twimbit

Unleashing the power of virtual banks in APAC

The creation and growth of virtual banks are redefining the banking ecosystem. These banks are disrupting the fundamental idea conceived of a traditional bank

INSIGHTS FOR SUCCESS | IDEAS TO EXECUTE

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Virtual banking – a quick summary of Asia-Pacific

Twimbit defines a virtual bank as one that primarily operates without physical branches through the internet using electronic delivery channels (smartphones, tablets, laptops, etc.). Retail banking services such as account opening, deposits, loans, fund transfer, and investments are delivered online only using the digital channels.

Moreover, virtual banks are not digital branches of incumbent banks, and not necessarily established by them. Non-banking service providers such as telecom, technology, and fintech companies are eager to establish virtual banks.

'Virtual' bank is the most used term in various geographies. It is also called as a 'digital-only' or 'digital' or 'challenger' or 'neo' bank. Twimbit chooses to use "virtual" bank as the term for this report.

Virtual over traditional banks: Key characteristics and difference

Fundamentally, virtual banks differ from traditional banks in their operations through the digital-only value proposition. Virtual banks primarily target internet-savvy millennials due to their constant use of the internet and vast exposure to fast-moving technologies. To realize the full potential, virtual banks are harnessing technological innovations and developing agile, lean business models. The products and services are built on disruptive technologies (e.g., AI-assisted chatbots, cloud platforms), changing the way individuals and companies can access, use, and benefit from banking services.

The biggest opportunity for the virtual banks is to leverage their omnipresence, ease of access, lowcost services (the result of reduced overhead costs) to serve the unbanked population of the region.

As statistics indicate, over 2 billion population of the APAC region have no access to banking services. The small-medium enterprises is another large segment that is attracting the attention of the virtual banks.

Figure 1: Key characteristics of virtual banks

Digital onboarding

- Video, audio enabled customer interaction and onboarding
- E-KYC
- E-Form Filling

Omni Present

- 24X7
- All channels – Voice, Video, Web, Mobile App, Kiosks, Chat, Social Media Messaging
- Channel agnostic seamless – self and RM assisted conversations

Everything IN-APP

- A mobile first approach ensures its built around the app. All services are provided and delivered within the app, including voice calls.

High Customer Engagement

- Self Service driven approach increases engagement levels
- KPIs based on mobile engagement scores
- Insights and trends support the gamification of customer engagement

Collaboration

- Integration with chatbots
- Authentication, Co-browsing, annotations.
- Post-session surveys

THE OUTCOMES

LOWER COST TO SERVE	HIGH REACH	PERSONALIZED SERVICES	COMPETITIVE OFFERS

Table 1: Virtual banks are changing the traditional ways of banking

Differentiating factors	Traditional banks	Virtual banks
Client onboarding	Lengthy, manual, and time-consuming onboarding via physical presence in the bank branch	Speedy, responsive, and user-friendly digital onboarding via smartphones, laptops, or tablets
Delivery channel/platform	Physical bank branches; net and mobile banking	Digital banking platforms (mobile, social channels, video, etc.)
Customer support	In-person relationship managers, banking staff, telephone support and online assistance	AI-enabled chatbots, 24/7 online assistance
Banking cost	Complex and high	Clear and low cost
Operating license	Full	Pleminary* or full
Functionalities (specialized features)	Age-old banking services	Fully digital peer-to-peer lending services, zero balance account, eBills crowdfunding, grouping accounts, open banking API's,deposit boxes

**Preliminary license: In certain APAC regions, the regulatory authorities issue a preliminary license to begin operations as a virtual bank, and grant a final approval or license post assessing the viability of the bank after a specific cadence*

Why virtual banks are becoming successful?

The mere pedigree of many virtual banks (e.g., technology giant: Grab and telecom major: Xiaomi) are cornerstone for their success. The companies are powerhouses of customer data, which is harnessed to form insights on:

- Current and potential customer pool
- Behavioural buying patterns
- Financial needs
- Credibility of customers
- Customer remediation (Know your customer)
- Categorization of products and services
- Pricing trends
- Feasibility of products and services
- Customer experience expectations

These data-backed insights are utilized to create intuitive and innovative bank offerings with negligible cost attached to it, when compared to incumbent banks.

The emergence of virtual banks

The growing popularity of virtual banks is not restricted to established banks branching-out with digital-only presence; it has led to non-banking services providers building virtual banks (e.g., Alibaba's MyBank and Xiaomi - AMTD group's Airstar Bank).

The emergence of virtual banks has given an opportunity to various technology, telecom, fintech giants to address a market opportunity that was once considered a no-entry for non-banking players. Further, many consortia are attracting venture capital (VC) funding from global VC firms, such as Tiger Global, Sequoia Capital, Ribbit Capital, Social Capital, etc.

By July 2019, virtual banks had globally raised US$2.5 billion from 55 deals as stated by Business Insider.

Existing banks are now being pressured to ramp up and take a more digital-focused approach to compete. They are also looking at seizing this opportunity to enter new markets as pure-play virtual banks. Some of them are also launching their version of digital banks under entirely new brands to help communicate the energy and excitement of a start-up but leveraging their decades of experience as a trustworthy financial services company.

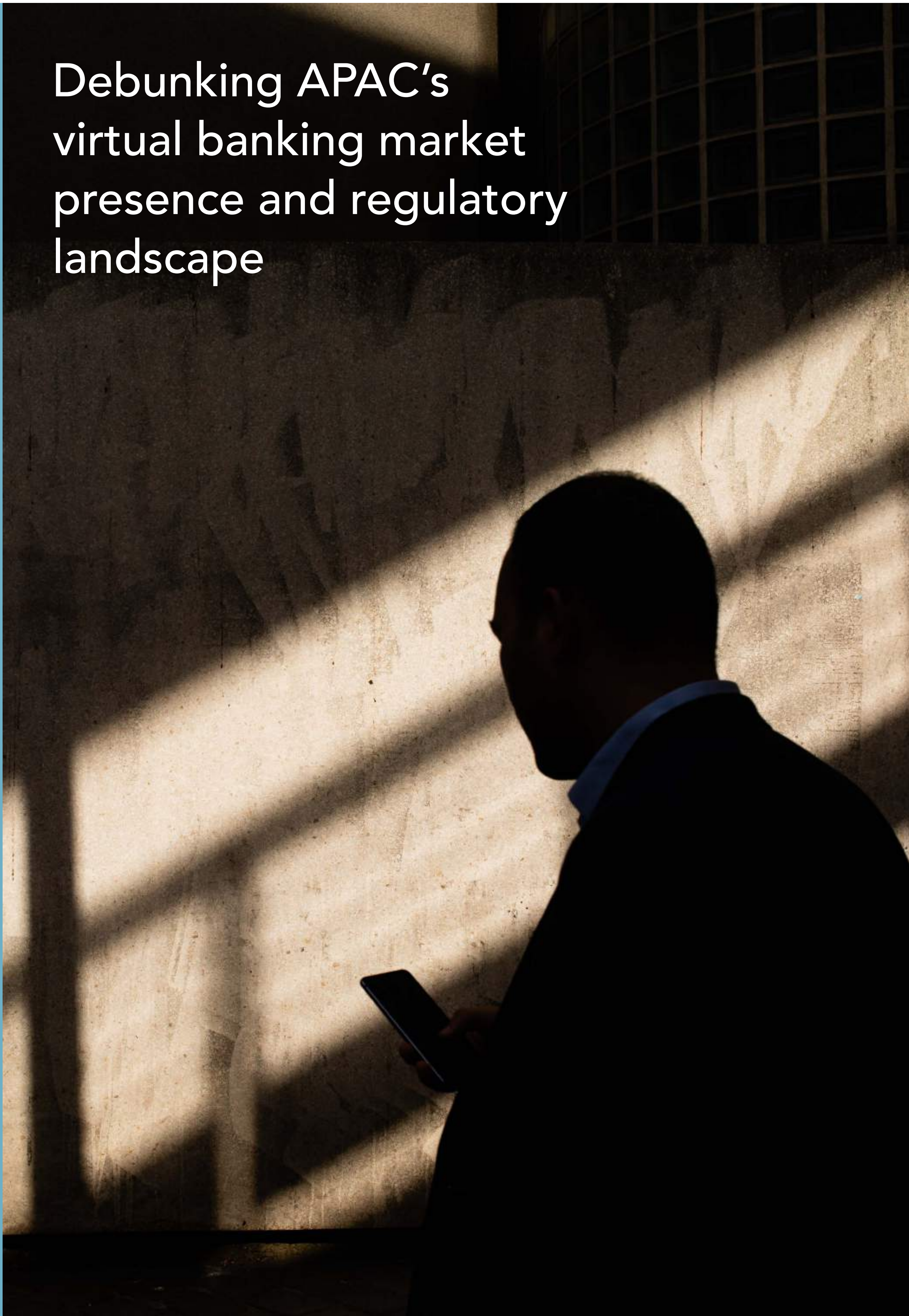
DBS bank's Digibank launched as a pure-play virtual bank in India (2016) and Indonesia (2017)

These trends validate the huge potential virtual banks hold in achieving the paradigm shift in digital-only banking among the unbanked and underserved population.

A majority of consortia formed to build virtual banks are usually a collaboration between technology, telecommunication, and traditional banks. The consortia aim to leverage the technical know-how of a technology giant, the wide network reach of a telecom giant and the credibility and regulatory expertise of a traditional bank. This can transform the way banking products and services are delivered to the population through virtual banking. An example to further highlight this proposition is the alliance between Grab (a transportation hailing app) and Singtel, to leverage their current reach of customer data and network to bid for a virtual banking license.

However, the full operability and scalability of virtual banks have been delayed due to the slowpaced movement in the region's regulatory environment. While in various APAC countries, such as Hong kong, South Korea, and Australia full virtual banking license is granted, there are other countries, who are either evaluating or partially granting the license to operate as virtual banks. In cases, where full operating virtual banking license is not granted, virtual banks hold alternative licenses (e.g., Australia's partial ADI) or work with licensed partners to offer their services (e.g., India, Indonesia).

Debunking APAC's virtual banking market presence and regulatory landscape



Australia

“The trust between many Australians and their banks has been broken and the path to repair starts with new market entrants who are willing to do things differently.”

Steve Weston, Chief Executive, Volt Bank

Twimbit’s insight

Consumers would be the biggest beneficiary in the near term as new players put pressure to bring down prices of basic banking services.

Regulation

The Australian regulatory authority namely, Australian Prudential Regulation Authority (APRA) is bullish to promote the establishment of virtual banks in the oceanic region. The authority grants authorized deposit-taking institution (ADI) license to conduct any business (including fully digital, online-only), which is governed by the ‘Banking Act 1959’. It classifies the license in two ways: the direct route and the restricted route.

The **direct route** allows the institution to conduct all banking operations and meets the requisite resources and capabilities for commencing the business.

The **restricted route** allows the institution to conduct limited banking operations for a period of two years, while it develops the requisite resources and capabilities tobecome a fully operational bank.

APRA has granted five direct ADI licenses since January 2019. It continues to evaluate the potential of new players to enter the market by granting restricted ADI licenses

Current scenario

86 400: 86 400 (Representing the number of seconds in each day) was fully launched to the general public in September 2019, expanding its product suite to become the first virtual bank to launch home loans.

Judo Bank: Judo bank focuses on providing products and services to small medium enterprises (SMEs) instead of individuals. It offers a variety of banking services such as business loans, term deposits, and home loans.

Up: Up Bank is a mobile-only, app-based bank,partnering with Apple Pay, Google Pay, Samsung Pay, Garmin Pay, and Fitbit Pay to expand service segment.

Volt Bank: With a full license granted in January 2019 becoming the first virtual bank of Australia, Volt has raised A$70 million (US$ 48.1 million) in an oversubscribed series C equity funding round from undisclosed investors. It has launched its first savings accounts via partnerships, including with Paypal and ASX-listed Collection House.

Xinja Bank: Xinja is Australia's first independent virtual bank focusing on personal banking, and they're partially financed through equity crowdfunding. In January 2020, Xinja also launched the Xinja Stash savings account

An upcoming virtual bank
IN1 Bank, formerly named BDB corporation received a restricted ADI license to form a virtual bank in December 2019. While the current banking offerings and operating model are undisclosed, the emergence of another virtual bank indicates the opportunity to capture market share through innovative propositions.

South Korea

"The traditional banks are Goliath; we are David. We need to avoid competition and focus on areas where we are strong and where the traditional banks are weak."

Yan Lee, Kakao Bank

Twimbit's insight

1. The emergence of virtual banks in South Korea is an effort by the FSC toward giving consumers varied choices to make judicious financial decision.

2. The relaxation in NBFs allows the previously discouraged technology firms to make inroads into South Korea's financial market.

Regulation

The Financial Services Commission (FSC) under the 'Banking Act' grants a preliminary license to operate 'Internet-only' banks in South Korea. . FSC grants virtual bank license on three significant grounds:

Innovativeness: To create a new wave of competition in the banking sector

Inclusiveness: To help financial customers enjoy numerous benefits such as banking at lower transaction cost, convenient banking services, ease of access to loans

Stability: To promote the creation of jobs in IT, banking, and fintech domains

The prime distinction from traditional banks is that non-banking financial companies (NBFCs) can hold up to 34% stake in the virtual bank.

The FSC, South Korea has granted two virtual banking licenses, while promoting additional players through preliminary license.

Current scenario

2 fully licensed virtual banks

K Bank: The first virtual bank of South Korea; received its license on 14th December 2016, starting the operations in 2017 with a start-up capital of $US 223 million. A consortium formed between KT (telecom company), Woori bank, Ant financial (financial arm of Alibaba), Smilegate (videogame developer), Posco (steel maker), and the national tourism federation.

Kakao Bank: Kakao Bank is built on the back of the country's highly popular messaging platform Kakao Talk. It is a consortium formed between Kakao, KB Kookmin Bank (local lender), eBay, Tencent Holding. The bank targets urban employees from the 30-to-50-year-old segment and reported a profit of $US 5.54 million - 18 months after launching.

An upcoming virtual bank

Toss: Toss is a South Korea-based mobile financial service platform operated by fintech start-up Viva Republica Co Ltd. It received the preliminary license of operating as a virtual bank on 16th December 2019. According to the press release by FSC, 'Toss Bank' will begin its operation within 6 months of getting final approval from FSC.

Taiwan

"One of the biggest advantages of operating an online bank is that operating cost are significantly lower than traditional banks that need to operate branches."

Rakuten

Twimbit's insight

1 Despite the overly banked population of Taiwan, Taiwanese authorities promote the formation of virtual banks with the assumption that these banks will create competitive offerings to retail customers.

2 The sustainability and scalability of operations can become a challenge for the newly formed virtual banks, as a result of overly stressing on building a differentiated banking exprience for an overbanked population of the country.

Regulation

The FSC, Taiwan aims to keep the trend of digitalization and business opportunities. To do so, it released the policy on establishing and operating virtual banks on 26th April 2018. This effort of the regulatory body is to encourage financial innovation and deepen financial inclusion in order to meet the needs of young generation consumers (as stated in the FSC press release).

Going beyond the initial limitation of only granting 2 licenses, FSC granted licenses to three consortia in July 2019, Next Bank, Rakuten International Commercial Bank, and Line Bank. The FSC expects that the three banks will drive market innovation and development, as well as promote competition through new business models and technologies, and hence enhance financial inclusion. According to a feasibility study by FSC, the issuance of virtual bank licenses will send a signal that the financial regulators are committed to cultivating a technology-friendly environment in Taiwan, further attracting global players to enter the market.

Current scenario

3 fully licensed virtual banks

Next Bank: The Next Bank plans to build eco-finance, leading the creation of a credit-based financial application over an innovation platform. The consortium formed by Chunghwa Telecom, Mega International commercial bank co, Shinkong financial holdings, PX mart co, KGI Bank, Trade-van Information service co (IT Services), aims at integrating telecommunication services with financial services.

Rakuten International Commercial Bank: In Taiwan, Rakuten has formed a strong ecosystem cantered around the e-commerce and credit card businesses. This helps to further scale its operation with a formal virtual banking license. The bank plans to attract at least 500,000 clients in the first year of operation and 1,000,000 by the second year and expects to break even by the third year. Rakuten bank is a consortium formed between Rakuten (Japanese e-commerce firm) and Waterland Financial Holdings (Taiwanese securities brokerage company).

Line Bank: The Line group is a messaging app that has a customer base of 21 million in Taiwan, which it plans to leverage by creating the app into a super banking app. A consortium formed between LINE Group (Japanese app operator), Taipei Fubon Commercial Bank, CTBC, Union Bank, Taiwan Mobile, FarEasTone, and Standard Chartered. It plans to leverage its banking partners' expertise in risk management, financial products, and services design, compliance and anti-moneylaundering measures to map out an internet-only banking business plan for the Taiwan market.

Japan

Twimbit's insight

Over 60% of the Japanese population prefer visiting their bank's branch to check account status, apply for loans, refinance, and receive wealth management services. However, the emerging westernized and technology savvy millenials of Japan can change the traditionally existing in the banking sector.

Regulation

The first virtual bank in Japan was established on 19th September 2000, namely Japan Net Bank. It obtained the banking license under Article 4 of Japan's banking law. The Company was established as the 'Japan's first Internet-only bank' with the investment of Sakura Bank, Sumitomo Bank, Fujitsu, Nippon Life Insurance Company, Tokyo Electric Power Company, Mitsui & Co., NTT DoCoMo, and NTT East Japan.

However, the regulatory authorities have not come up with a distinctive banking policy or license for banks to operate virtually. The region has paved out in different economies to form consortiums (e.g., Japanese application provider LINE group established LINE Financial Taiwan) for establishing virtual banks, but still remain averse to fully penetrate its homeland. The key reason is attributed to the lack of mindset shift among the Japanese population to "do away with" luxurious bank branch experience and adopt the intuitive application-based banking interface. According to the World Bank's financial inclusion study 2017, only 33% of the Japanese population use a mobile phone or internet to make transactions from their account.

Current scenario

Despite the population resistance, many traditional banks have branched-out to form virtual banks, for example, in 2007SBI Sumishin Net Bank - jointly established as an innovative customer-oriented new bank, by SBI Holdings and Sumitomo Mitsui Trust BankAnother example is Jibun Bank, an online banking joint venture of The Bank of Tokyo Mitsubishi UFJ and KDDI Corporation (telecom company). The bank distinguishes itself as a “Smartphone Bank” and offers its banking services via a single mobile banking application.

Additionally, the mobile phone companies (NTT-DoCoMo, SoftBank and AU), Rakuten, LINE, and Yahoo! Japan have emerged as new forces and entered the financial service sector with ‘zerofootprint/internet banks’ powered by mobile fintech platforms. However, their existing financial services offering continues without being morphed into an actual virtual bank.

Hong Kong

"We believe constructive competition will lead us to keep learning and improving. We hope to work together with other operators in fostering financial technology development in Hong Kong so as to build Hong Kong into a world-class smart city."

Infinium

Twimbit's insight

The political mutiny existing in Hong Kong has led to an economic-slowdown in the island territory, impacting the timely roll-out of products and services by the virtual banks. The banks can follow a structured, phase-wise approach for introducing their offerings in the market to avoid any drastic implications arising from the country's negative business environment.

Regulation

The Hong Kong Monetary Authority (HKMA) has issued a guideline on authorizing virtual banks to conduct banking business in Hong Kong.. The applicant must have a concrete and credible business plan setting out how it intends to conduct its business and how it proposes to comply with the authorization criteria on an ongoing basis (as issued by HKMA). According to the regulatory body, virtual banks will promote the application of financial technology and innovation in Hong Kong, while offering a new kind of customer experience. Like the intent of most unbanked regions, Hong Kong as well supports the financial inclusion by targeting retail consumers, including small and mediumsized enterprises (SMEs). To review detailed licensing guidelines by HKMA, read Guideline on Authorization of Virtual Banks.

In 2019, the HKMA received 29 applications to form virtual banks out of which 8 were granted to establish and conduct virtual banking operations. These 8 virtual banks are all set to launch their services in 2020, giving rise to the era of sophisticated, intelligent banking.

Current scenario

8 fully licensed virtual banks

Airstar Bank: Formerly known as Insight Fintech, a joint venture between Xiaomi (smartphone brand.) and AMTD Group (NBFC which provides capital markets and advisory, asset management, insurance brokerage, and strategic investment services). It aims to create unique virtual banking services, capitalizing on Xiaomi's network and international capabilities.

Ant Bank: A unit of Ant Financial (a subsidiary of Alibaba group) is geared toward offering banking services to SMEs while contributing towards the objective of financial inclusion in the country.

Fusion Bank: A consortium formed between Tencent, ICBC Bank (unit of Chinese banking giant ICBC), Hong Kong Exchanges and Clearing (HKEX), Hillhouse Capital (Private equity), and investment from Adrian Cheng. This consortium plans to leverage the respective expertise in the following way:

> ICBC will play an advisory role regarding banking operations and management, while HKEX will offer its guidance for operating in Hong Kong's financial market.

> Hillhouse Capital will offer a long-term investment management perspective, and Adrian Cheng will provide social resources and financial experience.

Livi VB: A joint venture formed between Bank of China (Hong Kong), JD Digits (connects financial and physical industries with digital technology), and Jardins. Livi VB is the response outcome of Bank of China's strategy to support the overall trend of virtual banking. Livi VB will be launched leveraging artificial intelligence (AI), blockchain, big data and smart risk modeling in a bid to create a seamless digital ecosystem.

Ping AN OneConnect Bank: It is a consortium between Mainland China's insurance giant PingAn and OneConnect(Banking Tech company), which plans to leverage its proprietary technology for banking in Hong Kong. The bank aims to support the existing SME customer base by creating a platform for disbursing SME loans virtually.

SC Digital Solutions: Standard Chartered with a majority stake of 65.1% partnered with telecom companies PCCW, HKT and travel agency Ctrip Hong Kong to form SC Digital solutions. SC Digital is expected to offer the ability to open accounts and apply for financial services on-the-go while building a suite of retail financial services and products.

WeLab Bank: A consortium formed between the technology, media, banking, and private equity giants of APAC, namely TOM Group(Media company), Khazanah Nasional Berhad (Malaysian sovereign wealth fund), International Finance Corporation (a member of the World Bank Group), Alibaba Entrepreneurs Fund, Sequoia Capital, China Construction Bank International), and ING Bank. It plans to support the businesses and individuals in the following way:

- Provide convenient and diversified retail banking solutions and products to Hong Kong retail customers
- Offer B2B enterprise solutions by partnering with traditional financial institutions, which utilize WeLab's technology to offer fintech-enabled services to their customers

ZA Bank: Formerly launched as ZhongAn Virtual Finance has created an agile approach to launch a pilot of 24/7 banking services that allow customers to open an account in five minutes using a Hong Kong identity card. It is the first virtual bank to enter the Hong Kong market with its innovative banking offerings in December 2019. To launch its full suite of services officially, ZA Bank is targeting to receive feedback on its pilot program from an N size of 2000 retail users.

China

“The widespread application of advanced technologies in the SME financing space has dramatically improved risk management and lowered costs.”

Eric Jing, former chairman of Mybank

Twimbit’s insight

1. Despite the global leader in technology adoption, there is low adoption of conducting banking transactions digitally, creating a potential market opportunity for external players to enter in the virtual banking market

2. China's move to formalize virtual banking rules creates a possibility for players outside of China to enter the market and build an ecosystem of healthy competition, amidst the big players like WeBank and MyBank

Regulation

In 2015, China came up with ‘Guiding Opinions on Promoting the Healthy Development of Internet Finance (Guiding Opinions)’ to support the unprecedented growth of online banking in the country. According to the Guiding Opinions, regulators support the creation of internet platforms for innovative banking solutions. As per Reuters in January 2020, China is formalizing the rules to cover virtual banking operations, consequently, minimize the risk in the financial sector and attract new, global players in the market. The rule formation is to guide the transformational use of data and disruptive technologies (e.g., AI, blockchain, and Cloud) that are reshaping the banking landscape in China.

Based on the guidelines, China granted four virtual banking licenses to WeBank, MYbank, AiBank, and XW bank.

Current scenario

4 fully licensed virtual banks

WeBank: A consortium formed by Tencent, Baiyeyuan, and Liye Group became China's first virtual bank. In 2015, its first product was launched, Weilidai, on QQ, easy-to-use mobile app, WeBank App, and Weichedai, its first B2B2C product. WeBank profitably serves more than 100 million previously underserved customers and processes more than 300 million transactions per day. The bank's deposits valuation stands at US$ 21.5 billion with a 2800% Y-o-Y growth, becoming one of the fastest-growing virtual banks, globally.

MYBank: A consortium formed by Alibaba affiliate Ant Financial Services Group and Chinese conglomerate Fosun International Ltd, officially launched on June 25th, 2015. MYbank's initial strategy was to concentrate on issuing small affordable loans of less than RMB 5 million (about US$ 800,000) to small- and micro-sized enterprises, entrepreneurs and consumers. Over the past few years, Mybank has already loaned 2 trillion yuan to 16 million SMEs in China using real-time data and credit-risk management models covering over 3,000 variables.

AiBank: A consortium formed by search engine operator Baidu and China Citic Bank Corp Ltd, where the bank owns a majority stake of 70%; It leverages modern technologies such as AI and big data with 60% of its workforce comprises of technology roles. AI is the core element of the bank's branding, and the bank offers a spate of innovative services by riding on Baidu's technology in AI.

XW bank: Sichuan Xinwang (XW) Bank is consortium led by New Hope Group, Xiaomi, and Hongqi Chain, with a 30% stake owned by Xiaomi. The bank focuses on SME financial inclusion by evaluating their creditworthiness through machine learning algorithms. Since its inception in December 2016, the bank is supporting 24 million SME customers with US$ 33.4 billion issued in loans. As stated on its website, the bank regards _nancial technology and big data risk control as its core capabilities to build and innovate.

An upcoming virtual bank

ING and Bank of Beijing: ING and Bank of Beijing are launching a joint venture virtual bank in China. The deal is notable both for being the first commercial bank on the mainland to have a majority foreign owner and the new brand is purely digital.

India

"By providing people with the right incentive structure and behavioral nudges, we can help get consumers ready to adopt digital financial services."

Nilesh Agarwal, co-founder & CEO, Yelo

Twimbit's insight

1. In the Indian contex, the homegrown newly established and upcoming start-ups have tweaked the operational definition of a virtual bank to capitalize on the many underserved SMEs and unbanked population by collaborating with traditional banks to deliver services.

2. With the emergence of multipe virtual (neo) banking platforms in play, the issuance of formal licensing policy by RBI can pose operational challenges for the upcoming start-ups, while opening the ground for foreign players in the market.

Regulation

In 2019, an Indian inter-ministerial panel on fintech has recommended measures to the Department of Financial Services and Reserve Bank of India (RBI) to examine the suitability of 'virtual banking system' in the Indian context. The costs and benefits regarding granting license to virtual banks and possible preparation for an ecosystem, where banks are delivering retail banking services ranging from extending loans, savings accounts, issuing cards, and offering payment services through their application or website. Currently, virtual banking facilities are offered in partnership with a private or nationalized bank. For example, Digibank a virtual banking platform launched by DBS bank in 2016 received approval from RBI to operate as a wholly-owned subsidiary of DBS.

Moreover, In December 2019, RBI issued guidelines 'on tap' licensing of small finance banks (SFBs) in the private sector, which allows the creation of banks specifically targeting the unserved and underserved small business units; small and marginal farmers; micro and small industries. These guidelines enable payment banks, such as Fino payments bank, Airtel payments bank, and Paytm who have a track record of conducting business for a period of 5 years and minimum paid-up capital of INR 200 crore to convert into small finance banks, catering to aforementioned sectors. Formal applications to convert are still not made by fintech companies, but it paves the way for a fully-digital fintech company to convert in a bank to drive financial inclusion in India.

Many players have established the "Indianized" version of virtual banks, commonly referred to as "neo banks" in the country. These banking start-ups are operating in affiliation with a traditional bank.

Currently, there are 10 neo banks operating in India in partnership with traditional banks.

Current scenario

10 non licensed virtual banks

DigiBank: DBS bank enters the Indian banking sector with its virtual banking platform – Digibank. The bank has both institutional and retail strategy around digital rollout. It focuses on ease of convenience by provisioning its customers for online loan applications up to 15 lakhs and opening a fully operational bank account in 90 seconds.

Kotak 811: Kotak Mahindra Bank launches the '811' service in 2017, and is an app-based digital zerobalance account facility. It offers over 100 mobile features including complete financial transactions, managing investments, fund transfers and supports other e-commerce apps. The bank positions itself on inclusivity, where the messaging involves the all-in-one 811 digital bank account.

> **"We said that consumers often feel judged when they go to a retail institution. The nature of the very product in itself is non-judgmental as it allows customers to open an account on the 811 banking app with zero balance with just two documents—Aadhaar card and PAN card. We decided to use an emotional route and communicated an egalitarian society a higher-order message which I think is always relevant in a diverse country like India."**
>
> Elizabeth Venkataraman, Senior Executive Vice President & Head of Marketing, Kotak Mahindra Bank.

EpiFi: Epifi has launched in May 2019 and is currently in a pre-launch stage, where it is building the technology stack to offer digital banking solutions. It will target millennials, which will include savings account and debit card facilities. This start-up it is built by former Google Pay executives Sujith Narayanan and Sumit Gwalani, raising US$ 13.2 million seed funding from Sequoia Capital, Ribbit Capital, Hillhouse Capital, and angel investors, including David Velez (Founder of Nubank), and Kunal Shah (Founder and CEO of Cred)

> **"The intent is to deliver a product that touches consumers across streams, which is intuitive and simple, demystifies their finances, and helps them spend intelligently. From a consumer finance perspective, they are looking for a unified experience."**
>
> Sumit Gwalani, cofounder

Open: Serial entrepreneurs Anish Achuthan and wife Mabel Chacko, along with Ajeesh Achuthan in 2016 started Open. Open as a virtual banking platform, targets small businesses and enables them to manage cash flows, automate accounting and get easy access to a credit line. Among various offerings. It provides Open+ card, a business credit card with a 30-day interest-free credit line, for venture-backed start-ups and Layer, a unique programmable bank account for developers.

> **"We are trying to build an offline payment mechanism with banks, where an offline payment can automatically be linked to the right invoice. Second, we want to use analytics to predict cash flows and create meaningful insights for banks and NBFCs. Third, we are also looking to digitize meal vouchers, by providing additional pre-paid cards."**
>
> Anish Achuthan

NiYo: NiYO Solutions serves as a "neo bank" that relies on traditional financial institutions (Yes Bank and DCB banks) and offers to customers additional features such as, lending and insurance. It aims to grow its customer base from about 1 million currently to 5 million in the next three years.

> **"Right now, we are focused on the liabilities side, which is focused on the salaries account. But, very soon, we would like to expand into lending and wealth management. Each of that will require its own product cycle testing and rollout."**
>
> Vinay Bagri, CEO

YeLo by 0.5bn: A personalized neo banking service, YeLo provides a range of innovative products and services to address immediate short-term needs such as day-to-day cash flow management as well as long-term needs such as future medical shocks. It is designed to meet the needs of bluecollar workers, helping to on-ramp them into the formal financial segment. Partnerships with financial services providers such as ICICI and Federal Bank help them to target corporates and SMEs vfor aggregating customers and providing them personalized financial product offerings.

> **"By providing people with the right incentive structure and behavioral nudges, we can help get consumers ready to adopt digital financial services."**
>
> Nilesh Agarwal, co-founder, CEO.

InstantPay: InstantPay is an inclusive and neo banking platform coined with the objective of driving financial inclusion in India in a responsible and sustainable way. Founded in 2013, its neo-banking facilities are provided in partnership with ICICI bank, SBI, Federal bank to name a few. InstantPay is trying to reinvent the practices of a traditional bank, while at the same time ensuring that they are more cost-effective, automated and convenient, in line with the requirements of today's SMEs.

> **"Our banking solution is designed to address the unique requirements of SMEs. It does away with the hassles of traditional banking processes & policies and provides a seamless and user-friendly experience."**
>
> Shailendra Agarwal, CEO

Hylo: Founded in 2019, Hylo is a neo banking platform with simple and easy to use interface in the hands of SME owner. It addresses SMEs' core pains on receivables Hylo brings Integrated banking, with a real-time reconciliation for invoices and payables connecting the whole distribution chain.

Walrus: Launched in Nov 2019, a neo banking platform for kids, students and teenagers to manage money, while being supervised and monitored by parents. Walrus is building the next-generation banking and rewards platform for the 100 million teenagers in India with the objective of giving them financial freedom and teaching them good money habits.

RazorpayX: RazorpayX is Business Banking built for disruptors. Bring effectiveness, efficiency, and excellence to all the financial processes Razorpay has to offer, coupled with banking services. RazorpayX offers current account, credit cards, and compliance services for small and medium firms.

Singapore

"Singapore wants to be for technology players and that means anchoring them here at the early stage of their development, and allowing them access to the domestic banking market."

Ravi Menon, Managing Director, Monetary Authority Singapore

Twimbit's insight

1. Singapore largely has banked population of nearly 96%, which can make the sustainability of virtual banks in the country challenging as compared to other economies.

2. With the new virtual banking licensing policy coming into play, non-traditional banking players can hold a majority stake when building strategic consortia with Singapore based baking institutions.

Regulation

The Monetary Authority Singapore (MAS) in June 2019 announced the issuance of five virtual banking license with the intent to focus on market segments that are typically underserved by incumbent banks. The announcement marked the way for leading financial technology, telecommunication, technology giants to become operational banks in Singapore. The effort of regulatory bodies to issue a virtual banking license is to keep pace with the fast-growing advancements in virtual banking by its neighbors, Hong Kong and South Korea. When making the announcement of issuing the licenses, Senior Minister Tharman Shanmugaratnam and Chairman of MAS emphasized that the regulator is committed to "allowing for greater competition and spurring innovation in finance, while it must retain strong local anchor and trust in the banking system.

MAS is set to issue two virtual full bank licenses, which allow licensees to serve retail customers and take deposits, and three virtual wholesale bank licenses to serve SMEs and non-retail segments. In January 2020, MAS confirmed receiving a total of twenty-one applications for the five licenses, which includes seven applicants for a virtual bank license and fourteen for a virtual wholesale license.

As on date, 15 applicants are publicly known who are racing for the “big win”, whose announcement was expected in mid-2020. However, the Covid-19 pandemic has delayed the assessment of applications till further notice.

Current Scenario

15 virtual banking license applicants, 5 licenses to be issued in 2020

Razer Youth Bank: A consortium between Razer Fintech and Sheng Siong's founders to apply for a virtual banking license in Singapore to establish their very own Razer Youth Bank.

Grab and Singtel: The consortium targets to meet the needs of “digital-first consumers” who expect greater convenience and z personalization. Grab would hold a 60% stake in the proposed consortium, with the telecommunication giant holding the remaining 40%.

Beyond: A consortium led by lifestyle and fintech enterprise V3 Group and card and payments company EZ-Link is seeking a virtual full bank license.

Ant Financial: An affiliate of e-commerce giant Alibaba Group Holdings is seeking a digital wholesale bank license.

iFast Corporation: A consortium formed between iFast Corporation (Singapore-based mainboard listed wealth management firm) and Chinese fintech firms, Hande Group and Yillion Group to obtain the virtual wholesale banking license.

AMTD, Xiaomi Finance, SP Group, and Funding Societies: Hong Kong financial services group AMTD, Chinese electronics company Xiaomi, local utility provider SP Group, and peer-to-peer lending platform Funding Societies formed a consortium and applied for a virtual wholesale banking license.

Sea: It is a US-listed consumer internet company, owning Shopee (e-commerce marketplace) and Garena (online game developer and publisher), and SeaMoney (a digital financial services network in Southeast Asia). Forrest Li, Sea’s chief executive officer states that they have developed exceptional capabilities in addressing these unmet needs, and have the technology, infrastructure, data analytics capabilities, and management experience to design and scale Singapore’s first fully digital bank.

Enigma Group, Qrypt Technologies, 2359 Media, Blockchain Worx, and Enigma Global Holdings: A consortium formed between Singapore-based analytics and consultancy provider Enigma Group, UK-based Enigma Global Holdings, cybersecurity firm Qrypt Technologies, mobile app developer 2359 Media, and fintech startup Blockchain Worx. It has applied for a virtual full bank license.

Singapura Finance and MatchMove Pay: Finance firm Singapura Finance and digital payment startup MatchMove Pay have formed a consortium for a virtual full bank license in Singapore.

Arival: Singapore-based venture capital firm Life.Sreda has applied for a virtual wholesale bank license here with the aim to serve high-risk clients that traditional banks typically eject.

Greenland Financial and MinIPO: Greenland Financial, the investment arm of Chinese real estate developer Greenland Group and Chinese financing platform MinIPO have applied for a virtual wholesale bank license.

Zall Smart Commerce Group, Marubeni Corporation, and Global eTrade Services: Zall Smart Commerce Group, an e-commerce-focused company in China form a consortium to apply for a virtual wholesale bank license. Along with Zall Smart, the consortium includes Japanese trading company Marubeni Corp. and Singapore-based Global eTrade Services.

ByteDance: China's ByteDance owning the viral video-sharing app TikTok, has applied for a virtual wholesale bank license.

Validus Capital, Vertex Ventures, and Keppel Corporation: A consortium formed between peer-topeer lending company Validus Capital Pte, Temasek Holding's Vertex Ventures, and Keppel Corporation applies for a virtual full bank license.

ShengYe Capital, Phillip Capital & Advance AI: A consortium formed between Supply chain finance company Sheng Ye Capital, financial conglomerate Phillip Capital and AI-focused fintech firm Advance AI's for a wholesale virtual banking license.

Malaysia

Regulation

In December 2019, Bank Negara Malaysia issues 'Draft Framework for Virtual Banks.' The new framework places emphasis on having applicants serve an underserved market and project a path to profitability. A balanced approach to enable the admission of innovative virtual banks while safeguarding the consumers and the financial system. The Exposure Draft is issued together with the Application Procedures for New Licences under FSA and IFSA, and Application Procedures for Acquisition of Interest in Shares and to be a Financial Holding Company to provide clarity on the procedures and criteria involved in the application process to be a licensed person under the FSA and IFSA.

Currently, Malaysia has no regulatory frameworks to support virtual banking, the central bank plans to develop and deploy it by 2020, post which licenses are to be allocated based on operational merit. Companies eyeing for the proposed license include **Grab; CIMB; Affin Bank Berhad; Hong Leong Bank; AmBank; Boost.**

Indonesia

Regulation

Indonesia is APAC's most underbanked country with 260 million population falls under the bracket of not owning a bank account (as per World Bank's financial inclusion study 2017). While there has been a significant advancement in the country's fintech space with the growing adaption of payment applications, it still falls behind in serving a large chunk of the population with their banking needs. Despite the potential, Indonesia's Financial Services Authority has not formulated a licensing policy to form a virtual bank. However, the authority issued amended regulation in 2019 to allow incumbent banks to conduct business digitally. This has helped Indonesian citizens use their smartphones for banking services, like request a credit card or open an account efficiently.

Following the amended regulations, DBS bank and Bank Tabungan Pensiunan Nasional (BTPN) bank have established their 'digital-only' banks – Digibank and Jenius respectively.

Current Scenario

2 fully digital-only banks

Digibank (Indonesia): In 2017, a year after launching in India, DBS bank enters the Indonesian banking sector bringing together an entire suite of innovative technology – from biometrics to artificial intelligence (AI) – to enable customers to enjoy a whole new way of banking.

> **"With digibank, we've built a bank that pulls together the power of biometrics, natural language, artificial intelligence and in-built security in one offering. We believe this mobile-led offering represents the future of banking, and are excited to introduce this in Indonesia, a core market for us in Asia."**
>
> Piyush Gupta, CEO

Jenius: BTPN Bank launched the Jenius Mobius Hub in Jakarta, Indonesia – designed by Allen international. A digital banking channel which enables customers to open and manage their bank accounts remotely via smartphones and tablets.

> **"Our research shows that digitally savvy people want a banking experience that is simple, smart and safe, whereby everything can be done via a smartphone. As a bank that has a vision of making a difference in the lives of millions of people throughout Indonesia, BTPN has answered these demands through Jenius."**
>
> Jerry Ng, President Director of BTPN

Philippines

Regulation

In January 2020, Albay Representative and chairman of the House Committee on Ways and Means, Joey Salceda on Monday, filed House Bill 5913 provides a regulatory framework for virtual banking to boost the financial inclusion thrust. The bill aims to tap the underserved market of the country at a lower cost, a key characteristic of virtual banks.

"Marrying widely accessible digital platforms such as mobile phone applications with conventional banking strategies such as deposits and micro-lending, virtual banks are able to provide financial services at much more favorable rates, as they do not incur such expenses as establishing and securing branches and maintaining automated teller machines (ATMs),"

Joey Salceda

Current Scenario

Currently, ING Bank NV and CIMB offer digital banking services to Filipinos through their respective platforms. Additionally, in 2018, Maybank Philippines launched MOVE (Mobile Optimized Virtual Experiences). According to the bank, it is the first integrated digital offering to simplify and enhance its financial services.

However, Tonik Digital Bank Inc., a subsidiary of Singapore-based Tonik financial received approval from Bangko Sentral ng Pilipinas (BSP), Philippines central bank. The approval enables the bank to o er services such as retail banking, deposits, and consumer loans, digitally.

1st fully licensed virtual bank

Tonik financial introduces the first pure-play virtual bank in the Philippines with US$ 6 million raised in equity capital to bank the 70% unbanked adult population in the country. The capital is raised from venture capital investors Insignia Ventures Partners and Credence Partners along with regional and angel investors. As per the bank, it will partner with Finastra's Fusion Essence cloud platform to build its end-to-end banking capabilities and support its launch in the region.

"Digital-only banks globally have successfully demonstrated their ability to take massive market share by launching hyper-compelling consumer propositions, while also operating at disruptively low unit costs. We believe that the regulator's confidence in us serves as the testament to the unique strength and track record of our team and the attractiveness of our product philosophy."

Greg Krasnov, founder & CEO of Tonik

Thailand

Current Scenario

TMRW

TMRW is the first virtual bank (mobile-only) launched by United Overseas Bank (UOB), Thailand in March 2019, primarily for the digital generation. The virtual bank operates within the banking license of UOB as there is no formal policy in Thailand for virtual bank establishment. Customers are onboarded on the TMRW banking platform by uploading an identification proof while authenticating their identities at a self-service TMRW kiosk placed in 200 locations across Bangkok.

"TMRW is built on insights to enrich the customer experience for the digital generation. In speaking with millennials, we found that while they appreciate relevant guidance to help them keep track of and manage their finances better, they respond better to prompts that are fun and that do not make them feel guilty. One of TMRW's most popular features among the 1,500 customers who joined our pilot programme in Thailand was a money management game to help customers meet their savings goals in fun-sized, achievable steps. TMRW's language is also free from banking jargon and is easy to understand."

Mr. Yuttachai Teyarachakul, Managing Director, Country Head of Personal Financial Services, UOB (Thai)

Vietnam

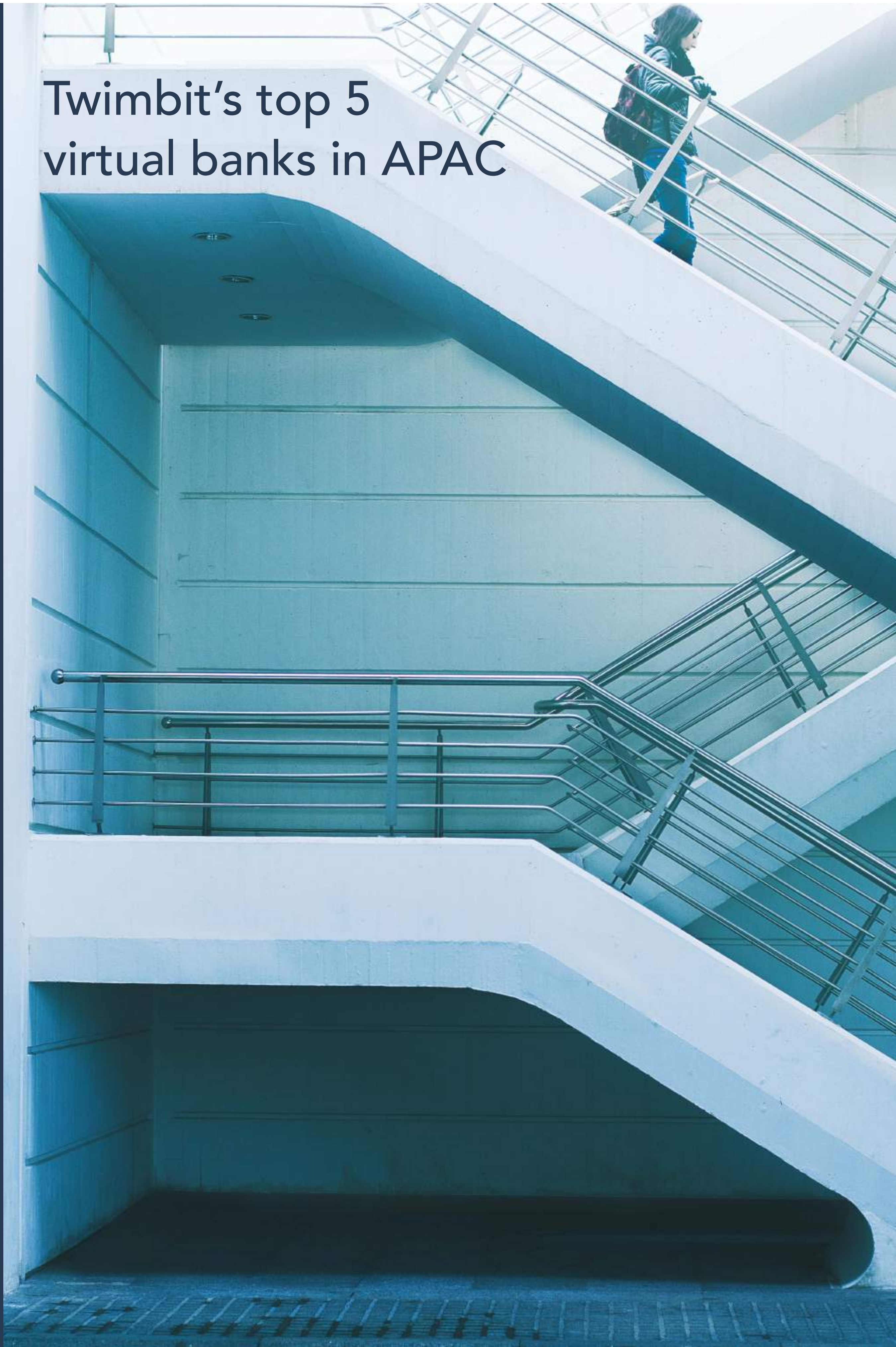
Regulation

While Vietnam has 40% of its adult population unbanked as per the World Bank's financial inclusion 2017 report, it is yet to adopt the far-reaching potential of banking sector digitalization. Most incumbent banks are exploring opportunities to create web offerings and digital platforms. However, the Vietnamese regulatory authorities are still at the backdrop of forming virtual banking policies.

Current Scenario

To embrace the virtual banking revolution in APAC, Vietnam's Viet Nam Prosperity Joint Stock Commercial Bank (VP Bank) and Global Online Financial Solution launched the first bank without branches named "Timo" in 2015. Timo, an abbreviation to "Time & Money", is a digital banking platform offering banking facilities to its customers by inviting them to hybrid coffee shop-banking centers and helping the customers onboard on its digital banking platform. As a result, the bank cannot be characterized as a digital-only/ virtual bank but offers its customers non-traditional banking experience through these shops. However, Vietnam Maritime Commercial Joint Stock Bank (MSB) is planning to adopt Mambu's cloud-native banking platform to launch Vietnam's first digital-only bank by the end of 2020 under its proprietary banking license.

Twimbit's top 5 virtual banks in APAC



Twimbit assessed 12 countries within APAC that are working toward the goal of financial inclusion and healthy competition by providing banking services virtually. Where 73% of South-East Asian and 53% of South Asia countries are unbanked, virtual banks are trying to capture this market through innovative offerings at a low cost. Low cost innovative offering coupled with growing internet-savvy population are the underlying fundamentals on which virtual banks are acquiring customers.

A majority of virtual banks in APAC are an outcome of consortium formed between an e-commerce, a telecom, a technology company, where these companies are utilizing their unique value proposition to build a robust virtual banking ecosystem. Additionally, many incumbent banks have developed their digital-only proposition or collaborated with above-mentioned companies to enter the virtual banking market.

Twimbit's 2-S framework

In determining the top 5 virtual banks in APAC, each established virtual bank is assessed on 'scalability' and 'strength'. These two factors form our "2-S framework" as defined below:

Scalability

For virtual banks to build continuity in the market, they must take measures to scale their business. Scalability has a major impact on driving shifts in customer choices and achieving mass adoption of virtual banking practices. For example, WeChat, a SuperApp by Tencent adds 20 million users quarterly, building a base of 1 billion active users today that are now being offered banking services through WeBank (virtual bank by Tencent).

We assessed each bank on the following parameters of scalability:

Growth

a. The total number of customers

b. The total amount of customer deposits

c. The total amount of loans disbursed

Funding

a. The total amount of funds raised

b. The objective to raise funds

c. The current valuation of the bank

Strength

The operability strength of a virtual bank is vital for its long-term survival, especially when these banks are aiming to compete with incumbent banks. For example, the Australian big 4 banks are witnessing a decline of 3.7% in operating income, largely attributed to virtual banks and foreign players entering the market.

We assessed each bank on the following parameters of strength:

Reachability

a. Existing network (backward integration to create customers)

b. Consortium companies' unique expertise

c. Any entry level advantages

Technology and people Infrastructure

a. Technology proposition

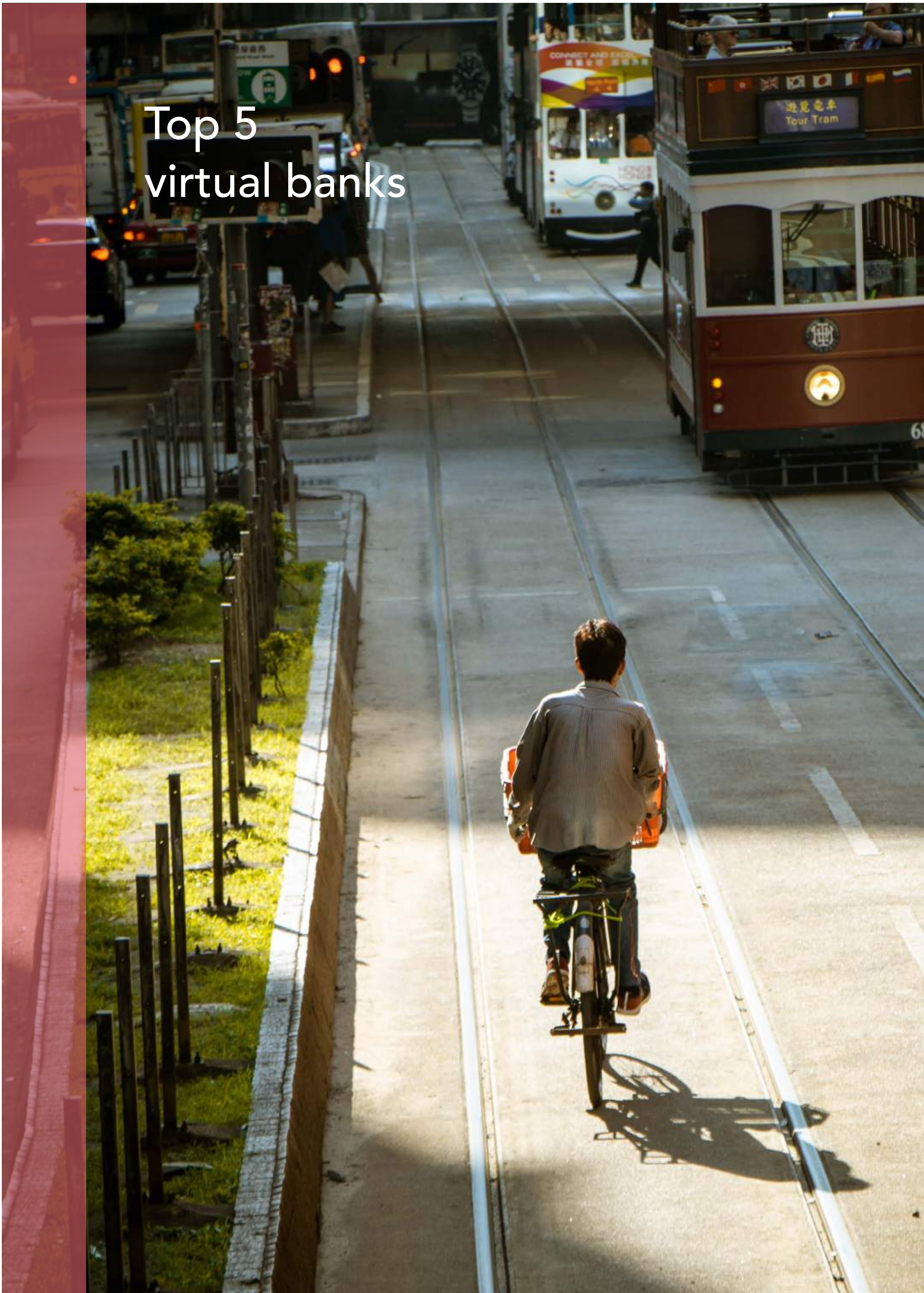
b. Technology investment

c. Talent composition

Banking know-how

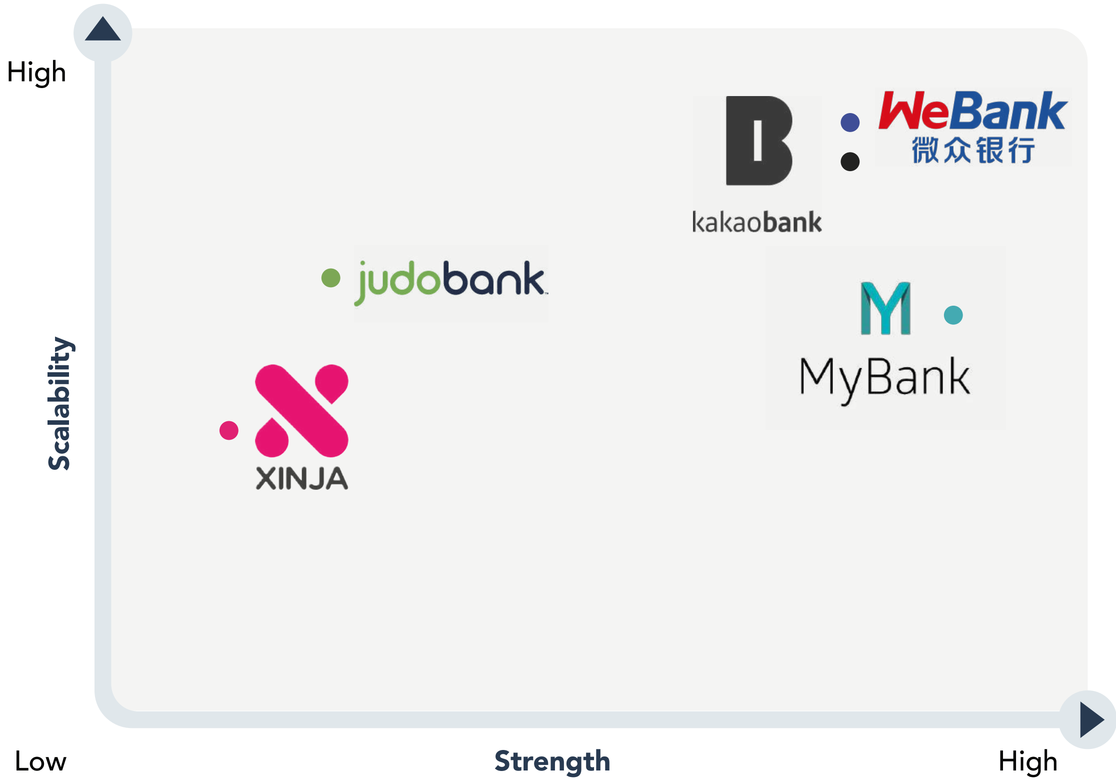
a. Existing or acquired operational banking expertise

Top 5 virtual banks



Using the above framework, there are 5 pure-play virtual banks setting examples within APAC, while carving the future of virtual banking in the region. Based on our analysis, we have relatively positioned each of the 5 banks as follows:

2-S Framework Analysis



WeBank 微众银行

Challenge

2/3rd of SME population remains unbanked and/or underbanked

Solution

A modernized bank built on the principle of agile banking including A (AI) B (Blockchain) C (Cloud) D (Data) of technologies, serving 500,000 SMEs and 170 million retail customers.

Highlights

Headquarters: Shenzhen, China

Raised 173 mn from Tencent Holdings

Key investors: Tencent, Baiyeyuan, and Liye Group

Global fintech leader

Chairman and CEO: David Ku

President: Nanqing Li

Market inefficiencies

60% of the financial growth of the country comes from SMEs' contribution, however, two-third of over 80 million SMEs in China do not get loans from the dominated state-owned lenders. This creates a pool of nearly 53 million SMEs in China which go either unbanked or underbanked due to the 80% rejection rate in disbursing loans by traditional lenders. The key reason that attribute to the failure of receiving loans from traditional lenders is asymmetrical credit information of borrowers, resulting in a lack of credibility to pass the loan disbursal threshold. Additionally, borrowers faced a variety of challenges when seeking a loan from traditional lenders, such as:

- Lengthy and complex application process
- High cost of loan processing
- Loan size did not match expectations
- Long loan review and approval timelines

Introduction

WeBank is China's first virtual bank to launch in December 2014, and now one of the largest virtual banks in the world with over 170 million individual users and 500,000 small, micro-sized enterprises (SMEs). A modernized bank built on the underlying principle of agile banking, which includes ABCD of technologies and agility embedded governance.

WeBank is a consortium formed between Tencent, Baiyeyuan, and Liye Group, where Tencent holds the majority stake of 30% and the other have 20% stake each. It has strategically located itself in China's 3rd largest city of Shenzhen with an easy accessibility to Hong Kong in 10 mins.

The bank is focused on providing 24X7 virtual banking experience through innovative product design, data analysis, and technology. It provides online financial products and services to following three consumer segments:

- B2C: Welidai app for consumer loan
- B2B: Weiyedai app for SME loan
- B2B2C: Weichedai for Auto loan and smart retail

The bank is headed by David Ku, Chairman and CEO along with Nanqing Li, President, Tom Wan, Chief Supervisor, and Henry Ma, Vice President and CIO.

WeBank’s 2-S framework analysis

1. Scalability

Growth

The bank is currently valued at approximately US$ 21 billion, having a 2800% Y-o-Y growth in deposit base. Further, the bank provides unsecured personal loans ranging from US$ 70 – US$ 44,000 by assessing the credit line within 5 seconds and loan amount disbursed in less than a 1 minute.

According to the 2018 annual report, WeBank reported a net profit of US$ 356 million which has grown at a rate of 148.8% CAGR. Despite its NPL ratio increasing from 0.32% in 2016 to 0.51% in 2018, it is still under market average of 1.9%. Additionally, the capital adequacy ratio decreases from 16.74% in 2017 to 12.82% in 2018, bringing it to the minimum threshold requirement.

To further scale its growth, WeBank has become China’s technology infrastructure provider by becoming a part of China’s Blockchain-Based Service Network (BSN). It will provide technical support in developing and operating blockchain-based applications for a positive impact on people’s livelihood.

WeBank also announced two partnerships during an Artificial Intelligence (AI) conference NuerIPS[2] with Tencent Cloud (cloud computing platform) and Mila (Deep learning research facility). The partnerships aim at protect data privacy while enabling cross-organization collaborations in AI and fintech, powered by the new federated learning (FL) technology, according to Business Wire. WeBank launched the world's first industry FL open-source framework Federated AI Technology Enabler (FATE) in February 2019.

Funding

WeBank raised a venture capital amount of USS$ 173 million in June 2016 from Tencent Holdings. On another note, Shenzhen Brightoil Petroleum Group Co one of the investors in the bank sold its US$ 63.63 million stake after failing to repay a loan to Ping An Bank Co. Ltd in 2018, according to Reuters

[2] China's Digital Bank WeBank Announces Partnerships with Quebec-based Mila and Tencent at NuerIPS 2019, Business Wire

2. Strength

Reachability

WeBank analyses the customer base of over 1.2 billion coming from WeChat and QQ, popular social media and payment platforms owned by Tencent group. This customer base helps them assess the credibility of customers through payment records and social networking messages, while soliciting loan applications through advertising on these platforms.

Technology Infrastructure

WeBank is powered by AI, Blockchain, Cloud and data which the bank classifies as ABCD technologies as shown below:

A **Artificial Intelligent**
Anti-fraud, eKYC, chatbot

B **Blockchain**
Syndicated Loan Reconciliation

C **Cloud**
Highly Scalable Financial Cloud

D **Data**
Differentiated Services Precision Marketing

This full suite of technologies helps the bank excel in creating platforms that support China's mission of financial inclusion. In addition to providing digital banking and financial services, WeBank actively participates in building a technological infrastructure to improve financial services market. Key initiatives by WeBank include:

1. BCOS: Blockchain open source, a platform for secure and controllable consortium-based blockchain development, supporting a full spectrum of applications:

a. Reconciliation
b. Resource management
c. Talent acquisition
d. Arbitration
e. Copyrights
f. Tourism finance
g. Supply Chain
h. Gaming

2. CBOS: Collaborative business operating system for agile innovation that includes:

   a. Full stack cloud computing management capability
   b. Heterogeneous resource allocation
   c. Distributed architecture management
   d. Master management of all operations

3. ESG: WeBank's environment, social and governance involves several capabilities, including adopting natural language processing to analyze corporate reports and financial statements. WeBank now has a fleet of satellites in space to study companies' operations and report on their ESG practices. WeBank uses machine learning enabled satellites to study the impact of a company's environmental impact. This helps asset managers assess the environmental risks for investors, building strategies to trade Chinese securities. According to Digfin group, WeBank has applied ESG metrics to 300 Chinese companies, and has found a correlation between ESG scores and their overall financial risk.

People Infrastructure

WeBank has an overall staff size of 1700 individuals, where more than 50% of the workforce are IT professionals. The bank operates on the talent strategy of driving technology and innovation in banking and finance.

Actionable lessons learned from WeBank

- Leverage the consortium companies' core capabilities (e.g., Wechat and QQ's customer data to assess credibility from social messaging activity) to create a robust business strategy for scalability and strength.
- Build profitable backward integration partnerships (e.g., target regional banks, financial institutions) to achieve mass customer acquisition targets and support financial inclusion mission.
- Create an ecosystem that provides business opportunities for non-banking service providers to promote innovation in banking and financial services practices, debunking incumbent banks' conventionality.

MyBank

Challenge

2/3rd of SME population remains unbanked and/or underbanked.

Solution

Created an intelligent loan application process '3-1-0' model which takes 3 minutes to apply for a loan on mobile, 1 second to approve, and 0 intervention.

Highlights

Inception
June 2015

Key Investor:
ANT Financial, Fosun, Wanxiang and Ningboa

12.27 Million
customers

Headquarters
Hangzhou, Zhejiang, China

Target
30 million customers

Jin Ziaolong,
President

US$ 871 million
expected to raise as Maiden funding

Market inefficiencies

China is the global leader in technology and has now become a leading fintech innovator accounting for approximately half of the global payments market along with three-quarters of online lending transactions[2]. Consequently, it made inroads in virtual banking with the launch of **Mybank**, an innovative virtual bank focused on providing loans to the 2/3rd unbanked and/or underbanked small, medium enterprises (SMEs) of China.

Mybank revolutionized the SME financing in China by creating an intelligent loan application process, which analyses 100,000 indicators through big data and artificial intelligence, including 3000 loan strategies to approve a loan application. It built a "3-1-0" model, which takes 3 minutes to apply for a loan on mobile, 1 second to approve, and 0 intervention.

Introduction

Mybank is a consortium formed between Ant financial (Chinese fintech giant), Fosun Industrial Technology Development Co., Wanxiang Sannong Co., Ningbo Jinrun Asset Management. Each of them holds a stake of 30%, 25%, 18%, and 16% respectively. It was launched with a registered capital of US$ 645 million.

This consortium-led bank is targeted on inclusive finance as its mission, and primarily uses technology, data, and channel innovation to solve SME financing difficulties, provide rural financial services, and promote economic development entities.

The bank is headed by Jin Xiaolong, Executive Director and President along with Hu Xiamong, Chairman of Mybank and Ant Financial President.

[2] The age of appacus: Fintech in China, The Economist

Mybank's 2-S framework analysis

1. Scalability

Growth

According to Mybank's 2018 annual report, Mybank reported a net profit of US$ 96.15 million with a non-performing loan (NPL) ratio of only 1.3% lower than the national average of 1.89%. Since its inception in June 2015, Mybank has disbursed loans to 12.27 million SMEs, constituting to US$ 290 billion loan amount with an average loan size of US$ 3731. The average cost per transaction is US$ 0.4 as compared to US$ 287 by traditional lenders.

We predict Mybank's annualized net profits will soar to US$ 140 million in 2020, achieving a growth rate of nearly 42%.

To further scale in the market, Mybank launched the Star Plan at the 2018 SME financing summit Hangzhou[2]. This plan aims to boost further financial inclusion mission of the bank by sharing its technological capabilities, such as AI, big data, and risk management systems with regional and rural financial institutions in China. The bank intends to serve 30 million SMEs and farmers through costeffective financing services by 2021.

2. Strength

Reachability

Ant Financial owns a majority stake in Mybank, which makes the bank advantageous in multiple aspects. For instance, it can leverage Alipay's customer data as the payment platform controls over 50% of the payment business in China.

According to Twimbit's analysis, Mybank has created the intelligent loan application process by capturing customer data of 550 million active users on Alipay's platform coupled with Credit Sesame's big data credit rating system.

Alipay has a holistic coverage of an individual's payments, spanning from utility bills, credit card repayments, administrative fines, tuition fees to a complete one-stop shopping needs. Further, Alipay allows shoppers to use facial recognition and fingerprint to verify their identity, adding another layer of customer information gathered at the backend. Complementing this customer data, Credit Sesame rates customers and small businesses a credit score based on their transactions on Alibaba's shopping platforms and Alipay's payment history.

This enormous volume of customer data leveraged from the Ant financials' network has enabled the bank to train its AI algorithms with over 100,000 loan approval indicators, 100 predicting models and 3,000 loan strategies, building a robust risk management system.

Technology and people infrastructure

Mybank's entire technological infrastructure is based on the financial cloud computing platform, it can handle highly concurrent financial transactions, large amounts of big data, and flexible expansion. In addition to cloud computing, its technology suite comprises of AI, big data, and predictive analytics.

The bank houses a total of 720 employees with over 281 people hold doctoral degrees. It has 166 people as front-end employees, whereas 554 as middle and back-office employees according to the 2018 annual report.

"The widespread application of advanced technologies in the SME financing space has dramatically improved risk management and lowered costs. With these innovations, we can unlock new opportunities for financial institutions and enable them to sustainably serve the needs of SMEs and farmers."

Eric Jing, former chairman of Mybank

Actionable lessons learned from Mybank

- Analyse customer behavioural buying patterns, payment transactions, and credit history using big data to build a robust customer remediation process.
- Incentivize companies for backward integration (e.g., target regional, rural banks, and financial institutions) to achieve mass customer acquisition targets and support financial inclusion mission.
- Create an ecosystem that provides business opportunities for non-banking service providers to promote innovation in banking and financial services practices, debunking incumbent banks' conventionality

kakaobank

Challenge

40% of the Korean population remains underserved with limited to no access to loan amounts.

Solution

Efficient onboarding and evaluation of a client, the selfie-based KYC process is enabled in the app which is integrated through API networks between the bank and outside credit rating bureau, resulting in granting loans to the underserved segment.

Highlights

Annualized growth: 148%

Customers: 10 million

Market size

US$ 13 billion in deposits	**US$ 8.2 billion in loan balances**

Investors: Korea Investment Holdings, KBKookmin Bank, and Kakao (social-media messaging company) with eBay and Tencent

Funding: US$ 1 billion

Market inefficiencies

Even though 90% of the banking transactions are made online with 9 million daily users of mobile banking services, there are many underserved segments of the population who are unable to fulfill their financial needs. These primarily arise due to the inability to secure loans from tier 1 banks. There is a 75% loan rejection rate, where the credit score is between 4-6; the loans that do get approved with a credit score above 4 have skyrocketing interest rates. Hence, 40% of the Korean population remains underserved with limited to no access to loan amounts.

Moreover, South Korea has restrictions on bank ownership which is largely controlled by the "Chaebols" (family-controlled industrial conglomerates). This reduces the ability to innovate and provide customer-oriented product/service offerings. It also restricts the opportunity for foreign players to enter the market with their unique value propositions. However, the Financial Service Commission (FSC) to promote competition and innovation has allowed information and communications technology (ICT) firms to own up to 34% stake in a digital-only bank. The virtual banks need a minimum paid-up capital of US$ 21.5 million, 1/4th as compared to the commercial banks.

Introduction

Started in July 2017, Kakao bank is a consortium led by Korea Investment Holdings, KBKookmin Bank, and Kakao (social-media messaging company) with eBay and Tencent also being the investors to the bank. Since its inception, Kakao bank has achieved exponential growth in customer acquisition and revenue generation despite being the second one to start operations in the country.

The bank was headed by Lee Yong-Woo and Yoon Ho-Young as Co-CEOs; however, Yoon Ho-Young will now serve as a sole chief executive since Lee left the company to run for parliamentary election in January 2020.

Kakao Bank's 2-S framework analysis

1. Scalability

Growth

Kakao bank has achieved exponential growth since its inception with 126% and 144% annualized growth in the lending and deposits business respectively. Currently, the bank houses US$ 13 billion in deposits and US$ 8.2 billion in loan balances. From booking losses in 2017 and 2018 due to heavy investments in infrastructure and workforce, the bank started earning profits beginning 2019 with a 48% growth from 2Q19 to 3Q19; the bank has earned US$ 4.7 billion in 3Q19.

Additionally, Kakao has broken records in acquiring customers since its launch. On day 1 of launch, 300,000 customers created an account on the bank's app, and a month later it increased to 3 million customers. Currently, Kakao bank has 10 million active users on the platform, which is 20% of the Korean population.

Funding

Kakao Bank has raised capital with two funding rounds from existing investors with a combined value of US$ 1 billion. With the growth in lending and deposit market and sound earnings growth, Kakao bank is expected to go public by 2021.

2. Strength

Reachability

The underlying success strategies for Kakao bank are a result of two key factors:

1. South Korean population has one of the highest penetration rates of smartphones in the world, which brings ease of access and use along with comfort to use electronic channels for conducting financial transactions.

2. The access to Kakao Talk's customer base that dominates nearly 90% of the country's population, bringing transformative synergies for market penetration.

Technology infrastructure

Kakao bank builds on the technological platforms of Kakao Talk and Kakao Pay aims to become a platform like Amazon and Facebook in the finance sector. Kakao bank also uses new IT systems such as Linux X89 and open sources to create its banking application and internal systems.

The bank also invests heavily in building interactive UI/UX experience for its customers. According to Su-young Lee, strategy head, simplified authentication process, easy and fast operation, intuitive UI/UX, adopting fun and sharing function in banking activity are also important success points. Further, to reduce customer resolution costs by 80%, the bank has rolled out new video-based customer chatbot.

For easy, efficient onboarding and evaluation of a client, the selfie-based KYC process is enabled in the app which is integrated through API networks between the bank and outside credit rating bureau and government agencies.

People infrastructure

40% of Kakao's workforce is IT professionals, continuously working towards bringing innovation in banking with a goal to build an ever-evolving financial platform, which becomes a hub for buying and selling financial products.

Actionable lessons learned from Kakao Bank

- Identify the synergy inflection points to achieve a competitive advantage in the market, building a mass reach out strategy in customer acquisition.
- Understand the visual behavioral patterns of the customers to design the application interface based on customer likings and preferences, creating a strong recall value and retention mechanism.

judobank

Challenge

SMEs fail to obtain the requisite loan amount for managing their working capital, while balancing pressure on the cash flow. They face delayed credit approval turnaround times, costly loan terms, and unmatched loan amount disbursal.

Solution

The bank aims to cater to the funding gap of AUD$ 90 billion between small medium enterprises (SMEs) and financial institutions.

Highlights

Market size

Market size: AUD$ 1 billion

Funding: AUD$ 400 million

Co-CEOs
David Hornery and Joseph Healy

CIO
Alex Twigg

Recognition: Named in 2019 LinkedIn top startup list Australia.

Market inefficiencies

To safeguard the interest of the customers, the Australian Prudential Regulation Authority (APRA) created stringent customer remediation processes for each bank to fulfil before customer onboarding and/or lending activities. However, the big banks incur over US$ 1.8 billion as an annual cost in customer remediation with dedicated 3000+ employees for this process. This expense is then cascaded to the customers in terms of low-interest rates on deposits and high loan repayment interest charges. As a result, Australian banks are showcasing an elevated cost of banking and bringing in interest rate volatility in the market.

Introduction

The strategic intent

The bank's founding members include Alex Twigg, Chris Bayliss, David Hornery, Jacqui Colwell, Joseph Healy, Kate Keenan, Mal Hiscock, Tim Alexander, where David Hornery and Joseph Healy are Co-CEOs and Alex Twigg is the CIO.

While it was founded in 2016, Judo Bank secured an unrestricted ADI license to conduct full banking operations in April 2019. The bank aims to cater to the funding gap of AUD$ 90 billion between small medium enterprises (SMEs) and financial institutions.

According to Joseph Healy Co-CEO, "one in every four SMEs has been knocked back for bank finance, which means that every year, thousands of SMEs have had their business dreams quashed."

Judobank's 2-S framework analysis

1. Scalability

Growth

According to APRA statistics, Judo Bank has total resident assets of AUD$ 1,512 million and AUD$ 1 billion deposits. It is offering the best interest rates on term deposits i.e. 2.15% for a 5-year term and between 1.80% to 2.10% for other term periods. It also offers the customer a 0.10% loyalty bonus if the deposit is rolled over into a new term after maturation.

Post receiving the banking license, the bank has received over 171 news reports across online, print, and broadcast media, reaching an audience of 11.4 million people. The bank has also named in 2019 LinkedIn top startup list Australia.

Funding

In July 2019, Judo Bank created history by raising a capital of AUD$ 400 million, single largest fundraising in Australia. Previously, the bank had raised AUD$ 140 million in equity and AUD$ 350 million in debt. The receipts from the funding are utilized to strengthen their SME lending offerings and invest in their technology infrastructure to boost efficiency and compliance.

Post the two funding rounds, Judo Bank is reaching a market valuation of nearly AUD$ 2 billion in 2 years of operation. The bank is supported by approximately 15 large institutional shareholders, seed capital investors, and employee-shareholders.

2. Strength

Reachability

Judo Bank's 2019 SME Banking insights highlight the growing demand for SME lending with 15% of them desperate for funding and 25% get rejected by big banks, while the trust continues to decline.The report also states that on a scale of one (mistrust) to ten (complete trust), the average rating SMEs gave the big banks has dropped even further following the Royal Commission into misconduct in banking, superannuation, and financial services industry, falling to an incredibly low base of 2.4 out of 10.

These statistics have helped Judo Bank formulate the right strategies to target SMEs in Australia, providing a fertile field to build a growing base of customers with a loan book of over AUD$ 100 million. In January 2020, the bank announced AUD$ 1 billion deposits, 9 months after receiving their banking license, where 95% of the deposit amount is being used to lend to SMEs. Further, the bank aims at growing its lending market size to AUD$ 3 billion by 2020.

Technology infrastructure

The bank leverages the power of Artificial Intelligence (AI) to mitigate the risk of inaccurate information and maximize the ability of human judgment in making lending decisions. Judo bank has collaborated with Temenos T24 to build its SME offerings.

"We selected Temenos as our strategic technology partner to help us with our goal to become the most trusted business bank in Australia. Temenos worked closely with us from the beginning, and with its cloud-native digital front and back-office products enabled us to launch fast and with a lowrisk implementation. This allows us to cut through traditional bureaucracies and the sales-driven and property-secured status quo to transform the SME banking in Australia through a focus on close customer relationships."

Alex Twigg, CIO Judobank

Figure: Judo Technology Platform

Using AI to support the bankers and the process..

Source: Judo bank annual review report

Additionally, Judo Bank has partnered with InfraRisk to integrate its cloud-based credit value maximizer (CVX) technology with Judo's infrastructure. This helps the bank enhance risk analytics to support efficiency in customer evaluation and compliance.

"With our advanced and mature cloud-based solution, we can help Judo Bank service SMEs efficiently to meet their increasing credit needs."

Nicholas Davies, InfraRisk CEO and Founder

People infrastructure

The bank has over 150 staff members working across verticals, while Judo has partnered with FINSIA (Financial Services Institute of Australia) to design a curriculum that supports the team's professional needs. Moreover, Judo bank is continuously receiving applications from business bankers employed by the major banks due to soaring bureaucracy and antiquated technology that currently exists in these incumbents.

"The number of people who want to join the bank has exceeded our expectations. Never a day goes by when we are not approached by several people looking to talk to us about joining the bank. We are currently employing one for every 15 applicants we are seeing, with 90 percent from the major banks."

Joseph Healy, Co-CEO

Banking know-how

Judo co-founders, Joseph Healy and David Hornery have gained multiple years of banking experience from National Australia Bank. The duo identified SME's were being 'left behind' by the major banks, as they prioritised mortgage lending, industrialised their operating models, drove down costs and fundamentally dehumanised their approach to relationship banking. To cater to this underserved segment with their banking expertise, the duo along with a small group of colleagues formed Judo Bank.

As stated in Judo Bank's 2019 annual review report, their lending philosophy is underpinned by the principles of 4C's of credit decisions: Character, cash flow, capital, and collateral.

Actionable lessons learned from Judo Bank

- Identify the pain points in the respective geographic market to serve the right segment of customers rather than mimicking a successful virtual bank model from another region.
- Partner with the right set of technology and service providers to upscale and improve the existing infrastructure for building an efficient, agile operating model
- Invest in upskilling and reskilling the workforce to create a continuous learning environment and support professional banking qualifications.

XINJA

Challenge

Market dominance of 4 major banks have resulted in dissatisfied customers stemming from high cost, low interest rates, and reckless banking practices.

Solution

Innovating product offering to cater to saving and spending needs of retail customers with high saving interest rates.

Highlights

Market size: AUD $ 400 million

Funding: AUD$ 433 million

Founder
Eric Wilson

Chief Strategy & Innovation Officer, Executive Board Director
Van Le

CTO
John Pountain

Customers: 45,000

Market inefficiencies

It is evident Australian customers are continuously losing trust in major banks due to the bank's inability to provide transparent information, cater customer's financial needs, and deliver customercentric experience. Moreover, the big 4 banks in Australia (Commonwealth Bank, Australia New Zealand Bank, Westpac, and National Australia bank) have neglected customer interests with acts highlighting predatory loans, reckless practices, manipulation in interest rate benchmarks, and inappropriate financial advice. According to BBC News, Australian banks have paid over US$ 780 million in penalties and compensation since the 2008 financial crisis.

Introduction

The strategic intent
The bank's members include Eric Wilson (Founder), Van Le (Chief Strategy & Innovation Officer, Executive Board Director), John Pountain (CTO). Xinja Bank secured an unrestricted ADI license to conduct full banking operations in September 2019. Xinja focuses on personal banking becoming the 1st virtual bank to do so, and they're partially financed through equity crowdfunding

Xinja's 2-S framework analysis

1. Scalability

Growth

Xinja bank since its launch of services has attracted AUD$ 400 million in deposits with over 45,000 active customers. It offers a 2.25% saving account interest rate to its Xinja stash account for balances upto AUD$ 245,000. However, Xinja has stopped taking deposits from new customers as the demand for the stash accounts increased unexpectantly, resulting in a hard-hit on interest costs.

Xinja's stash account primarily separates the daily spending money from the transaction account for saving purposes.

"When faced with higher than expected deposit flows, and an RBA rate cut, most banks would just drop deposit interest rates, hurting existing customers while chasing new ones. That's not what Xinja is about.We are holding our rate steady, at 2.25%, but hitting the pause button on customers opening Stash accounts."

Eric Wilson, founder

Funding

In March 2020, Xinja bank has received AUD$ 433 million funding Emirates World Investments for supporting its growth in the next two years. The funding is to be released in two-parts with the first AUD$ 160 million upfront and the remaining in the span of two years.

2. Strength

Technology infrastructure

Xinja has collaborated with SAP SE to implement its SAP Cloud for its Banking platform to drive a simple, agile solution that delivers rapid customer onboarding and real time risk and financial assessment, as well as enabling open banking capabilities.

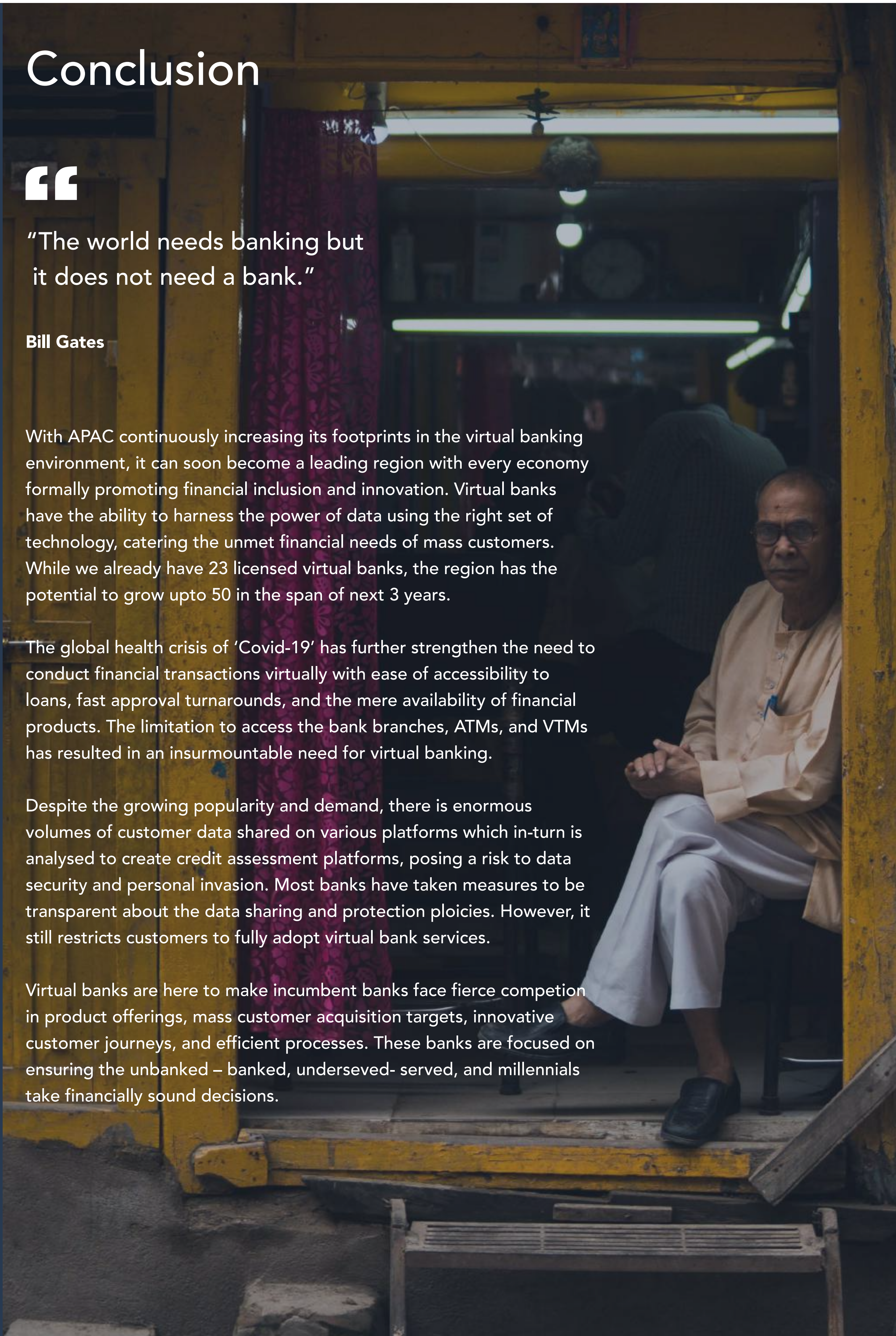
As stated on its official website, Xinja pays emphasis on security strategy and its design, with an emphasis on Zero Trust Architecture (ZTA). Built upon the Zero Trust principle of "never trust, always verify", Xinja's security systems are designed in ways as if they don't trust each other – if the security of one part of the system gets compromised, it won't move to the next layer – so that there would be no potential for cross-contamination when data breaches occur. This reassures its customers for safe information exchange and built loyalty toward the bank for making deposits.

People infrastructure

The Xinja team comprises of professionals from varied functional and industrial backgrounds that includes, banking and finance professionals, human centred design, customer experience, marketing, technology experts.

Actionable lessons learned from Xinja Bank

- Identify the pain points in the respective geographic market to serve the right segment of customers rather than mimicking a successful virtual bank model from another region.
- Partner with the right set of technology and service providers to create a robust technological infrastructure and security measures.



Conclusion

“The world needs banking but it does not need a bank.”

Bill Gates

With APAC continuously increasing its footprints in the virtual banking environment, it can soon become a leading region with every economy formally promoting financial inclusion and innovation. Virtual banks have the ability to harness the power of data using the right set of technology, catering the unmet financial needs of mass customers. While we already have 23 licensed virtual banks, the region has the potential to grow upto 50 in the span of next 3 years.

The global health crisis of ‘Covid-19’ has further strengthen the need to conduct financial transactions virtually with ease of accessibility to loans, fast approval turnarounds, and the mere availability of financial products. The limitation to access the bank branches, ATMs, and VTMs has resulted in an insurmountable need for virtual banking.

Despite the growing popularity and demand, there is enormous volumes of customer data shared on various platforms which in-turn is analysed to create credit assessment platforms, posing a risk to data security and personal invasion. Most banks have taken measures to be transparent about the data sharing and protection ploicies. However, it still restricts customers to fully adopt virtual bank services.

Virtual banks are here to make incumbent banks face fierce competion in product offerings, mass customer acquisition targets, innovative customer journeys, and efficient processes. These banks are focused on ensuring the unbanked – banked, underseved- served, and millennials take financially sound decisions.

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