Deloitte.





Singapore FinTech Festival Conference 2019Day 3 key highlights

13 November 2019



Contents

Plenary Stage

Inclusive FinTech - Our Best Opportunity to Improve Financial Lives

Great Merchant Digitalisation Story

A Macro View on Financial Inclusion

Future of Central Banks: A Policy Fireside Chat

Leader's Talk: Inspiring the Future by Mr Heng Swee Keat, Deputy Prime Minister and Minister for Finance, Singapore

From Entrepreneur to Investor

Tech for Impact. A panel of experts dig into the importance of innovation and technology, and their impact to change the world for the better

Forging Pathways for Financial Innovation - Challenges, opportunities and beyond

Fireside Chat on Data, Trade and Connectivity

Seeing Earth from Space - Life of a Cosmonaut

<u>Sustainability, Finance and Tech Stage - Powered by Deloitte:</u> Financial Inclusion

Financial inclusion in the digital age: how to make a difference? by Denis Beau, Deputy Governor, Banque De France

This document is developed by the Monetary Authority of Singapore ("MAS") in collaboration with Deloitte Southeast Asia Ltd ("Deloitte").

It directly reports on and summarises the topics presented and discussed at the FinTech Conference as part of the Singapore FinTech Festival 2019. The contents within this document by no means reflect views and opinions from Deloitte or MAS. Please contact Deloitte, MAS or other appropriate organisations and agencies should you wish to obtain expert opinions on what has been reported in this document.

© 2019 Deloitte Southeast Asia Ltd



Financial Inclusion 2.0

Financial Inclusion and Blockchain - Is Blockchain the missing piece to Financial Inclusion?

Financial inclusion in the age of evolving Global FinTech Regulations

Africa FinTech: The Role of Mobile Money in Building Financial Inclusion

<u>Future of Finance Stage- Powered by Prudential: Future of Market</u> Infrastructure

Disrupting Wholesale Markets

Challenges in building technology infrastructure for future banks

The China Dialogue: the new era of FinTech and Risk Tech in China

Singaporean FinTech success stories

<u>Investment and Global Markets Opportunities Stage - Powered by AMTD: Tech-Driven Opportunities</u>

Productivity & Technology: solutions to low growth and low inflation by Amlan Roy, Head of Global Macro Policy Research & Senior Managing Director, State Street Asset Management Division (SSGA)

 Rethinking of Financial Services business model to supercharge growth for stakeholders

Transforming Finance with Technology: The Next Wave

Emerging FinTech giants from Latin America

The FinTech Opportunity in Personal Finance by Simone Robbers, Assistant Governor & General Manager



Governance, Strategy & Corporate Relations, Reserve Bank of New Zealand

The FinTech Opportunity in Personal Finance

Exponential Technologies Stage: Cyber Security

Building Cyber Resilience: From Reactionary to Proactive

Measures

Hunt or be Hunted: Staying Ahead with Cyber Security

Collaborating to Combat Cyber Crime

Driving Cyber Hygiene and Portability in the Cloud

Coral Triangle Stage: SMEs and Platforms – Trade without Borders

Digitise and Globalise – How SMEs and Platforms can change the World by Jane Lim, Assistant Chief Executive, Sectoral Transformation Group, Infocomm Media Development Authority (IMDA)

Business sans Borders (BsB): The Journey Ahead

The SME Growing Pains: Intimate Fireside Chat with Founders

Remapping Trade Routes: The Impact of Trade Volatility on SMEs, Platforms and Supply Chain Management

What SMEs and platforms need to know - 2020 and beyond

Show me the Money: SME Financing Reimagined

East Meets West: Debt Capital for Asian Platforms



Plenary Stage

Inclusive FinTech - Our Best Opportunity to Improve Financial Lives by H.M. Queen Máxima of the Netherlands, United Nations Secretary-General's Special Advocate for Inclusive Finance for Development

8.45 am

Key points

Her Majesty Queen Máxima of the Netherlands began by expressing her excitement over the rapid improvement to financial inclusion. Her Majesty shared the latest statistics of financial inclusion, which indicate that almost 70% of all adults have a financial account today - an increase of 1.2 billion adults in the last 8 years.

Her Majesty emphasised that financial inclusion matters as it has the power to improve people's lives. It is not an end in itself, but rather, a means to create jobs, take part in an increasingly digital economy, hedge risks, improve development outcomes, empower women and enhance the financial health of the population.

She then shared an inspiring story of Izu Hassan from Bangladesh, whom she had met during her last visit to Dhaka this July. Izu started by producing her old grandmother's hair oil recipe and selling it to her neighbors and friends. It was an immediate hit. However, to commercialise a home-based micro business, she needed support. With the help of a local FinTech called ShopUp, she was able to quickly access credit based on a digital footprint and data points from her back-office and online administration. Today, Izu has a booming business, employs more people and has bought a house for her parents. Her Majesty stated that inclusive technology innovations like ShopUp give hopes that the best opportunities can open up to diminish financial exclusion.

Her Majesty then highlighted that there are 1.7 billion adults who still remain unbanked and there are many who have the access to banks but not to products that meet their needs. Today, banks have succeeded in digitising domestic remittances, broadening access to digital accounts, creating test and learn business approaches and building inclusive agent networks. These efforts by the banks have resulted in real improvement in citizen's lives.

Though there has been a high number of mobile money deployment across countries, usage is still very low, which gives an indication the quality of such products. However, FinTech is giving hope that it can reverse these trends as new competitors are emerging, with start-ups creating more tailored, faster and cheaper products. Mobile money providers and banks are also striking partnerships with innovators to better serve these users. However, a big challenge is putting in place regulatory tools that can keep up with the fast pace of innovation and the risks. These risks include cyber-attacks, privacy breaches, dominating super platforms and discrimination. Her Majesty gave the example of an American FinTech that uses customers' punctuation and spelling to put together credit scoring models as a proxy for the quality of education. However, she believes that spelling mistakes are not necessarily an indication of someone's ability to pay their bills. In addition, there are algorithms offering less credit to women, even if they have a better credit score. Lower credit scores can lead to further financial exclusion for the underserved. So, building regulatory tools is especially challenging for countries who lack resources, and the talent and necessary skills to understand FinTech.

Her Majesty then shared three key insights from the report published by her FinTech working group, together with Cambridge University and MAS, on early lessons learnt on regulatory innovation to enable inclusive FinTech, especially for developing and emerging markets:



- 1. Regulatory sandboxes are not always the right tool to begin with. Less resource-intense innovation offices may be a better starting point.
- 2. Some initiatives are more suited to the initial stages of regulatory innovations while others can benefit from existing initiatives and infrastructure.
- 3. Facilitating inter-agency coordination and collaboration is critical, for example, in order to provide innovators with a single voice in Netherlands, the central bank and Financial Market Authorities jointly run an innovation office today.

While improving the regulatory environment is a crucial piece of the puzzle, the private sector is really key. It is the private sector that will develop customer-centric approaches and create products that will improve users' actual financial health, and not simply create access or usage. Providers and investors can also set industry standards to make their practices more inclusive and safer. FinTech associations can even provide a collective voice to regulators on policy changes to encourage innovation. Large companies can also support the emergence of new solutions and startups by establishing FinTech hubs, accelerators and anchoring industry sandboxes. More broadly, if we want FinTech to thrive, the necessary policies and pieces of infrastructure need to be in place. Some are critical for access, such as connectivity, physical infrastructure, and digital IDs. Others make markets work better for customers such as fair competition and interoperable payment systems and some help protect the finance system and users, such as data privacy, cybersecurity, consumer protection, digital and financial literacy. To deal with all of this, we need to share knowledge among different countries. Organisations such as Gates Foundation, MAS, and World Bank can facilitate knowledge sharing from the view of global public goods among central banks.

Finally, Her Majesty urged the audience to consider the large impact that we can actually have on financial inclusion by co-creating products, standards, regulatory tools and public goods so that FinTech can see its potential to spread inclusion and improve people's lives.



Great Merchant Digitalisation Story

9.00am

Speaker

Praveen Khandelwal, National Secretary General, Confederation of All India Traders

Moderator: Matthew Gamser, Chief Executive Officer, SME Finance Forum

Key discussion points

The session focused on India's digitisation story and its financial inclusion journey where the use of technologies is making real improvements in its people's lives. India, with its 70 million small and medium enterprises (SMEs), has the biggest small business population of any country in the world and these SMEs provide the majority of jobs in India.

These SMEs in India contribute \$0.7 trillion out of total \$2.7 trillion to the local economy. India has a vision of becoming a \$5 trillion economy by 2024 and Praveen Khandelwal predicts that the total share of these SMEs will reach \$2.5 trillion by then, thereby contributing 50% to the goal.

In the past, the digitalisation of a single store would normally take three to four months. To help accelerate this process, India has developed a mechanism that allows for an SME e-store to be created in 10 minutes.

There are four founding pillars in India's digitisation journey.

- Acceptance and awareness: India has created a robust mechanism whereby 200 national governing council members have become brand ambassadors. These council members manage 40,000 trade associations and have helped raise awareness and acceptance of the digitization since 2014.
- 2. Conducive environment: The government authorities have given a lot of support with relevant policies and structures for the digitalisation of SMEs under the programme "Digital India".
- 3. Innovation through reverse engineering: For example, the above mentioned e-store.
- 4. Future strategy: The acceptance of social-economic policies that can help drive digitisation initiatives. For example, in spite of socio-demographic diversities, India is united in the goal of "Digital India".

India has taken this task not just to help SMEs with e-stores but to empower them by providing help in consolidated procurements, Artificial Intelligence (AI), machine learning, sophisticated marketing, and logistics. Support also comes in the form of help in integrating the entire system with digital payments.

Apart from helping SMEs with digitisation, it is also important to help them create jobs as, collectively, they are the country's largest employer. SMEs that cross borders tend to grow much faster and higher more people. India will be sending its SMEs into MAS' Business sans Borders programme. Through this programme, the SMEs can learn how to visualise and capture opportunities overseas, and also open doors for other countries to procure their requirements from India. This programme will foster strong cross-border trade between countries.







A Macro View on Financial Inclusion

9.20am

Speaker

- Judith Karl, Executive Secretary, UNCDF
- Dr Patrick Njoroge, Governor, Central Bank of Kenya
- Rajnish Kumar, Chairman, State Bank of India
- Tobias Adrian, Financial Counsellor Director Monetary and Capital Markets Department, International Monetary Fund

<u>Moderator:</u> Alfonso Garcia Mora, Global Director, Finance, Competitiveness & Innovation Global Practice, The World Bank Group

Key discussion points

More needs to be done to achieve universal access to financial services. Globally, there are 1.7 billion unbanked within which there is a 12% gender gap. 2 in 3 Africans do not have access to financial services. 50% adults save but not via financial services. More than 200 million people still send overseas remittances in cash. Even entire governments are still not party to the digital financial ecosystem, with only 39% of government payments being done through digital means.

Kenya's Mpesa is frequently cited as the use case for successful financial inclusion. Reasons being that it started from a known need and was built with Financial Regulator oversight. What started as a P2P mobile payments facility has evolved into an elaborate ecosystem that not only breaks the poverty cycle but also presents new opportunities. In time, it has grown into a platform upon which other facilities like micro lending, utility payments and savings products, can be built. The main learning point from Mpesa is that interoperability should come first. To start with, only one telco was involved and it took ten years for the platform to open to others and only under regulatory duress.

In India, 370 million people have been brought into the financial system but with a population of 1.3 billion, there is some way to go. Key to financial inclusion is alignment between government, central banks and existing financial services providers, to not only provide banking but also social security such as insurance, pensions and credit. Given the country's huge size, two key enablers have allowed the unbanked in India to access financial services, especially those in rural areas. Firstly, the Reserve Bank of India permitting businesses to provide banking services, and technology. Secondly, the so-called 'JAM trinity' of bank account, unique ID number and mobile number has also been a driver, enabling individuals to have a credit profile and allowing the government to make direct payments to beneficiaries thereby stemming leaks in the financial system. Additional consumer protection is given by limiting the size and frequency of transactions.

UNCDF takes a technology agnostic approach. It engages with the least developed countries, advising them on how to achieve digital inclusion, which in turn opens a gateway to allow individuals to gain a foothold in the global economy. UNCDF does this by focusing on individuals to understand their needs, pain points and desires, collectively creating an understanding of how current policies and regulations are inhibiting market growth. This knowledge is shared with policymakers and regulators who can then develop a strategic vision on financial inclusion and the possible delivery modalities.

The IMF has taken a close look at the impact of financial inclusion on macroeconomic performance level and concluded that countries that focus on financial inclusion through FinTech tend to grow faster. A critical success factor is having a strategy that is coupled with a solid regulatory setup because there are both benefits and risks to financial inclusion. Regulatory and policy approaches to FinTech are key in reaping benefits. This understanding prompted creation of the Bali Fintech Agenda, which outlines 12



considerations that the IMF, World Bank and governments can bear in mind when creating policies and regulations that can maximise the benefits of FinTech while protecting financial systems.

On the subject of cryptocurrency, stablecoins can be the basis for both domestic and cross-border financial inclusion but integrity risks (for example KYC) and operational risks remain, and as such, the right risk frameworks need to be in place. It is argued that before buying into the hype of cryptocurrency, basics like financial education and awareness should be the focus to protect what has been gained and improve on that before making the assumption that newfound technology is going to solve the financial inclusion problem.





Future of Central Banks: A Policy Fireside Chat 10.10am

Speakers

• Agustín Carstens, General Manager, Bank for International Settlements

Moderator: James Crabtree, Associate Professor of Practice, Lee Kuan Yew School of Public Policy

Key discussion points

The session started with an attempt to address the current challenges in creating a competitive environment and a more customer-orientated banking approach as well as to address the risk of Libra and stablecoins.

In alignment with the Bank of International Settlements' (BIS) direction, central banks must facilitate innovation with proper safeguard measures. The mandate is for the central banks to consider how they can incorporate technology to increase the efficiency of the financial system and at the same time balance risk and safety of doing things fast.

Libra has caused controversy as central banks believe that the issue around sovereign currency is not a problem. Central banks are not against cryptocurrencies but are wary of the possibility of cryptocurrencies fulfilling a global role without appropriate safeguards. The problem with Libra and many similar initiatives is that they try to re-invent the wheel in many areas where things are already working. If Libra and their similar can work collaboratively, take advantage of what is working and then work through the safeguards, then things can work.

China is issuing a digital currency and BIS is supportive but has warned that each country has to approach digital currency issuance differently as financial inclusion, outreach and financial literacy greatly differ, which can impact the adoption rate of digital currencies.

Asia is leading the way. BIS points out that in many parts of Asia, Libra is trying to provide solutions in areas where achievements have already been established (for example, cross border payments). Asia embraces technology innovation in financial services quickly and rapidly. For this reason, BIS is creating an innovation hub to be opened in Singapore.

Central banks will continue to support the building of financial ecosystems but each member in the ecosystem must realise that they are open to the same level of regulatory scrutiny as larger players because the central banks have to protect society as a whole and the integrity of its financial services system.

Systemic risks with FinTech, for example, inappropriate loans, will not immediately come on a massive scale but will change over time. With adoption still at its infancy, the focus is on the operational risks, for example of a reliable payments system.







Leader's Talk: Inspiring the Future by Mr Heng Swee Keat, Deputy Prime Minister and Minister for Finance, Singapore

10.30am

Key points

Deputy Prime Minister (DPM) and Minister for Finance Mr Heng Swee Keat opened the session by acknowledging 2019 as the first year a joint event is hosted between the Singapore FinTech Festival (SFF) and Singapore Week of Innovation & Technology (SWITCH). SFF x SWITCH began as separate events with each event growing significantly since 2016. The decision for a joint SFF x SWITCH event was made because of their similarities in content and network between both events and they bring together thought leaders, innovators, entrepreneurs and investors from around the world.

Beyond new technology and Industry 4.0, SFF x SWITCH also focuses on sustainability, improving financial inclusion and improving lives. The transformative power of technology and innovation can help overcome pressing challenges to create new value and possibilities. Technology has enabled Singapore to transform itself into a competitive economy and progressive society – for example, significant investments in desalination and recycling of used water helped Singapore transform adversity to opportunity. Singapore is also leveraging technology to develop urban farming to produce 30% of the nation's nutritional needs by 2030. Creative solutions for cleaner energy, such as solar power, are also being explored within Singapore.

While context may be different across countries, the challenges are similar globally and countries will need to keep pace with innovation and harness technology. Singapore has placed strong emphasis on these. Today, Singapore is taking the next step in its Smart Nation journey by launching Singapore's national Artificial Intelligence (AI) Strategy.

AI is one of the new frontiers in technology, and we can already see its widespread application in our daily lives – from chatbots to robo advisors. Singapore is ready to deploy AI nationally and has committed over \$500 million to fund activities related to AI under its Research, Innovation and Enterprise 2020 plan. A national AI Office will be created to bring together Singapore's efforts in developing and deploying AI solutions by 2030 and this effort will kick-start with five national projects.

While technology creates new opportunities, it also creates new downsides including social media as a conduit for divisive content and fake news, and automation and Internet of Things (IoT) that improve productivity but impact livelihoods.

DPM Heng asserted the importance of collaboration to maximise technology and mitigate its risks. Three key principles should underpin our quest towards better innovation and technology:

- 1. Putting people at the heart of our endeavours
- 2. Staying open and connected
- 3. Ensuring good governance of new technologies

Putting people at the heart of our endeavours

We need to take a human-centric approach to the application of technology while ensuring that the workforce is skilled in the use of technology. Technology applications need to be designed with the user in mind. FinTech has enabled many developing countries and have changed many lives. Practical, accessible and inclusive – these are what it means to put people at the heart.

Singapore has invested significantly in developing its people, especially in fields related to technology. In growing a pool of talent to support the National AI Strategy, the Singapore University of Technology and Design (SUTD) recently launched a new degree on AI and design. Last month, there was a launch in



partnership with IBM to develop deep AI capabilities within Singapore and to train 2,500 professionals in basic AI coding and implementation by 2025.

Staying open and connected

Technology and innovation thrive in an open and connected environment. Through collaboration and the bringing together of the research community, industry and government – the triple helix model of innovation – more can be achieved. Beyond national borders, collaboration through international partnerships is important to work on common challenges.

Today, the launch of AI Makers Space will help enable small enterprises to jumpstart their AI journey by providing access to data, AI libraries and supercomputing resources. Government agencies are also working closely with universities in Singapore, such as the National University of Singapore to set up the Asian Institute of Digital Finance that will house the Fincubator to bring FinTech research ideas to market, and SUTD in the development of smart estates.

Internationally, Singapore is committed to working together with researchers, entrepreneurs and innovators to develop ideas to address common challenges. Singapore is calling for interested partners to come forward to tackle common challenges through innovative solutions in areas such as sustainability and advanced manufacturing. Singapore is also expanding its Global Innovation Alliance to its 13th city – London. This expansion will enable technology enterprises and start-ups in the two centres to to explore opportunities and ideas for collaboration.

Ensuring good governance

Good governance is critical. In opening up new frontiers such as in precision medicine and autonomous vehicles, technology and innovation open up new risks. Experts in governance and technology must come together to decide how fast and how far technology should be deployed, and how this should be done ethically.

Cyber risks are becoming more likely and highly damaging to data, financial systems and infrastructure. Like-minded groups and countries are coming together to establish a robust regime for cybersecurity including the ASEAN working level committee to ensure responsible behavior in cyberspace.

For AI, it is important to preserve innovation while defining rules to maintain accountability. Earlier this year, Singapore published Asia's first Model AI Governance Framework, providing readily implementable guidance to address key governance and ethical issues in AI. Singapore is also doing more to support AI in financial services with MAS working with the industry on a framework called Veritas to provide open source tools for financial institutions to ensure that their use of AI and analytics remain fair, ethical, accountable and transparent.

Closing the session, DPM Heng reiterated the importance of a human-centric approach in the use of technologies, the importance of staying open and connected, and the importance of ensuring good governance in harnessing technology to build a better tomorrow for ourselves and our children.







From Entrepreneur to Investor

10.50am

Speakers

- Dado Banatao, Managing Partner, Tallwood Venture Capital
- Geoffrey Prentice, Co-Founder, Oriente, Co-Founder, Skype
- Kamal Quadir, Chief Executive Officer, bKash Limited
- Tan Min-Liang, Chief Executive Officer, Razer Inc

Moderator: Tilman Ehrbeck, Managing Partner, Flourish Ventures

Key discussion points

The session kicked off with a summary of the broad experiences the speakers had – from being start-up entrepreneurs, to building companies, to investing in companies across regions in the US, Europe and Asia.

Explaining why Razer Inc expand their business into FinTech, Tan Min-Liang shared that while Razer is known for gaming hardware, FinTech is not new to them. As one of the largest lifestyle brands for gamers, Razer had built an entire FinTech layer on top of their network to implement gamer credits, known as Razor Gold since the early days. They have now spun it off as a standalone network under Razer FinTech. At this point of time, they are exploring additional financial services such as virtual banks.

As an engineer at heart, Dada Banatao shared that he preferred to approach his investment as an entrepreneur first, instead of as a venture capitalist. He usually funds his investments personally in the beginning and tests it out before opening the opportunities to others.

When asked about how Oriente acquired their users, Geoffrey Prentice stressed the importance of having a ready user base. For Oriente, they leverage on their investors existing e-commerce channels and offline traction.

Kamal Quadir shared that when they started the idea of bKash back in 2008 in Bangladesh, people did not have smartphones. Instead, they were using feature phones. Thus, bKash built the technology in a way that users can do transactions even on very basic platforms, and the company gained traction from there. In the market like Bangladesh with a lot of unbanked people, huge impact can be made by providing basic services like stored-value account, and cash in and cash out. For the emerging countries, the mindset of the leadership is the most critical to achieve financial inclusion.

Thoughts on interoperability between various stored-value mechanisms include the belief that having a very open ecosystem is incredibly important.

Very often, having a large user base that is trapped underneath a big company does not work very well for a start-up. The challenge is how to keep an entrepreneurial spirit to unlock the value of large user base. It works better to spin off a group that then leverages on the assets of the big company, as opposed to building a start-up underneath the company.

It was shared that the foundation of economic growth in a country is innovation. It requires the government and the people to really believe in it, and take action. In the Philippines, the government is beginning to invest money and implement some of the innovation programmes.

All these being said, a good entrepreneur is not necessarily a good investor. An entrepreneur has a singular focus on his one company, and thus, have only one experience.



Concluding messages include:

- Building a foundation is very important, so that other things can be built on top of it.
- The youth and millennials are very underserved and it is one of the areas where there is huge opportunity for innovation.
- The future of infrastructure is going to be digital and it is amazing to see digital layers being built in a way that is more efficient than the analogue systems.
- There is an enormous learning opportunities in Silicon Valley which can be transferred to the advance innovation in the Philippines.





Tech for Impact. A panel of experts dig into the importance of innovation and technology, and their impact to change the world for the better

11.30am

Speakers

- Prof Isaac Ben-Israel, Director, Blavatnik Interdisciplinary Cyber Research Center
- Sir Robin Saxby, Former Founding Chief Executive Officer & Chairman, ARM
- Vincent Chong, President & CEO, ST Engineering

Moderator: Chris Colbert, Managing Director, One Eighty Global Innovation

Key points

The session opened with a discussion about the impact of the Singapore FinTech Festival (SFF) and how it facilitates collaborative networking for the collective to achieve more in the space of FinTech. Two key points was cited from a speech delivered at last year's SFF titled 'Technology is Dead'. Firstly, the key to successful technology innovation is to understand humanity. The second point was about how we can ensure that innovations help to create a healthier planet for the collective good while mitigating any unintended consequences. A question was posed – how do we reconcile contradictive effects to ensure a net positive outcome from technology.

It was opined that while technology is usually created to solve problems, there are many unintended consequences from these innovations. For example, technology used to achieve a smart city goal can make our lives more efficient but at the same time can also create new social and legal issues. Our increasing dependency on technology can also be used against us if placed in the wrong hands. These problems need to be thought through before innovate but there is also a need to balance as asking too many questions may restrict innovation.

On the topic of having a methodology to manage innovation, artificial intelligence (AI) was cited as an example of how we cannot predict the outcomes made by technology but we can raise awareness on potential issues.

On the question of managing the contradictive effects of technology and leveraging on technological innovations to make the world a better place, it was shared that technology is neutral but it is humans that can choose to steer technology towards building a better world. The corporate sector has a role in defining a clear purpose in using technology to improve lives. A good example is ST Engineering and how it is helping to mitigate some of the negative impacts of urbanisation including developing smart transport system to ease congestion.

It is important to collaborate at different levels across governments and corporations. In today's interconnected world, innovation should not happen silos and that there is great opportunity to solve today's problems through collaboration. To this point, it was added that the key to solving complex problems is not just about having the smartest people but about having diversity in opinions. It is a common bias to assemble teams that think the same way.

Technology can be used to facilitate collaboration. Although, while technology may be doing things faster for us, it cannot replace human instincts that are important to draw the ethical line. There is the need to be pragmatic in dealing with the impact of technology - it is about focusing on the good and trying to make it better instead of attempting to solve all problems at the same time.

Collaboration requires us to build upon common priorities and interests. Organisations, and even competitors, across various industries can collaborate to co-develop technology together and achieve common objectives.



However, we first need to understand the problem we are trying to solve to determine whether technology is the right solution. Technology was created to improve lives but has also created unintended consequences such as threats to data privacy and security.

It is important to educate our political leaders in the aspects of ethics and regulation to help them do a better job in managing the impact of technology. Capitalism needs a refresh to include ethics into a system that is now focused only on making money fast.



Forging Pathways for Financial Innovation - Challenges, opportunities and beyond

5.00pm

Speakers

- Robert Opp, Chief Digital Officer, UNDP
- Samuel Tsien, Group Chief Executive Officer, Oversea-Chinese Banking Corporation Limited (OCBC)
- Sitoyo Lopokoiyit, Chief Financial Services Officer, Safaricom Plc

Moderator: Dawn Tan, Presenter, CNA

Key points

The session began with thoughts on how FinTech innovation can benefit more people.

It is important to look at the purpose of how technology can empower more people in the community so that everyone benefits in return. The objective should be to allow people to have access to information and data to improve their productivity. Banks can then use this data to reach out to those that are not tech-savvy, so that, ultimately, no one is left behind. The current wave of digitalisation and climate change is also creating a digital divide. People that do not have access to financial services tend to be more vulnerable to extreme climate change. Hence, financial inclusion becomes an important part of resilience for the community.

In the end, the conclusion was that FinTech is all about the passion and commitment to transform lives, by investing on technology that focusses on customers' needs. A case was cited where a unique system was designed to help refugees get access to financial services. It was agreed that a cashless society will enable people to save time and use it to do something that is more productive.

Every bank today has to spend time in completing its own separate 'know your customer' (KYC) verification for the same business or person. Hence, the banks are currently working with the Singapore government to create a common platform that can solve for such redundant processes for KYC of corporates and benefit the entire banking industry in return.



Fireside Chat on Data, Trade and Connectivity 5.30pm

Speakers

- Justice Bellur N. Srikrishna, Former Judge, Supreme Court of India
- Dr Veerathai Santiprabhob, Governor, Bank of Thailand

<u>Moderator:</u> Matthew Blake, Head of Financial & Monetary System Initiatives, Member of the Executive Committee, World Economic Forum

Key discussion points

The session started with speakers sharing their views on the dynamics on the ground, especially in India and Thailand, in terms of data, trade and connectivity.

Trade is about exchanging resources, whether physical goods like traditional barter trade or money. The quicker the money changes hand, the better; therefore, connectivity is crucial. Ease of data connectivity is also important as data will help to analyse issue and make quick decision and all these contributed to better trade. He drew an example on the bandwidth issues facing telecom industry where sophisticated technology without connectivity is useless, although he also cautioned on data privacy and protection issues.

Connectivity has helped to change the financial landscape in Thailand. For example, Thailand has launched the instant peer-to-peer payment system called PromptPay, which is similar to Paynow in Singapore. The introduction of this payment system has helped to eliminate electronic fund transfer fee and improved connectivity. In terms of data, Thailand has recently introduced personal data privacy law and required the financial institutions to comply within one year from the introduction. This will help to alleviate some issues surrounding personal data protection while promoting responsible data exchange across financial institutions.

The speakers then shared their view on the dynamics surrounding the conflicts between protecting local interest vis-à-vis promoting international contribution. One speaker encouraged competition and international contribution but cautioned against the risk of payment and financial systems becoming fragmented. To counter this, he encouraged the regulators and the private institutions to work together to develop common standard and platform to ensure interoperability of the system.

The speakers also shared that in financial system, network value and new technology are very important, but newcomers with new technology should add value to the existing ecosystem and encourage competition as monopoly will jeopardise future innovation. Some of the countries, through regulation, may also require data that contain sensitive information to be kept locally in order to promote data protection.

In closing, the speakers encouraged cross-collaboration between different countries to learn from each other to improve financial connectivity, citing example on the widespread adoption of the QR code payment system across ASEAN region that started in Thailand. Beyond technical aspects, the speakers stressed the importance of the technology to help people and promote financial inclusion to serve the underserved community.



Seeing Earth from Space - Life of a Cosmonaut by Sergey Ryazansky, Pilot-Astronaut, Hero of The Russian Federation 5.50pm

Key points

The speaker started by sharing his career as an astronaut in the International Space Station (ISS). The National Academy of Science had decided that they would like to have scientists as cosmonauts. He was selected and underwent three stages of training. Each training stage lasts for 2 to 3 years, and most of the time he was studying. The average time to complete training is 10 to 12 years.

He emphasised that being positive and supporting each other is a critical factor in this long and hard journey. Hard work and determination is a critical factor in fulfilling his dream of becoming an astronaut. Eventually, he became the first flight engineer without engineering background in 2013. During his first space mission, he took the Olympic torch of the Sochi Winter Olympics into outer space. In ISS, teamwork and team spirit are critical for survival. The ISS project showed that all countries can work together on a common goal and can work together without borders.

He also shared the beautiful images of Earth and its various geographical features taken from space, and lamented that it was a pity for such a beautiful planet to be destroyed by as a result of unsustainable practices and climate change. In the same vein as the ISS project, there were no borders when the Earth was viewed from space and urged that all countries could unite and work together to protect and save the planet.



<u>Sustainability, Finance and Tech Stage - Powered by Deloitte:</u> Financial Inclusion

Financial inclusion in the digital age: how to make a difference? by Denis Beau, Deputy Governor, Banque De France
1.00pm

Key points

To achieve financial inclusion, we want to make sure that everyone has access to financial services. We want to encourage people to take part in the economy, to build their capital, to consume goods and services and to develop entrepreneurial projects. This is undertaken not simply to grow the financial sector and economic growth but it is also about reducing inequality and not leaving out small businesses in a country's economic development. With increasing digitalisation, we see new solutions, new challenges and new risk propositions.

Central banks in general has the main role of focusing on monetary policy. However, Banque De France (BDF) has also been tasked to provide services to the public that supports financial inclusion with the goal of widening access of financial services for sustainable economic growth. In this regard, BDF implemented solutions to meet three objectives namely to improve access, prevent inequalities of treatment and improve financial literary.

In the area of improving fair access, the BDF mediates between banks and clients to enable clients to open bank accounts should they have been previously declined financial services due to low resources or bad credit history. BDF also helped to reduce the usage cost of maintaining a bank account by lowering the barrier of entry to having a bank account.

In BDF's role of preventing inequalities of treatment to clients, the bank attempts to address issues relating to indebtedness. BDF is also involved in examining client's financial hardships and to ensure that financial institutions have existing frameworks to evaluate fragile clients. BDF also monitors banking practices to ensure that financial products sold to clients are relevant and affordable.

On improving financial literacy, BDF provides tools, resources and organises training and information sessions for social workers. The social workers are then mobilised to help educate the people in need of financial literacy.

Financial inclusion should also be considered in view of digitalisation and FinTech. It was cautioned that with digitalisation, there exists a digital divide where the less technologically savvy customers may be discriminated against and not have access to similar financial services. This divide needs to be bridged in favor of financial inclusion.

One way is to develop understanding and the use of new technologies. For example, the French government collaborates with financial institutions, innovative firms and start-ups, using artificial intelligence for financial data analysis and scoring in the process. Another way is to revisit policies such as assessing the policy on electronic payments and to monitor its impact on facilitating payments among the people.

Addressing financial inclusion is about identifying the needs of the groups of people and then develop targeted solutions for them, and these solutions should not exclude anyone. Both public and private sectors should collaborate as they explore new ways to foster inclusion in their solutions.







Financial Inclusion 2.0

<u>Speake</u>r

- Christina Maynes, Senior Advisor, Market Development, Southeast Asia, Women's World Banking
- Naureen Hyat, Co-Founder & Chief Operating Officer, Tez Financial Services
- Nestor V. Tan, President & Chief Executive Officer, BDO Unibank, Inc.
- Sael Al Waary , Deputy Group Chief Executive Officer, Bank ABC Group

Moderator: Greta Bull, Chief Executive Officer, Consultative Group to Assist the Poor (CGAP)

Key discussion points

Key themes around access, usage of accounts and the purpose of finance for low-income people were discussed in this session.

It was observed that while basic access to financial services is available, the usage is not prevalent. Therefore, there are now projects in place to help financial institutions educate and promote saving moments to clients so that clients are empowered and comfortable to use the financial services and product platforms with confidence. As clients learn to save, spending patterns also begin to emerge, and clients learn to spend on higher value-add items such as health and education.

In the Middle East, policies around financial inclusion have been challenging and varied. For example, the central bank of Jordan has implemented financial policies for refugees, women and youths. There are also efforts to work with the World Bank to review regulations to implement financial inclusion policies targeted at small and medium enterprises (SMEs), and to explore ways to use digital technology to accelerate inclusions. In Egypt, regulations also facilitate SMEs to have banking accounts. In Bahrain, there are other challenges in addressing banking amongst the large expatriate population on the lower-income pay scale. So, new regulations were implemented to onboard expatriates with a salary in the form of a prepaid card or an e-wallet. The future of financial inclusion in the Middle East looks bright because of high mobile and Internet usage in the region and consumers are dictating the inclusion agenda.

In Pakistan, over 150 million people have no access to financial services. Conventional banks are not serving them and leveraging on the deep smartphone penetration in the country. There have been offerings of financial products such as credit, conventional form of savings, insurance products, investments, pension plans and mutual funds to the poor. The way to address the financial inclusion agenda in Pakistan is through collaboration and implementation of solutions targeted at sustainable scalability. The value in implementing financial inclusion solutions to the poor is to help them realise their dreams.

In the Philippines, there is a great number of people with no access to banks and a third of the cities and municipalities do not have full banking presence. Therefore, financial inclusion in the Philippines has to address the provision of three basic items namely, savings, payments and credit facilities. For financial inclusion to work, four areas were identified.

- 1. Trust, as banks offer their services to clients, building a trustworthy brand becomes important to win the client's trust to part with their money to deposit in banks.
- 2. Access, he clients must be able to perceive ease of access after depositing their money in banks.
- 3. Credit process should be accessible.
- 4. The business model must be sustainable which means that from the cost efficiency scale, the business must be able to expand and scale up into other areas.

To appropriately serve the needs of the poor, it is necessary to dig deeper to better tailor the use case for their needs. For example, women-centric products should address their savings and money management patterns to make access easier for them.

The speakers spoke about innovations that foster financial inclusions. One idea was to have an algorithm to understand human behaviour and then translate that understanding to identify the kinds of products to sell and serve humans. Another wish was for AI to be less mechanical and be more human.



In the Philippines, phone usage does not necessarily translate to digital banking and payment is not about cost or capability. Instead, it is an ecosystem to pay and collect from each other. Financial inclusion has to be sustainable, and there must be a plan to convert propositions to profits. In the Philippines, the physical will drive the digital and in this regard, time is required to transition people from physical to digital.





Financial Inclusion and Blockchain - Is Blockchain the missing piece to Financial Inclusion?

2.00pm

Speaker

- Adrienne A. Harris, Founder, CodexStrategies
- Changpeng Zhao, Founder & Chief Executive Officer, Binance
- Christine Leong, Managing Director, Accenture
- Weimin Guo, Chief Scientist, Bank of China, Vice Chairman, Chinese Internet Financial Working Committee

Moderator: Perianne Boring, Founder & President, Chamber of Digital Commerce

Key points

Over the past year, 82% of the adults in China used some form of electronic payment and more than 50% of them bought an investment product. It can be surmised that financial inclusion has almost been achieved in China – something that can only be attributed to the high penetration of mobile phones and Internet access. Countries that have limited access to mobile networks coupled with financial and technological illiteracy are lagging. Even with education and access to technology, with neither identification data nor credit history, the unbanked are unable to access credit and other financial products. Blockchain and AI may help to address these complex issues such as no credit history. Digitalising the identity of individuals can also bring them closer to financial inclusion. This even applies to places like China where although 82% of adults use electronic payments systems, some have no long term credit history so their foothold in the financial ecosystem is weak. Blockchain can help with both of these and create credit profiles as it can establish transparency for end-to-end tracing of financial transactions and profiles.

When it comes to implementing technology, public policy and government initiatives are important. However, it is not easy to get alignment between government and regulators to standardise and implement changes to policies. Blockchain is a powerful concept but there is a need for governments and regulators to come together with private companies to design the right policies.

Cryptocurrencies are a hot topic and some central banks are considering implications of introducing cryptocurrencies into the financial system. Money is always money no matter the form. Trading over the centuries has moved from gold coins to silver coins to copper coins to paper money. It is now time to move to digital. It is about exchanging something to fulfil a need. The world is changing to one where trade is not just happening in the physical world but also in the virtual world. Imagine two people meeting in a virtual space. If they want to exchange something, they now do not need to exchange bank account numbers but they need something token to exchange. This token is nothing but money.







Financial inclusion in the age of evolving Global FinTech Regulations

3.00pm

Speakers

- Brian Quintenz, Commissioner, U.S. Commodity Futures Trading Commission
- Burkhard Balz, Executive Board Member, Deutsche Bundesbank
- · Magdalena Borowik, Advisor to the Chairman, Polish Financial Supervision Authority
- Siv Jensen, Minister of Finance, Norwegian Ministry of Finance

Moderator: Michael Piwowar, Executive Director, Center for Financial Markets, Milken Institute

Key points

Financial inclusion is not considered a major issue in the developed world but it is also more than just access to basic financial service. In the age of globalisation, the inability to efficiently conduct cross-border remittances can cause financial exclusion; and, ironically, in some highly inclusive financial regimes, the needs of those who are unable or do not want to go cashless or who are not tech-savvy (for example the elderly) are not being catered to, essentially excluding this demographic from the new age of financial services. Emergence of new forms of credit also requires consumer protection regulations to be put into place.

Germany's approach to FinTech regulations is that there is no special regulatory regime, 'same business, same rules' so if looks like bank, treat it like bank. The framework is principle-based and technology-agnostic to enable flexibility and to create a level playing field for participants. The only exception is for payments services which under the EU's second Payment Services Directive (PSD2) requires payments platforms to obtain special licensing to ensure consumer protection.

Poland's FinTech ecosystem is particularly strong in contactless and mobile payments. In 2018, ahead of PSD2, a small payment institution (SPI) and an innovation hub were set up as a precursor to a fully-fledged regulatory sandbox. A simple registration to SPI will allow payments services to operate in Poland. Turnover limits are imposed but it allows businesses to test their payment concepts on consumers in real time. Where Poland's FinTech ecosystem does need boosting is in banking services where the larger incumbent banks are providing rudimentary digital services which are just good enough to retain customers and not bad enough to encourage FinTechs to compete. Poland is also working on standardisation of regulations by working on guidelines for cloud computing, digital assets, APIs, cybersecurity and digital IDs.

Norway was an early adopter of digital banking and 99% of consumers are now using online banking and cash payments are down to 10%. Like Germany, Norway takes a principle-based, technology-agnostic approach to FinTech regulation. This approach has proven robust thus far but rapid developments in the industry has increased the need for guidance so a regulatory sandbox has been established to enable FinTech to approach supervisory bodies about regulatory issues.

Similar to the other jurisdictions here covered, the US' CFTC's approach is to "do no harm and be technology neutral". Like others, this is accomplished through principles rather than rules that cannot keep up with technology changes. US laws currently prohibit establishment of regulatory sandboxes so the CFTC engages with technologists and innovators via their LabCFTC to solicit feedback to understand if its rule sets need to be changed. In the derivatives markets, where razor thin margins have led to consolidation and exits of players, FinTechs can make a difference by digitising the derivatives cycle end-to-end which will lower costs whilst maintaining service provision to end users. A new area of focus for CFTC is derivatives of cryptoassets.



Over the last months, CFTC and three other US regulators joined the Global Financial Innovation Network (GFIN) which was formed to facilitate cooperation between regulators and for firms to engage with regulators in multiple jurisdictions. GFIN is a vehicle for inclusive information sharing and engagement between regulators who are all facing similar challenges, and allows regulators from countries yet to set up regulatory sandboxes to learn about outcomes.





Africa FinTech: The Role of Mobile Money in Building Financial Inclusion

4.00pm

Speakers

- Alex Siboe Wekunda, Head of Digital Financial Services, KCB Bank Group
- Natalie P. Jabangwe, Chief Executive Officer, EcoCash
- Wane Ng'ambi, Chief Digital Banking Officer, Zambia National Commercial Bank

<u>Moderator:</u> Coenraad Jonker, Co-Founder & Chief Executive Officer, TymeGlobal, Non-Executive Director, TymeBank

Key points

Financial inclusion means people having access to an account to financial services. Individuals are now able to make a payment, access savings, and make an investment remotely. Processing has dramatically improved in terms of speed.

There is now a need to shift the conversation from financial inclusion to designing the financial ecosystem. In Zimbabwe, EcoCash platform is equivalent to cash and the advent of digital technology against the backdrop of telephone infrastructure has aided in the redefinition of trust in consumer transactions. This platform has since grown and is now processing a large proportion of the nation's GDP and at a mature stage. it is no longer just about technology and the purpose of FinTech has evolved to one of citizen financing.

In broadening of financial services, it is important that the conversation moves beyond financial inclusion to one of general prosperity. There is a large push towards "zero paper, zero trip", it is not simply about digitising financial services but also ensuring that the entire customer journey is digitised as well. This is critical as digital financial services will enable more innovators to plug into the ecosystem and create more opportunities for young innovators and tech startups. "Zero trip" means no travelling needed for customers. Currently, there is still a need for customers to travel to the physical outlet to collect any application of a formal legal document like a birth certificate.

The challenges facing Zimbabwee present opportunities for technological solutions. When the nation broke down due to the challenges faced by the financial industry, platform technology allowed for a broad base of national deposits and transactions. As a result, about 90% of the adult population is now financially independent. Since then, there is a need to shift perspective from an innovative platform building to ecosystem building. The opportunity was no longer simply enabling payments, but providing saving services, digital credit assessment, equities and insurance services. There is a shift from basic financial inclusion to wealth management, similar to a developed country.

No single institution is able to deliver efficient services or product. As such, collaboration amongst third parties is very important. Ideally, everyone has a specific area of expertise. For example, the telecommunication institutions can generate millions of data points, which can be used to refine and advance products. Banks can also foster the ecosystem by designing and building an innovation lab or sandbox, and collaborate and co-create with young talents from local universities.

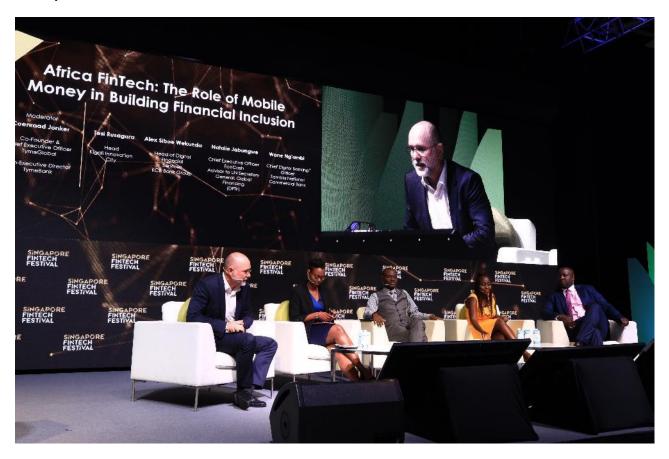
Building an environment to foster innovation, co-creation and collaboration is important. Historically, everyone tend to work in silos. It is important to engage the young talents from the local universities and connect them to the broader ecosystem to allow a flow of ideas into the private sector.

Separately, one of the lessons learnt, is about building a business with the end in sight and how value chain can be systematically built. For example, one of key factors that made EcoCash prolific was not



about onboarding of customers but rather, the creation of the entire distribution network connecting ecosystem stakeholders.

Another part of the conversation revolved around the use of data. Mobile companies have many data that can be analysed and used to advance financial inclusion. However, regulators are keen to understand how customers will be protected – that balance needs to be struck with the enablement of innovation and disruption.





<u>Future of Finance Stage- Powered by Prudential: Future of Market</u> Infrastructure

Disrupting Wholesale Markets

1.00pm

Speakers

- David Becker, Managing Director, Head of Asia Pacific, Broadridge
- Johan Toll, Head of Digital Assets, Associate Vice President, Nasdaq
- Kate Birchall, Head of APAC, LCH
- Kelvin Tan, Innovation for Treasury and Markets, DBS Bank

<u>Moderator:</u> Scott O'Malia, Chief Executive Officer, International Swaps and Derivatives Association, Inc.

Key points

The session kicked off by highlighting the different FinTech solutions being offered currently, largely in payments and retail banking. However, the question is, what technologies and solutions will it take to disrupt the wholesale markets? Emphasis was placed on the fact that while wholesale markets have large players and resources, disrupting wholesale markets will be challenging, slow and difficult.

Evidence shows that from 2008, technological change had been the main innovator for retail markets and has been attracting younger retail investors through artificial intelligence (AI). For wholesale markets, financial regulatory reforms have given rise to significant changes in terms of clearing efficiencies and reconciliations rather than big advances on technological solutions.

The session continued to talk about the importance of standardisation in wholesale markets. While emphasis was put on getting new infrastructure integrated in a seamless way, it was acknowledged that the ability to communicate and move data and information seamlessly among all participants are still challenges that need to be further standardised.

To achieve standardisation in wholesale markets, there needs to be a focus on data and documentations. Wholesale markets are still behind, their legacy systems have been holding the industry back from moving into the adoption of blockchain technologies such as distributed ledger technology (DLT). This is particularly so in Asia Pacific, although there has been some progress with early adopters of these technologies for some products. However, there are a lot of opportunities in the blockchain space, and technology providers for wholesale markets such as Nasdaq, will be seeing more collaborations to create more transparent, standardised and digitised content in the future.

In LCH, the key focus has been on resilience, making sure to run the clearing houses for wholesale markets in a safe and effective manner. However, regulatory changes in the wholesale markets had been largely implemented over the past 10 years, so it would be interesting to see how to optimise these changes using technology as banks would need to cut costs on processing, managing and reconciliations trades.

Notions of customer and investor demand and protection have shifted the way banks think about offering products to wholesale markets. However, the key question remains on whether banks can offer products that are cost effective and efficient to benefit the customers and investors. With the ability to standardise data, multiple stakeholders such as technology providers, banks, regulators and the clearing houses would need to collaborate to achieve a unified method of standardising the transaction movements into digital formats.



However, the language of standardisation was seen to be more important than driving standardisation and digitalisation in wholesale markets. There needs to be a common ground for innovation, technology and regulation. Emphasis was placed on the continuous collaboration and open communication between relevant parties and between regions. This was because when applying standards into wholesale markets, players would be forced into a collaborative standard, hence, more open communication and collaboration among the industry participants is needed to build a good standardisation method.





Challenges in building technology infrastructure for future banks 2.00pm

Speakers

- Bernard Gavgani, Group Chief Information Officer, BNP Paribas
- David Hudson, Managing Director Global CoHead of Digital & Platform Services, J.P. Morgan
- Jonathan Larsen, Chairman & Chief Executive Officer, Ping An Global Voyager Fund, Chief Innovation Officer, Ping An Group
- Rico Usthavia Frans, Director of IT & Operation, PT Bank Mandiri (Persero) Tbk

<u>Moderator:</u> Pauline Wray, Managing Director, Boston Consulting Group - FinTech Control Tower (FCT)

Key points

The session began with views on the challenges faced by financial institutions when transitioning to new technology, especially in the area of cloud. It was shared that the main challenges stemmed from the following issues:

- 1. Inability to fully migrate the whole legacy data centre to the cloud, thereby forcing the banks to maintain two separate infrastructures the legacy data centre and the cloud. This drives up the cost of implementation.
- 2. The data transfer process from the legacy data centre to the cloud will open up the infrastructure to cyberattack threats.

Resistance on the part of the regulators to allow financial institutions to move to public cloud has also hindered the progress of the adoption. Given the inherent risks on the cybersecurity associated with cloud adoption, tighter regulations from regulators are expected. There are also requirements in certain countries to keep the sensitive data onshore, thereby limiting the banks in their choice of public cloud providers.

In order to bridge the gap between vision and execution, banks need to be more agile and adapt to the customers' need. Changes are driven primarily by evolving consumer needs, as well as doubling down in their commitments to understand the root cause of the issues and fix it.

On the subject of how traditional banks expects to compete with the new digital banks and FinTech companies with all the legacy constraints that they have, it was shared that while the incumbents have the benefit of brand value and existing consumer relationships, they need to be more invested on the technology fronts to catch up with their new competitors, while considering the security issues. On the other hand, it would be better that traditional banks see these new companies as partners to develop the new technologies together rather than treating them as competitors and having a "them vs us" mentality.







The China Dialogue: the new era of FinTech and Risk Tech in China 3.00pm

Speakers

- Ben Zhai, Chief Strategy Officer, HC Financial Service Group
- David Daging Ye, Co-Founder Chairman Chief Executive Officer, Rong360|Jianpu Technology
- Hong Qiang Zhao, Chief Financial Officer, Bairong, Inc.
- Zhang Wei, Associate Research Fellow, PBC School of Finance (PBCSF), Tsinghua University, Associate Chief Editor, Tsinghua Financial Review

<u>Moderator:</u> Yanqing Yang, Deputy Editor-in-Chief, YICAI Media Group, Managing Director, YICAI Research Institute

Key discussion points

The session started with an introduction to the rapid growth of the technologies (artificial intelligence (AI), big data, and cloud computing technology). These technologies, new business models and risk analysis models create ways for China's FinTech companies to bridge the gap between legacy and future financial services and institutions. It has improved efficiency in China and encouraged Chinese financial institutions to include FinTech as part of their key growth strategy for the future. The speakers were asked to share more about their companies and the impact of incorporating FinTech into their business model.

Subsequently, a speaker shared about the difficulty faced while incorporating big data and regulations such as General Data Protection Regulation (GDPR) into the existing models in China. That said, the GDPR law and regulation in China does not seek to restrict the growth of big data into the industries. Without big data, AI will be impossible. It is important to strike a balance between transparency, accessibility and protection of the data.

In response to the uncertain landscape in China's traditional financial industry, such as trust mutual fund and insurance, the speakers agreed that China's regulatory environment could be improved. While there are issues in the current regulatory environment in China, technology will help improve regulations.

The session ended with speakers' thoughts on regulators in China allowing facial recognition for payment but not remote opening of financial account. All the speakers agreed that they find it to be the right judgment, as they see value behind the purpose of these regulations. Speakers were also asked to share their biggest concern over AI technology in the financial industry by 2050. They believed that by 2050, effective regulations would be in place to allow people to be living on Mars and use digital currency instead of the current currencies specific to each country. However, there is still a long way to go before central banks are ready for this, and technology should not be over-emphasised. The key change sits with legal regulations and moral of the people.







Singaporean FinTech success stories

4.00pm

Speakers

- Nyha Shree, Co-founder, Jumper.ai
- Richard Koh, Founder Chief Executive Officer, M-DAQ Pte Ltd
- Shailesh Naik, Founder & Chief Executive Officer, MatchMove Pay Pte Ltd
- Walter de Oude, Founder & Chief Executive Officer, Singapore Life

Moderator: Murli Buluswar, Head of U.S. Consumer Analytics, Citigroup, Inc.

Key points

The session opened with the speakers sharing their individual stories around what made them successful, lessons learnt and what inspired them.

Richard Koh said that he started M-DAQ 10 years ago but there was a critical pivot 4 years ago which changed his business even though the concept still remains the same. He got the founding theme for his start-up from the FX market when he and his colleague were with JP Morgan bank where he worked for 30 years. They thought they could bring the best of their Wall Street experience by providing customer oriented services in FX market, which led them to start their own company.

Shailesh Naik spent his career in management consulting and worked for some good companies for many years. He said the lack of changes and organisation ability of these companies frustrated him and hence he decided to start his own company.

Naik started an online B2B entertainment company. The company grew quickly and expanded into most parts of the world except Latin America. With the aim of improving quality of life, the company launched other products and services such as games and payments. In 2016, the company built a payment service platform with three key components - spend, send and lend. Enterprises from any segment can connect to their platform and enable their users to use their services.

Nyha Shree said her journey started pretty early, when she was graduated from college. She initially worked for many retail brands and built a client network which triggered her to build her own business. She spent time researching on her business area and finally launched her company. Shree said her company has a global presence now, with 40 enterprise customers and thousands of small and medium enterprise customers.

Walter de Oude used to run a big insurance company for a big bank and at some point in his career, he decided that the world needed a better kind of insurance company. He thought that with the latest technologies, he could provide products and services which are much more efficient and digital in nature and turn that into better value for the customers.

All the speakers agreed that the things an entrepreneur needs are blind faith, positivity and optimism, and the time to make it happen.







<u>Investment and Global Markets Opportunities Stage - Powered by AMTD: Tech-Driven Opportunities</u>

Productivity & Technology: solutions to low growth and low inflation by Amlan Roy, Head of Global Macro Policy Research & Senior Managing Director, State Street Asset Management Division (SSGA)

1.00pm

Key points

Global growth has slowed down and is projected to remain low in the near future. The bulk of economic growth in the past decade was contributed by the emerging markets. Even so, the growth in emerging markets last year was only about 60% when compared to 2010. This is worth mentioning because in a case where the economic growth rate is lower than the population growth rate, GDP per capita will drop and result in a downgrade of purchasing power and quality of life.

The low growth is mainly due to the challenges of governments/central banks to create inflation, and this applies to almost all the countries, more obviously in the developed markets. Everyone was impacted by the trade war to an extent and setting up trade tariffs provided no help to the global economy.

To improve the current situation, three ways were suggested to increase the growth:

- 1. Hire more women
- 2. Hire more young people
- 3. Adopt suitable technology

Assurance was given that even with all the challenges we are facing, we will still be able to bridge the gap with the power of technology by increasing the percentage population with tertiary education, increasing the life expectancy, and introducing more automation to improve productivity.

The session concluded with three points:

- Modern technology will unleash new avenues of productivity and economic growth.
- Better technology access for the public will foster greater inclusion, equality and balanced growth.
- Providing the avenues and programmes to foster greater technology literacy.



Rethinking of Financial Services business model to supercharge growth for stakeholders

Speaker

- Andrew Watkins-Ball, Chief Executive Officer, JUMO
- Annerie Vreugdenhil, Chief Innovation Officer, ING Wholesale Banking, ING Bank NV
- Ben Goldin, Chief Technology Officer Chief Product Officer, Mambu
- John Stecher, Chief Technology & Innovation Officer, Barclays Group

Moderator: Ridzuan Aziz, President, FinTech Association of Malaysia

Key discussion points

In this session, speakers discussed how the incumbent and the start-up can adapt their business model to generate more revenue and deliver value.

Starting with talent, it is undoubtedly a challenging factor for financial institutions to stay competitive in the market. Financial institutions are hiring more and more technical people, for example data-scientists, engineers and designers. The competition for getting and retaining the best talent is worldwide.

Employers need to provide an innovative playground for their talent to excel and work autonomously to not only deliver impactful work but also to have job satisfaction. Employees at different stages of their lives will have different demands and employers should be flexible to help meet these demands. On brand and go-to-market strategy, companies need to have a positive narrative to sell to both internal and external stakeholders.

For external stakeholders like regulators, extensive consultation is required so that there is transparency and the business can stay on track. These consultation will also allow for comments and a deeper understanding between the regulator and the business.

For other stakeholders like the customer or the C-suite decision-makers, technology should be positioned in a way that is easy to understand and comfortable to accept. Focus should be on the problem statement and the desired outcome, instead of the complex technology itself.

Most of the time, the internal mindset needs to be adjusted when new technologies are being adopted. As an example, traders still prefer to trust their own instincts even though an algorithm was developed that has been mathematically proven to be more accurate. In the end, the developers on the algorithm factored in the knowledge and experiences of the traders, and as a result, managed to increase profits with the revised application.

In terms of technology deployment, an agile methodology can help the company stay on the right track in rapidly-changing markets, allowing the company to explore more opportunities, and apply the lessons learnt in the next cycle in an efficient manner.

Lastly, it was agreed that the fresh industry players need to have a growth mindset, and not to be afraid of the unknown as a lot of new things are yet to come.







Transforming Finance with Technology: The Next Wave

2.00pm

Speakers

- Adam Reynolds, Chief Executive Officer Asia Pacific, Saxo Markets
- Christopher Davison, Chief Executive Officer & Co-Founder, BigPay
- Jeremy Anderson, Member of the Board of Directors, UBS
- Katsunori Tanizaki, Senior Managing Executive Officer, Group Chief Digital Innovation Officer, Sumitomo Mitsui Financial Group (SMFG)
- Michael Gorriz, Group Chief Information Officer, Standard Chartered

Moderator: Stephanie Magnus, Principal, Baker & McKenzie. Wong & Leow

Key discussion points

The past few years has seen rapid technology advancement in the finance sector especially in e-payments, blockchain, artificial intelligence (AI) and machine learning. This transformation is widely considered to be evolutionary rather than revolutionary. One evolution is the establishment of virtual banks that offer automatic account opening which is supported by technologies such as face recognition for identification and image recognition to verify documentation.

This evolution is progressively changing the financial industry. Customer experience, greatly emphasised by FinTechs, is now being adopted by banks to gain competitive edge. The aim is to use technology to maintain good service whilst lowering costs to make banking available and affordable to all. Partnerships are also a critical strategy for a wider market reach, also because specialty technology is limited for the time being – and a lot of innovation has come from FinTechs. New opportunities and businesses need to be seized from outside the industry.

Productivity has also changed. With the help of AI and robotic solutions, employees are able to perform more efficiently. Eliminating manual steps and human error are key to improve processes. With all these developments, a robust change management programme is critical. Employees must be adequately trained and equipped with the proper tools, and organisations as a whole need to be agile and take the initiative on new technologies. Customer education is also important. Organisations must understand their clients and use using tools and data to engage with them.

Financial institutions must also keep up with and adhere to the rapidly changing regulatory landscape. When adopting and implementing new technologies, companies must work to find a balance, making sure to stay ahead of the risk. It is important for firms to address and mitigate risks quickly and to share experiences with the industry. The ethics of technology and data usage must also be kept in consideration – what may be legal may not be acceptable or trusted by employees or consumers. To overcome this, it is important to let users and stakeholders to see benefits and results in order to win buy-in.







Emerging FinTech giants from Latin America 3.00pm

Speakers

- Diego Caicedo Mosquera, Chief Executive Officer, OmniBnk
- Luiz Bettega, Head of Product, Creditas
- Sebastian Ruales, Corporate Business Development Director, Rappi

<u>Moderator:</u> Toshitaka Takeuchi, Chief Advisor for Digital Inclusion at IDB Lab, Inter-American Development Bank (IDB) Group

Key discussion points

The session began with the speakers providing a brief introduction of themselves.

Diego Caicedo Mosquera shared that he is the Chief Executive Officer from OmniBnk and the bank is from Latin America (LA) – the first financial platform for small and medium enterprises (SMEs). The bank provides working capital solutions for SMEs in Chile and Colombia and they are also expanding into Mexico and Brazil.

Luiz Bettega stated that he was from Creditas and the main product that they offered was secured loans. Through Creditas, he hopes to tackle three issues in Brazil. First, offer lending products at lower interest rates compared to incumbent banks. Second, improve the efficiency of the banking system. Lastly, improve user experience by offering their products through digital platforms (for example, mobile phones).

Sebastian Ruales shared that he is from Rappi, an on-demand delivery start-up headquartered in Columbia. The company is present in 9 countries and it has been growing by 25% month-on-month. While the company started as a delivery service, it has now evolved to become a full-fledged ecommerce store offering a wide range of solutions such as mobility, travel and insurance.

Caicedo Mosquera explained that the company focuses primarily on SMEs as they are the backbone of the economy. One way they try to engage the SME segment in the market is through the use of data. He believes that Latin America has one of the best sources of data as the government created a lot of checks and balances to capture transactional flows and employment history. Through analysis of these data points, they are able to properly underwrite each loan and create lending products that can better address consumers' needs.

Bettega shared that while people in Brazil have bank accounts, they do not use it or only use it occasionally. Hence, FinTech can help to change the attitude and perceptions towards banking to increase usage.

Ruales added that by offering a wider variety of products, the company can increase the number of transactions and collect more data points about its customers. With these additional data points, the company is able to better tailor their products and attract more customers.

On the topic of the challenges that FinTechs can expect to face in Latin America, it was agreed that there are three main ones. Firstly, it might be difficult for FinTechs in Latin America to gain access to capital. However, this situation is gradually improving and SoftBank has recently launched a \$5 billion project focusing on Latin American. Secondly, expansion into different markets in Latin America might be challenging due to regulatory scrutiny. One way this can be mitigated is by collaborating with the regulator and having an open conversation with them to help them understand the product better. Lastly, there is a lack of talent to fill these specialised roles.

For the speakers, their current focus now is still on Latin America given the immense opportunity that the region presents. However, after dominating the region, there are definitely plans to expand their business and showcase their technology to other parts of the world.







The FinTech Opportunity in Personal Finance by Simone Robbers, Assistant Governor & General Manager Governance, Strategy & Corporate Relations, Reserve Bank of New Zealand 4.00pm

Key points

The session began with Simone Robbers introducing key facts about New Zealand (NZ) in terms of education, financial literacy and inclusion. He highlighted the opportunity for a sustainable approach to build NZ's economy through innovation and policies, which support financial inclusion. While there are notable advances in technology towards improving the financial sector efficiency and inclusion, they have also presented new risks for central banks, particularly for maintaining financial sector stability.

Overall, there has not been any significant negative impact of financial sector innovations, and hence, response of Reserve Bank of New Zealand (RBNZ) has been focused on just monitoring the developments in FinTech. RBNZ has also acknowledged its role in proactively enabling innovation in the financial sector and helping to harness opportunities for financial inclusion and financial literacy. For example, helping to remove barriers in the South Pacific region around money remittances and future suitability of the country's cash currency model. Cash is accessible to a wide range of participants across society (including the vulnerable) and enables them to participate in the financial system.

FinTech is a unique proposition and when it comes to choices, the question becomes – do we focus on the risks associated with new entrants and technologies and the regulatory parameters around these, or do we embrace the opportunity for FinTech to improve the financial systems' ability to innovate? There are risks around unbundling of services by existing financial services providers that may lead to fragmentation of our system and risks to profitability of the incumbents, but in the long run, a less concentrated financial system may also be more resilient and efficient.

Opportunities and risks that FinTech presents are not unique to NZ. We are hearing more innovations in digital currencies and retail payment systems. Unless we have a fully inclusive system that is open to new technologies, we run the risk of a non-sustainable system. RBNZ is now focusing on this frontier, and many regulators are also joining and leading the way. As an initial step, there is need to ensure that regimes do not hinder innovation. Central banks need to assist cross-border coordination to promote FinTech innovation.

There are a number of ways in which jurisdictions, government agencies and regulators can facilitate FinTech development. Despite the high rates of financial inclusion in NZ, payment solutions are still an exciting area, to ensure access to financial products to the underbanked. One of the important characteristics of Pacific Nations like NZ is reliance on remittances as an important source of external finance. Hence, lowering transaction costs related to remittances would contribute greatly to their economic growth and development. This issue is crucial not only for economic and social development but also to improve financial inclusion for the South Pacific and in New Zealand.

Compounding this problem is the remoteness of some of these island nations and the limited infrastructure to keep up with developments in payments and remittances. These Pacific Island banks struggle to access global financial services that enable money transfer. RBNZ is collaborating with its partners to look at practical steps to help alleviate some of these constraints, and is also exploring FinTech opportunities for the same, for example, adapting a KYC utility model to meet the unique needs of the payments and settlements systems in this region to develop a sustainable solution.

There are also perspectives on the falling cash usage by New Zealanders for every day transactions – such as the Te Moni Anamata program of work. Consultation on future of cash is one of the most attractive topics for RBNZ today. Digital exclusion goes hand in hand with financial exclusion. Cash is the only means to provide access to those who face barriers to financial inclusion. Currently, New Zealanders are using less cash, but there are pockets within society for whom other options to pay are neither practical nor accessible. Additionally, as the usage of cash declines, per unit cost of providing cash increases. Without innovation and intervention, there may be a time in the future when those who rely fully on cash may not be able to access or use it.



Financial services and specifically, FinTech should present solutions across a range of participants and not just the needs of the majority. RBNZ continues to be committed to working with industry and global counterparts to ensure resilient and sustainable solutions for the financial system.





The FinTech Opportunity in Personal Finance

Speakers

- Annamaria Lusardi, Denit Trust Endowed Chair of Economics & Accountancy, George Washington University School of Business
- John Roberts, Co-Founder & Chief Executive Officer, Mosabi, PBC
- Simone Robbers, Assistant Governor & General Manager Governance, Strategy & Corporate Relations, Reserve Bank of New Zealand

Moderator: Diana Crossan, Chair, Board of Advisors, Global Financial Literacy Excellence Center

Key discussion points

The session opened with an introduction on the importance of financial literacy in line with the increase of technological advances within the financial sector. There is a growing importance for people to understand financial products and trust the technology surrounding their financial decisions.

There are opportunities within FinTech to increase financial inclusion and lift poverty. However, there is a need to ensure that people who use FinTech have adequate financial literacy to increase their own financial wellbeing. Both FinTech and financial literacy work hand-in-hand. Basic knowledge on financial products empowers people to use technology to improve their own financial wellbeing.

Today, a significant part of the world population is underbanked. The opportunity to empower these individuals through financial products is huge. Education is at the absolute core of all this. It is important for the public sector and particularly the private sector to step up in educating consumers on what technology can do and how it will help them survive.

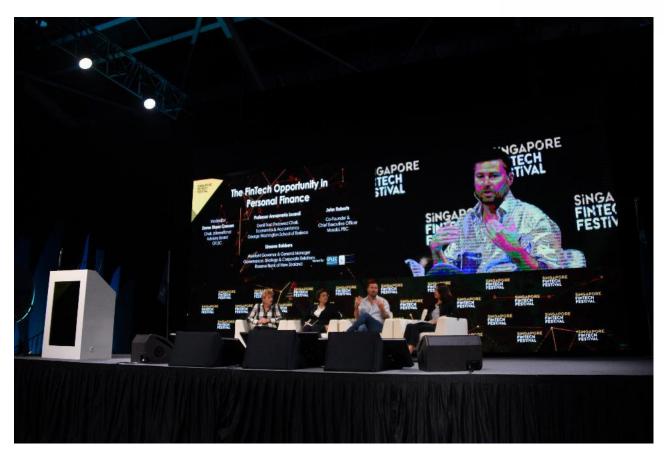
In terms of the intersection between FinTech and personal finance, and the overall ecosystem, financial literacy is the key. Without financial literacy, personal finance would not be able to flourish. Research has shown that those who have better financial literacy do better in almost every dimension – they save more, plan for the future, are more savvy about their borrowings and are better able to manage their day-to-day liquidity and prepare for shocks through their precautionary savings.

Additionally for the millennials, research has also shown that people who use technology the most are, in fact, the least literate financially. Education in financial products is thus important to lead to better outcomes.

On the topic of latest solutions unlocking financial opportunities via mobile learning, the session highlighted Mosabi, a mobile platform aimed at providing financial education. Mosabi offers animated, narrative style content to derive an alternative credit score. The platform provides many data points and leverages machine learning to derive an alternative credit score. The idea is to bridge the gap between financial education and financial access by collaborating with financial institutions and FinTech providers. The speakers also briefly discussed other FinTech financial education providers across Australia, London, New Zealand and Singapore.

In the end, it was discussed that public-private partnerships continue to be important in improving financial literacy at scale. For example, in New Zealand, those who are the most successful have been the ones who have engaged regulators and industry bodies early on through ongoing dialogues. Early collaboration in the public-private space brings greater success. Startups, entrepreneurs and innovators also have a layer of responsibility to help their customers and their stakeholders make well-informed decisions. Financial literacy is synonymous with customer acquisition and therefore, these innovators should be more interested in financial inclusion and financial literacy.







Exponential Technologies Stage: Cyber Security

Building Cyber Resilience: From Reactionary to Proactive Measures 1.00pm

Speakers

- Alex Rice, Chief Technology Officer, HackerOne
- Karthik Ramanathan, Senior Vice President of Cyber & Intelligence Solutions, Asia Pacific, Mastercard
- · Tobias Gondrom, Chief Information Security Officer, United Overseas Bank Limited
- Wendy Callaghan, Chief Innovation Legal Officer & Associate General Counsel, AIG

Moderator: Lijun Chui, Counsel, Clifford Chance Asia

Key points

The session began with a discussion on the common themes and lessons learnt on cyber breaches. Even though there are many sophisticated attackers out there, the cyber breaches were caused by simple mistakes made by organisations. The common mistakes are phishing emails, malware that is not updated and databases not patched in timely fashion. The basics of cyber hygiene are as important as incorporating advanced security technology.

The growth in e-commerce traffic has resulted in payment security becoming synonymous with cybersecurity. With some recent incidences such as credit card fraud, it appears the cause does not necessarily stem from the financial institutions. Anybody who has payment credentials or personally identifiable information, including emails and passwords, can be a starting point for a payment security incident. With no boundaries in e-commerce transactions, the introduction of one threat can spreads very quickly into all types of payment networks. This is the reason why cybersecurity should be at the front and centre of a payment network to keep transactions secure.

The speakers proceeded to discuss the next big cyber threat and risk. Concern was expressed over how people move in the wrong direction when searching for the perfect security technology. The focus should be on the fundamentals.

The increase of deep supply chains causes challenges in the industries. For example, when an organisation purchases software from a vendor, it compromises many aspects. This leads to a challenge to ensure that each component of the software is up-to-date.

With regard to the current state of the regulation, it is opined that the regulation is helpful and serves as a good baseline. By focusing on security first, compliance would be successful if the security is implemented right.

Artificial intelligence (AI) in blockchain technologies can help to create a more secure environment. Microsoft and the Chamber of Digital Commerce published a paper last year on the characteristics of blockchain that can be used to bolster cybersecurity, with focus on the distributed architecture of blockchain that creates resilience and the encryption transparency which increases the difficulty to tamper with the environment.

Aside from technological and political solutions, other proactive cyber defense and security strategies were recommended, including intelligence sharing, collaboration with regulators, government and industry and intelligent sharing platforms. With security planning, continuous exercise and practice, organisations will know what to do when a crisis happens. All speakers agreed that we need to rely on the people to help build our cyber defenses and everyone in an organisation plays a part in contributing to its security.







Hunt or be Hunted: Staying Ahead with Cyber Security

2.00pm

Speakers

- Barry Libenson, Global Chief Information Officer, Experian
- James Heinzman, EVP Financial Services Solutions, ThetaRay
- Mikko Hypponen, Chief Research Officer, F-Secure

Moderator: Jeffrey DiMuro, Chief Security & Compliance Architect, Salesforce

Key discussion points

The session started with a discussion around the phrase "knowing thy enemy, knowing yourself and your weakness". Knowing thy enemy is important in this ever-changing landscape. Threats can come from different places. These threats can be in the form of rogue attackers working for financial gains from data or just making a name from themselves or nation state attacks where the size and scale are significantly larger. Other than external attacks, insider threats may also come.

Many banks and financial institutions may not know their own infrastructure or process as well as they would need to. There has been increased complexity in how hackers are attacking these organisations. In certain instances, hackers are using supervised machine learning models and artificial intelligence to emulate normal business activities and these financial institutions are outmatched.

The enemy is ever-changing. The 1990s enemies of traditional virus writing hackers have virtually and have been replaced with organised crime gangs, nation states, extremist, terrorist and others. Organised crime gangs typically have a financial motive – they want to make money, so if it is too difficult, too slow or too expensive to hack, they will move on to an easier target. Organisations need to be aware that data is the new money. However, if the enemy is a nation state or intelligence agencies, they would be more persistent.

Unlike the bigger banks, smaller banks and financial institutions are often more of a target. These smaller banks and financial institutions have a smaller budget and really limited resources to defend against such threats. The financial services community needs to have a united front in defending against these attackers but is currently being restricted by government regulations in relation to sharing of information between banks.

Here, the session shifted to the topic of red teams - an independent group that challenges an organisation to improve its cyber defense effectiveness by assuming an adversarial role or point of view. If an organisation wants to know its exposure, it would need to attach itself, through the use of read teams, and constantly find ways to gain access to the organisation's own systems before the real attacks happen. This could be done by engaging external or internal red teams to test and find vulnerabilities in the system.

While red teams are effective, they were more like a "rifle shot" (in a point of time) form of review with a defined scope. Continuous monitoring can be done via unsupervised machine learning that is designed to find patterns of activity operating inside the network by looking at not only network traffic but also business activities so that breaches can be detected.

Regarding bug bounty programmes, there is limited value. Regardless of whether the bug bounty programme was done internal or externally, it has its ethical challenges and sensitivity of data access.

There could be an emotional impulse to retaliate. However it is not legal to do so. When the attack and the attacker have been identified, the first step would be to consult the lawyer on the legal action, and the alternative safeguards/damage control the organisation can put in place.







Collaborating to Combat Cyber Crime - Panel discussion 3.00pm

Speakers

- Clark Smith, Senior Vice President & Head of Cyber-Fraud Threat Management, TD Bank Group
- Steven D'sa, Director for Southeast Asia, Mandiant
- Steven Silberstein, President & Chief Executive Officer, FS-ISAC
- Sunila Shivpuri, Chief Security Officer, APAC, Deutsche Bank AG

Moderator: Steven Miller, Vice Provost (Research), Singapore Management University

Key discussion points

Cybercriminals today are targeting smaller organisations as well as large. The level of sophistication has increased beyond viruses and malware so firewalls and patching of vulnerabilities are no longer effective. AI is being used by malicious actors to synthesise voices, images and videos. The amount of information sharing between criminals has deepened. Insider threats are beginning to happen as criminals lure insiders to collaborate. APIs are opening new opportunities for criminals to penetrate organisational infrastructures. New technology entrants in FinTech could impact security. The impact of cloud on security is still unknown.

The main goal of fighting cybercrime is not only to stop the threat but also to find the actors and have them prosecuted. Although sharing of information is not the norm in highly competitive industries like banking, when it comes to fighting cybercrime, cooperation is the key to nabbing the perpetrators. Three effective ways of sharing information on cybercrime are sharing to the community (within data privacy laws), sharing from law enforcement (for example via a victim notification system) and sharing to the broader ecosystem.

National law enforcement is starting to collaborate worldwide and stepping in to fight cybercrime but there are challenges. Some organisations are more willing to share information with law enforcement than others. For effective eradication of cybercrime, organisations need to be more proactive in sharing information with law enforcement. Public and private partnerships can also work to educate society about cybercrime.

Regulators can also play their part to improve the situation. One dilemma organisations face is not knowing what and how much information they need to or are allowed to share. Organisations have also conveyed that the reporting process to the regulators can be cumbersome and painful.

With regard to human versus smart machines in combating cybercrime, they need to work hand-in-hand. For example, AI can be useful for data clustering, pattern recognition and automation of software-based network isolation but human intelligence is still required to detect false positives or negatives. The sophistication level of cybercrime will still require human intelligence to put together business and tactical contexts. Cybercrime can be overcome if all parties come together, understand and work towards the common goal.







Driving Cyber Hygiene and Portability in the Cloud

4.00pm

Speakers

- Chun Meng Tee, Executive Director Information Security Services, DBS Bank
- David Gurle, Founder & Chief Executive Officer, Symphony Communication Services
- Mark Johnston, Head of Security & Networking Specialists Asia Pacific and Japan, Google Cloud
- Myles Hosford, Head of Security Architecture ASEAN, Amazon Web Services

Moderator: Shong Ye Tan, Partner, PwC Singapore

Key discussion points

Cloud is an important technology trend for financial institutions. In recent years, there has been over 50% adoption with an increase in cyber hygiene. The session began with the speakers sharing the trends in cloud adoption.

Organisations have been moving applications requiring significant computation into the cloud to dramatically increase speed of risk computation, data analytics and modelling. More recently, some organisations are building entire technology stacks in the cloud environment. Additionally, core banking platforms, mission critical applications and customer data have started migrating into the cloud. It is believed that migration to cloud is inevitable with cloud trumping on-premise capabilities. Organisations that are starting cloud capabilities are training for their employees. Labour demographics are also evolving with graduates trained in cloud expecting to enjoy the same ease in their working environment.

There is a view that organisations need to understand the controls in place for their cloud services and evaluate their risk based on their confidence in the governance and access controls. Organisations need to understand the shared responsibility model including the boundaries of responsibilities and possible gaps in areas such as service level agreements and security. Due diligence is necessary to review and redesign their processes around their cloud strategy and put in risk mitigations that will determine the magnitude of cloud adoption.

It was stated that that there is no good portability available for now. As much as portability is the direction, we are a long way from being able to pipe services seamlessly between cloud providers or between cloud to on-premise. Furthermore, due to differentiation between cloud providers, lock-in does exist.

For essential services, organisations should take advantage of cloud services with careful evaluation. Organisations need to build their own safeguards and resiliency into the cloud service models as they alone are answerable to the regulators and their customers.

With regard to regulation for cloud services, at the moment, there are no specific regulations. However, cloud providers do provide assurance and compliance programmes to attain certifications and adhere to standards. Additionally, like other companies, they are regulated by local regulatory authorities.







Coral Triangle Stage: SMEs and Platforms - Trade without Borders

Digitise and Globalise – How SMEs and Platforms can change the World by Jane Lim, Assistant Chief Executive, Sectoral Transformation Group, Infocomm Media Development Authority (IMDA)

1.00pm

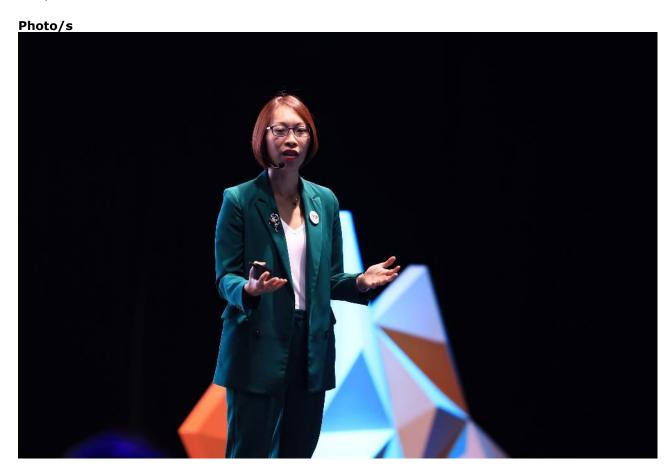
Key points

The advent of technology and growth of the internet economy in the region brings about huge opportunities and challenges.

To help SMEs, which are the lifeblood of ASEAN, capitalise on these shifts, Governments can partner industries to help businesses digitalise through schemes such as the SMEs Go Digital programme and nationwide e-invoicing Framework.

SMEs can also adopt the right platform strategies to connect with customers and optimise their supply chains. For example, they can consider a joint initiative by MAS and IMDA called Business sans Borders (BSB), which will allow SMEs to do these without having to leave their platform of choice.

With deeper digital integration, the region can expect exponential growth in the economy within the next few years.





Business sans Borders (BsB): The Journey Ahead

1.15pm

Speakers

- Ari Sarker, Co-President, Asia Pacific, Mastercard
- Rachel Barger, Chief Operating Officer Asia Pacific Japan, SAP
- Robert Tay, Cluster Director, Modern Services, Infocomm Media Development Authority (IMDA)
- Sameer Vakil, Co-founder & Chief Executive Officer, GlobalLinkers
- Tiong Gee Ng, Chairman, Yellow Pages Pte Ltd

<u>Moderator:</u> Eugene Goh, Deputy Director, FinTech & Innovation Group, Monetary Authority of Singapore (MAS)

Key discussion points

Business sans Borders (BsB) enables the buyer and seller by breaking down the entry barrier. However, the micro-SME (small and medium enterprise) needs to be educated and guided on the technology and digitalisation. One of the way is for the SME to register for a sandbox that had been built and see the requirements, the type of ongoing discussions and participants in the ecosystems, and they can test their solution. By doing this, the SME becomes an ecosystem player and they can offer their products and services to other SMEs around the world.

The SMEs had given the BsB the foundation and starting points and now it is the time to add on the technology layer and bring together these partners to build on that foundation. The government can help to drive the message and educate the SMEs.

In today's digital world, when we trade from one country to another, it is difficult to know the legitimacy of the business. There is a programme called Mastercard Track that brought millions of SMEs into a single platform and this could be something that the BsB needs to build so that the buyers and sellers know the credentials of the entity. Coupled with the learnings gleaned from retail payment, the capabilities of the BsB can be greatly enhanced.

It is important to listen to the constituents across the supply chain and understand their experience. Hopefully in a few years' time, the current issues are simplified and we will keep a nimble approach to the BsB. There would still be challenges such as cross border data sharing, local government policy and privacy. A framework of rules and governance are required to help facilitate the global trade.







The SME Growing Pains: Intimate Fireside Chat with Founders 1.55pm

Speakers

- Audrey F. Regis, President/Owner, Audrey's Confectioneries
- Janak Sarda, Managing Director, Deshdoot Media Group, Chief Executive Officer, Bluelogic
- Kelvin Teo, Co-Founder, Funding Societies
- San Joo Koh, Managing Director, iHub Solutions Pte Ltd

Moderator: Sameer Vakil, Co-founder & Chief Executive Officer, GlobalLinkers

Key discussion points

The discussion started with Small and Medium Enterprise (SME) stories, growth pains, and experiences they have had.

On the topic of SME growth stories, there is opportunity in the SME's funding market. Traditional lending is based on the cash flow or balance sheet and could not fufill SME's financing needs.

Another speaker highlighted opportunity in the media industry due to technological advancement in content creation and distribution.

On the topic of SME growth pains, they include low operating cost and working capital challenges. For example, one speaker shared that some SMEs had thousands of stock-keeping units (SKU) and keeping track of it was a pain point during the initial period. They also invested in brand new transport vehicles, which paid off in the long-run.

Another speaker shared his growth pain was the public perception that if you cannot get money from the banks, you must not be creditworthy.

Regarding the adoption of AI it depends on the problem - if it increases productivity and serviceability, then investment is justifiable.

In the closing remarks, speakers shared the following tips:

- Innovation is the key to survival
- Train to retain
- Take a calculated risk in all aspect







Remapping Trade Routes: The Impact of Trade Volatility on SMEs, Platforms and Supply Chain Management

2.35pm

Speakers

- Amlan Roy, Head of Global Macro Policy Research & Senior Managing Director, State Street Asset Management Division (SSGA)
- · Praveen Khandelwal, National Secretary General, Confederation of All India Traders
- Winston Nesfield, Partner, Strategy& (part of the PwC network)

<u>Moderator:</u> Robert Tay, Cluster Director, Modern Services, Infocomm Media Development Authority (IMDA)

Key discussion points

Today's markets indicate record policy uncertainty, driven by trade war tweets. Amid this volatility, investors are unable to take positions as they normally would. SMEs have a big say as they are the productive part of labour force and contribute to innovation, which disrupts the traditional modes of production. However, GDP growth and GDP per capita growth is low because innovation and productivity is low.

Every SME is a subject matter of their own business. However, SMEs have not been given due importance despite being their major contributors to their respective economies. In the case of India, SMEs contribute to 45% of national GDP without having any financial access and policies such as tax relief packages. As such, governments should support SMEs to ensure sustainable growth for their country. India has since introduced various initiatives such as Startup India to help innovators and startups, and Digital India for digitization. The goal is to uplift, modernize and upgrade SMEs.

Platforms link SMEs to capital markets. However, the day-to-day reality for SMEs is challenging and previous platform solutions are very targeted, which do not match the breadth and challenges that SMEs have to achieve the growth rates that countries want. Moving forward, there should be broader solutions.

When asked how platforms' objectives can be aligned to those of SMEs, another speaker responded that platforms have been indulging in predatory pricing, deep discounting, and inventory control. Platforms often brand themselves as marketplaces, and hence they should not have any interference in to the day-to-day activities in price mechanism. Through the incorporation of technologies with platforms, there will be better access to finance, credit tools, and knowledge sharing.

A question was raised on whether platforms can solve the funding challenges pertaining to financing SMEs. A speaker emphasised that transparency is key for platforms. Firstly, credit rating data is not publicly available. Secondly, on the platform itself, there are many value chain activities such as funding operations, and matching of buyers and sellers - if these valuable data assets are available on an application store for data, innovators can experiment new products and services. As such, there is a role here for the government.

The government also should consider the views of Trade Associations, Chambers of Commerce, and federations as they have on the ground experience of each respective market dynamics. In addition, the current objectives of platforms and SMEs are not in sync. As such, when a platform is created, the SMEs should be operationally involved in the beta testing of those platforms. Again, the government has a role to play.







What SMEs and platforms need to know – 2020 and beyond 3.10pm

Speakers

- Kok Poh Chin, Managing Director, SESAMi (Singapore) Pte Ltd
- Nikhilesh Goel, Co-Founder, Validus
- Santitarn Sathirathai, Group Chief Economist, Sea Limited
- Sundeep Mohindru, Chief Executive Officer, M1xchange

Moderator: Janos Barberis, Academic Board Member, CFTE

Key discussion points

The session started with each speaker sharing their views on what small and medium enterprises (SMEs) and platforms need to know, particularly in the Southeast Asia (SEA) region.

It was agreed that the SEA region has a very young demographic which is hugely entrepreneurial in nature – almost one in every four youth wants to become a SME business owner. The spread of technology, especially smart phones has helped the rise of mobile-focused e-commerce platforms, which enables the buyers and sellers to interact with each other directly.

Speakers then began to discuss the origin and evolution of e-commerce. Traditionally, e-commerce just meant online shopping, but today, many are trying to disrupt it by lending to businesses. This has led to the rise of procurement platforms, listing platforms (to list products and services), and ERP cloud platforms. Basically, anything where you can deliver or consume value is a platform today. For example, in Indonesia, online vegetable sellers (who sell door-to-door vegetables on a cart) are getting financing for five days. Another example is from India, where payments from large corporates to SMEs are often delayed, and hence, they go to platforms like M1xchange, which enable instant funding as well as discounted invoicing.

The discussion then shifted to e-commerce from a B2B perspective, where flexibility plays a key role just like in B2C. With global competition rising in this space, all SME platforms need to embrace this change to unlock the value in supply chain and release cash for financing.

It was also agreed that different SMEs have different levels of knowledge and comfort with digital tools. Some are digital savvy entrepreneurs who prefer digital tools for inventory management, while there are some traditional brick and mortar SMEs, or hidden entrepreneurs like simple homemakers, who are not that comfortable with this change, and require education to go digital. It is not easy for them to quickly learn it via online courses. It requires dedicated effort through offline workshops to educate them.

Next was the reason why traditional financial services institutions have not been paying enough attention to supply chain financing. It was agreed that traditional financial services institutions do not like making mistakes, while start-ups go with an attitude that they will make mistakes, and they will learn from them. Additionally, the incumbent banks do not like touching their existing processes or introducing new technologies just to support supply-chain financing.

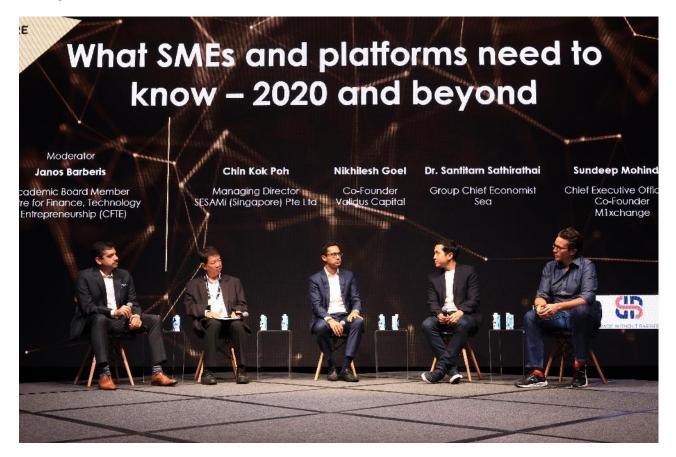
The topic then shifted to the role played by regulators in SME financing. For example, in India, where regulations have made it mandatory for large corporates to enroll into financing platforms, so that all SMEs get access, and eInvoicing becomes a new norm.

Another key success factor in this space has been the bundling of FinTech and SMEs which results in 3 key benefits:

- 1) Trusted Digital Asset: purchase orders, invoice and payment, all get offered to SMEs on a trusted platform
- Trusted lowest cost of funds: an ecosystem of investors has joined such SME platforms and helps lower the cost of funds in cross-border payments, buyer and seller ledger matching, early payment of work and services order, and so on.
- 3) Unlock supply chain to release cash: purchase and invoicing data is used to unlock value in the supply chain and release cash for financing. Localisation of such platforms is in every



new country or region in terms of language (for example, translation technology needed for facilitating direct communication between buyers and sellers using different languages), tax, product selection, cross-border elements, and so on.





Show me the Money: SME Financing Reimagined 3.50pm

Speakers

- Ankur Mehrotra, Managing Director, Head, Grab Financial
- David Simon, Senior Vice President, Global Head of Small Business & Medium Enterprises, Visa
- John Januszczak, President & Chief Executive Officer, UBX
- Neil Daswani, Global Head of Business Banking & Corporate Partnerships, Retail Banking, Standard Chartered

Moderator: Matthew Gamser, Chief Executive Officer, SME Finance Forum

Key discussion points

In general, small and medium enterprise (SMEs) find getting financing difficult. SMEs are unhappy and lenders have strong assessment criteria.

The speakers of this session are trying to overcome this through different mechanisms, either for themselves, or for their clients.

One point to note is that the speakers have different definitions of what qualifies as an SME. Grab's definition is the unbanked small stallholder types and owner-owned businesses. Grab's progression into financing was natural due to the income of its drivers and their ability to get loans. GrabPay is a form of credit and they provide loans to small merchants and offer simple commerce services.

In contrast, large companies such as Visa are now positioning themselves as a financial network rather than a cards company. They provide SMEs (of a different segment from Grab) the ability to sell anywhere with privacy and with the security of a well-established network.

UBX, the FinTech arm of UnionBank in the Philippines, is acting to address the needs of millions of SMEs in the country that contribute more than 60% of the country's GDP but find access to financing difficult. Standard Chartered has been doing SME banking for a very long time. They see partnerships and platform ecosystems as the direction, and creation of data pools and adjacent financing as an option.

It is agreed that data leveraging can bring down and mitigate transaction costs and underwriting. This is critical when providing the right environment and financing for SMEs. For different segments, enabling ease of cross-border flow of payments will also help, as well as understanding entire supply chains. The ability to look at SME supply chains and help financing is something that Standard Chartered is focusing upon.







East Meets West: Debt Capital for Asian Platforms

4.25pm

Speakers

- Aidil Zulkifli, Chief Executive Officer & Co-Founder, UangTeman
- Arvind Kodikal, Investment Officer (Venture Capital Fintech), Dutch Development Bank (FMO)
- David Z Wang, CEO & Co-Founder, Helicap

Moderator: Karan Bhatia, Chief Executive Officer, Lend East

Key discussion points

Speakers in this session come from different positions in the online digital lending space. Aidil Zulkifli, whose company is a certified online lender from Indonesia, provides instant short-term microcredit to consumers. Arvind Kodikal, who is from a venture capital team of a bank, contributed from an investor's view. Lastly David Z Wang, with his background working in large investment banks, built a P2P platform and tried to bring a fund management angle to this space.

Zulkifli started by sharing a lesson from his experience that the capital needs to come from institutional or high net-worth individuals, instead of the general public, otherwise it will hit a ceiling very quickly and impact the growth of the business.

Kodikal, coming from a different market, admitted that Southeast Asia (SEA) has a well-developed ecosystem for the online lending business. This region has a large portion of its population that is unbanked/underbanked that are suitably targeted by the online lending platforms. And, governments in the region are willing to try the concept with new technology. He was backed by Wang who raised China as a counter-example. China started this space more than a decade ago, but now suffers from the lack of regulations. The ecosystem also benefitted from a stable currency and growth across SEA countries. Moving on to talk about the challenges in this space, it was mentioned that the diversification from both lenders and borrowers could pose a challenge. Investors could expect variety of interest rate with the associated risk while borrowers could differ from individual to individual.

Experts with experiences in asset management and structuring should focus on addressing the diversification, alongside the adoption of new technologies like data and machine learning for risk management and real-time reporting.

Competition is another concern, as with more players emerging, the interest rate could fall, and lending platforms need to establish a sustainable business model eventually.

Lastly when it comes to social impact, it was acknowledged the positive impact on providing services to consumers that most banks are not willing to provide loans to, while be cautious to abide by privacy protection rules.



