. In most cases, these banks target a specific underserved segment or more digitally-savvy customer segments.

Exhibit 14 - Three options for legacy banks



Source: BCG analysis.

Questions to Guide Growth

The right path to market entry will vary by operator, and be influenced by existing bank assets, capabilities, market position, and culture. Incumbent players considering building a Digital Challenger Bank must address several key questions and concerns. (See Exhibit 15.)

Value. It must be clear why an incumbent is embracing a DCB build rather than transforming the existing bank to an omni-channel digital approach.

Structure. A clearly defined structure is critical. Will the DCB be a part of a business unit inside a bank, a separate legal entity, or a partnership with other players? Creating a separate legal entity may trigger considerations around the need to apply for a separate operating license.

Position. The identified positioning of a DCB should also be clear. This should include analysis of where it falls in a bank's omni-channel approach to products, servicing, and pricing, or whether it will operate as a completely separate business with differentiated products, services, and pricing. If operating separately, would it carry the same brand, a sub-brand, or completely new brand. Customer acquisition and ecosystem utilization concerns should be raised if creating an entirely new brand.

Technology. Existing legacy systems should be assessed, and an approach to building a fit-for-purpose technology platform analyzed. It should be established whether a fresh technology platform is required. Migration of existing digital assets and data to a new platform must be considered, as should questions around whether systems would operate in parallel or a complete transition to a new platform would be undertaken.

The overarching strategic agenda of a Digital Challenger Bank should also be analyzed in order to build a strong and competitive operation. It is vital these questions are consistently challenged as a platform to drive continuous innovation and maintain competitiveness.

- What are the digital assets and unique advantages
 I need to leverage?
- What ecosystem do I have and how should I use it?
- Is my IT architecture sustainable and flexible enough to compete against expert tech-driven Digital Challenger Banks?
- What should be my end-state enterprise architecture?

Exhibit 15 - Key strategic questions & agenda for incumbents



Value Extraction: Which path would give more value?



Structure: How should the entity be legalized?



Position: How to place the digital challenger bank in terms of channel, products, branding and target market?



Technology: What approach to take in building the platform?



User experience: Design journey to address pain points and unmet needs



Data analytics: Personalize and decide instantaneously



Ecosystem: Leverage digital assets,



capabilities and network
IT architecture: Competitive and
flexible design

Source: BCG analysis, expert interviews.

NBFIs Entering the Digital Banking Space

Non-bank financial institution players entering the market will need to identify the right strategy based on their capabilities and preferred model. We have identified five models which reflect the most likely positions. (See Exhibit 16.)

NBFI technology companies will have to work on building a platform that seamlessly integrates users and partners. The benefits and risks will vary depending on the type of products offered, and the level of underwriting that the player is willing to take. Investment costs for the first four models are significantly lower than for the final model of building a fully-integrated Digital Challenger Bank.

A full DCB is focused on creating a full suite of products and marketplaces with a digital banking license. It offers access to robust customer financial data and potentially better income opportunities due to CASA. However, this approach is far more complex to build, and requires much higher upfront investment costs. It captures the largest potential revenue pool as it allows an operator to deliver the broadest range of products and services. More complex capabilities and talent access is necessary.

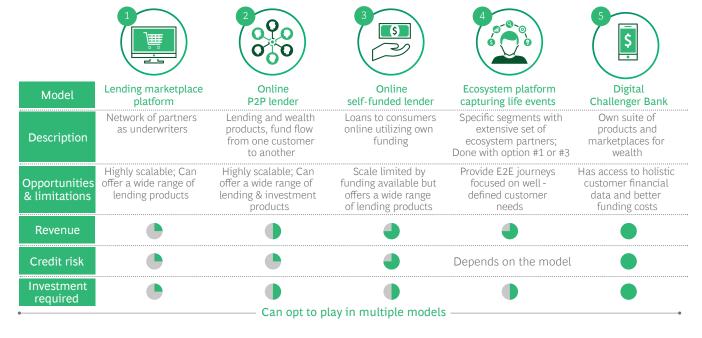
We have seen that breaking even does take time in this space, and operators should take this into consideration. Embracing a full DCB approach does provide some key advantages, but additional requirements to pursue. (See Exhibit 17.)

We have identified some important strategic questions to think about when planning which model to embrace.

- Can we afford to become a Digital Challenger Bank?
- Why would we be successful?
- How do we accelerate success?
- What are my alternative strategies if not DCB?

It is important to highlight that shareholder structure will also affect the consideration around the model of choice. In the case of FinTech or e-payment players, an ecosystem partnership will be particularly critical.

Exhibit 16 - Five models for non-banks



Source: BCG analysis, expert interviews.

What it Takes to Build a Digital Challenger Bank

Boston Consulting Group has years of experience working with both incumbent banking operators and emerging new players to drive digital transformation in the financial industry. That experiences helps us identify the crucial steps to establish a Digital Challenger Bank over an 18 to 24-month timescale.

This roadmap frames the vision to build a digitally-enabled financial services provider with best-in-class customer experience. The blueprint can be divided into three phases. (See Exhibit 18.)

Exhibit 17 - Advantages and other requirements



Source: BCG analysis; expert interviews.

Exhibit 18 - Digital Challenger Banks take 1.5 to 2 years to build

Non-Exhaustive ~4-6 months 18 months to 24 months Prepare for Application **Build Digital Bank Venture** Launch • 1-2 months • Product build (front end) consortium/partnership • Tech build and integration (back end for partners) • Hiring of of CEO + CEO - 1, governance set up agreements • 3~4 months • Operating model establishment documentation of • Risk management and processes systemization business plan and Talent recruiting application according to • Vendor selection for outsourced processes and regulatory requirements vendor on - boarding • 1 month for third - party • Go-To Market plan mobilization audit

Source: BCG case experience.

Application. This is applicable to Digital Challenger Banks considering obtaining a digital bank license. It's important to allow up to six months to prepare the relevant requirements and organize internally to have a market-ready application. This includes one or two months of consortium or partnership agreements, three to four months for development and documentation of business plans, and one month for external audit (where required by regulators).

Build. The first step is designing a minimum viable product. This should include a complete build on product, analytics, and technology. The product, product-related processes, and features must be defined based on the value proposition for each target market. This will enable the development of UI/UX, testing and recalibration of design, and integration with any third-parties. Building out analytics to integrate with the product should then follow, based on relevant use cases in credit scoring, anti-money laundering (AML), know your customer (KYC), customer due diligence (CDD), foreign account tax compliance act (FATCA) etc.

It is important to refine the business plan to shape the offers and services. Move towards finalizing the three-year and five-year plan with clear targets and KPIs detailed for at least the first year. With the business plan established, a product portfolio and roadmap should be set, including targeted sub-segments, unit economies, and characteristics such as pricing and features. Any changes to the product must be incorporated into the build. This also covers on-boarding and service models, including customer engagement, user flows, and service channel definitions.

The goal of the Build phase is to ensure that the organization, people, and operations are in place and aligned. Structure and governance should be clearly defined and established. Key roles must be filled with clear roles and responsibilities. Critical operation processes and enablers required to launch should also be secured.

Launch. Defined channel strategies, marketing initiatives, and brand positioning should be set out in preparation for go-to-market. Each operational area should be aligned in preparation for a rapid growth outlook. Partnerships, pilots, and customers segments must be locked in and finalized. Integrations with possible partners should be defined, including assets, ecosystems, and other capabilities.

There is no defined path to success in building a Digital Challenger Bank. Leaders must remain flexible and agile, ready to adapt as new insights or opportunities arise. Each emerging player will face its own challenges.



Positive policies and infrastructure to facilitate banking sector modernization

Regulation will provide the defining framework to enable this successful transition. Many governments across the APAC region are already pushing for greater adoption of digital financial services, as well as broader modernization in the industry. A favorable regulatory environment and well-coordinated government and industry-led initiatives will be invaluable in accelerating this opportunity. (See Exhibit 19.)

The reality on the ground is that technology continues to disrupt the traditional financial space in many markets, transforming consumers' digital expectations. Regulators have been introducing enabling regulations such as eKYC guidelines to allow banks to perform secure digital checks, as well as approve customer applications electronically within certain limits.

Some countries are also looking to prioritize national digital identity for use cases in banking, allowing customers to open accounts and transact securely online.

Account portability is another key enabler that tackles pain points for online banking, allowing customers to seamlessly transfer financial arrangements to a new account with a single click. This helps lower the cost of switching accounts and makes account opening and switching processes much easier for customers.

The continued adoption of cashless payments also unlocks numerous advantages, supporting financial inclusion and providing wider benefits to society. Governments continue to map out initiatives to support this goal, with a particular focus in the banking space. That includes new payment infrastructure to enable real-time fund transfers, digital payment adoption with national payment QR codes, and digital currency designed to replace reserve money that cuts friction in transfers.

A positive credit bureau system will spur banking transformation and modernization. This not just supports instant and accurate lending decisions, but helps banks better manage lending risks and lower credit defaults in a volatile landscape.

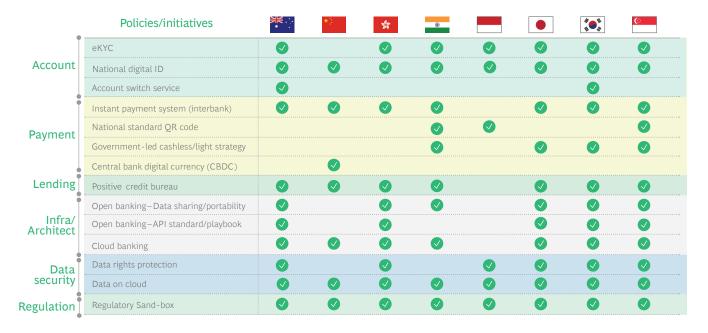
Regulators will need to renew their focus on guiding banks utilizing new technologies and data, as such technologies continue to accelerate innovation in the wider economy. Regulators are embracing open banking as an important trigger for industry collaboration as part of this transition, which will allow operators to expand on the services they provide, and unlock new opportunities for both customers and industry.

Cloud technology has also emerged as a major catalyst for effective and efficient digital transformation in financial institutions. Cloud offers a number of benefits such as improved data security, enhanced cost optimization, increased efficiency, scalability, flexibility, and more. Modern data protection regulation will be needed to ensure customers' privacy is protected in this rapidly evolving land-scape, while also enabling ethical use of data that drives customer opportunities while retaining trust in digital banking.

The rise of FinTech also continues to promote innovation in the banking space. Sandbox testing environments offer a valuable opportunity for financial institutions and FinTech players to experiment in delivering innovative financial products in a live environment within a well-defined space and duration.

In this dynamic and evolving landscape, regulation must strike the right balance between fostering innovation, and ensuring customer protection remains at the heart of the banking industry.

Exhibit 19 - Key regulatory policies and initiatives for banking modernization



Source: Desktop search, BCG analysis.

Conclusion

The last decade has seen a remarkable proliferation of Digital Challenger Banks globally, with more than two-thirds of today's 249 digital banking players established since 2010. Despite this significant growth, it's clear that the route to profitability remains challenging for these operators, with just 13—less than 5% of the total—achieving break-even to date.

The Asia Pacific region offers an encouraging outlook within this landscape. It is home to approximately 20% of Digital Challenger Banks as of the end of 2020. Many of these operators are relatively new emerging players, with more than 70% established between January 2016 and December 2020. More important still, of the 13 global players enjoying profitability, ten are based in the APAC region.

Southeast Asia and India now present a new emerging opportunity for potential Digital Challenger Banks. In Southeast Asia, Malaysia, Philippines, Indonesia, Vietnam, and Thailand all offer encouraging signs for the expansion of these operators in coming years, boasting positive market liberalization and attractive market demographics. India also presents a huge potential addressable market, with encouraging demographics, a significant underserved population, and encouraging technology foundations. Each market offers its own unique challenges for operators aiming to successfully navigate this transition.

Prospective market entrants will have to identify the right model for success, recognizing the importance of leveraging and utilizing existing tangible assets (e.g., offline networks) and/or intangible assets (e.g., online customer access, knowledge and knowhow), building and scaling appropriately, and sustaining success with the right data-driven approach and models. With the right commitment, organizational structure, and strategy—supported by an enabling regulatory framework—both incumbent banking operators and non-financial institution players (e.g., tech players, fintechs, non-financial companies) could access opportunities from DCBs in APAC's rapidly evolving financial landscape.

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Acknowledgments

We would like to thank

Saurabh Tripathi, Managing Director & Senior Partner, Mumbai, and Lead in Financial Institutions Practice in Asia Pacific;

Ernest Saudjana, Managing Director & Partner, Jakarta, and Head of Financial Institutions Practice in Southeast Asia, Head of Wholesale & SME Banking segment in Asia Pacific and a core member of Emerging Markets Financial Services Innovation topic;

Ching Fong Ong, Managing Director & Senior Partner, Kuala Lumpur, a member of Center for Digital Government, and a core member of Technology Advantage; Technology, Media & Telecommunications; and Financial Institutions Practices;

Edwin Utama, Managing Director & Partner, Jakarta, Lead in Jakarta office and a core member of Financial Institutions and Public Sector Practices;

Tjun Tang, Managing Director & Senior Partner, Hong Kong and Lead in Life Insurance Practice globally;

Pauline Wray, Global Lead of the BCG Expand FinTech Control Tower and Head of BCG Expand in Asia; and

Aniket Kulkarni, Project Leader in Mumbai.

for their valued contributions towards this report.

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