Banking for Business Knowledge Plenary

Insights from Singapore FinTech Festival 2022

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Foreword

"5 Es – Enhance; Empower; Envision; Encourage and Engage – sets the backdrop for Singapore's FinTech journey to harness the full potential of technology and innovation."

Opening address by **Mr Lawrence Wong,** Deputy Prime Minister and Minister for Finance, and Deputy Chairman of the Monetary Authority of Singapore, at the Singapore FinTech Festival 2022

Image credit: Singapore FinTech Festival

Evidence proves that Small and Medium Enterprises (SMEs) contribute more than their fair share to their nation's wealth. SMEs represent roughly 90% of all firms and are responsible for 50% of employment worldwide, as well as up to 40% of GDP in emerging markets, according to The World Bank.

At this knowledge plenary on Day 2 of the Singapore FinTech Festival (SFF), we discussed a few key topics surrounding banking for businesses, in particular SMEs. The panelists discussed about the model which supports the growth story, exploring the topics of digitalisation and partnership. Regulators were also invited to chat about the potential need for a credit model to support lending to SMEs. We also zoomed into the topic of using Artificial Intelligence (AI) in the banking world. This nicely dovetailed into the discussion of digital banking and how these newer entrants to the banking ecosystem are supporting financial services for SMEs. There was also a deep-dive into Africa as a case study.

As these topics were explored, there were a few common keywords that featured consistently – Data, partnerships and regulations. The importance to harness data within the boundaries of privacy and security. The benefits of working together as an ecosystem to harness the synergies from partnerships.

If the result of the opening audience poll was telling, most believe that SMEs can do more to enhance, empower, envision, encourage and engage.

Wanyi Wong
FinTech Leader,
PwC Singapore

Sopnendu Mohanty
Chief FinTech Officer,
Monetary Authority of Singapore and Chairman of the Board, Elevandi

The importance of businesses, especially the smaller ones

"They (SMEs) make up 99.5% of all business enterprises with a gross value added (GVA) estimated at 35.6% and hire two-thirds of the workforce.

Bernadette Romulo Puyat
Deputy Governor
Banko Sentral Ng Pilipinas

No economy is great without the development of SMEs.

Nitin Sethi
Chief Digital Officer
Adani Group

In Africa, SMEs make up an astounding 92% of the registered companies and employ 80% of the population, driving 60% of the continent's gross domestic product (GDP).

Kwame Oppong
Head of Fintech and Innovation
Bank of Ghana

SMEs are the building blocks of Hungarian society, there are approximately 100,000 of them and they employ two-thirds of the workforce.

Mihály Patai
Deputy Governor
Hungarian National Bank"

SME growth story

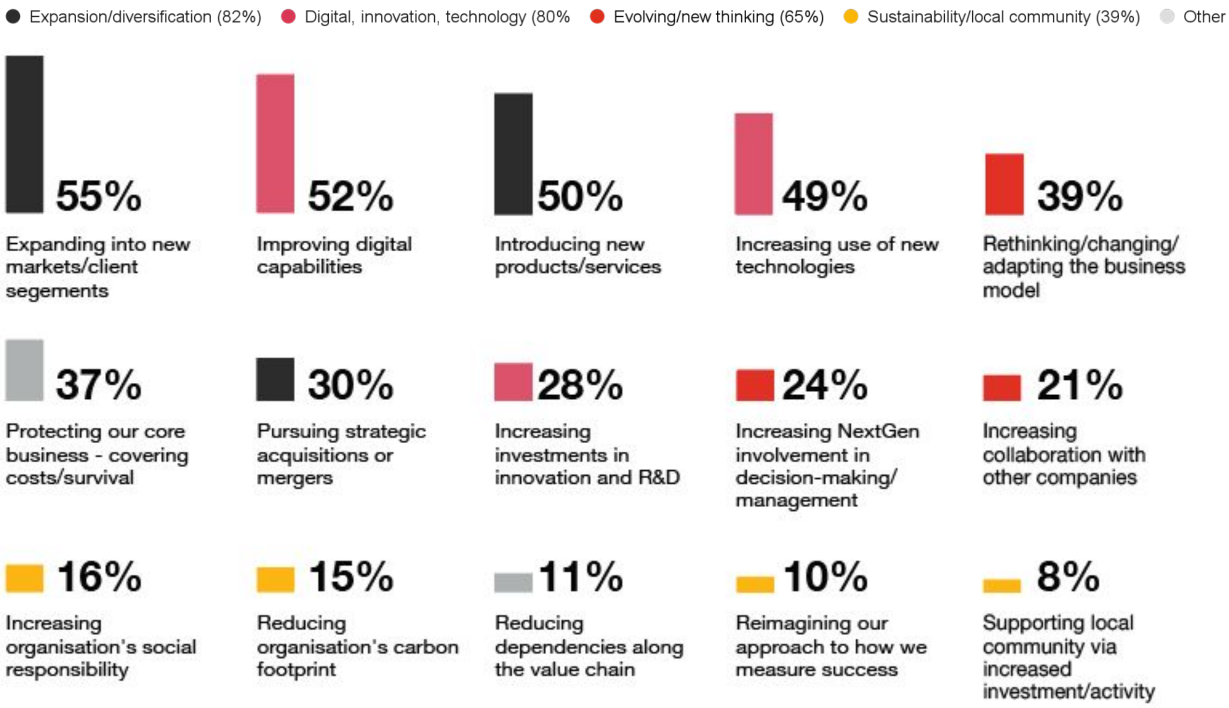
Inclusive, digitalisation and partnership

Introduction

The SME growth story always includes the topics of technology and digitalisation. In a survey[1], it was found that 83% of SMEs in Singapore have digital transformation strategies in place, but less than half are able to implement it successfully due to the untimely COVID-19 pandemic which impacted investment priorities.

Q: Which, if any, of the following area the company's top five priorities for the next 2 years?

Companies priorities by topic (net percentages):



Note: Base is all global respondents (2021: n=2,801)
Source: PwC's 10th Global Family Business Survey, 2021

Also, despite higher adoption of digital transformation, only two in five SMEs in Singapore perceive their efforts to be successful.[1] In the global setting, respondents to our family businesses survey[2] businesses echoed this sentiment. 38% of the respondents globally saw their digital capabilities as strong. However, improvising digital capabilities remains as one of the top priorities for these businesses.

It is evident that business survival and digitalisation are steadily merging in the new world. Whilst the economic uncertainties in recent times have also added unique challenges - the high implementation cost, cash flow challenges, the workforce digital upskilling gap and low awareness of government initiatives are some common drawbacks faced by SMEs along their digital transformation journey. They often need support and incentives to encourage them along this journey. Discussions surrounding key success factors toward digital inclusiveness and the support available to SMEs for their digital transformation were engaged during the plenary session.

[1] ASME and Microsoft, "Over 80% of Singapore SMEs embrace digital transformation; more than half report slowdowns due to COVID-19: ASME-Microsoft study 2020", 2020
[2] PwC Family Business Survey, 2021

What are the key success factors for SMEs to become digitally inclusive

> **"No economy is great without the development of SMEs"**
>
> **Nitin Sethi**
> Chief Digital Officer
> Adani Group

Access to capital

The access to finance remains a problem for many new SMEs due to the lack of data and track record of their operations. Sandeep Malhotra from Mastercard emphasised that "the amount of corporate delinquency on the loans is much higher than the SMEs", and we should extend the credit line to more SMEs. He suggested that private institutions can be part of the process of lending, by applying scores to the SMEs at the ecosystem level to assist the financial institutions or the non-banking financial lenders in assessing the.credibility of the SMEs.

Access to data

Governments in Singapore and India are active partners in creating infrastructure that allows data to be more universally available in the ecosystem. With initiatives such as Singapore's SMEs Go Digital and India's Digital India, the digitalisation of commerce infrastructure enhances the growth of SMEs and the creation of more digital footprint.

Sandeep mentioned that the reason why SMEs gap remains huge is primarily due to the localisation of the data and that the persona is only limited to that ecosystem. To facilitate a cross-network, decentralisation will have to enable it. However, a centralised entity will still be required to provide trust and identity.

> **"We need to have that governance system where we are creating the way that data can be used responsibly and allowing competitive access to it but we are providing clear consent from the customers."**
>
> **Matthew Gamser**
> CEO
> SME Finance Forum
> International Finance Corporation

How can we help with SMEs' growth?

Many SMEs rely heavily on internal fundings from friends and family to kick-start their entrepreneur endeavours as acquiring bank loans remain a stumbling block. To narrow the gap, governments and large corporations have been collaborating with the wider ecosystem to develop new methods to address this matter.

"The technology right now is not differentiated; technology is only an enabler"

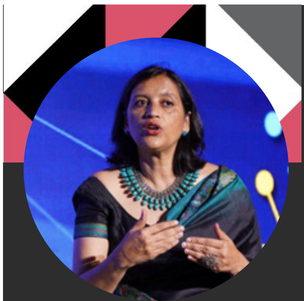
Building a clearer footprint for accessing credit is one of the holistic approach. **Adani Group**, for example, as a diversified organization in India, has close to 30,000 SMEs working with them. They have accelerator programs and they specifically choose start ups and SMEs for partnerships. They have a mechanism that recommends their partners to their extended partners. It is not about serving them but also giving back to the ecosystem.

- **Nitin Sethi**, Chief Digital Officer, Adani

Another approach is to support SMEs to be the contributor in filling the consumer's gaps and the economy, including tapping the underserved segments such as women owned SMEs. **Asian Development Bank** is addressing the issue of women's access to credit in Pakistan. In 2019, they have approved a $25 million syndicated loan to support the cause of financial inclusion for women-led micro, small and medium-sized enterprises (MSMEs).

- **Ozzeir Khan**, Director, Digital Innovation and Architecture, Asian Development Bank

"We will see a lot more access to digital by SMEs, at least more new opportunities to be on the same starting line. We are seeing this in many different use cases beginning to appear."



"Digitisation has led us to create very large platforms and even though there have been benefits of it to various people and population groups, there is also this symmetry created where a large amount of power resides with a small group of people"

Introducing innovation in SME finance such as e-lending platforms, e-invoicing, supply chain financing, use of alternative data for credit decisioning are also a way of promoting the growth. However, currently SMEs are lacking the expertise and resources to innovate or move to digital, especially on translating the data to opportunities.

Shinjini Kumar, Co-founder of Five Salts Pte Ltd believes that when a product is usable, stable, reliable, and solves problems, people will start to use it and learn the technology behind it. It suggests that picking up new skill sets is not the main issue, but more dependent whether the technology or product is designed with user in mind.

What are some of the myths around digital banking?

Digital banks are more vulnerable to security threats

“Some say digital banks are more prone to security threats, losing clients’ money and shutting accounts without reason. However, if done right and well, digital banks would be paving the way to financial inclusion as well as security in digital financial services.”

– **Toh Su Mei**, CEO, ANEXT Bank

The way digital banks can win is to provide better rates

“People think that for digital banks to win, the way to compete is on the basis of better value- in terms of better rates and lower fees.

The competition of value could be required initially to gain customers. However, over time, the basis to win and to gain more sustainably has to be around customer experience.”

– **Chew Seow Chien**, Senior Partner, Bain & Company Inc

Digital banks provide non-personal experience

"Customer experience is dependent on the strategies of the banking organisation, just like any other businesses, on how much they want to engage with their customers. At UNO bank, we have a contact centre called the Customer Happiness Centre. Customer experience is the key and is an issue especially in the emerging markets. People are not yet ready to transition from branches to completely interacting with technology bots.”

– **Manish Bhai**, Founder & CEO UNO Bank

Do regulators need to have a new set of credit models for SME financing?

Introduction

To remain competitive in today's digital world SMEs need a compelling strategy to position their business proposition. With limited resources, they face tremendous challenges which are further exacerbated by the pandemic. One of the key limitations is access to credit or funding.

According to International Finance Corporation, a member of the World Bank Group, there is a US$4.7 trillion funding gap for SMEs globally. About 45 percent of that is in East Asia and the Pacific.

"In Singapore itself, it's close to US$20 billion a year in our opinion. Indonesia is much bigger at about US$160 billion to US$170 billion a year. More than 30 million SMEs across the region. Thailand is about US$30 billion to US$35 billion a year, and Vietnam will probably be close to about US$25 billion to US$30 billion as well. So overall I would say this would probably be around the range of US$270 billion to US$300 billion per year," said Mr Vikas Nahata, co-founder and executive chairman of Validus Capital, a winner of the Global FinTech Awards.[1]

It is well recognised that there are certain limitations to provide financing to the SMEs through the current 'mainstream' way of banking. For example as shared by Bernadette Romulo Puyat, Deputy Governor of Banko Sentral Ng Pilipinas, lack of banking infrastructure impedes SMEs' ability to secure loans and build up a credit score. This has prompted innovation through various players to solve the problem of 'credit invisibility' of SMEs. We have seen innovators (be it in a FinTech or part of a 'traditional' financial institution) utilising technology and creative data sources, coupled with reimagining the borrower's journey, to achieve improved financial inclusion. Such "alternative lending" FinTechs take up about 18% of the ASEAN-6 FinTech firms by count at the end of September 2021.

[1] CNA "How alternative lenders are helping to plug the SME funding gap" 30 September 2021
[2] Publication by UOB, PwC and SFA "FinTech in Asean 2021: Digital takes flight".

ASEAN-6 year-to-date (YTD) 2021

22%	Payments
18%	Alternative lending
2%	RegTech
5%	Banking tech
16%	Investment tech
18%	Cryptocurrencies
3%	Blockchain in Financial Services
6%	InsurTech
10%	Finance and accounting tech

Source: FinTech in Asean 2021: Digital takes flight - Publication by UOB, PwC and SFA.[2]

A 4.9% increase in the stock of SME loans

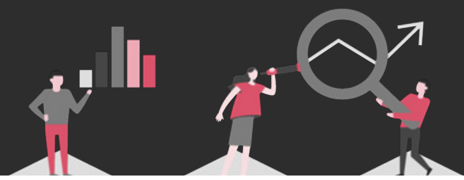
The stock of loans to SMEs reached new heights during the pandemic, growing by 4.9% in 2020. This is the largest increase in the past 10 years.

A 11.7% decrease in bankruptcies

Unprecedented support from governments has helped avoid a wave of SME bankruptcies, which fell by 11.7% in 2020.

A record drop in SME interest rates in some countries

Credit conditions have been favourable, with SME interest rates falling by 0.4 percentage points in 2020, the largest drop recorded since 2009.



Source: OECD Financing SMEs and Entrepreneurs 2022

What are the issues faced by the SMEs?

As discussed, though their contributions to both developed and developing economies are insurmountable, they continue to be underserved, with access to capital and financing consistently being their greatest challenges. The regulators on the plenary dived further into what are the issues faced by SMEs. **Bernadette Romulo Puyat, Deputy Governor of Banko Sentral Ng Pilipinas (BSP)**, summarised the challenges as:

> **"Micro, small and moderate size businesses are the engine of growth; engines for helping people move into prosperity out of poverty, yet everywhere, these businesses struggle to get credit"**
>
> **Jo Ann Barefoot**
> Co-Founder and CEO
> Alliance for Innovative Regulation

1. Reluctance of financial institutions to lend to micro, small and medium enterprises (MSMEs)
2. MSMEs find it intimidating to borrow from financial institutions
3. Usage of merchant accounts remain low among MSMEs

The lack of accessibility to banking infrastructure impedes the ability for smaller businesses to secure loans and build up a credit score. As such, financial institutions do not have sufficient information on borrowers to assess credit risk. Onerous administrative and credit assessment processes imposed by banks are also a deterrent.

The **Deputy Governor of BSP** shared that amongst all businesses that applied for loans in the Philippines, 17% were MSMEs. Of this demographic, only 4.8% was successful.

Similarly, access to finance has been identified as a dominant and long-standing constraint facing SMEs in Ghana. **Kwame Oppong, Director of FinTech and Innovation, Bank of Ghana**, explained that that loan applicants are evaluated based on international standards but basic payment collection and know-your-customer (KYC) processes are already a challenge in the system. The result of a one dimensional approach inadvertently leads to many SMEs falling short of obtaining credit.

As for the Europe region, the Covid-19 pandemic and Russian-Ukraine conflict brought about unprecedented changes to the global economic landscape. **Mihály Patai, Deputy Governor at Hungarian National Bank** indicated that "inflation is here and inflation will stay with us for many years, this is a huge trouble for the emerging countries, especially the SMEs because they will get their loans at a much higher price."

How are the regulators helping the SMEs?

The pandemic has only exacerbated the credit gap creating unequal opportunities in the financing market. To bridge the gap between SMEs and financial institutions, countries around the world have been actively in search of a new model to assess the creditworthiness of SMEs.

BSP collaborated with Japan International Cooperation Agency (JICA) to develop a credit risk database (CRD) for the Philippines that combines the usage of default-related information with financial and non-financial data to build statistical models to predict creditworthiness. This new type of credit model is said to reduce reliance on collateral. The shift brings the smaller businesses one step closer to financing as it seeks to improve risk perception on small businesses by moving on from the traditional model that is based on the borrower’s ability to pay to one that emphasizes on their intent to repay loans.

BSP also created a standard business loan application form to ease the process, making borrowing from banks less laborious, less intimidating and more friendly. The Deputy Governor of BSP shared that the interesting element to this is that the applications are gender segregated, meaning banks will intentionally identify the gender of the candidate to deliberately address unconscious bias. There are currently 66% women-led MSMEs in the Philippines, larger than other parts of the world. However, the perception of higher risk and cultural bias creates a barrier, withholding their access to financial resources. Targeted programs as such levels the playing field for women to acquire funds, supporting their entrepreneurship endeavors.

"MSMEs are reluctant to go to banks because they do not have credit history or they don’t have acceptable collateral, on the other hand, banks are hesitant to lend to MSMEs because of the perceived high risks because MSME have limited information and visibility into the market”

Bernadette Romulo Puyat
Deputy Governor
Banko Sentral Ng Pilipinas

How are the regulators helping the SMEs?

The collection of data plays a major role in reimagining the credit model. In Ghana, mobile money accounts grew to 40.9 million in 2021, reaching more than 90% of the country's adult population[1]. Monitoring activities in these wallets can forge trust between SMEs, who have minimal credit history but need loans, and financial institutions, who seek to distribute loans. With data, creditworthiness can be assessed in two ways; the ability to repay and the willingness to repay debt. The first relies on income, rent and utility transactions information while the latter analyses consumption habits through mobile phones. Machine learning algorithms are employed to detect delinquent behavioural patterns. Data collected can be used to assess the creditworthiness of SMEs with little to no credit history, allowing banks to make informed decisions on lending, unlocking substantial amounts of value within the credit market, where economic activity has traditionally been overlooked.

"The existing credit model delivery has been working for awhile, but has it worked enough?" prompted **Kwame Oppong, Director of FinTech and Innovation, Bank of Ghana**. It is crucial for emerging economies to start delving into the intent to pay instead of traditional credit models. Financial service providers started to support banks with better scoring using more than just financial information. It was observed that loans disbursed based on such alternative scoring are are no worse than the traditional portfolios. By accommodating more variables when evaluating creditworthiness in SMEs, banks can expand their revenue stream.

Similarly, affordable funding for SMEs has been at the forefront of the Hungarian central bank's agenda. "9 years ago, we introduced the funding for growth scheme, which was very important in a low interest rate environment – it worked very well," proclaimed **Mihály Patai, Deputy Governor, The Central Bank of Hungary**. The central bank issued pre-financing for the commercial banks at 0% interest rate and set the maximum margin for what they could charge at 2.5%, as a result, SMEs have been getting inexpensive financing. This became vital during the Covid-19 pandemic, "we beefed up the whole initiative and at the end of the pandemic, it was the main force to regain the recovery of the Hungarian economy – which was in 2021," continued **Mihály**. The Hungarian National Bank's variable-rate loans scheme puts a cap on loan rates, lowering SMEs' barrier to lending, simultaneously, enhancing the origination appetite of the commercial banking system.

"As a central bank, we do not get involved in certain things but we play a very key role in leveraging our convening authority to bring stakeholders together"

Kwame Oppong
Director of FinTech and Innovation
Bank of Ghana

"We can't just rely on Adam Smith's theory of the invisible hand, there must be intervention from the government to support the economy and SMEs – New methods should be found to assist them with obtaining and repaying credit"

Mihály Patai
Deputy Governor at Hungarian National Bank

[1] Digital Financial Inclusion and Security: The Regulation of Mobile Money in Ghana, Ifeanyi-Ajufo, 2022.

Driving new digital bank profitability

Comprehensive SME banking

Introduction

Digital banking refers to the digitisation of banking services, which became especially important and critical in the context of a global pandemic. Consumers want efficiency, accessibility, and demand essential banking services in a physically safe manner.

Digital banks will be catalysts for change across the global banking industry. How these banks build their business model and evolve their proposition will play a significant role in paving the way for success for new players as well as determining how incumbents will need to evolve.

The path to profitability for digital banks is something which has been analysed and debated on. While there are multiple avenues to retaining customers and getting to profit, it's likely that on top of providing a seamless digital experience, these banks will need to provide additional non-financial services to keep customers actively engaged and empowered.

By shaping a strong formula that combines business strategy and customer insights with innovation, new technologies, and appropriate risk and control frameworks, banks can differentiate themselves from the other players in the pack.

71%

of Singapore customers have at least one pain points with their bank today and those with more than three pain points are more likely to open a digital bank account

Source:
PwC's digital banking customer survey report, 2020 (Southeast Asia)

66%

Of Singapore customers would like their digital bank to also provide non-financial services

20-25%

of consumers would prefer to open a new account digitally but are unable to do so today

Source:
PwC's 2021 Digital Banking Consumer Survey (US)

Digital banking is only for the tech-savvy generation

"People often coincide digital banking with the younger generation who are more tech and digital savvy. However, that is not the only direction things are heading towards.

We should not be constrained by the idea of the different age groups. Bank Jago calls itself a life-centric bank, focusing not on bank processes, but how it can help to make things easy for consumers."

– Karim Siregar, President Director, PT Bank Jago Tbk

In 2022, almost 80% of millennials reported using digital banking, with only 48.5% of baby boomers reported the same. (Bankrate, 2022) However, we can see that the demographic age group is getting higher and higher.

Traditional banks are not learning new tricks

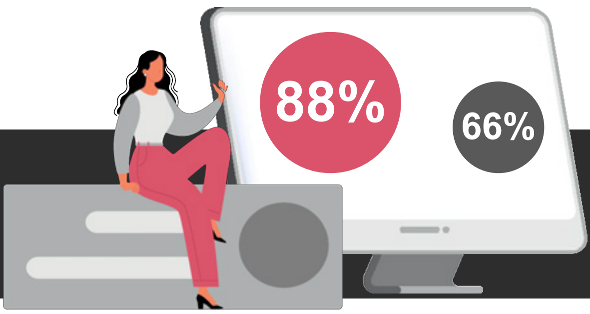
As early as 2015, traditional banks were able to have mobile phone-based fully digital unsecured loan propositions. As an example, one digital banking process only took an average of 17 minutes from the start of applying for the mobile phone to the cash being deposited in the bank account of choice.

"Traditional banks have been trying to focus on customer journeys and delivering very targeted solutions on seamless customer journeys. The competition between traditional banks and digital banks will be very healthy for the consumers."

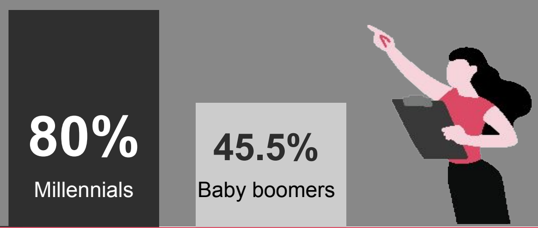
– **Darren Burckley**, Chief Retail Banking Group Officer, Vietnam Techcombank

Percentage of consumers satisfied with the bank's service
(as compared to its respective total consumers)

Online-only banks   Traditional banks



Percentage of digital banking users in United States, 2022
(as compared to its respective population per generation type)



79.9% of of those who prefer online or mobile banking still visited a branch in 2019.

"To be an effective digital bank, it is about how you can manage the **good sides of both worlds**."

- Karim Siregar, President Director, PT Bank Jago Tbk

How are digital banks different from traditional banks?

1. Customer experience
2. Mindset of a start-up
3. Flexibility of partnerships
4. Traditional banks are slow
5. Digital banks are willing to build an ecosystem together

Customer experience is often a key focus to both traditional and digital banks. In traditional banks, no matter how much they digitalise, customers are still often requesting for more branches. Customers want more points of contact and the sense of assurance that there is a physical place to meet their needs during uncertain times.

In a digital bank environment, some technologies are created from scratch and they have to always be ready for changes. The **mindset and willingness** of the digital banks to learn and fail are different from a traditional bank.

Digital banks are able to do things at a fraction of the cost that would normally be for traditional banks as there is the **flexibility** to work with other start-ups and to leverage on open finance.

Traditional banks are known to be highly regulated and have a strong governance structure, thus new developments **take a longer process and time** than digital firms with start-up culture.

Traditional banks have a lot of data and that is extremely valuable to building an ecosystem. However, traditional banks are **not open to sharing data** and there is a lot of intention of monetising it. Digital banks focus more about **collaborations** and making it a **win-win situation** for the ecosystem by bringing everything together.

Strategic partnerships are critical to success for both traditional and digital banks. Traditional financial institutions have huge significant strengths to build and lead the ecosystem. If we look at the digital banks that are profitable today, almost all of them **belong to a parent group** that already has investors over years that the digital offerings can then ride on top of. The **customer acquisition cost** makes a huge difference on the **path of profitability** for the new player.

Chew Seow Chien, Senior Partner, Bain & Company Inc

I think the focus should be on **core business proposition** and how you are going to make money. The basic starting point is about **how the business will get profitable**. If you are able to put in a proposition which really helps your consumer, with a problem that has been waiting to be solved, and you leverage it well with your ecosystem, then your **scalability wouldn't be an issue**.

Manish Bhai, Founder & CEO, UNO Digital Bank

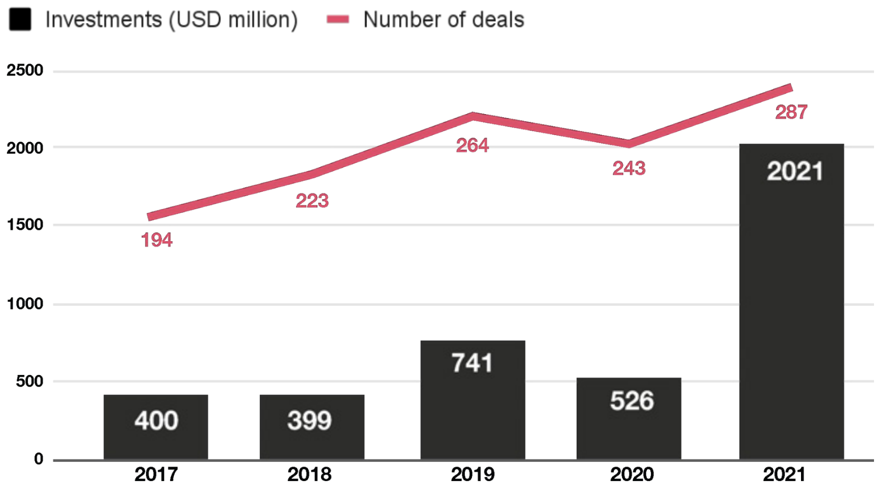
Africa, the big opportunity

Are FinTechs missing the plot?

Introduction

There are more than 500 FinTech companies in Africa[1] with a concentration in South Africa, Nigeria and Kenya. In Nigeria, Africa's second largest technology hub, investors are taking positions or stakes in the country's growing tech ecosystem fueled by attractive fundamentals like the country's youthful and tech-savvy population, increasing smartphone and internet penetration, large unbanked population, amount other factors.[2] UNCTAD reports an increase in investment in the sector from $400 million to over $2 billion between 2017 and 2021.

Financial technology investment in Africa, 2017-2021



Source: UNCTAD, based on data from Fintech Global, 2022

Drawing reference to PwC publication on FinTech in Nigeria[2], there are various success factors for a sustainable growth for FinTechs in Asia:

- Strengthen the synergy between banks and FinTech players in a way that is beneficial to both parties.
- Create a unified regulatory system for coordinating activities of FinTechs.
- Encourage investment in local FinTech startups by simplifying the process of listing on the capital market.
- FinTechs and banks should focus on strengthening their digital infrastructure platforms and systems.
- Tighten internal governance frameworks and strategies on cybercrime mitigation
- Seek provision of reforms (such as tax breaks) by government, especially for early-stage FinTech firms.
- Engage in stakeholder engagement and capacity development programmes with SMEs, employers and other stakeholders, to enlighten them on the benefits of utilising digital platforms as a channel for financial transactions and commerce.

The above were also echoed by the participants of the plenary session. Africa offers ample opportunities to FinTechs, but challenges ranging from interoperability, trust, data privacy to regulations still remain.

[1] Statista, "Number of fintech startups in Africa, 2021"
[2] PwC 2020 publication: Fintech and the Banking Sector in Nigeria

Africa – A wealth of FinTech opportunities

> **"As a continent, Africa has the highest proportion of adult who is actively using the mobile money product than anywhere in the world, higher than Asia and much higher than Europe, North America and Latin America."**
>
> – **Matthew Gamser,** SME Finance Forum International Finance Corporation

Over the last 15 years, Africa has the greatest growth in FinTech activities, mobile money has been spearheading the development as financial inclusion remains the top of the continent's agenda. "In Rwanda, we have our own mobile money operator starting in 2009 and it has forced financial inclusion. People who do not have bank account, who could not transfer money electronically, all of a sudden could start paying for school fees and buy groceries using their mobile phones," said **Soraya Hakuziyaremye, Deputy Governor of the National Bank of Rwanda**.

She added that 10 years ago, only 0.3% of the nation's GDP drives the volume of electronic payments, today, the number grew exponentially, reaching 112% of GDP. Growth has been substantial due to the adoption and ownership of mobile phones – 87% of Rwanda's population owns a device, allowing them to utilise financial innovations to complete everyday transactions.

Ghana added "80% of Africans across the continent have mobile phones; that shows the potential and in addition to that, we have a youthful population and the demographic speaks for why Africa is so digital." Mobile technology has had massive contributions to GDP across Africa. In 2021, it is approximately $144 billion, and forecasted to reach $180 billion in 2025, clearly displaying plenty of value for those who seeks to invest in Africa.

> **"People look at Africa and see the challenges but there is clearly a lot of opportunities as well."**
>
> – **Mansa Nettey,** Chief Executive of Standard Chartered Bank

Interoperability remains a challenge

There are 55 countries in Africa, 41 currencies in circulation and over 300 types of digital payment solutions that are not always interoperable. **Omosalewa "O" Adeyemi, Senior Vice President of Flutterwave** mentioned that other parallel countries like India or China may, to a certain extent, have a much easier time treating this problem as these countries look at a singular currency, with comparable group of people that has relatively homogeneous consumption behaviour. However, all these changes in Africa, as one crosses from one country to another.

On a bright side, regulators in this sub-Saharan continent are much flexible than anywhere else in the world commented **Matthew Flannery, Co-founder and CEO of Branch.co**, "Regulators are flexible and quite honoured that you are entering their market so there is an opportunity to meet them and work with them and become a real legitimate bank.

There is an opportunity to be creative, serve your customers and be truly useful versus other countries, where it is very highly regulated and there's existing monopolies that dominate the banking sector." It is often an overlooked upside by those who are looking to enter the space.

Addressing regulatory challenges that inhibits the growth of FinTech

"There are challenges even for regulators to try and catch up with the fast pace of innovations in the financial services which are tech-driven"

– **Soraya Hakuziyaremye,** Deputy Governor of the National Bank of Rwanda

There is a gap in understanding between regulators and FinTech start-ups. Young products are excited to go to market, offering their solutions to the world however, as regulators, there are constraints in order to promote financial stability within the ecosystem, ensure consumer protection as well as establishing strong governance around data protection. The regulators understand that something needs to be done to allow the thriving fintech community to flourish. **Soraya** recognised that "sometimes, it feels cumbersome for young entrepreneurs to follow through the licensing process so what the National Bank of Rwanda has done is to put in place regulatory sandboxes, where we give opportunity to young entrepreneurs to test their product in an unregulated environment for 12 months and also learn about all the licensing criteria." These schemes has steadily bridged the gap in understanding amongst regulators and innovators citing "there is a fundamental change as well on how regulators approach these innovations, not to see them as risky technologies or players that bring more risk to financial services but try to understand what issue they are trying to solve."

"It's still a journey but the steps we have taken to work with the fintech to establish the best regulatory environment has worked," stated **Soraya**.

Supporting women in FinTech

"Looking at the number of entrepreneurs within Africa, globally, you realised that Africa has the highest number of women entrepreneurs; Ghana and Uganda are known to have the highest," declared **Mansa**. To support these women entrepreneurs, Standard Chartered Bank Ghana launched a program to provide seed funding to these technology linked based businesses. The bank also provides these women with management training and mentorship, encouraging them to use technology to scale up their business.

Data privacy and localisation concerns

The collection of consumer's data allows financial services sector to learn, adapt and cater their suites of services according to the needs of the people. As more data is collected, this raises questions that needs to be addressed – Data privacy and cybersecurity. This begs the question, is data localisation the panacea for data privacy? To answer that, "there are still many countries in Africa that does not have personal data protection regulatory framework therefore, if I am a regulator and I have a bank originating from country X, where I am unsure about the data protection regulatory framework, I wouldn't be comfortable having a data centre in that country," said **Soraya**, " what we are also not comfortable with as a country is not just how data is protected but also the cyber resilience of the countries' where data centre is located."

Moving forward, the region should tackle the issue of access, protection and cybersecurity of data.

Laying the bricks of trust

To gain the trust and confidence in the market, firstly, it is important to establish a good relationship with regulators. More often than not, fintech views regulations as a hindrance preventing them from achieving their greatest ambitions, simultaneously, stifling innovations.

As **Omosalewa** suggested, taking a different approach to understand the intention of regulations may offer a rewarding perspective for start-ups; regulation exists with the purpose to protect the interest of consumers and public therefore, aligning product solution with the objectives of regulators surely garners the support from them.

To cement the trust of the wider population, start-ups can partner with established financial institutions. **Omosalewa** emphasized "people keep their money with banks and mobile network operator because they trust these institutions," this promotes trust and confidence in the public to engage services with your company.

"Don't look at Africa as challenges, if you look at Africa as challenges, you miss out the potential and if you miss out the potential, you miss out the opportunities"

– **Mansa Netty**, Chief Executive of Standard Chartered Bank

A stocktake: Has AI failed to deliver in banking

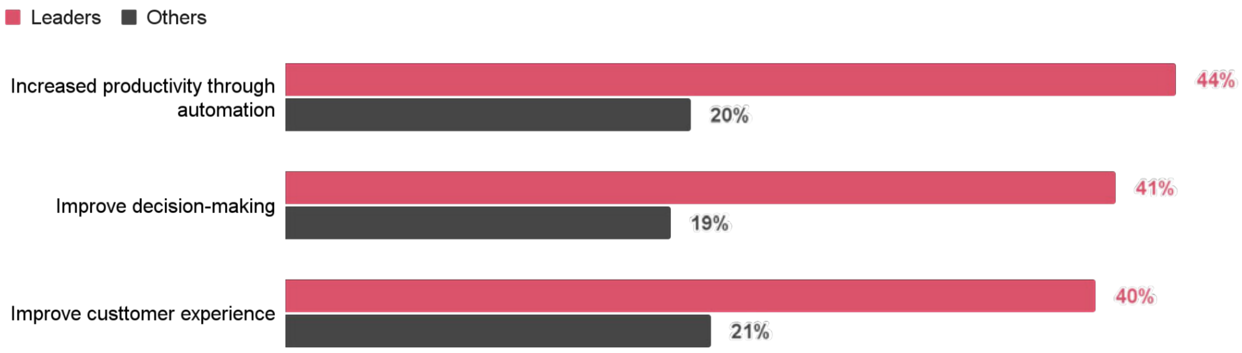
Introduction

The technology and science writer William Gibson once wrote, “The future is already here — it’s just not evenly distributed.” Gibson’s point is that the future isn’t the same, or doesn’t arrive at the same pace, for everyone. The future has arrived more quickly than anyone imagined due to the global pandemic, accelerating digital trends that had already been transforming consumer behaviour.[1]

With the rise of direct-to-consumer platforms which cater to the new needs and desires of consumers, there had been a need to invest in data technology to unlock value and opportunities. As a result, Artificial intelligence (AI) is gradually gaining a foothold in practically every business in the twenty-first century. With the advent of knowledge engineering, financial institutions employ AI-based models in conjunction with their FinTech apps to maximize operations and revenue.

PwC’s AI Predictions survey explains that AI allow banks to boost revenues and create better customer experiences through enhanced personalisation and lower costs. Automation and machine learning improves efficiency and productivity while increasing forecast accuracy and minimising modelling errors. Beside boosting revenues, banks are using technology to monitor risk and improve decision making.

Where and how substantial AI value is realised



Source: PwC 2022 AI Business Survey, March 2022: Leader base of 364; Other base of 631

This was further elaborated by the thought leaders in the plenary discussion. Traditionally, banks rely on human analysts to examine thousands of transactions to monitor potential financial crimes. Considering the tedious and laborious process, human error is inevitable.

$15.7tr

Potential contribution to the global economy by 2030 from AI

Source: PwC 2022 AI Business Survey, March 2022: Leader base of 364; Other base of 631

[1] PwC Global Consumer Insights Survey 2020

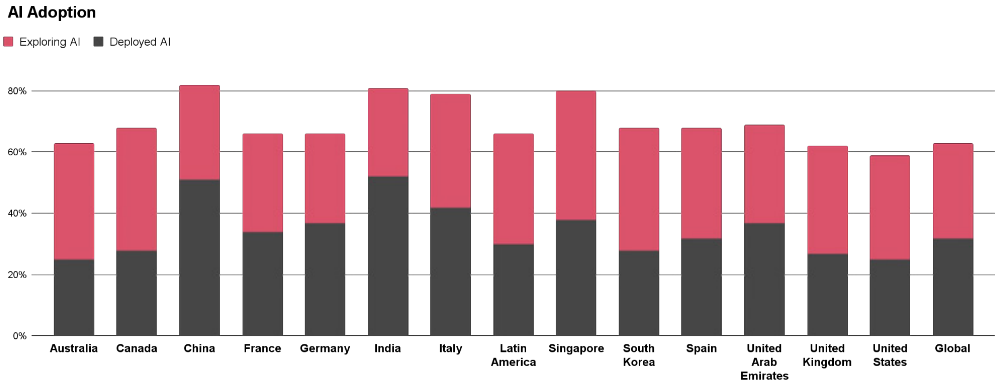
"In the United Kingdom, ⅔ of financial institutions have been adopting artificial intelligence."

– **Manohar Chadalavada**, Global Head, Ecosystems & Open Banking, Standard Chartered Bank

"Banking is a business of trust therefore, adoption of AI needs to be done in a safe way"

– **Charmaine Wong**, Head of Group BI & Analytics, Group Head of ESG Data & Analytics, HSBC

AI adoption continued at a stable pace in 2022, with more than a third of companies (35%) reporting the use of AI in their business, a four-point increase from 2021.A major driver of adoption was accessibility that made AI easier to implement across the organization, though companies are also looking to AI to help them increase automation of tasks and reduce costs. The gap in AI adoption between larger and smaller companies also grew significantly. Larger companies are now 100% more likely than smaller companies to have deployed AI in their organization, compared with only 69% in 2021.[1]



AI adoption has been gradual as organisations work to implement holistic strategies, but the long-term trend is clear: only one in five companies today don't plan to use AI.

Source: IBM Global AI Adoption Index 2022

A study found that banks have a false positive rate above 90%.[2] AI combined with machine learning (ML) has the ability to significantly reduce this figure, Secondly, AI programs can recognise anomalies in data thereby preventing frauds. **Charmaine** further commented that its purpose is far-reaching and extensive, having the ability to monitor changes in IT systems to assist decision-making as well as in market surveillance to detect illegal trades and practices. Evidently, AI cultivates a safer and more secure banking environment.

The emergence of AI has pushed customer service and engagement in radically new ways. HSBC deployed chatbots to answer customer queries quickly and consistently, natural language processing (NLP) allowed the bank to cater to regions that speak varying languages and speeds up back end process to support faster loan decisions. Taking customer experience one-step further, AI opened the door to on demand personalised insights and recommendations on wealth management platforms.

"There is a lot of data challenges in ESG", shared the head of HSBC's business intelligence. For example, poor quality of sustainability investment reporting is one of the biggest challenges. ESG has been central to all corporate strategies as international committees mandate net zero emissions policy. The utilisation of AI enables financial institutions to ingest and interpret large volumes of data, providing invaluable insights to ensure regulatory compliance. AI in ESG has been ubiquitous, covering areas such as goal setting, ongoing monitoring, reporting and many more.

[1] IBM Global AI Adoption Index 2022
[2] Forbes: Cutting Through Complexity In Financial Crimes Compliance

Challenges to the adoption of AI

Quality data

The success of AI applications is highly dependent on the data fed into these programs. Substandard data inputs may prevent these applications from working as effectively as they should. Data should be accurate, complete, consistent and reliable. More often than not, organisations tend to collect more data than what is needed when they should prioritise quality over volume of data sets. This shift in the collection operations can make an intrinsic difference in businesses, providing them with high quality data, simultaneously, cutting cost.

Data ethics and governance

In a digital era, strong data governance is vital. Public trust has eroded as large volumes of data have been collected and exploited by technological giants in the last few decades, the ethics governing it became an increasingly pressing matter. Although humanity reaped tremendous benefits from AI, the rate at which corporations collect and integrate the technology with more processes is alarming. The abuse of it has the potential to disrupt people and society. Furthermore, protection of stored data from malware and hackers continues to be a contentious point. Therefore, it is of preponderant importance for governments to establish and enforce strict guidelines on how data is collected, generated, analysed, disseminated and stored. Only by establishing trust, we can then forge the path forward.

Talent, training and AI literacy

Many corporations are seeking to integrate AI into their operations however, maturity remains stagnant as they run into obstacles due to talent crunch within the space. **Charmaine** further shared that data and AI literacy amongst C-suites is equally crucial as they direct the vision of the company. A lack of understanding may lead to years of effort building AI capacity veering off course, slowing adoption. If the right measures are not taken to educate and train the workforce, the scarcity of skilled and experienced talent will dampen the world's dream of AI adoption.

Regulations

The role of regulators is to ensure thriving AI innovation while limiting its downsides in areas such as privacy, safety and accountability. Noted by **Dong Shou, CEO of ADVANCE.AI**, governments have been actively supporting the adoption of the technology through regulatory sandboxes, allowing companies to test ideas in a safe environment, however, ambiguity surrounding AI-related regulations persists. He commented that, in order to boost adoption, global leaders must first come to a consensus on the scope of automated decision systems. It can then, progressively, establish policies governing AI ethics, biasness, transparency and privacy.

"Collaborative effort from regulators and the wider ecosystem forges trust amongst the different stakeholders," said **Manohar**. It sets the seal on the longevity and sustainability of AI, ensuring the technology has a positive and not negative impact on society, allowing the space to flourish.

"Will there be a global standard to define an ethical AI or does it depend on each jurisdiction or each regulator for different country has a different regulation? I think it is pretty important to define something from the top."

– **Dong Shou**, CEO, ADVANCE.AI

Conclusion

Aligning with the key theme of SFF 2022 ‘Building Resilient Business Models amid Volatility and Change’, the knowledge plenary sessions of Banking for Business underlined the insights from key stakeholders of government leaders, regulators, financial services leaders, entrepreneurs, investors, and technology leaders in a convoy of how banking designing inclusive models that cater to the needs of the SMEs, how new digital banking drive profitability, how Africa building its FinTech, and how banking redefining AI business models that fit for purpose.

To cater to the prevailing opportunities, the open dialogue features the importance of collaborative partnerships from the ecosystem to support the underserved in the economy. Bridging the gap of credit models utilizing the digital data footprint implementation remains resilient and viable. The evolution of digitalization in other continents like Africa potentially generates billions of dollars of opportunity, nonetheless, it is still dependable on regulatory flexibility. The readiness of banking data and the availability of talent formulate the well-ordered adoption of AI technology.

Heading toward the end, participants captured interchangeable explicit challenges in each breakout session, where repetition of data availability, quality and privacy, standardization of local and global regulations, and collaboration of partnership between ecosystems will be the central driver in the overall banking for business aspect. In order to reflect on the challenges, more smart initiatives, and ethical solutions are imperative to unleash desirable innovations, but also with the right proficiency of talent.

The session ended with the optimism of the global FinTech community to catalyse innovations, strengthen networks and build impactful partnerships and collaboration despite the strong headwinds ahead of the industry.

Acknowledgement

About PwC

At PwC, our purpose is to build trust in society and solve important problems - this is at the core of everything we do from the value we provide to our clients and society to the decisions we make as a firm. Our services started with audit and assurance over a century ago. As times change and the issues faced by businesses and individuals evolved, we have developed specialised capabilities in tax, advisory and consulting to help you address emerging new challenges across focus areas like ESG, sustainability and climate change, digital transformation, cyber security and privacy, data, mergers and acquisitions, and more.

In Singapore, we have more than 3,500 partners and staff to help resolve complex issues and identify opportunities for public, private and government organisations to progress. As part of the PwC network of nearly 328,000 people in 152 countries, we are among the leading professional services networks in the world focusing on helping organisations and individuals create the value they are looking for.

About Elevandi

Elevandi is set up by the Monetary Authority of Singapore to foster an open dialogue between the public and private sectors to advance FinTech in the digital economy. Elevandi works closely with governments, founders, investors, and corporate leaders to drive collaboration, education, and new sources of value at the industry and national levels. Elevandi's initiatives have convened over 300,000 people to drive the growth of FinTech through events, closed-door roundtables, investor programmes, educational initiatives, and research. A flagship product is the Singapore FinTech Festival alongside fast-rising platforms, including the World FinTech Festival, Point Zero Forum, and the recently launched Elevandi Insights Forum.

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