The Challenge of Challenger Banks

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Digital banking and digital banks are on the rise globally. Can the challenger banks overcome their challenges to provide a superior customer experience at very low cost, especially in Singapore, with strong competition from the incumbents and a limited pool of the unbanked and underserved?

Estimates of the number of digital banks range between 250 and 350 globally.

In Singapore, there are five emerging digital banks. This does not include DBS, which has also been called a digital bank.

The confusion exists because many industry pundits do not distinguish between digital banking and digital banks.

Digital banking vs digital banks

Digital banking refers to digital payment services, lending, investments or personal financial management tools that help customers manage their savings, investments or expenses. Customers could be retail or businesses.

Digital banking can be offered by incumbent banks or challenger banks. Where traditional banks offer digital banking services, they often do so as a channel amongst the many existing ones, such as automated teller machines, branches, call centres, etc. Challenger banks would do so as an online business, usually with no physical customer infrastructure, where everything (e.g. technology, design, service, products) is in service of better customer experience at ever lower costs.

Challenger banks would require a (digital) banking licence from the country's banking regulator. These are the typical digital banks. However, a digital bank can also exist within a traditional bank, leveraging off its parent bank's licence (think Trust Bank in Singapore).

Digital vs traditional banks

The biggest threat of a digital bank to the traditional bank is the ability to create an excellent customer experience at scale and very low operating costs.

As shown in the box, "Digital Versus Traditional Bank", studies show that digital banks have very low operating costs per customer, more than eight times less than a traditional bank.

Digital versus Traditional Bank

	Digital Bank Average	Traditional Bank Average
Net Promoter Score	62	19
Customer Growth Rate	150%	<2%
Operating Cost Per Customer	US$25	US$208
Customer to Staff Ratio	c.3000	c.750

Source: J Leung & F Gordon, Accenture Report: Success Virtually Assured (Accenture, 2019)

In addition, digital banks have a very high Net Promoter Score (NPS), more than three times higher than a traditional bank. (The NPS is a measure used to gauge customer experience by asking the question: "How likely are you to recommend us to a friend or colleague?")

The low operating costs per customer drive the high customer-per-staff count, while the NPS powers the high customer growth rates. Based on this perspective, the digital bank has a superior business model compared to the traditional bank.

Culture of digital banks

Digital banks, regardless of their affiliation, are usually smaller and less complex compared to legacy banks. They can be categorised as part of a larger organisation, standalone startups independent of legacy banks, or separate entities within a legacy bank, sharing certain resources.

This allows the digital bank to adopt a different culture from the start. A more customer-centric model that is less hierarchical, more agile and suited to novel approaches, and able to maintain a high level of collaboration across teams as their strategic approach. Culture is paramount because the digital bank's main advantage is its ability to focus on its target customers and create an experience that is hard to replicate in terms of simplicity, ease of use and operating cost.

Most digital banks, especially in countries with smaller populations like Singapore, will have to compete by first winning over customers in basic transactional banking. Establishing this foundation enables the opportunity to engage customers and cross-sell more complex products, such as personalised investment offerings and mortgages that align with the purchase timeframe. Automated investment or robo-advisory for the self-directed needs massive volumes that are not found in Singapore due to the small pool of fee-sensitive, self-directed customers.

In transactional banking, the critical entry-point differentiation is the ease of use and friction reduction when navigating the payment and account management functionalities. Most are focused on providing better and more transparent transactional banking and lending services to underserved or underbanked customers.

However, these underserved customers tend to be younger, more tech-savvy and often feel that traditional banking is opaque, unfriendly and hard to understand. Unbanked describes people who do not use the services of any banking institution.

Digital banks are also more likely to focus on personal financial management to help their customers manage their money better, as they tend to be younger and have problems saving enough for the future.

Successful digital banks

Boston Consulting Group estimated in August 2021 that only five per cent of all standalone digital banks are profitable. Some of these profitable banks are South Korea's KakaoBank, China's MyBank and WeBank, the UK's Starling Bank and Russia's Tinkoff Bank. An outstanding one is South America's Nubank, which recorded 70 million customers and posted a net profit of US$7.8 million (S$10.4 million) in 2022.

Digital banks can fall into three models (see box, "Digital Bank Models"). Model A is a disruptive innovation play, serving unbanked and underbanked customers that are not served by incumbent banks. And there are some banks, such as Starling Bank, that serve banked customers in large markets (Model B) as well as underbanked SMEs (Model C).

Digital Bank Models

Model A Unbanked/Underbanked	Model B Banked	Model C Underbanked SMEs
• e.g. NuBank, WeBank and MyBank • Customers in large developing markets like South America and China.	• e.g. Starling and KakaoBank • Target customers in well-penetrated but large markets like the UK and South Korea.	• e.g. Mettle, Revolut and Starling • Serve underbanked small and medium-sized enterprises (SMEs).

Source: All Digital Future LLP

ASEAN and Singapore context

A 2019 study by Bain & Co, Google and Temasek estimated the size of the unbanked market in ASEAN to be 200 million. Ninety-three per cent of the unbanked are found in Indonesia, the Philippines and Vietnam, as shown in the box "Unbanked and Underbanked Population in ASEAN".

The study estimates the unbanked population in Singapore at less than 2 per cent and the underbanked at 38 per cent of the adult population. However, these figures may be misleading, as they include non-resident workers (who send most of their earnings abroad). If only Singapore citizens and permanent residents are counted as the primary target, it reduces the total market size to four million (instead of five million), and the unbanked would number 80,000 and the underbanked 1.52 million.

The underbanked segment looks large at first glance. However, as a city-state with a highly developed banking sector that offers digital banking to any Singaporean or permanent resident, customers who cannot get an unsecured loan can most likely trace the reason back to tight unsecured lending regulations. One such regulation is the minimum income per annum requirement of S$30,000 for credit card revolving facilities and S$20,000 for personal loans.

Singapore's digital banks

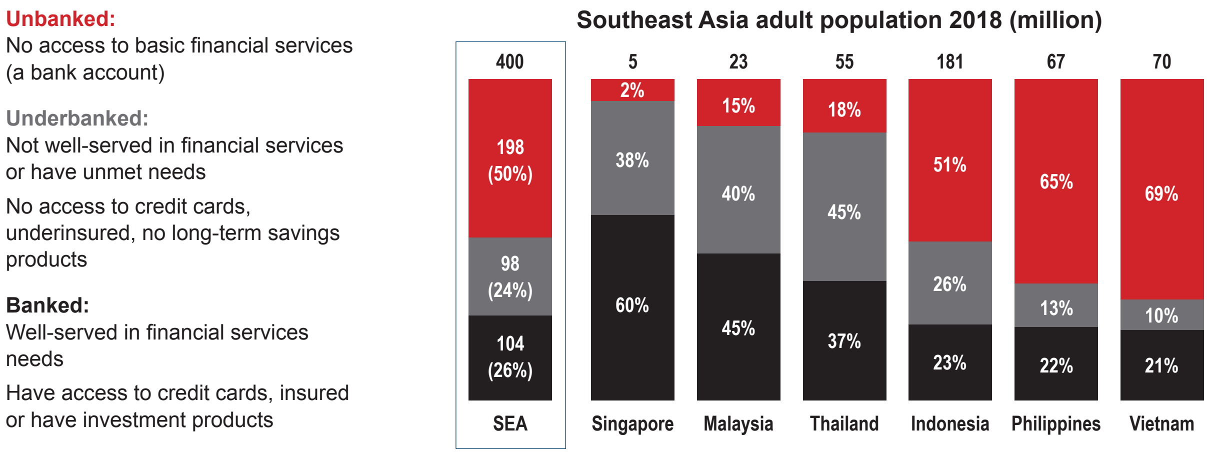
In the last year, five digital banks have emerged in Singapore:

- Two digital full-banks (DFBs)serving retail and business customers: GXS Bank by Singtel and Grab, and MariBank by SEA.
- An internet bank: Trust Bank, set up by Standard Chartered Bank in a joint venture with the NTUC Group.
- Two digital wholesale banks (DWBs): ANEXT by Ant Financial and Green Link Digital Bank (GLDB) by Greenland Holdings and Linklogis HK.

The box,"Comparison of Singapore's Digital Banks" (pages 26-27) gives an overview of these five digital banks. The conclusion we draw at this stage, with limited access to non-public information, is that other than Trust Bank, the rest of the digital banks have yet to impact banking in Singapore significantly.

Unbanked and Underbanked Population in ASEAN

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



Note: Population of individuals above age 18

Sources: Euromonitor, World Bank, Bain and Temasek

The two DFBs, GXS and MariBank, can serve retail and businesses. Given the lack of unbanked customers and few truly underbanked customers, they must leverage Model B to address the retail market. However, the incumbent banks will likely not cede the market and respond aggressively, making scaling more costly.

At this time, both DFBs appear to target the retail segment first. They must identify and address multiple experience imperfections rather than one or two significant breakthroughs, to compete on superior experience and high advocacy amongst their banked customer base in Singapore.

Banked customers do not switch their primary bank easily. It happens gradually due to a great customer experience. This requires dedication to detail and a long-term view with significant investments before the DFBs can generate sufficient annuity income to repay their investments. In addition, banking is not a global business as banks are regulated by country.

While digital has lowered the variable cost of serving bank customers, the fixed costs of designing and maintaining the digital bank infrastructure, governance and risk management investments are not trivial. Digital banks need to scale locally to have a decent return on capital deployed. The regulatory capital requirement for a fully functioning DFB is S$1.5 billion. For a DWB mainly serving businesses, the capital requirement is S$100 million.

The lack of unbanked and underserved, plus the local nature of banking, makes the Singapore retail market costly and unattractive. Trust Bank has an advantage in utilising a 2000 internet-banking regulation that allows the locally incorporated Standard Chartered Bank to set up a separate entity, offering internet banking services with a separate capital of S$100 million.

Trust Bank's circumstances are thus more similar to a co-brand card opportunity, i.e. a "co-bank" opportunity with the large and frequent transaction

Comparison of Singapore's Digital Banks

	Digital Wholesale Bank (DWB) – Serves Non-Retail Customers Only	
	ANEXT BANK 星熠数字银行 ANEXT	GLDB Green Link Digital Bank (GLDB)
Launch Date	Soft launch on 5 June 2022.	Opened for business on 3 June 2022. First digital bank to operate in Singapore.
Owned By	Ant Group, an Alibaba affiliate.	Greenland Holdings (majority stake) and Linklogis Hong Kong.
Target Customers	Local and regional MSMEs and SMEs, especially those engaged in cross-border operations.	SMEs engaged in trade between Singapore and China: suppliers engaged in contracts with the Singapore government, commodities and trading business, infrastructure suppliers and tech companies, including startups.
Accounts	**Business**	
	No minimum balance. Options to send payments locally and internationally, including sending and receiving payments in 9 major trading currencies, such as SGD, USD, GBP and EUR. Proprietary security measures include three-factor authentication verification. Also offers features such as remote onboarding and daily interest.	Offers deposit accounts, payments, loans, overdrafts and trading tools. Current accounts with interest and savings products are available in both SGD and USD. Also offers payments, loans, and supply chain financing, as well as unsecured Micro Term Loans up to S$300K.
Uniqueness	Anext Bank partnered with B2B platform Proxtera, which has more than 400,000 SMEs in its network, to gain access to loans from ANEXT. ANEXT will also be the first DWB in Singapore to provide financing solutions to the buyers and sellers on Proxtera's network.	GLDB lends to firms that might not have the credit history or collateral needed to borrow funds from traditional banks. Its platform taps artificial intelligence and blockchain technologies to collect data about these companies.
Maximum Deposit	No.	N.A.
Credit Card	No.	No.
ATM	No.	No.
Future Plans	Focus on accelerating fintech innovation and financial inclusion in Singapore and across the region.	No plans to obtain licences in other markets, although a subsidiary in China is a possibility.

All information is as of 1 May 2023

** For DFBs, GXS Bank and MariBank require approval from the Monetary Authority of Singapore to expand beyond savings accounts. Trust Bank is able to offer a full suite of banking products, having acquired a full bank licence.

Digital Full-Bank (FB) – Serves Both Retail and Corporate Customers		Internet Banking (Year 2000 Regulation)
GXS Bank	**MARIBANK**	**TRUSTBANK**
Available to public on invite-only basis from 31 August 2022.	Available to the public on an invite-only basis from 14 March 2023.	Public launch on 1 September 2022.
Grab Holdings (60%) and Singtel (40%).	Sea Group.	Standard Chartered Bank (Singapore) Limited and BetaPlu+ (a holding company owned by NTUC Enterprise and FairPrice Group).
3 million customers across the Grab and Singtel ecosystems. Focus on unbanked and underserved (e.g. Gen Z, entrepreneurs, gig economy workers, early-jobbers).	SMEs, young consumers and digital shoppers through Shopee, Garena and SeaMoney platforms. Targets sectors such as sustainable building materials, photovoltaic technology and smart home systems.	Potential daily market reach of 1 million customers through the NTUC ecosystem (Union members, FairPrice supermarkets, NTUC Income).
	Savings	
Daily interest of 0.08% per annum; Clients will also be able to create "savings pockets" within the GXS app to set aside funds for a goal, such as an upcoming holiday. Interest for each Saving Pocket is 3.48% per annum, and is 0.08% per annum for the Main Account. The balance is multiplied by the interest rate per annum over 365 days.	No minimum deposit; no salary crediting needed; no minimum spending necessary; 2.5% p.a. interest earnings credited to the account daily. Earnings are calculated based on the previous day's balance. Customers can send and receive money instantly with Paynow.	No minimum balance, no lock-in period, no monthly fee, no account closure fee, no annual fees, no foreign transaction fee, no fall below fee; daily interest. Trust Bank customers enjoy an interest rate of 1% per annum on the first S$50,000, with NTUC Union members receiving an additional 0.4% interest with conditions.
GXS Savings Account, with a "Pockets" feature that enables the account holder to arrange and save money within the account itself.	At time of printing, applications to open a MariBank account are on an invite-only basis. Applications, funds transfer and transactions are done through the banking app.	Trust possesses a full banking licence which allows it to operate similarly to conventional financial institutions. Apart from a savings account, Trust Bank also launched a family personal accident insurance and a new NTUC Linkpoints card that replaced the old OCBC NTUC Plus! Visa Credit Card.
S$5,000	S$60,000	N.A.
No credit/debit card yet. However, it does advertise for a 1.2X points booster if one uses the GXS main account to offset purchases on Grab and Dash mobile apps.	No.	The credit card offered by Trust has no annual fee, foreign transaction fee, cash advance fee or card replacement fee. The card also allows customers to earn NTUC Linkpoints rebates at an accelerated rate.
No.	No.	Standard Chartered ATMs.
No physical branches. Plans to integrate payment functions into the Grab Superapp, and pan-ASEAN banking through a Digital Bank Licence (Malaysia) and Bank Fama International (Indonesia).	Plans to establish pan-ASEAN banking through Bank Kesejahteraan Ekonomi (Indonesia) and SeaBank (Philippines).	Mox Bank (Hong Kong) was launched before Trust Bank.

base of NTUC FairPrice customers. Thus, the payback and scaling are easier than the DFBs.

Both Grab/SingTel and SEA intend to operate a pan-ASEAN banking business. This could be best achieved by scaling up in Indonesia, the Philippines or Vietnam (where 93 per cent of the unbanked are located) and doing so in one country before expanding to the next country.

All five digital banks can utilise Model C. One of the rationales for creating the DWB licence was to serve SMEs and MSMEs (micro SMEs), the truly underserved segment in Singapore. DWBs could significantly improve banking for these customers by introducing unique virtual account numbers that could reduce or eliminate payment reconciliation, and provide better and faster basic business banking in working capital, term loans, invoice financing and payments.

Not much specific information is available about the intended DWB offerings in Singapore. Both ANEXT and GLDB are focused on the Singapore-China corridor, with GLDB co-owned by and partnering with Hong Kong-based supply chain platform Linklogis. It is currently unclear as to what extent the DWBs will improve business banking amongst Singapore's micro and smaller firms.

Customer value proposition

Digital banks generally rely on a significantly superior customer experience to gain a strong foothold. While every bank may say that customer experience is their top priority, the ability to leverage design, process and software development, along with paying extreme attention to detail, is challenging for most banks.

The 2019 average NPS of the major Singapore banks is between 11 and 15 (below the US average for financial services of +35). For a DFB to make an impact, it must create a breakthrough customer experience, exemplified by a very high NPS, such as more than twice the industry average at +40.

This situation is similar to KakaoBank at launch in South Korea. The difference is that KakaoBank's acquisition cost was low due to its association with its parent, the viral and frequently-used Kakao Talk social media app. Although Grab/SingTel and SEA will attempt the same, it is unclear whether the DFBs have the same acquisition advantage in Singapore.

Yet, a high NPS is a necessary but insufficient condition for success in a Model B approach. One must still build a strong lending business to generate the revenue required for a path to profitability. Given the strength of the consumer credit bureau and tight unsecured lending regulations, the DFBs are likely to face difficulties obtaining the requisite data to do a better job than incumbents to identify customers they can lend to, compounding their challenges further.

Digital bank's path-to-profit

Digital banks generate profit similarly to incumbent banks, with margins derived from the differential between deposit and loan interest rates. For the most part, basic transactional banking fees have been competed away.

The critical difference is in swapping variable costs for technology fixed costs, with fewer people and almost no branches. With great transactional and lending experience, individuals will try and may be attracted to become customers and advocate for others to do so. This will lower acquisition costs, which is a significant barrier to positive marginal contribution, which, if not attained, losses will continue to mount as more customers are acquired.

The recent bank failures of SVB and Credit Suisse highlight that banks are risk first, not technology first. This is why there are caps on the maximum deposit base of DFBs before they fully qualify and have an eventual DFB capital of S$1.5 billion when fully functional. Spending on the overall infrastructure, not just in technology but also in controls, compliance, governance, risk management and the constant feature catchup, can quickly balloon fixed costs.

DWBs also need a superior method to underwrite credit to SMEs, as they cannot rely on a credit bureau that can risk-rank customers well, unlike in retail. This ultimately means getting access to new SME data, which is not readily available.

Outlook of digital banks in Singapore

It is a complicated and long-term journey for DFBs and DWBs in Singapore. The market is small, although the per capita GDP is high. For the DFBs starting in retail, there are virtually no unbanked to serve, and opportunities in the underbanked segment are severely constrained by tight unsecured lending regulations, which are there for good reasons. Thus, the digital challenger banks compete with large, well-financed incumbent local banks with decent digital banking propositions.

For the DWBs, the MSME and SME segments are underserved and comprise an estimated 43 per cent of Singapore's approximately 300,000 SMEs. The current DWBs do not appear to be directly targeting these segments, which was a strong rationale for introducing digital banks in the first place.

Since both DWBs have substantial mainland Chinese stakeholders and ecosystems, it is natural that they are starting with the Singapore-China trade financing first, as it provides a new source of SME data. Most Singapore banks also have China subsidiaries or branches. Thus, the DWBs may find themselves sandwiched, servicing fringe segments that cannot provide sufficient scale to make an impact or decent profit.

Higher interest rates for the first time since the 2007-2008 global financial crisis signal a significantly reduced appetite to fund loss-making businesses. The parent companies of DFBs and DWBs will find it hard to continually fund the losses required to build a substantial digital bank base.

On the other hand, the low NPS scores of incumbent banks indicate an opportunity for a well-designed transactional digital bank.

So, while there are challenges given the small Singapore domestic market and a banking business less conducive to a regional or global scale, a massive opportunity exists to serve ASEAN's unbanked and underbanked in Indonesia, Vietnam and the Philippines. However, deep pockets are essential to navigate the significant investments needed to create one.

It is a journey certainly not for the faint-hearted. It will be fascinating to witness the evolution of Singapore's digital banking scene and the response of incumbent banks to find out if the digital banks can carve out a permanent and growing pie of the lucrative Singapore banking sector for themselves. ■

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