“In what ways has innovation in digital banking influenced the banking sector of Singapore?”



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ABSTRACT

Since digital banking has become the trend in banking industry, we are really interested in it and that's why we are doing on the research about the effects of digital banking on financial sector in Singapore, and we want to know in what ways has innovation in the digital banking field influenced the banking sector of Singapore.

To achieve our target, we manage to do some research based on the articles from e-books and combine our work together. Also, we have done some interviews with some professionals on their thoughts about digital banking based on their knowledge and experience and do survey to collect the opinions from public. As the result, we get to know that they are related to digitalization versus digitization, microenvironmental changes, cybersecurity and digital marketing. In digitalization versus digitization, we got more information about Fintech and also the investment which stakeholders are now more concentrate on, in terms of digital banking. Next, we got to know that in what way had digital banking affected employees and consumers. Furthermore, we got that both banks and consumers are responsible in cybersecurity to prevent frauds.

Lastly, regulators and customers' experienced are covered by digital marketing ideas given by our interviewees. All In all, we got more information in digital banking and we believe that this could help start-ups, business leaders and Singapore government as their reference to understand this trend more because it helps to save their time for collecting opinions from others.

Chapter 1

INTRODUCTION

In our regional immersion project, we will be researching the effects of the evolution in the digital banking field on the financial sector of Singapore. In this topic, we propose on investigating what influence have recent developments in technology in the Finance industry had on its stakeholders. This research will therefore deeply delve into both the positives and negatives of e-banking.

Over the past five decades, the financial sector of Singapore has become a center of international repute and a home to over 1200 financial institutions. While these institutions offer a plethora of products and services to the locals, it also substantially contributes to those in the Asia Pacific region. (chow-tan, 2019)

"The main descriptors of the financial center in Singapore are: a pro-business atmosphere that is highly competent; an effective regulatory environment; exceptional infrastructure; and the accessibility to highly skilled and experienced pool of finance experts." (chow-tan, 2019) "Consequently, Singapore's banking system is one of the world's strongest. The sector is actively engaged in numerous financial services including the traditional depositing, withdrawal and lending functions as well as corporate and investment banking activities." (Ryan Woo, 2017)

In order to become a worldwide financial institution, Singapore has been developing at a substantial rate. Additionally, with the efforts of the MAS and Prime Minister Lee Hsien Loong, the technological segment of the finance industry

is at the peak and is steadily advancing. Due to this, Banking through Mobile, Social Media, Biometrics, Cloud, Digital Wallets, cryptocurrency and P2P Lending and Payments are very common.

The strong growth in the digital banking has made it imperative for banks to transform their existing operations into an omni-channel approach. Hence, provide the same banking experience to customers irrespective of the channel - be it web, mobile or physical branch. (Tham, 2017) Hence, there are several trends making a strong impact on the digital banking space. Some of these trends are relatively mature, whereas a few recent developments still have fairly low penetration or usage among banks.

While digital banking has grown and allowed day to day processes to become more efficient and less time consuming, it has also had negative implications. Currently, Singapore is factually the sixth-highest rated card fraud country in the world. It is essentially because of the risky behaviors of the public like leaving smart phones unlocked when not in use, shopping or banking online without security softwares, writing the PIN numbers on cards, responding to e-mail or calls asking for banking information, and throwing away un-shredded bank statements. (Wong, 2016) Furthermore, there was a total of $7.8m lost from trading with unlicensed platforms in 2017, which the reports received has increased from 40 to 142 incidents. It shows that fraud cases in 2017 had a figure of 255% higher than the figure in 2016. The unlicensed platforms are usually about foreign exchange, shares, commodities and binary options which people may be most likely to do transaction. It is true that digital banking is more convenient but there are lots of frauds on the other hand. Therefore, these cases made us want to further investigate into this industry and specifically digital banking. This led us to our

research question: **“In What Ways Has Innovation in the Digital Banking Field Influenced the Banking Sector of Singapore?”**

We chose this research question because it will allow us to deeply investigate both the shortcomings and the forthcomings of the digital banking trend. This is important because for an aspiring cashless economy like that of Singapore, digital banking may be the future. Furthermore, for such a developed economy with high advancements in all industries, a gap in online security is dangerous. Due to this, it is crucial that complications such as banking fraud through online platforms and hacking remain at a minimal.

Our research will therefore be thorough and hence use both primary and secondary sources. For the primary sources, we will do qualitative data collection as well as quantitative data collection. Our qualitative data collection will be carried out through interviewing those who are working in high position of both local and international bank in Singapore. We can get information like their opinion about digital banking and how they react to this trend. On the other hand, our quantitative data collection will be done with survey questions through public. By doing so, we can know the mindset of public in regards to digital banking and how digital banking has become popular in Singapore.

Secondary research will be another kind of data which is not directly collected from the original copy, fundamentally based on others’ scholarly works. For our secondary sources, firstly we can do some eBooks research. We can look for different topics we want which is related with digital banking with the sources from eBooks like ProQuest, EBSCOHost. After that, we will be combining the data we have collected, brainstorming to get more opinions to form another kind of

data collection. We can also refer to media coverage or news articles to get more information we need.

We believe that or research can be beneficial to many groups of people, which are individuals, industry stakeholders and government. First and foremost, individuals or business owners who are planning to invest can use our research to know more about digital banking in how it would help in investing and making the processes easier. They can also utilize our research as a reference for them to make a plan to establish a business in the financial sector. For those existing owners who want to update or familiarize with the latest technology trends, getting know more about digital banking through a completed research is an easier and faster way.

Furthermore, our research can also help Singapore government in investigating how digital banking have influenced the finance in Singapore. It is because our research includes both positives and negatives effect of digital banking and how it affects people life. This may also be a crucial way for government to get to know more about what people are thinking about digital banking and how it may affect the economy of Singapore. That is how our survey works in helping government, it saves time for collecting feedback or opinions from public.

Last but not least, our research can be useful for different industry stakeholders like pressure groups, NGOs, competitors and technological institutions. Pressure groups may know more about the threats of digital banking like frauds. For NGOs, they can also use our research to prevent frauds, and also try to gain advantages from their competitors in digital banking since this is one of the latest trends of banking. At last, technological institutions can use our research

to find out in what way they can try to help improve the system and security of digital banking.

Chapter 2: Literature Review

2.1 Industry Discussion

The Singaporean economy has boosted its efforts to become an international financial institution. This process has been evident for two decades now despite the fact that it isn't blessed with the focal points that other universal money related focuses have, it has figured out how to establish itself in a unique way. This was possible through the presentation of new budgetary instruments, the accessibility of aptitude and the wide range and a vast volume of monetary exercises executed using digital banking as a medium.

"The Monetary Authority of Singapore (MAS), the de facto central bank of Singapore, was instrumental in developing Singapore as a financial center." Since Singapore's independence in 1965, both the economy and the financial industry in specific have experienced high and sustained growth. Recent statistics provided are impressive given the unstable global environment. "Since 1965, Singapore's GDP has grown 32 times, whilst the financial (Finance and Insurance) sector has grown 280 times with a share of the GDP of 12.2% in 2011." It is therefore not surprising that the MAS have received well- deserved honors for its provident macroeconomic management. "The MAS (Monetary Authority of Singapore) has four ongoing goals to achieve: to develop Singapore

- as a regional leader in wealth management,
- as a global processing center,
- as the premier risk management center for the Asia-Pacific, and

· to create an attractive business environment for financial institutions" (Chow-Tan, 2019)

Due to this, "The growth of this sector averaged 13.6% p.a. as compared to the 8.1% p.a. overall GDP growth." (Lee & Phoon, 2014) And furthermore, "The financial sector also outperformed the overall GDP growth for 30 years out of the 47 years since Singapore's independence." (Lee & Phoon, 2014)

2.1.1 Key Players

When referring to the banking and financial sector of Singapore, the key players are, the Developmental Bank of Singapore, Oversea-Chinese Banking Corporation, Standard Chartered Bank and Citibank.

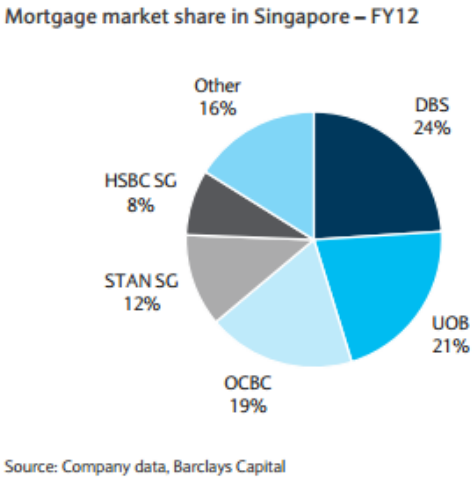


Figure 1: Mortgage Market Share

2.1.2 Developmental Bank of Singapore

Developmental Bank of Singapore was awarded as the World's Best Global Bank by the Global Finance in 2018. It has increased its international recognition and stature on the world stage by taking over larger and more established banks. Furthermore, DBS was also "crowned World's Best Digital Bank by Euromoney for the second time in three years."

The bank has transformed itself with a special combination of safety and innovation strategies to remain up to date and gone one step further to enhance the effortless banking experience. DBS's ideology strives towards delivering a digital platform for its customers as seen in image 1 from their online portal.

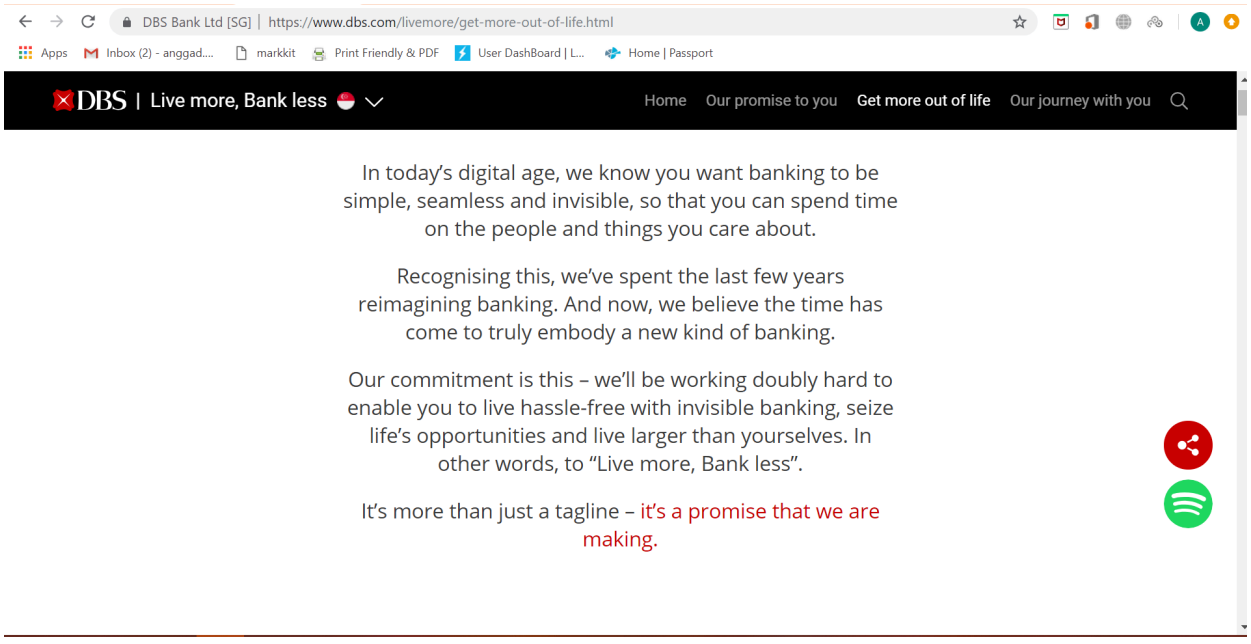


Image 1: DBS ideology

"Since 2014, DBS has embarked on a transformation program believed to be the most comprehensive for a bank, encompassing being digital to the core, journey thinking, culture change and a methodology that measures the impact of digitalization on its bottom line hence, giving weight to their motto of live more and bank less."

Furthermore, the bank also has 36 branches in Singapore with 26,000 dedicated employees that are actively engaged in ground-breaking innovations and making the banking process as easy and as efficient as possible.

According to DBS' business plan, their strategy is predicated on Asian megatrends. These include, developing inter- regional trade, urbanization, appealing to the middle class and rapid adoption of technology to fuel new innovations. Due to their growing presence in Singapore, Greater China, South and Southeast Asia, they aim to serve all customer segments and seek to intermediate trade, capital flow and support wealth creation in Asia. Furthermore, DBS has also begun to engage individuals and SME's through digital strategy and leverage digital technologies to extend their reach and growth market outside Singapore.

2.1.3 Oversea-Chinese Banking Corporation

The Oversea-Chinese Banking Corporation was founded out of the Great depression through the merger of three banks in 1932. These banks were the Chinese Commercial Bank Limited (incorporated in 1912), the Ho Hong Bank Limited (incorporated in 1917) and the Oversea-Chinese Bank Limited (incorporated in 1919).

The bank defines its purpose as a bank that helps individuals and businesses throughout all communities to achieve their goals through provision of innovative services that meet everyone's needs.

Being one of the oldest and largest local banks, OCBC helped has helped tremendously in shaping Singapore's economy and taken part in various mergers and organic expansion. Furthermore, OCBC also integrates various values amongst its stakeholders and promotes teamwork, integrity, prudent risk taking and effectiveness. OCBC also promotes "fair dealing" by forwarding the ideology of integrity whilst conducting transactions. Due to this, the bank is widely respected and trusted by its consumers.

Furthermore, they have partnered with other bigger banks – DBS and adapted NETS FLASHPAY in order to carry out cashless transactions for transportation and general use. Hence knocking out its competition and colluding with its biggest competitor in order form a cashless monopoly in Singapore.

2.1.4 Standard Chartered Bank

Standard Chartered started its digital transformation in 2015 and slowly become one of the most commonly used banks for online transaction in Singapore. It is also one of the first banks which start its own innovation lab and Xccelerator in Singapore. "The objective of this lab is not to become a fintech company, but to work with our clients, understand their problems and seek new ways of solving them," said Judy Hsu, regional CEO for ASEAN and South Asia at Standard Chartered, via IBF Singapore. (Fintech and Digital Finance Innovation Initiatives of Banks in Singapore, 2018)

The digital banking of Standard Chartered shows the summary of users' accounts and also view up to 360 days transaction history for users' deposit account, (Features, n.d.) so people can track their transaction history back in almost one year as the proofs to protect themselves from scamming or other crimes. Furthermore, since Standard Chartered is international bank, users can link their accounts worldwide, making transactions locally or internationally between Standard Chartered bank accounts or any GIRO participating bank accounts will not be a problem for its users. That is also the main reason why Standard Chartered is so commonly used by foreigners.

2.1.5 Citibank

Citibank focuses more on mobile as it has more than 70% of its users are using Citibank's online banking services, which means there is a huge demand from Citibank's users in digital banking. Citibank plans to enable its users to check their account balance faster and easier, and also be able to apply for credit cards online. Han Kwee Juan, the chief executive officer of Citibank Singapore, said: "Everything we build within the bank will be pivoted towards ensuring that it works on mobile." (Lee, 2016) Besides, Citibank provides wealth advisory tools for its users as a reference in helping them to set up investment goals according to their risk tolerance, amount of capital and their investment time horizon.

Citibank has also launched an application which is called Citi Pay. It is basically a digital wallet for mobile phones so it will be easy for the users to make payment online whenever they want and wherever they are, as long as they are connected to the internet and logged into their account. Not only Citi Pay, Citibank

has also launched a natural language chatbot on Facebook Messenger which is called Citi Bot. By searching "Citi Singapore" in Facebook Messenger, people will be able to get information they want like account balances, transactions, credit card bill summaries, point balances or other basic questions. "Our strategy is to be present where our customers live, work, and play by connecting with them on Facebook Messenger, one of the most popular social platforms in Asia." Said Felimy Greene, the Customer Franchise Head for Citi Asia. (Citi Launches First Facebook Messenger Banking Chatbot in Singapore that Provides Customer Account Information, 2017)

2.2 Worldwide context

The banking industry, over the years has seen its fair share of fluctuations. Amid recessions and economic booms, technological developments and ideological changes, the ways in which transactions are carried out have shifted dramatically- and the same can be said about the future. "Big disruptions – many of them driven by technology – are poised to rock the banking industry in the very near future." (Council, 2017)

The banking sector, all around the world is striving to become more advanced and portable. This is evident in both developed and less developed parts of the world. There has been an exponential increase in transactions from mobile phones due to developments such as Apple Pay and Samsung Pay. ". Between 2014 and 2017, this has contributed to a rise in the share of account owners sending or receiving payments digitally from 67 percent to 76 percent globally, and in the developing world from 57 percent to 70 percent." Furthermore, 69% of adults – 3.8 billion people now have an online mobile or bank account. Hence, providing a critical pathway for escaping poverty.

Many are already there: According to Oracle, sixty-seven percent of clients universally are on digital banking stages now. The World Bank reports that “515 million clients worldwide opened a banking account through a portable money supplier in the last three years.” While conventional organizations still appreciate an occupant trust advantage over competitors, the Oracle survey noted banks lag when clients look for other option: Customer experience, the study stated, is becoming a reason for determining which banking option customers will opt for.

The expanded domination of digital banking has opened customers up to elective suppliers, as well with over 30% of respondents expressing that they would consider giving banking fintech a chance. Overall, the rise of digital banking is resulting in more access globally, with 140 million unbanked people opening their first-ever account to get digital payments in 2017.

The preference for fintech options is increasing regardless of various millennial focused digital banking apps or tech. “Over 30% of its global survey respondents said they have never used a challenger bank or fintech but would be open to banking with one.” “Over 30% of survey respondents mentioned that they are open for using fintech even if they are completely oblivious to it.” (Din, 2018)

The digital revolution in the banking industry seems to be in full swing. The largest credit organizations have implemented convenient online solutions and Internet banks, and a 35% of citizens of developed countries are already actively using them.

It would seem that progress is evident, and then you need to expect only more. But in fact, there are a number of problems and intractable diseases of digital banking, which still hinder the full transition of service to the figure.

A year and a half ago, in January 2017, the clients of the largest British bank Lloyds Bank experienced serious problems with online service. For three days they could not complete transactions and even check the status of the account in the mobile application. The official press release talked about "hopping failures" in the system of Internet banking. The problem was resolved, but the incident forced to talk about the unreliability of the entire digital banking architecture and related applications. But in 2015, Lloyds cut 9,000 employees and closed 150 branches in order to actively develop Internet banking.

Digital banking is popular and popular, research says. Thus, a survey conducted by Visa among 36,000 Europeans showed that mobile payments and online banking are used by 91% of the population of Turkey, 89% of the population of Denmark, 87% of the population of Norway, 86% of people in Sweden and 87% of the population of Israel.

2.3 Singapore Context

Two decades have gone since Singapore propelled critical moves to create as a money related focus. Despite the fact that it isn't blessed with the focal points that other universal money related focuses have, it has figured out how to procure a spot on the world budgetary map. Its status as a monetary focus can be prove by the nearness of establishments of worldwide notoriety, the presentation of new budgetary instruments, the accessibility of aptitude and the wide range and vast volume of monetary exercises executed in the Republic. One intriguing point important is that the quick money related improvement harmonized with monetary changes as financing costs and trade control advancement. Promoters of the monetary restraint hypotheses may credit such exceptional accomplishments to money related progression. Anyway, development in the money related part

likewise ran connected at the hip with both local and local financial development. This raises the likelihood of a causal connection among monetary and money related development. The reason for this paper is to think about the money related approaches of Singapore, its attributes and troubles confronted and furthermore to decide factually the conceivable components that add to Singapore's monetary improvement utilizing time-arrangement information investigation.

Development of the monetary segment has been one of the key supporters of national financial development of Singapore. The budgetary area developed by 4.5 percent in 1992, contrasted and 2.9 percent in 1991. The enhancement was expected incompletely to a recuperation in seaward loaning exercises by monetary foundations in Singapore. This was in accordance with the upturn in worldwide keeping money exercises after a time of solidification. The budgetary segment's extension in 1992 was likewise fueled by a sound development in hazard and reserve the executive’s exercises.

Dissimilar to numerous other free enterprise monetary focuses on the planet, Singapore's budgetary advancement was a considered vision purposely supported in a developing economy which appreciated political steadiness and was made do with managerial adequacy. Before the 1970s the budgetary division only satisfied an auxiliary job. Anyway, the acknowledgment of its potential as a noteworthy development in its own correct prompted the plan of a cognizant improvement methodology to change Singapore into a budgetary focus not exclusively to serve the household economy yet the district and past.

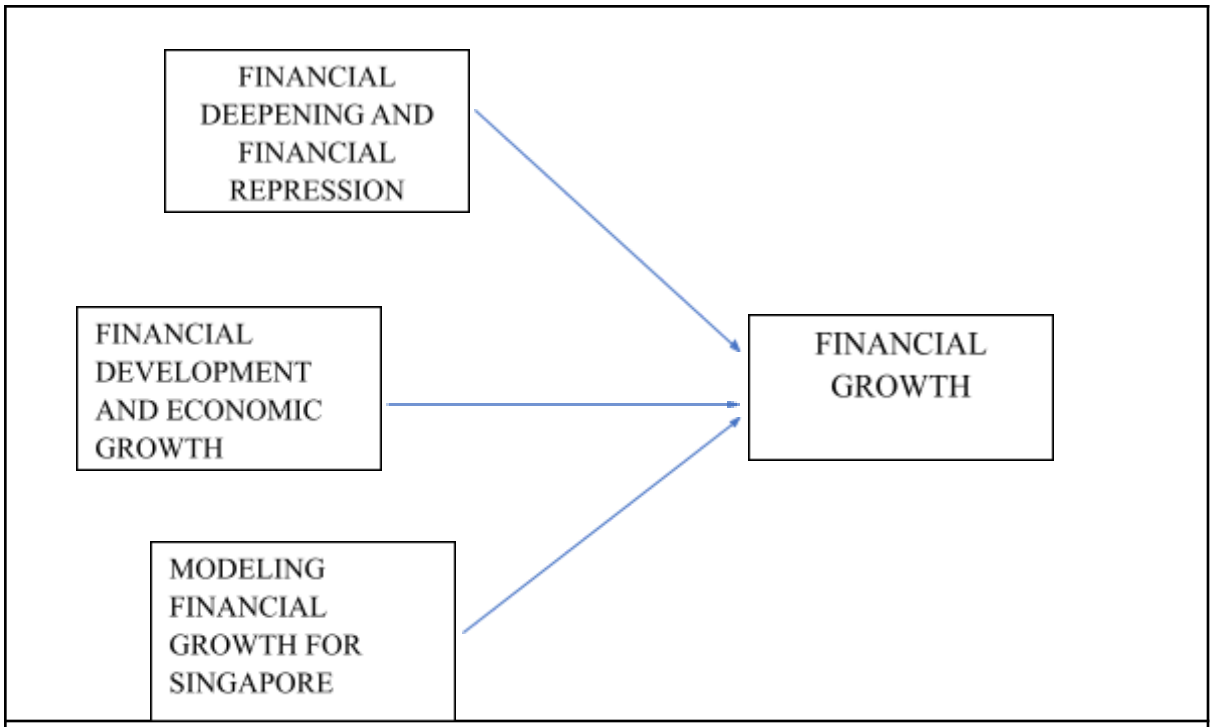


Figure 2: MODELING FINANCIAL GROWTH

The recent decades have seen fabulous budgetary advancement in Singapore. The money related framework as it is today is considerably more modern contrasted with what it was two decades back. Enhancement in the money related framework has encouraged the stream of assets into the economy and extended the extension for different financing exercises. The money related framework is moderately free of confinements. The directions which do exist are to a great extent to guarantee that money related organizations are judicious in their tasks and that investors are ensured.

Three essential destinations of the legislature monetary approaches can be distinguished: advancing Singapore as a money related focus, keeping up a division fence to protect certain residential budgetary exercises from global impacts, and ensuring the soundness and strength of money related go-betweens.

Every objective has been concurred high need, however pressures between the three destinations represent a proceeding with predicament for the Singapore government.

The imperatives looked in directing fiscal arrangement and the predicament emerging out of the three essential targets of the money related approaches represent extra issues for the administration. In any case, Singapore has risen as a local budgetary focus; monetary development in Singapore in the previous two decades has been significant. With the world step by step dealing with the issue of universal norms for the control, tax collection and the supervision of monetary foundations, the Singapore specialists ought not disregard these more drawn out term issues as they outline their approaches in the short run. As one of the major money related focuses in Asia, Singapore will have comparing vital duties regarding adding to the advancement of a fitting arrangement of principles for the world budgetary framework.

2.4 SWOT

2.4.1 STRENGTHS:

1)Singapore's banking system is strongest in the world

The Singaporean banking system is engaged in a wide range of financial services including traditional lending and deposit-taking functions as well as corporate and investment banking activities. There are more than 110 commercial banks,47 merchant banks and 3 financial companies with total assets of more than S$413 billon. Which increases the employment rate Singapore and maintain the per capita income.

2) Singapore has the fourth largest foreign exchange market in the world

Singapore has the largest foreign exchange after London, New York and Tokyo. The banking sector of Singapore is highly recognized for its strengths in the forex trading hub. The daily trading volume is around S$156 Billion as recorded in 2004. Which helps to increase the GDP of the country.

3) Premier asset management centre

Singapore has 200 international asset management firms, including 30 of the top 50 US and European fund houses, to serve the Asia-Pacific market. Which will help to increase the foreign trade relations, increase in employment.

4) First demutualized, integrated securities and derivatives exchange in the Asia-Pacific.

SGX's derivatives exchange is one of the largest in Asia. SGX's derivatives market is also the first Asian exchange to offer Eurodollar futures. By 2004, a total of 462 companies were listed on the mainboard and 163 companies were listed on SESDAQ.

2.4.2 WEAKNESSES:

1) Slow Loan growth

The issues of slow loan demand and vulnerable asset quality were front and centre for the local banks in the third quarter as the commodity crunch and economic headwinds continued to pressure corporate and consumer borrowers.

2) Weak Asset quality

All three banks stressed that their oil and gas exposure posted no systemic risks, but OCBC's move to restructure its loans to firms pushed up its NPL ratio. UOB's increase was also mainly from two customers in the oil and gas and commodity sectors.

3) Slow domestic manufacturing industry

The report comes as data from the Monetary Authority of Singapore Thursday (June 30) showed total bank lending in Singapore contracted for the eighth straight month in May, falling by 0.7 per cent year-on-year to S$592.8 billion, compared to the 0.8 per cent fall in April as loans to businesses fell.

2.4.3 OPPORTUNITIES:

There are several opportunities in digital banking industry in Singapore, which are basically upskilling the technology, attracting new users and stimulating the growth of the current banks. First of all, since digital banking has become the latest trend of banking industry, banks in Singapore should adapt this technology by learning. Tom MOUSHAN, KPMG's Head of Customer & Growth Practice for the ASEAN region, said that there is absolutely no shame in learning and leveraging in others' skills and creativity. (Estaura, 2015) Learning is an unavoidable path to grow and provide better service to the users, that is exactly one needs to do. If the banks can adapt the latest technology successfully, they will have absolute advantage against those which haven't or failed to adapt to this trend. Digital banking services mean convenience and efficient, so bank users do not need to go to the bank just for transactions. By doing so, users' desires will be fulfilled, and the particular banks can build up good reputation among their users, attracting some new users at the same time. In the long run, the banks should be

able to have a stronger position in the particular host countries comparing to those banks which do not come with digital banking services.

2.4.4 THREATS:

1) **Cyber-attack can spark a run on banks: MAS**

Cyber-attacks reduce the trust of the customers and can affect the Singaporean banking sector as a whole. It comes on the back of guidelines the Association of Banks in Singapore released earlier this month that aim to strengthen the financial sector's cyber resilience. (Wei, 2018)

2) **Increased Transparency and Visibility**

The economic panics and highly publicized corporate fraud cases of the 21st century have enacted some sweeping changes in the business world in a relatively short amount of time. The primary effect has been greater scrutiny of corporations from many angles - government regulators, the media, the public and investors.

3) **The Risk of Complacency**

One of the biggest risks to the finance industry of Singapore is complacency. The marketplace continues to change quickly around us, a steady string of positive financial results lulls many banking executives into a false sense of comfort.

2.5 Factors, initiatives and strategies

Fintech is to provide and enhance financial services through innovative technology. Fintech products are basically platforms which offer payment and fund transfer solutions, which have greatly contributed in stimulating the growth of digital banking industry in Singapore. They make the transactions faster and easier,

providing the most convenient way for public to use, that is why people prefer Fintech product and Fintech has become the latest trend in financial services.

"Singapore's fintech sector has been a great growth story with more than 400 fintech firms in the country and a lot more being added every year." said Mr. Varun Mittal, ASEAN fintech lead at global professional services firm EY, on Singapore fintech sector. (Tay, 2018) Because of the convenient of it, the reliance of public creates a great opportunity in the fintech space as there is a huge demand from them. The potential within it makes the banks in Singapore start to adopt the latest technology in banking sector, boost up digital banking industry in Singapore.

Some may worry about fintech will take away current banking jobs, but to harness potential growth in the finance industry, Singapore government detailed a target of 3,000 net jobs created annually in financial services industry, and also 1,000 in fintech alone. (Tay, 2018) Even though it may cause impact on the traditional business models, but if workers can adapt to the new technology, they should be able to do well and overcome the threats from the growth of fintech, as well as digital banking.

On the other hand, initiatives have also been put in place by Singapore government to stimulate innovation and help the established banks or fintech start-ups to experiment with new technology in a safe space in order to keep Singapore's financial services industry ahead of the curve. (Tay, 2018) The FinTech Office, a virtual entity comprising various government entities, is established in May 2016, it advises nascent fintech firms on various fintech-related

government grants and schemes and helps them to navigate the regulatory requirements in the finance industry. (Tay, 2018) It succeeded in helping local and overseas fintech companies to set up their own shop in Singapore, making the financial growth of Singapore be able to catch up the latest trend of it.

Mr. Liew Nam Soon, EY's managing partner for financial services in ASEAN once said: "In Singapore, we anticipate adoption to increase 56 per cent……as awareness increases, and the users gain greater comfort towards conducting financial transactions digitally. This is not surprising, given the vibrant fintech ecosystem – support from customers, access to talent and capital, and governance." (Tay, 2018) It shows that why innovation has influenced the banking sector of Singapore: the need from the public and the convenience of the fintech create this trend.

There are several popular banks which comes with digital banking platforms in Singapore, which is brought by Standard Chartered Bank (SCB), DBS, United Overseas Bank (UOB), Maybank, The Hong Kong and Shanghai Banking Corporation (HSBC), Citibank and Overseas Chinese Banking Corporation (OCBC). Out of these 7 banks, SCB, UOB and DBS are the most successful in digital banking industry so far. (Best of Seven: Internet Banking Platforms in Singapore, 2012) Each of them has different advantages and disadvantages comparing to the others, and here comes the strategy of them.

SCB comes up with a goal of becoming one of the major digital platforms for people in Singapore, so they always keep developing and slowly become an important part of its clients' daily lives. During 2017, SCB comes up with a "SCB

Transformation" project, which leads to the success of it in digital banking industry. "SCB Transformation" project includes three main processes, which are upgrading technology for the digital age, improving the workflow process at every stage and opening future-oriented service centers for customer service. The result of it is the creation of SCB Easy App, which provides more convenient financial transactions and also having QR Code system adopted in it. (Going Upside Down, 2018) This indeed stimulates the growth of cashless society.

For UOB, it is actually deploying new digital services, which are mobile-based bank for millennials and Gen-Zeds, and also extend the digital reach to its existing customer base. It's impossible to get the market of young people, who have the latest technology as their comfort zone, with a traditional web-based banking service. That's why UOB decides to launch a mobile bank: it suits more to people's need nowadays. (Khoo, 2018)Especially millennials and Gen-Zeds, people are tending to use more convenient devices like mobile phone to do everything, including banking. UOB also plans to define their history digitally, which means expanding the partnership list and turn these projects into revenues and growth.

DBS approached everything through the filter of disruption and technology, which helps it to be able to keep track on the trend of digital banking. "The best way to fight disruption is to pre-empt it and disrupt ourselves." Said the chief executive Piyush Gupta. It is tied with Apple Pay, Samsung Pay and also launched its own Paylah personal wallets for public use which is really convenient and has attracted lots of users in Singapore. (World's Best Digital Bank 2018: DBS, n.d.)

Their statement is that people will not move from DBS if it is easier to pay with DBS, and they indeed makes it comes true because they get more than 80,000 Paylah personal wallet users in Singapore by adopting itself with the trend. As a local bank, it is really successful in attracting local users as they know the most about what people need.

2.6 Next Steps

Now that we have finished collecting data from secondary sources, we will move on to the collection of primary data. This will be done through the use of personal interviews with individuals that work in the industry and understand firsthand, the problems and their solutions.

We will also use this opportunity to truly understand the different functions of a bank in Singapore and how the processes are different when it comes to local banks in comparison to international ones. Furthermore, this insight will also help us answer our main research question about digital banking and how it has affected the banking sector in Singapore. In the next chapter, the interview process, sample questions and the data collected can be found.

Chapter 3: Methodology

3.1 Data Collection Process

To gain a better understanding of the digital banking sector of Singapore, and to answer our research question, "In What Ways Has Innovation in the Digital Banking Field Influenced the Banking Sector of Singapore?" we conducted both primary and secondary research. For secondary research we have gathered statistics and real-life examples from reliable news sources such as Straits Times, Forbes, Singapore Business review and journal articles. We also used websites of the selected banks for reference- DBS, OCBC, Citibank etc. Through these we learnt about the developments and evolution of the industry in the country.

For Primary research, we conducted four interviews – Mr. Vivek Nair, a senior vice president at CitiBank Singapore. He specializes in digital banking products and services. Then, Mr. Nawin Singh who is an SEO at Standard Chartered Bank but also worked in DBS earlier. He gave us insight on digital marketing and the consumers perspective when it comes to Banking. Plus, since he worked for the digital banking division in DB, he was able to compare the two. Third, is Mr. Atin Bhutani. He is the CEO of Global Incorp which is a financial services firm that other companies and individuals outsource financial services from. Finally, we also interviewed a Russian international businessman- Mr. Cherman Dzotoev. He has international digital banking experience and has also lived in Singapore and worked here. Through him, we learned about how digital banking is different in comparison to the world.

Furthermore, we also conducted one survey through which we gathered people's opinion on digital banking services and the problems that they face in their day to day lives.

By conducting both Primary and Secondary research, we were able to fact- check our research and gather insights and comprehensive information about the problems and functions of the digital banking system which helped us come up with our themes, subthemes and recommendations in the next sections.

3.2 Query Letters

In order to obtain interviews, we sent out query letters from our professional S.P. Jain email accounts to the target interviewees and respective organizations and institutions.

We also had extensive communication through phone calls and text messages as per the convenience of our interviewees.

Below is our query letter format:

Dear ---- ------,

Good day. My name is Anggad Khaneja, a business undergraduate student from SP Jain School of Global Management. I, together with my coresearchers, Kar Leong Loh, Suleiman Bai, Vansh Baweja and Shashank Pacheriwal are conducting a research for our Regional Immersion Project about developments in digital banking and effect on the industry as a whole.

We are conducting research primarily on fintech and E-Banking systems and we believe that you and your organization are experts in the Digital Banking industry. If your schedule permits, is it possible to schedule a short interview with you about your line of work? It will only last for about 15-30 minutes and should not exceed beyond this range.

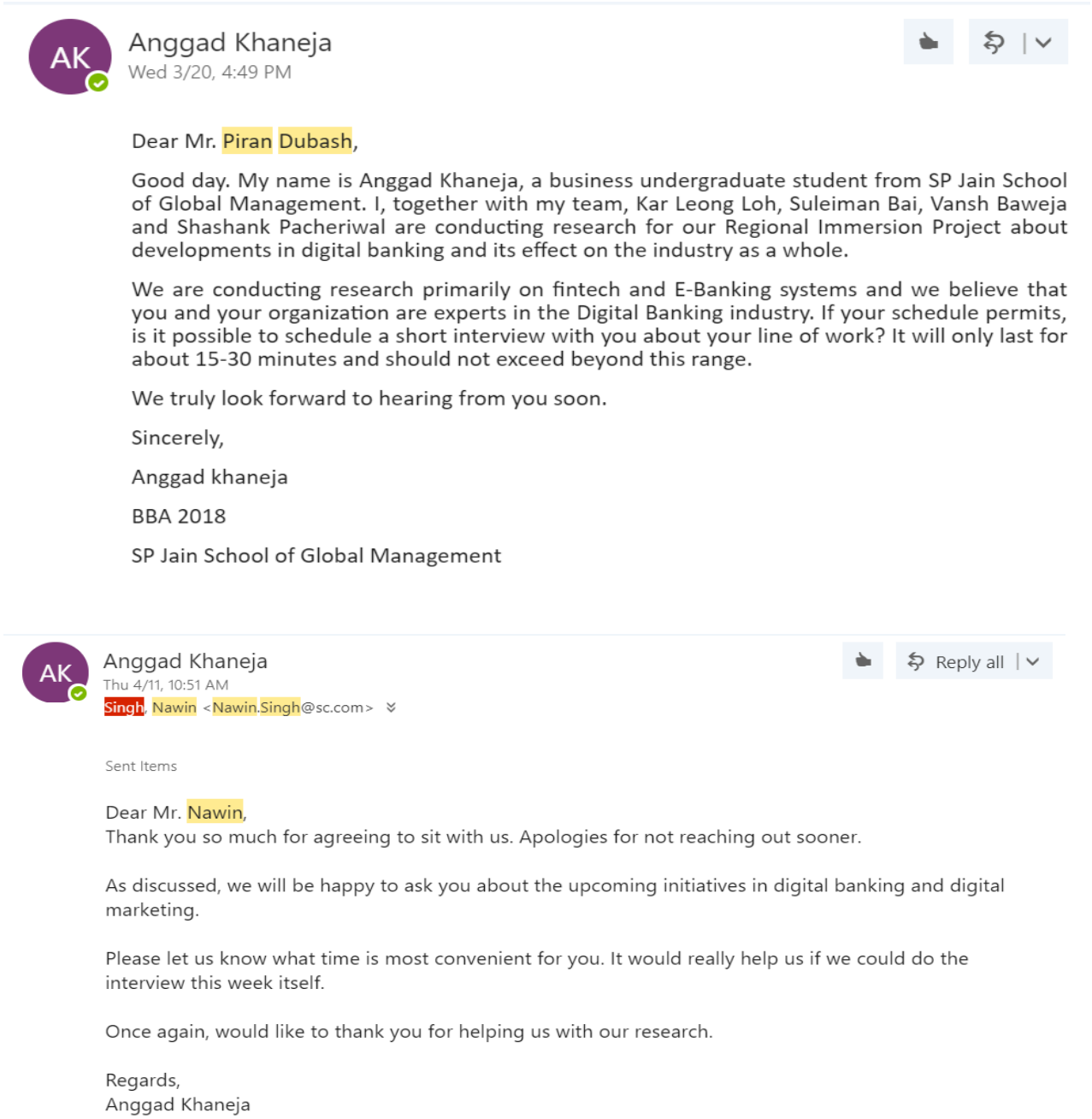
We truly look forward to hearing from you soon.

Sincerely,

Anggad khaneja

BBA 2018

SP Jain School of Global Management



AK

Anggad Khaneja

Wed 3/20, 4:49 PM

Dear Mr. Piran Dubash,

Good day. My name is Anggad Khaneja, a business undergraduate student from SP Jain School of Global Management. I, together with my team, Kar Leong Loh, Suleiman Bai, Vansh Baweja and Shashank Pacheriwal are conducting research for our Regional Immersion Project about developments in digital banking and its effect on the industry as a whole.

We are conducting research primarily on fintech and E-Banking systems and we believe that you and your organization are experts in the Digital Banking industry. If your schedule permits, is it possible to schedule a short interview with you about your line of work? It will only last for about 15-30 minutes and should not exceed beyond this range.

We truly look forward to hearing from you soon.

Sincerely,

Anggad khaneja

BBA 2018

SP Jain School of Global Management

AK

Anggad Khaneja

Thu 4/11, 10:51 AM

Singh, Nawin <Nawin.Singh@sc.com>

Reply all

Sent Items

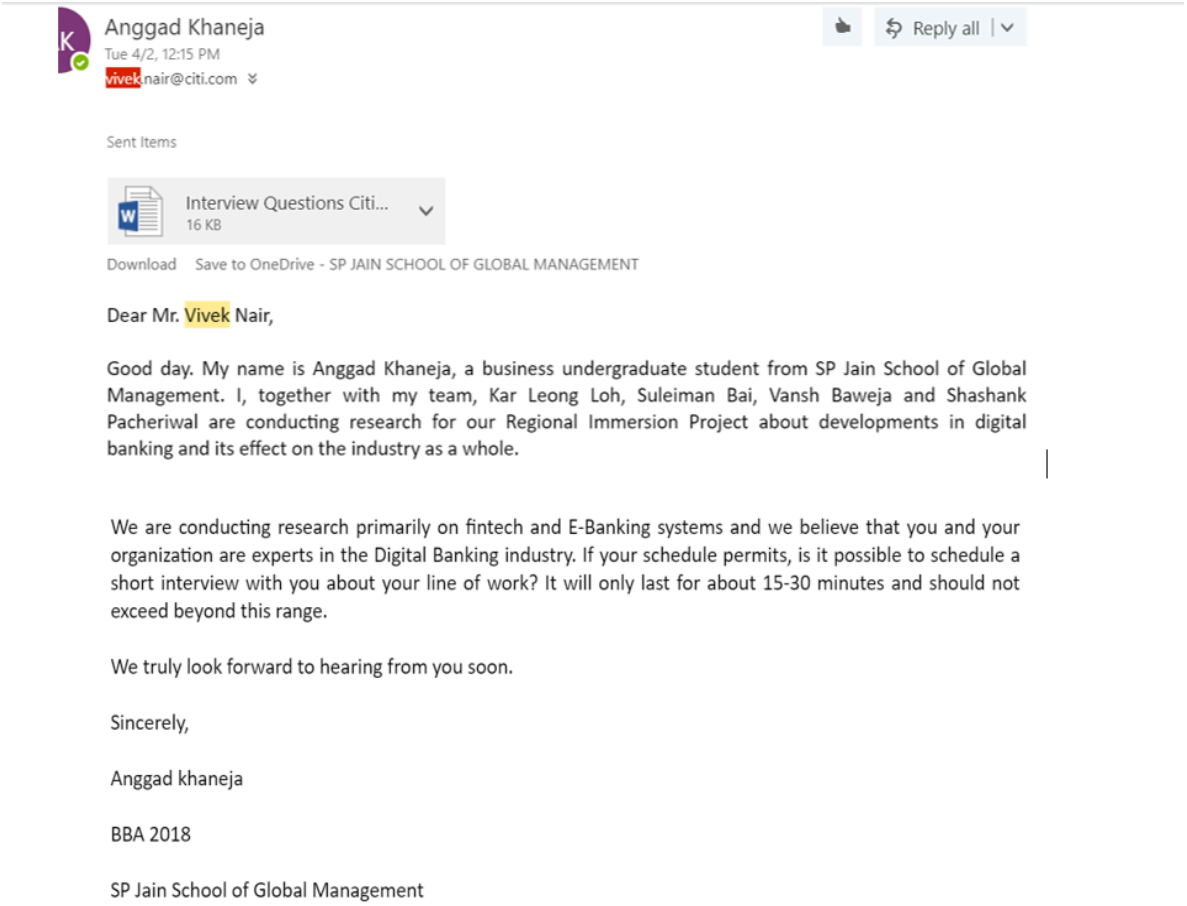
Dear Mr. Nawin,
Thank you so much for agreeing to sit with us. Apologies for not reaching out sooner.

As discussed, we will be happy to ask you about the upcoming initiatives in digital banking and digital marketing.

Please let us know what time is most convenient for you. It would really help us if we could do the interview this week itself.

Once again, would like to thank you for helping us with our research.

Regards,
Anggad Khaneja



Anggad Khaneja
Tue 4/2, 12:15 PM
vivek.nair@citi.com

Reply all

Sent Items

Interview Questions Citi...
16 KB

Download Save to OneDrive - SP JAIN SCHOOL OF GLOBAL MANAGEMENT

Dear Mr. Vivek Nair,

Good day. My name is Anggad Khaneja, a business undergraduate student from SP Jain School of Global Management. I, together with my team, Kar Leong Loh, Suleiman Bai, Vansh Baweja and Shashank Pacheriwal are conducting research for our Regional Immersion Project about developments in digital banking and its effect on the industry as a whole.

We are conducting research primarily on fintech and E-Banking systems and we believe that you and your organization are experts in the Digital Banking industry. If your schedule permits, is it possible to schedule a short interview with you about your line of work? It will only last for about 15-30 minutes and should not exceed beyond this range.

We truly look forward to hearing from you soon.

Sincerely,

Anggad khaneja

BBA 2018

SP Jain School of Global Management

3.3 Interview Questions

Since we interviewed different banks with varying policies and initiatives, some of our interview questions were different. We made a set of general questions and some specifics for each. Furthermore, since two of our interviewees were not directly related to the financial sector of Singapore, we had different questions for them too.

3.3.1 General Questions

1. What are some of the core values that you think every business leader/ manager should have?

2. According to you, what are the key factors that lead to success?

3. What are your thoughts on business equality and fairness?

4. What are some of the values and beliefs that you live by?

5. What is your bank's policy for digital banking?

6. What changes have been made in your company in order to adopt digital banking service?

7. What were the difficulties/dilemma your company, specifically the employees met in order to adopt to the digital banking service at first?

8. What did you think about user's reaction at first? Was it just as you expected?

9. In what ways has your comapany gained an advantage in comparison to its competitors through the digital banking industry, specifically other international banks?

10. What about the same when it comes to local banks such as DBS and OCBC who have made a joint effort in attracting customers through Flashpay and NETS?

11. Which group of people has the most ratio in using digital banking service from your company? Can you describe the status and usage of digital banking in Singapore?

12. How do you secure your users from digital banking threats such as hacking and online scams/frauds?

13. How should people protect themselves from digital banking fraud? What kind of insurance people should have to open a digital bank account and why?

14. What kind of new digital banking services or features would you like to provide your customers in future?

15. What do you think about the future of digital banking industry? In what will it be improving?

16. What are some of the current projects at your comapny and how will they effect the digital banking industry?

3.3.2 CitiBank Questions

1. According to Mr. Han Kwee Juan, the Chief Executive Officer of Citibank Singapore, "Everything built within the bank will be pivoted towards ensuring that it works on mobile." To what extent do you agree with this statement and can you give some examples of such products and services?

2. Citibank is also actively involved in Social Media. What are some of the advantages and disadvantages when it comes to social media networking and why?

3. Finally, has the evolution of digital banking systems create more jobs than it has destroyed?

3.3.3 Standard Chartered Questions

1. What are some of the current projects at Standard Chartered's eXellerator and how will they effect the digital banking industry?

2. Standard Chartered has partnered with DBS Bank and Singapore's Info COMM Development Authority (IDA) to successfully complete a proof of concept (PoC) delivering the first ever application of distributed ledger technology which enhances the security of trade finance invoicing. Can you please elaborate on this statement? By when does the bank plan on implementing this?

3. What is Standard Chartered's martech policy? How have consumers reacted to it?

4. Is digital marketing more effective than traditional marketing for banks?

   Follow up- since banks always advertise personalized care- how does digital marketing ensure that?

5. Through our research we have discovered that even though digital banking is as easy as a single tap on the phone for consumers, it's a lengthier process for bank employees. Is that true for Standard chartered?
6. Citibank and DBS are heavily investing into mobile banking in comparison to internet applications- Is the situation similar for Standard Chartered? What is different?

3.3.4 Global Incorp Questions

1. Can you start with an introduction of the company?
2. The first question, what is global incorp. Policy for digital banking?
3. what changes have been made in your company in order to adapt digital banking services?
4. what were the difficulties faced by our employees in order to adapt digital banking?
5. in what ways has incorp. Group gained an advantage in comparison to its competitors through digital banking industry.
6. what do you think about DBS or OCBC making joint affects and attracting customers through launching Flash Pay and NETS?
7. can you describe the usage of digital banking in Singapore?
8. how do you secure all your users from digital banking threats such as hacking and online frauds?
9. So what do you think the steps consumer should take to protect themselves from banking fraud?
10. what kind of new digital banking feature can banks provide in future?
11. we would like to know about your success story. Like first you used to work in HSBC, then you came here and you're the CEO of the Company so share your experience?

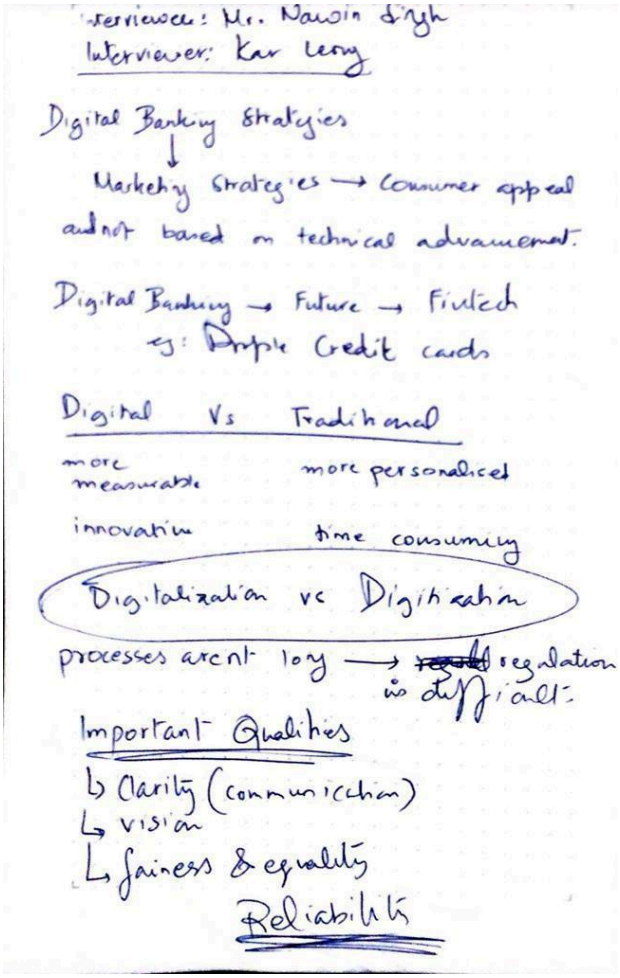
3.3.5 Cherman Dzotoev Questions

1. What changes have been made in your company in order to adopt digital banking service?
2. What were the difficulties/dilemma your company, specifically the employees met in order to adopt to the digital banking service at first?

3. Why the management won't just fire the old employees?
4. Let's turn back again to our topic, what do you think about user's reaction at first? Was it just as you expected?
5. Can you tell some interesting stories from your working experience there?
6. Which group of people has the most ratio in using digital banking service from your company? Can you describe the status and usage of digital banking in Singapore?
7. How do you secure your users from digital banking threats such as hacking and online scams/frauds?
8. How should people protect themselves from digital banking fraud? What kind of insurance people should have to open a digital bank account and why?
9. What kind of new digital banking services or features would you like to provide your customers in future?
10. What do you think about the future of digital banking industry? In what way it will be improving?

3.4 Interview Evidence

3.4.1 Field notes


Interviewee: Mr. Nawin Singh
Interviewer: Kar Leong

Digital Banking Strategies
↓
Marketing Strategies → Consumer appeal and not based on technical advancement

Digital Banking → Future → Fintech
eg: Simple Credit cards

Digital Vs Traditional

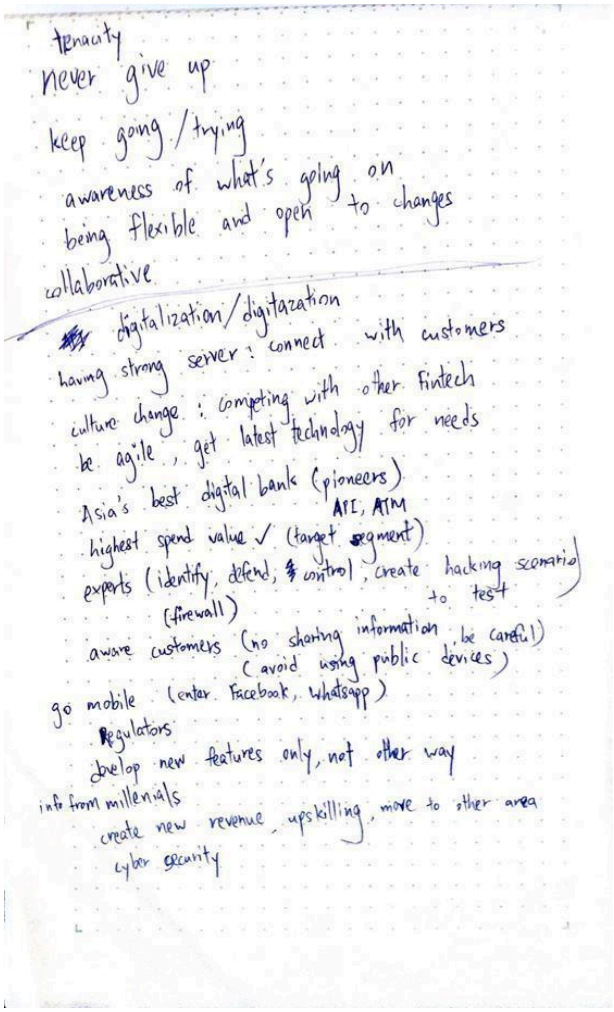
more measurable — more personalised

innovation — time consuming

Digitalization vs Digitization

processes aren't long → ~~regul~~ regulation is difficult

Important Qualities
↳ Clarity (communication)
↳ vision
↳ fairness & equality
Reliability







3.4.2 Business Cards

Vivek Nair
Senior Vice President

Citibank, N.A.
5 Changi Business Park Crescent
Tower 2, Level 2
Singapore 486027
Office +65 6437 4997
Mobile +65 8869 8596
vivek.nair@citi.com

Atin Bhutani
Chief Executive Officer

Email atinbhutani@incorp.asia
Mobile +65 8611 2099
Tel +65 6812 1616
Fax +65 6812 1601

In.Corp Global Pte Ltd (UEN: 201504530W)
30 Cecil Street, #21-08 Prudential Tower, Singapore 049712
www.incorp.asia

3.4.3 Interview Pictures



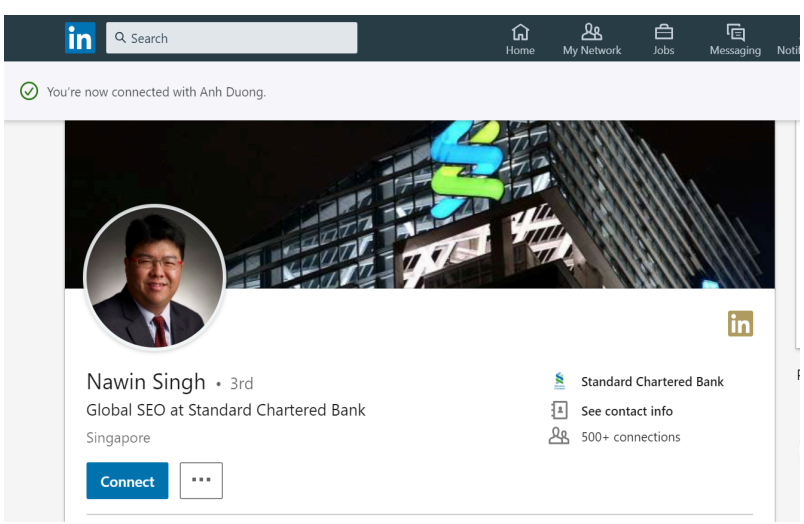
Photo with CEO of Global In.corp- Atin Bhutani



Photo with Senior Vice President of Citibank- Vivek Nair and his colleague- Harish Mohan (Maroon Shirt)

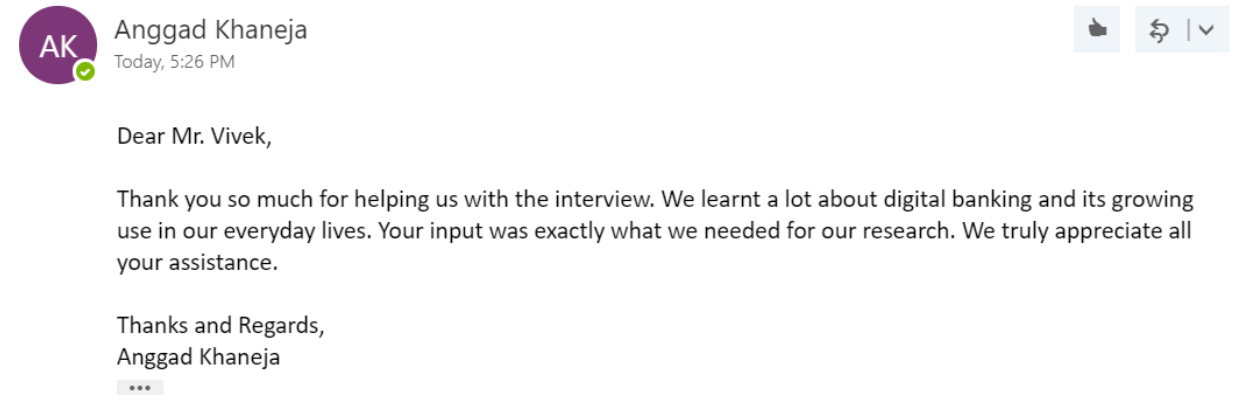
3.4.4 Other Evidence

This is evidence of interview with Mr. Nawin Singh as he had just transferred from DBS, he did not have a business card and since the interview was done over the phone, there is no picture.





3.4.5 Thank You Note.



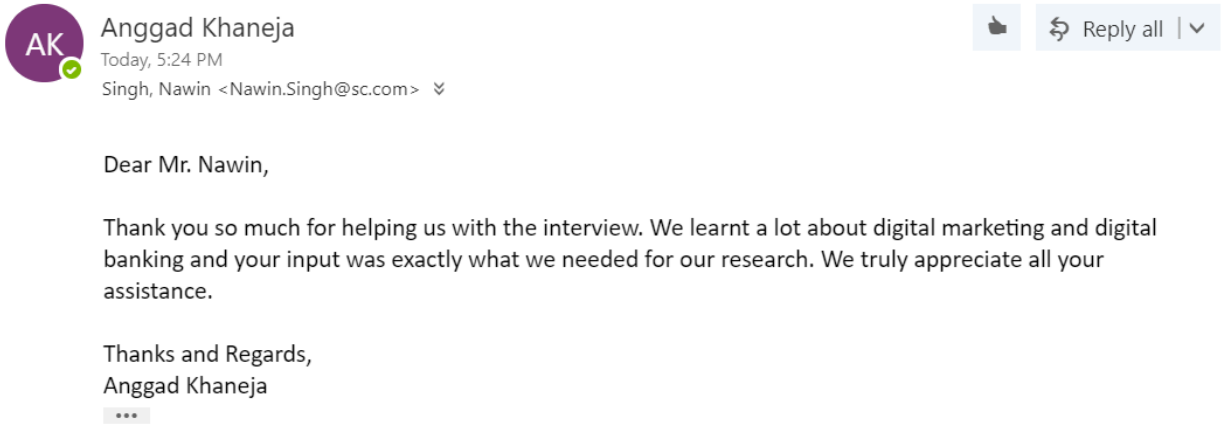
AK

Anggad Khaneja
Today, 5:26 PM

Dear Mr. Vivek,

Thank you so much for helping us with the interview. We learnt a lot about digital banking and its growing use in our everyday lives. Your input was exactly what we needed for our research. We truly appreciate all your assistance.

Thanks and Regards,
Anggad Khaneja



AK

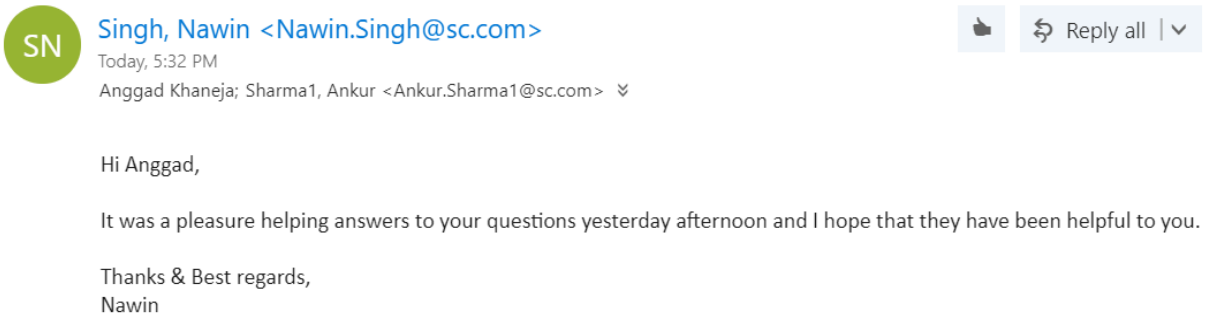
Anggad Khaneja
Today, 5:24 PM
Singh, Nawin <Nawin.Singh@sc.com>

Reply all

Dear Mr. Nawin,

Thank you so much for helping us with the interview. We learnt a lot about digital marketing and digital banking and your input was exactly what we needed for our research. We truly appreciate all your assistance.

Thanks and Regards,
Anggad Khaneja


SN

Singh, Nawin <Nawin.Singh@sc.com>

Today, 5:32 PM

Anggad Khaneja; Sharma1, Ankur <Ankur.Sharma1@sc.com>

Reply all

Hi Anggad,

It was a pleasure helping answers to your questions yesterday afternoon and I hope that they have been helpful to you.

Thanks & Best regards,
Nawin

Chapter 4: Findings and Analysis

4.1 Respondent Profile

Res ID	**Respondent Name**	**Gender**	**Organization**	**Position**
R1	Vivek Nair	Male	Citibank	Senior Vice President
R2	Atin Bhutani	Male	In.Corp	CEO
R3	Nawin Singh	Male	Standard Chartered	SEO
R4	Cherman Dzotoev	Male	Dzotoev and Partners	Owner/ Social Media Influencer

4.2 Success Story

VIVEK NAIR

Senior Vice president – Citibank

Written by- Anggad Khaneja

BBA Jan2019



Background

A progressive, open minded and inquisitive Indian, currently settled in Singapore and currently a Senior Vice president at Citibank Singapore. Mr. Nair believes that integrity is one quality that should be essential for every individual and business as it is the only way to remain connected to the reality of any situation and hence believes in remaining truthful even if it is ugly.

Having studied at one of the top institutions in the U.S (Ohio University) he is currently a senior banker with over 13 years of international experience. Mr. Nair is also skilled in Sales & Relationship Management, Business Development, Product & Portfolio Management, Process Re-engineering, Branding, Strategy, Innovation, Start-ups, Program Management

Mr. Vivek also has a background in team management and has proven so in multiple geographies over complex organizational structures.

Challenges

Having been highly educated from a prestigious school in the states, Mr. Vivek was never challenged by the complexity of his job, rather its fast-paced nature.

"Quality one a leader needs to have his tenacity. Don't give up."

As he mentioned in the interview, "the industry of banking per say in the last three years has gone through an unprecedented disruption, which has not happened in like perhaps over a decade previously". Because of this, Mr. Nair adopted tenacity as one of his core values and even described it as one of the essential qualities that every business leader must have. Furthermore, he is a believer in Kaizen, and strives to learn and adapt.

Experience

For the last 3 years and 8 months, Mr. Vivek has been a program lead for Branch automation and Smart Banking and currently holds a consumer bank network in 17 countries. Before this, he was a tittle planning and execution lead at the same company where led the distribution and footprint strategy for Citi India.

Through his journey, one can see his growth as a leader and a manager who truly focuses on Branch Productivity, Automation & Innovation. Furthermore, it also shows his tremendous strides towards adaptation due to having worked and successfully managed projects in several countries and alongside different teams and individuals.

NAWIN SINGH

SEO – Standard Chartered

Written by- Loh Kar Leong

BBA Sep 2018



Instead of blaming on others for their mistakes, I prefer to get things fixed.

Mr. Nawin Singh is currently a Global SEO at Standard Charted Bank in Singapore. Although he is new to Standard Chartered Bank, he got his experience from his previous work. Previously, he worked in DBS as vice president of Digital & Performance Marketing team for 4 years and 5 months from May 2015 to March 2018, which is basically heading up all digital marketing initiatives in the Group Strategic Marketing & Communications (GSMC) team for DBS bank and that's how he got his experience and being professional in digital marketing industry. He is experienced in client, vendor, agency management in South East Asia.

Mr. Nawin thinks that vision is very important for every business leader. It is because a vision can link everyone in the company together and motivate everyone to move towards to every single goal. Also, Mr. Nawin believe

that clarity of information given and understanding is other crucial skills which business leaders should have in order to avoid misunderstanding and reduce mistake or conflict in the company. Furthermore, Mr. Nawin cares about business equality and fairness also. He says that it's difficult to keep everything fair, but everyone should do their best and try to achieve that target.

Mr. Nawin thinks that the challenge that he is facing is basically related to the upcoming technology. As we all know, people just want things to be faster and even faster, making that they have to improve the speed in every process, stimulating the improvement of technology at the same time. However, the challenge is that when people are getting things faster, the stability could be lower. Therefore, Mr. Nawin believes that one of the biggest challenges is to maintain the balance between the speed of process in digital banking and the stability of the system, and he believes that a lot of companies are facing the same thing as well.

Lastly, Mr. Nawin thinks that the most important quality which he lives by is reliability. When there are mistakes in the work, he will not point fingers at people and blame them for the mistakes. He will just get to know what the problem is and how to fix it. He doesn't care about who is right or who is wrong, because that won't be helpful. He tends to rely on his workers and believe in them, and they treat him the same. That makes the bonds between him and his workers.

CHERMEN ALEKSANDROVICH DZOTOV

President of Dzotov and Partners

Written by Sulieman Bai

BBA Sep 2018



Chermen Aleksandrovich Dzotov, a Russian publicist, blogger, wrote books and manuals on self-promotion. He is an entrepreneur, a writer, a blogger, an expert on personal branding, the president of the DZOTOV & PARTNERS Group of Companies, the founder of the International Club of Entrepreneurs #Biztus and the International Club of Journalists. Chermen Dzotov was born in 1988 in the village of Mostizdy in the Digorsky District of the Republic of North Ossetia-Alania. In 2005 he graduated from high school in the village Mostizdah with a gold medal (the first gold medal in the history of the school) and entered the North Ossetian State University named after KL Khetagurov at the Faculty of Finance, who graduated in 2010 with a degree in financial accounting with honors. He was awarded a gold medal for an excellent graduation. In 2013 he graduated

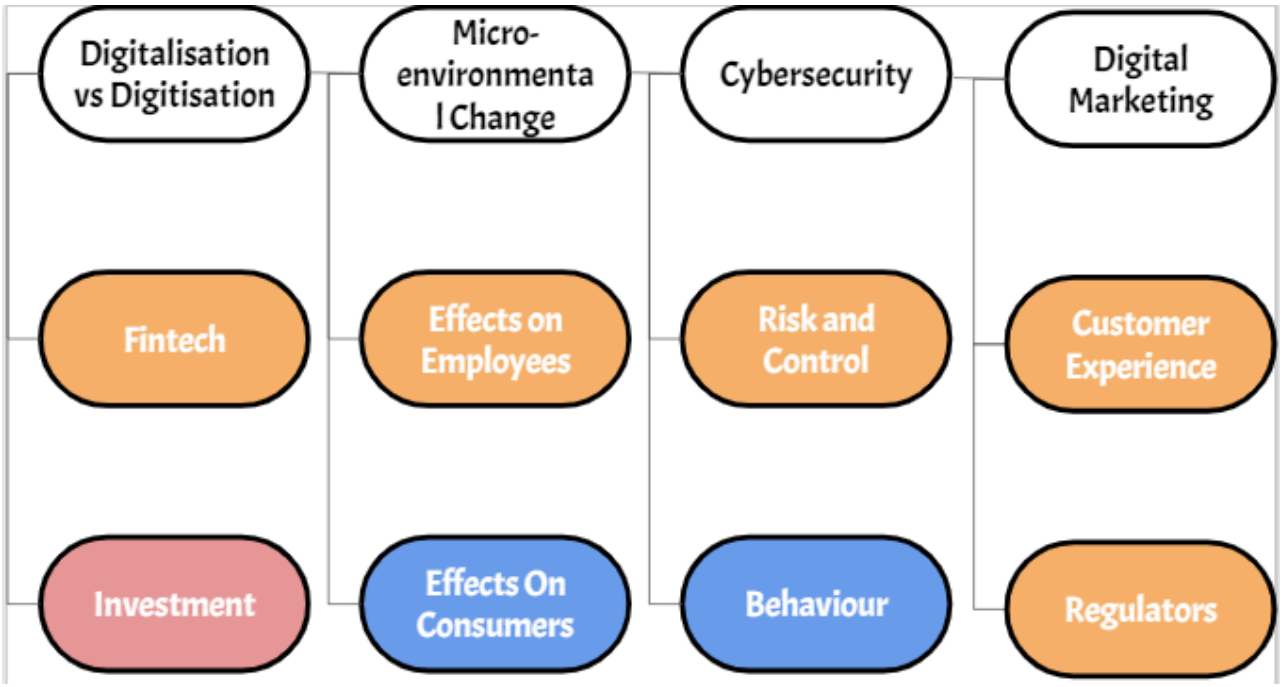
from the graduate school of the Finance faculty of Financial University under the Government of the Russian Federation. Wrote the thesis "Forms of implementation of qualified financial assistance."

In June 2016, the Chermen Dzotov projects were merged into the Dzotov & Partners Group of Companies. In September 2017, the financial firm “Dzotov and partners” was launched.

Many well-known businessmen, lawyers, politicians and public figures cooperate with the Dzotov & Partners Group of Companies.

The peculiarity of the work of Chermen Dzotov companies is the combination of “office” and “remote” models of labour organization, which allows you to effectively manage the organization and distribute labour resources.

4.3 Findings



	Confirmation
	Expansion
	Contradiction

Digitalization vs Digitization

Digitization and digitalization are both vital processes for a digital transformation. Digitization refers to converting information from a physical form to a digital form whereas digitalization refers to using this soft data to improve business processes. This theme therefore focuses on how processes are still different for employees in comparison to consumers. Example: consumers can easily transfer money by one click but it still must be manually authorized by a person at the bank and hence the processes being digitalized for consumers and digitized for producers.

Fintech

Fintech and cryptocurrency are the crux of digital banking. From our research we discovered that the financial industry was experiencing a digital transformation with one of the main factors being fintech. Therefore, fintech is a recurring subtheme as it is what leads the market trends when it comes to digital banking. This belief was expanded upon by R1 and R3. R1 mentioned that fintech's like apple are now also coming up with credit cards and that they could soon become potential competitors for financial institutions such as banks. Whereas. R3 elaborated on how fintech companies use their public engagement in order to innovate and market a product that the consumers want.

Investment

Based on our interviews, we get to know that stakeholders are concentrating more on mobile application comparing to internet applications. As we all know, people nowadays are using mobile devices such as smartphones or tablets more comparing to computers or laptop, making that there is an increasing demand on mobile application. People tend to do everything on their phones, so that digital banking applications on the phones is crucial for them, making their transaction process easier and faster, giving them more convenience comparing to the past. Therefore,

R1 said that they are deploying more on digital channel on mobile, also they will decrease developing anything new on their internet banking platform. They are moving on towards mobile applications with new features, capabilities and so on. That's what most of the customers are using and most likely to be happy with more features provided through mobile applications in the future.

This sub-theme was contradictory to our secondary research as we found out from our research that banks are generally investing a lot of money in developing online internet applications. However, as mentioned earlier, at our meeting with R1 we discovered that this was not the case and most banks are now moving towards mobile banking.

Microenvironmental changes

Microenvironmental changes refer to the changes that digital transformation has had on the financial sector microenvironment. This includes, the employees, customers, competitors, different parts/ divisions of the company and the company's shareholders. In our interviews we recognized the main areas with changes to be the employees and the customers/ consumers. The findings from this theme expanded and confirmed our initial theories and secondary research.

Effects on employees

There are a lot of changes in banking industry since digital banking has become the new trend of it. For the effects of it on employees, it changed the way they got their salaries. Previously, employees are most likely to receive cheque and they had to go to the bank themselves to deposit their money into their account. After digital banking technology approached, the employers can simply transfer the employees' salaries to their bank accounts. It really saved up a lot of time which is not necessary. Besides, digital banking has also changed the way of working for the

employees. As R1 said, they have operated in a particular fashion, so they are wired in a particular way of thinking, operating and so on. The challenge of it is just people need to change the old culture, and that could be hard for those who don't like changes.

Effects on consumers

Obviously, the main effect of digital banking on consumers is convenience. Digital banking has made the banking process simpler and faster, saving the time of them going to bank and have a long queue with others. Digital banking has improved the efficiency of the service, so that everyone can easily enjoy the service. "Most of the food courts have their own digital tokens like Paylah from DBS and others." Said R2, showing that digital payment has been a part of people's life. People who use digital payment is increasing based on its convenience. Therefore, there is a very huge demand on the quality of digital payment because of the desire from consumers.

Cybersecurity

Cybersecurity is the first step to developing a safe and secure connection with one's customers and gaining a good reputation in the financial markets. Therefore, banks and other institutions take cybersecurity very seriously and invest heavily into ensuring that their security systems are up to date and always running. Through our primary research we confirmed and expanded on our findings from our secondary research and also gained a vast insight on how important this theme really is for a financial institution.

Risk and Control

Since there are a lot of frauds and hacking cases happened in the past, banks should concentrate more on risks management and controls in order to prevent those cases happened again in the future. Citibank has a firewall to secure the information and money of their customers from frauds, which is the result of their testing. The cybersecurity team has tested the firewall system with different kind of scenario and even do hacking testing to try the strength of the firewall and in what way it could be improved, becoming even safer to prevent frauds or other problems. Also, it can help Citibank to foresee the risks which may happen in future, getting the plans to overcome the problem at the same time.

Behavior

It is also very important for the customers themselves to have self-awareness in terms of digital banking frauds and hacking issues. Through our research and interviews, we get to know that most of the digital banking frauds and hacking issues are caused by the careless behaviour of the users themselves. They are the ones who leak out their own information by doing the transactions carelessly, such as using public computer to do banking transaction, leaving their mobile devices unlock in the public, clicking on unknown links and get attacked by hackers and computer virus and so on. Therefore, R3 said that people must be more careful when doing transactions in order to secure their accounts and information. Also, he said that people need to be vigilant that they should not share all their information to the others, be it phone call or unknown email. People have to be really careful as scammers could call themselves the employees from banks, but people have to know that no bank would ask them for their information through the phone call.

Digital Marketing

Digital marketing, as mentioned by most of the interviewees is what attracts the consumers regardless of the digital advancements made by the firm itself. Therefore, it is a crucial element when it comes to digital banking. Under digital marketing is the customer's experience and regulators. Customer experience dictates whether or not the product will receive a good name and a good recommendation and regulators on the other hand dictate the type of marketing strategies that can be used by banks and other financial institutions.

Customer experience

In terms of serving the consumers, Fintech organizations and banks should concentrate more on what are the people's need. For an example, they should first think about the liking of their target audience, like what would they prefer? Then, they should give their customers exactly what they need or might be interest in, but not something which is not related. By doing so, the customers would have a good time consuming the services from those organization and most likely to go for the same in the future, slowly becoming their regular customers. "So what you need to deliver is to make the entire experience pleasant", said by R3. People cannot just simply think about selling their products or services, they should also take a step back and see what could attract the customers and provide them a good consuming experience with their companies.

Regulators

Indeed that digital banking has brought a huge convenience to the public, but it also deeply affect the employees in banking industry. Although it is easy for public to use digital banking services, employees need to have a clear mind about how it works in order to be able to promote digital banking service and help the users who have any question about the service. To make sure the employees are able to

understand digital banking well, usually there will be training courses for the employees to learn and get to know more about digital banking. They could be either those who are new to the industry, basically younger generation or those who used to work in a traditional banking industry. Some of them are able to pick up digital technology easily while some of them may find it difficult to understand. The banks are most likely trying to do a streamline in the process, but they have to maintain the stability of the system as well at the same time. Therefore, they need to find the balance between the efficiency and stability in digital banking.

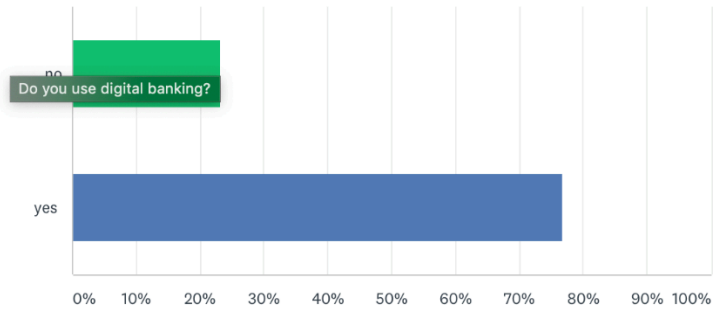
4.4 Survey Results

Survey:

We conducted a survey about digital banking. We have a total of 43 respondents. With ages ranging from 16-60 of different occupations and countries.

Q1 Do you use digital banking or not?

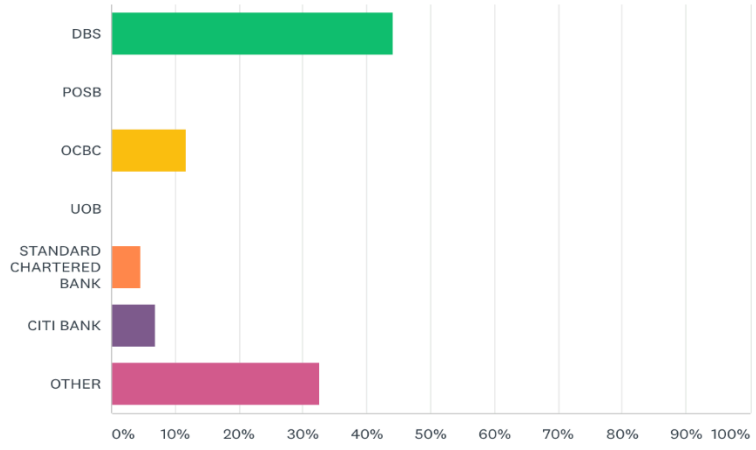
Through this survey, we found out that 80% of the people are using or have used digital banking.



ANSWER CHOICES	RESPONSES	
no	23.26%	10
yes	76.74%	33
TOTAL		43

Q2 Which bank do you prefer?

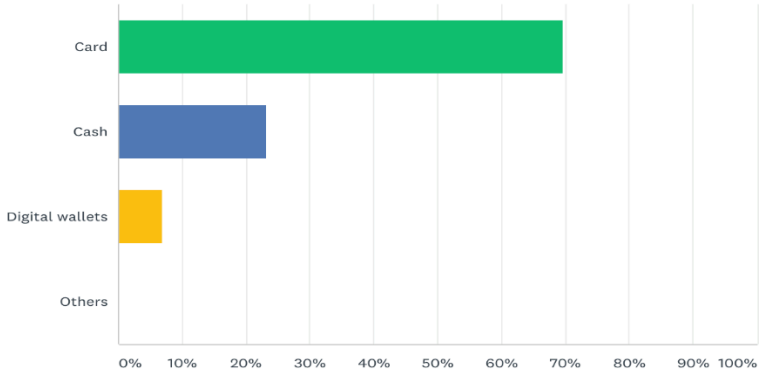
After asking which bank people prefer, The majority chose DBS. It shows that the digital banking is so advanced with DBS the people prefer a local bank over international banks



ANSWER CHOICES	RESPONSES	
DBS	44.19%	19
POSB	0.00%	0
OCBC	11.63%	5
UOB	0.00%	0
STANDARD CHARTERED BANK	4.65%	2
CITI BANK	6.98%	3
OTHER	32.56%	14
TOTAL		43

Q3 Which form of transactions do you prefer?

74.29% chose card, 22.86 chose cash. This shows that people are adapting digital banking.



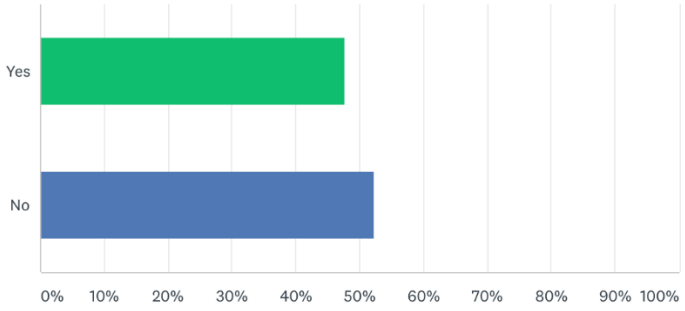
ANSWER CHOICES	RESPONSES	
Card	69.77%	30
Cash	23.26%	10
Digital wallets	6.98%	3
Others	0.00%	0
TOTAL		43

Q4 Do you think that Flashpay and NETS and other similar services attract you towards local banks such as DBS and OCBC?

The majority said that these kinds of services attract them towards local banks as they are much faster, efficient, safe and much less time consuming. Many also said that they do not care about these services and does not affect their decisions.

Q5 Do you hesitate before using digital banking due to cyber frauds and hacking?

52.94 said yes and the rest said no. The following shows that still many are afraid to bank digitally as they are afraid of hacking and all kind of cyber fraud.



ANSWER CHOICES	RESPONSES	
Yes	47.62%	20
No	52.38%	22
TOTAL		42

Q6 Do you believe that digital banking is user-friendly? and if not, what are the problems or difficulty have you faced?

The majority says that it is user friendly but some of the issues and problems people came across were as follow:

The credit card charge

Too many authentications and passwords

Scared of frauds

Q7 What are the future changes you would like to see in the digital banking industry?

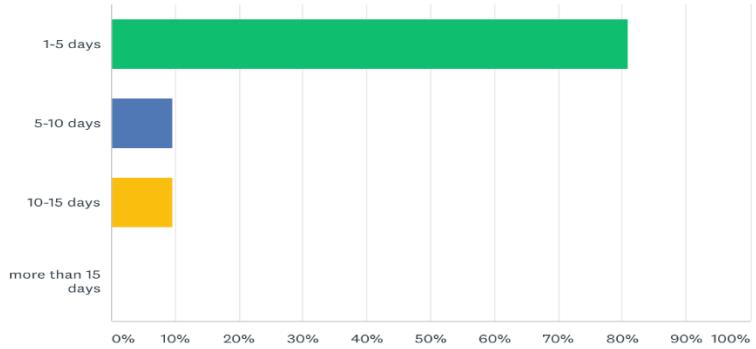
Here are some suggestions:

a) faster international charges

b) finger print authentication as it's faster and you do not have to remember many passwords

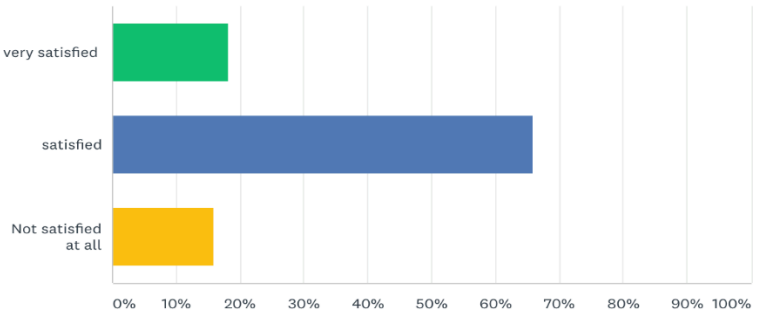
c) Probably more safety, digital wallets in the country and better compatibility with phones, better user experience on the mobile app

Q8 How long does it usually take to complete a transaction?



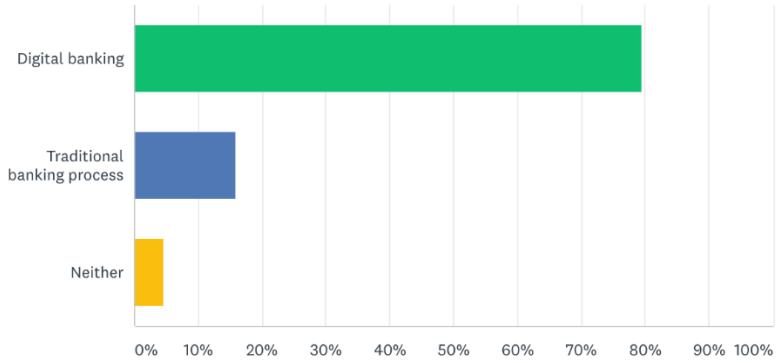
ANSWER CHOICES	RESPONSES	
1-5 days	80.95%	34
5-10 days	9.52%	4
10-15 days	9.52%	4
more than 15 days	0.00%	0
TOTAL		42

Q9 Are you satisfied with the current digital banking industry?



ANSWER CHOICES	RESPONSES	
very satisfied	18.18%	8
satisfied	65.91%	29
Not satisfied at all	15.91%	7
TOTAL		44

Q10 Do you prefer digital banking or the traditional banking process?



ANSWER CHOICES	RESPONSES	
Digital banking	79.55%	35
Traditional banking process	15.91%	7
Neither	4.55%	2
TOTAL		44

4.5 Recommendation

As our recommendation, we suggest that stakeholders can invest more in improving the digital banking processes for the corporate sector as nowadays people just need things to be faster and faster. After our interviews, we get to know that most of the bank are more concentrating on improving the existing digital banking features, and not comes up with new technology because there is not likely to have something to surpass digital banking in the coming years. Also, improving the existing features can help the existing customers to gain more convenience in banking at the same time, meaning that that could be a good attraction for more users to choose to use digital banking instead of the traditional banking way.

Furthermore, most of the banks are most likely to make digital banking become easier by exploring mobile banking. Nowadays, most of the people are having mobile devices thanks to the improving technology. The convenience of mobile

devices makes them popular in the society, and so will the digital banking be if it can move towards mobile banking. That's why there are more application provided by the banks nowadays, giving their customers more convenience in using digital banking or other transactions. They can do that whenever and wherever they want, as long as they have the internet access. Therefore, they are looking forward a mobile banking which can fulfil their transaction needs and reduce the processes taken in the future. Stakeholders can try to make it more portable and maybe cooperate with the most popular application nowadays like Facebook, Twitter, Whatsapp and so on.

Lastly, what we think the stakeholders can do in order to improve digital banking industry is to make some advertisement to show those who haven't used digital banking before about the benefits of it. By doing so, stakeholders can raise attention of public about the convenience of digital banking and gaining more users from it. Maybe some of the elders are not that good in mobile devices, so advertisement can also help them to get to know briefly about how to use it, or maybe giving them links about tutorial videos about how it works. Of course, stakeholders can also use advertisement to raise the awareness of people in order to prevent hacking or frauds while they are using digital banking. They can alert the public by showing them what will happen if they are not careful while making transaction. This can effectively improve the awareness of people if they can feel the problem more directly by watching the examples of being careless in the advertisement.

4.6 Limitation

While our research was successful and we answered our question, there were some limitations to our project. Firstly, objectivity of our results. This point has been highlighted because out of the four interviews that we conducted, each member/ interviewee was associated with their organization and therefore was either untrue or hiding information that could probably benefit lots of groups.

Secondly, lack of organization. A few of our questions were repetitive and with better commitment and organization, the members of the team could've probably examined each other's questions beforehand to make the best use of interviewee time and knowledge.

Finally, our research is incomplete as it is only applicable to certain parts of the economy and certain people who are an active part of the digital banking lifestyle.

Chapter 5: Conclusion

5.1 Contributions

We believe that or research can be beneficial to many groups of people, which are individuals, industry stakeholders and government. First and foremost, individuals or business owners who are planning to invest can use our research to know more about digital banking in how it would help in investing and making the processes easier. They can also utilize our research as a reference for them to make a plan to establish a business in the financial sector. For those existing owners who want to update or familiarize with the latest technology trends, getting know more about digital banking through a completed research is an easier and faster way.

Furthermore, our research can also help Singapore government in investigating how digital banking have influenced the finance in Singapore. It is because our research includes both positives and negatives effect of digital banking and how it affects people life. This may also be a crucial way for government to get to know more about what people are thinking about digital banking and how it may affect the economy of Singapore. That is how our survey works in helping government, it saves time for collecting feedback or opinions from public.

Last but not least, our research can be useful for different industry stakeholders like pressure groups, NGOs, competitors and technological institutions. Pressure groups may know more about the threats of digital banking like frauds. For NGOs, they can also use our research to prevent frauds, and also try to gain advantages from their competitors in digital banking since this is one of the latest trends of banking. At last, technological institutions can use our research to find out in what way they can try to help improve the system and security of digital banking. Also,

our research can make them have a clearer mind about in what way should they improve in the future due to the needs from the public.

5.2 Learning Outcomes

After finishing this project, we feel that I have learnt some more skills which I didn't have before.

Firstly, we got to know more about digital banking through the research. Furthermore, we learnt to contact those professionals and conduct interviews with them, which we haven't done it before. We also learnt formatting and the citing skills while preparing the project in our documents. Furthermore, we also learnt the importance of time management and understand teamwork dynamics.

Last but not least, this project helped us to improve our communication skills, by preparing for the presentations and also for the interviews.

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Appendices

Transcripts

Interview 1

Anggad Khaneja:	00:00	Okay. Um, so what are some of the core values that you think are very important for every Business leader and manager?
Mr. Vivek Nair:	00:11	This is outside the context of business. I would think, Integrity, I think in this day and age where, you know, there are challenges and everything that we do, I think one of the value or perhaps, a quality one leader, needs to have his tenacity and don't give up. Just be resilient and keep going behind it and until someday till it cracks.
Mr. Harish Mohan:	00:41	Yeah, definitely agree with that so I would call it Energy. So that's really important at this point. Again, because Fintech, financial technology at this point in time, everything is, you know, trial and error at this point right now. So they're integrating a lot of stuff. So for which this is very much important to get to that point.
Anggad Khaneja:	01:02	According to you, what are the key factors that lead to success in the current world?
Mr. Vivek Nair:	01:09	It's always been the same. It's interconnected to the previous question. I think tenacity is one of them. The other one would be awareness of what's going on in the market because financial industry of banking per say in the last three years has gone through an unprecedented disruption, which has not happened in like perhaps over a decade previously. So I've been in the banking industry for 13 years, but the disruption that I have

witnessed in the last three years perhaps is three times or four fold more than what I experienced in 10 years prior to that. So awareness of what's going on in the market and being flexible and open to those changes, transformations that each of our roles, everything we go through and then tenacity to keep pursuing what you are perusing.

Anggad Khaneja: 02:02 What are some of the values and beliefs that you live by?

Mr. Harish Mohan: 02:18 Teamwork is something that you really cannot miss because the skill set or the fruit and you need a mix of everything to win a game. So you want to, when you cook something, you know, you will need a little of oil or rice or whatever it is to get back there. So that's very important. So getting all of that together as a team is what I think is the most important.

Mr. Vivek Nair: 02:36 In Citi, we have this identified based on, like Citi is also in the path to digital transformation. So two years ago, when we had our global CEO, Stephen Byrd, who went on to take this role of global CEO of consumer bank, the first thing he did was he went to, the bay area to meet Fintech firms, to identify what are the qualities those guys have that a traditional bank like us don't. So we came up with this five, uh, you know, forward compatible attributes, which is about now what he said, collaborative, being bold, you know, trying to have that empathy and all of that. So these are some of the values that I believe. It is a critical component of a business leader's success in this day and age.

Anggad Khaneja: 03:26 So what are, uh, what is Citibank Singapore's policy for Digital banking ?

Mr. Vivek Nair: 03:33 So Citi Bank's policy of digital banking. There are a couple of things. Um, you know, um, maybe Harish can talk a little bit about the API and a lot of those partnerships that we are doing with Fintech, but from an operational standpoint, what we are

focusing on is that until a couple of years ago, what we used to focus was on a beautiful Ui and a front ending of digital and digital meant that customers could add, clients could go online and then have a digital interface where they can interact with the, with the bank and say, this is what I want to do. But in the, in the back end of it, what it meant was behind that computer monitor, everything else was manual. There was no straight through processing of that digital journey that client thought was in digital. Which means if I was making a fund transfer, that fund transfer was never instant. You know, somebody in the back end, will have to get that form and then you know, the process, a transaction it will take three days, et Cetera, which isn't a digital business. So the way we are looking now is actually a digitalization versus digitization. Digitization, this is simply putting it in digital interface. Digitalization is rethinking the way we are wired entirely. So we make sure that it's a straight through processing all the way until the execution and not just a front end, we are also doing a lot of work on digital, you know, partnerships perhaps, you know, Harish is in the best position for that.

Mr. Harish Mohan: 04:55

It all goes back to the same thing. Digitalization and Digitization. So, uh, the second component is not just presenting something digital, The pack and piece. what he mentioned getting into digital form is what we are right now working on. There is so much in every bank for that matter whether UOB or Citibank - we've been having a strong trust from our customers for which we have to spend a lot of money on having really strong servers, data centers and things. Right now, like he said, we were just concentrating on the front end component of showing our customer colorful pages and things like that. Now how do we connect? What are the works that we do on the back end? How instead of having 10 servers can you have a virtual server, instead of doing something, you know, occupying a space here in

Singapore having a ten into ten place where you keep all the servers, can you host them in cloud.

Mr. Harish Mohan: 05:44 Assuming there are other places like this even API, you must have heard about a term called open banking - how I connect with somebody. Before it's just a link. You are a link but it's a programmable value which can connect from a program or another program with somebody else. For example, if you use a Citi card, you instantly get 8% rebate on GRAB. These are all because of the partnerships on open banking that we have. So more than having a digital face to it, the person itself by heart is getting transformed into digital. So that's what Citi is working towards the digital business.

Anggad Khaneja: 06:21 Thank You, What changes have been made in your company in order to adopt the digital banking service? I think you already answered that one. I'll just move on.

Mr. Vivek Nair: 06:32 Sure.

Anggad Khaneja: 06:32 What were the difficulties that your company, specifically the employees faced in order to adopt to digital banking?

Mr. Vivek Nair: 06:41 So I think, like we said before, I think we have operated as a traditional financial institution for a 100 years. It has been in the market place in most of the Asian market for a hundred years. We've operated in a particular fashion. So we are wired in a particular way of thinking, operating, etcetera. So one of the big challenges is, like you rightly mentioned, is that old culture, some culture change, right? So, like I said, you know, when we set these forward compatible attributes, when we said that these are the forward compatible attributes that every employee must have in order to win in that marketplace where you are no longer competing with HSBC, Standard chartered or DBS in the market

place, but you're also competing with every small Fintech who's actually starting, that can offer services.

Mr. Vivek Nair: 07:24 I mean you read the recent news of Apple launching credit card. So it's not traditional banks, you know, launching credit cards any longer. But it's anybody and everybody. So you have to compete in that environment and to do that you have to be agile, in not just the way you think about also the way you execute. So in the technology space, we've gone through a lot of changes. Earlier, we used to have quarterly releases in terms of technology releases. Now, we've moved that into monthly releases, etc. So we are more agile and nimble to accommodate business needs. So a business says that we've got this new product, new partnership coming, we need to get the technology, the infrastructure around it so we can quickly move forward. And that's a big challenge. You know, don't I think we've gotten that entirely because if we have, then we would be a fintech already. Right. But I mean, we haven't gotten that entirely. I think it's an ongoing transformation. It will take us time we're trying to continuously trying to learn and unlearn.

Anggad Khaneja: 08:26 In what ways has Citibank Singapore gained an advantage in comparison to its competitors in the digital banking industry, specifically other international banks.

Mr. Vivek Nair: 08:37 So, I think in terms of, obviously there are many accolades we can talk about, you know, whether it be Asian business finance or Euro money and a lot of those, you know, which have continuously given us accolades and the best digital bank, etc. From a consumer bank standpoint, our aspiration is to be the, Asia's best digital bank. And in terms of what are our competitive advantages? Uh, I think there are several. I think one of them would probably be the API I think playbook, right?

Mr. Harish Mohan: 09:05 Uh, just to add with that, I think Citi has got the most number of partners we launched API and open banking in 2016. At that time, none of the banks had that, not even DBS. So we were the pioneers. Of course we've been the partners in credit cards, ATM and even open banking. We were the first to open up the number of partners. I think we have close are to 40, 45 plus. I mean if you search the internet you would be able to figure it out. Certainly, I think that one of advantage, uh, which gives preference over the other competitors. You know, consumer not only gets the banking life, they also get the other components that you can also interface with the banking.

Anggad Khaneja: 09:50 What about the same when it comes to local banks such as DBS and OCBC have made a joint effort and attracting customers through Flash pay and Nets?

Mr. Harish Mohan: 10:01 Well, it depends on the market of customers what we are focused on. So Citi is not a part of the Nets association for a very long time and we were able to survive. So, it really depends on the segment that we focus on.

Mr. Vivek Nair: 10:13 Yeah. I think Citi's focus is, I think Harish hit the nail on its head because I think our focus is on the super affluent clients, particularly in the wealth management segment when it comes to retail banking. For the cards our focus is to be in the terms of the highest spend value and not necessarily in terms of number of cards in the market and not number of plastics in the market. So I think it depends on the target segments we are talking about.

Anggad Khaneja: 10:39 Okay. Thank you. Which group of people has the highest ratio and usage of digital banking services from your company, can you describe the status and usage of this digital banking in Singapore?

Mr. Harish Mohan: 10:58 In fact more than internet applications, we've started investing lesser on them and are concentrating only on mobile banking applications. So in that sense, most of them 85 plus I am sure that's the normal common of Singapore because Singapore's digital penetration is like that. More than having it for Citibank.

Anggad Khaneja: 11:23 Thank You. How do you secure your users from digital banking threats such as hacking and online scams?

Mr. Harish Mohan: 11:29 Um, I will explain the technology piece of it. So, on a very high level there are dedicated experts who ethical hacking that are dedicated experts where we have InfoSec related issues are well identified. Uh, we do a SWOT kind of an analysis, and a lot of risk and control procedures and so we have engaged a lot of vendors, to create a hacking scenario and they tested the system and the hacking. And we have a really strong firewall. The infrastructure that we have built over the years, it's pretty strong in that sense. So, even if we are choosing a vendor, they have to undergo a specific approval and it takes six months for them to get certified to make sure they're the right parties to support Citi. So there are a lot of processes internal processes, which we cannot reveal, but on a very high level, there are a big list checks that we do starting from a firewall or network to server level authentication, everything. So that's how we make sure that we don't fall into those traps.

Anggad Khaneja: 12:45 How should people protect themselves from this digital banking fraud? What kind of insurance should people have in order to open a digital bank account and why?

Mr. Vivek Nair: 12:55 I think it's a basic right. I mean, I think all banks try to reiterate on the point that, you know, be careful, vigilant of, you know, fishing threats etc. making sure that your passwords and your credentials are never shared at any point of time you know, for transactions that has financial impact. Make sure you do have

some kind of a multifactor authentication, which most banks today offer, whether it be mobile tokens or you know, security devices, etcetera. So those are from a customer standpoint what they should be at least prudent in terms of basic level of security. Also practice around the fact that like trying to avoid using public computers, etcetera which is just as much as we would when comes to any, anything that's a secure and confidential.

Anggad Khaneja: 13:40 Thank you. Um, what kind of new digital banking services or features would you like to provide your customers with in the future?

Mr. Harish Mohan: 13:51 I think most of the organizations are on the edge of having a digital platform. It's mobile. I don't think there's anything beyond that that's coming up. They will eventually add more avenues to the mobile. For example, maybe you can access from Facebook or you can send money to your friends and others and the other, new ways of payments that the regulators come up with. That's what I feel are the new stuff and partners. So a bank will not just be a bank like apple, it's just not that phone maker as they are now selling credit cards. Likewise, it will be a diverse products that the bank might offer to their customers.

Mr. Vivek Nair: 14:33 Completely agree. I think bank and banking needs to be where our customers are. I mean, think about right? I mean today most of us spend our time on either WhatsApp or Facebook or anything and just as if you would go to WhatsApp and then say click that, pin her attachment, you can easily attach pictures, documents or etc. Imagine a scenario where you could have clicked that pin and say dollar and then say $200, I could transfer on that. That's really how the banking should be integrated with it. I think there are players in the market which do it with a few other few things like pay now integration and all that. But I think you know, that, really getting into the ecosystem that our customers are is really going to be a game changer.

Anggad Khaneja: 15:15 Thank you. What are some of the current projects at Citibank and how will they effect the digital banking industry?

Mr. Harish Mohan: 15:24 Well, we are targeting, I can put some of the technology related items that we are working and again we are concentrating on partners and also concentrating on what the regulators are forcing us to do from a digital standpoint. So if the Indian, ecosystem is now targeting UPI related delivery so we are also integrating ourselves with UPI. Here in Singapore, PAYNOW is being done for the corporate customers and therefore we are also providing those services for corporate customers. So, it really depends on what the regulators are pushing us towards on very high levels. Apart from the are a lot of initiatives which cannot be shared.

Anggad Khaneja: 16:11 Thank you so much. According to Mr. Han Kwee Juan, the Ex-CEO of Citibank Singapore, "Everything built within the bank will be pivoted towards ensuring that it works on mobile." To what extent do you agree with this statement and can you give some examples of such products and services?

Mr. Harish Mohan: 16:35 100% exactly that number. You know what I mean?

Mr. Vivek Nair: 16:40 I think, Harish mentioned it? I think about us as regular users, known to delineate banks and you know yourself as a person- I mean, how often do you actually use your laptop. I bought a laptop about a year back and I bought it at an expo and I would have used it twice.

Mr. Harish Mohan: 17:01 Unless we want something with Microsoft word or Excel we don't use laptops.

Mr. Vivek Nair: 17:05 No, I mean I bought this laptop with the habit and have never used ever since then and I regret the purchase. I do everything on my phone. So like Harish said last year we took a strategy and a conscious decision as Hwee Juan has alluded to that we will be

on a mobile first strategy, which means anything and everything we deploy on the digital channel will simply be on mobile and our internet banking internet platform we will completely stop developing anything new on it, whatever is there will continue but new investments and new features, capabilities, etcetera will be fully be on mobile because that's what our customers are using.

Anggad Khaneja: 17:45 Thank you so much. Citibank is also actively involved in Social Media. What are some of the advantages and disadvantages when it comes to social media networking and why?

Mr. Vivek Nair: 17:57 So, I think the advantages are several because obviously the reach you get with the millennials, which is one of our big target segment is immense. So when it comes to using that as a channel to talk about campaigns or offers, new product promotions, I think it's great. The disadvantage - can't exactly call it a disadvantage, but you know, when you also keep a medium open for anyone to write and comment, you should also be welcome to taking any critical feedback, which means you will get the news. You know, the news spreads, someone has negative experience or adverse experience with the bank and obviously people will go and comment there and then it gets retweeted and shared, etc. So, you know, that's the sort of flip side of it. It's yeah, both pros and cons.

Anggad Khaneja: 18:57 Thank you so much. Finally, has the evolution of digital banking systems create more jobs than it has destroyed?

Mr. Vivek Nair: 19:05 It does create definitely new avenues, which is why, the upskilling, you know, we spoke about forward compatibility and upskilling. Each of us, you know, five years ago we needed more tellers in the bank branches because we wanted them to sit in the branch and count cash and give with the advent. But ATM's have almost been there for over two decades. But with an increase

usage of those digital self-service channels, you know what I mean? Obviously the tellers are not doing as many transactions as they used to do, you know, several years ago. So we are obviously seeing new avenues where these people can be upskilled and moved to. One of the areas is obviously cybersecurity. Today's city has a big command center in Changi here which is a very industry respected command center, which obviously is visited by several regulators outside of Singapore as well. So cyber security or information technology or you know, many of these information security related are areas where obviously it's creating new opportunities. The risk that we used to perceive and we used to look at has completely changed. There are new risks that emerge with digital banking, and that obviously need the kind of bench strength and capacity to look at it and evaluate and solve for. So those are new avenues.

Anggad Khaneja: 20:19 Thank you so much for taking the time. That concludes the interview.

Interview 2

Kar Leong: 00:00 I'm going to ask you some of the our interview questions about Standard Chartered Bank.

Mr. Nawin: 00:17 Okay. The thing is I think you gave me a set of question, and a lot of these questions are pertaining to like the digital banking a bit of a segment of the business. I actually just joined the digital banking team in February, so that's a lot of questions that I won't be able to answer you. So when you say digital banking I think is more of Fintech related, what's the bank doing in terms of the digital banking arena and things like that. I can answer something in a very generic kind of way, but that being said was also when you guys are pushing me, I thought it was more digital in terms

of digital marketing that is my specialty. So if you ask me about "how do you advertise" and "what are the strategies are in digital marketing space", like Facebook or Google or things like that, that's where my expertise in. But if you're talking about certain product and businesses within the bank and how we intend to compete, I can tell you something generally, but I can't tell you though where we are and what we are doing because I'm still very new in Standard Charted Bank where digital marketing is concerned in that part.

Kar Leong: 01:36 That's okay sir. Anything you can tell us about this? So banking and marketing in your company? It will be useful to us, so it's fine.

Mr. Nawiin: 01:46 Okay, so what's the first question?

Kar Leong: 01:57 Can you tell me about digital banking policy of Standard Chartered bank in terms of marketing strategy?

Mr. Nawin: 02:21 Okay, so if you are talking about strategies itself in terms of marketing, Standard Chartered as well as every other banks, every other financial institutions realize that, marketing or digital marketing is the far most of what we should be doing. Because end of the day, if you don't actually compete with your competitors, you will end up "dying". I think this thing has been even echoed with Piyush Gupta, CEO of DBS bank. Before I joined Standard Chartered, I was from DBS. So just let you guys know, I was there for nearly five years. So digital marketing in said that everybody has to evolve. Fintech is actually a thing to banking space as well. And traditional banks are the

slowest to get into the digital marketing space. The fastest be all ".com", E-Commerce, start-up because for them, digital marketing conversion is like bread and butter, if you don't provide this right, you will "die". Basically you lose out competitions and things like that. Also initially, a lot of banks, a lot of major players have been around a business for a long time. Banks have been around for a long time. So generally when you talk about competitors, they will say in bank competitors, what the other banking competitors are doing. But we have to think out of a box, meaning like we should not only be looking at what other banks are doing, but what are the Fintech doing? What are other companies like Apple, Amazon, Facebook, Google doing and how we can learn from them and take it. Take what all and learn and see where we can apply though.

Kar Leong: 04:16 In what way has Standard Chartered Bank in Singapore gain an advantage compared to the competitors?

Mr. Nawin: 04:35 In terms of advantage I think all of them are competing against each other and just doing better marketing. Each competitor would have their own unique selling points like what their product offering is, but being competitive in our product offering. I'm just talking on behalf of not only Standard Chartered, but other banks, other products and services that they render as well. So being competitive is always a key. to success. Like I said, I still new so I can't tell you what we have exactly. Well, I can tell you with something very specific that to maintain the competitive each you need to look at how you are actually delivering your product whether they were providing faster services or providing better services. And most importantly, I think

that's where a lot of, I'm not just talking about banks, a lot of companies get things wrong. Being a company you want to sell your products, it could be things like banking services, it could be like to sell your hotel room. For a travel company, you want to sell your traveling services. What people or organization should always do, would be to see whether they can deliver one, a very good experience for the person. "Oh, I went to the site, I did my internet banking. It was a very nice experience. I love it." rather than "Oh, I went to this site, the site was down, that navigation is not very good. I lost. I don't know where to find that product. I get frustrated". So what you need to deliver is to make the entire experience of pleasant. Two, a lot of companies tend to like, "I just want to sell my product", but sometimes you should take a step back and see that actually what do the customer really want. Maybe they want to make a banking transaction, they want to apply for credit card or things like that. How easy it is to do it right. That's one. The other thing is am I giving that person exactly what he want. If that person wants to sign up for credit card points for instance, but I try to give him maybe a loan service or basically that kind of thing. So it has to be related to what they want. So the other thing about digital strategy that a lot of people are doing, banks as well, would be more customized experiences, meaning like for instance if you go to a site, let's say to do maybe internet banking, you want to pay a bill, let's say a mobile services. To actually show you a page and not only that interfaces with the bill pilling system where you pay, but to see something like you are more interested in, like you might also want to go for holiday soon, so a travel

insurance kind of package or something like that, so a lot customized experiences and journey. These are the experiences that people would like to see and gradually not only with Standard Chartered, a lot of other organizations are moving to this. The website, where you go to their website, they know basically what are your interest to read marketing through like cookie pooling. So these are dead, right? Well everyone, let's say person A comes through a website, we will be able to identify what are their interests like. Let's say you go to a soccer site or cricket site, which I know when you come to my page, my page will be customized to you with the specific products that you might be interested in. So that kind of customized experiences is what I am talking about.

Kar Leong: 08:33 Well what do think about the future of digital banking industry? Like in what way it will be improving?

Mr. Nawin: 08:42 It is definitely the future. Digital marketing was infancy stage, so when I started like doing search engine marketing or digital marketing that was made in 1999, so Google wasn't the main search engine. It was AltaVista, Yahoo, so thing is for the last 20 years digital has been growing exponentially. Different ways of doing things. Things get outdistanced pretty far, what looked like this month might not work, so three months later or few weeks later, so it's always evolving, always changing. The digital space would not die. Definitely. It will continue to evolve and will evolve very, very quickly. What I'm trying to say is the future of digital, everything evolves: the space evolves, the technology evolves and the media evolves, so that is very important. And if you don't get on the digital bandwagon

now, understand it and move fast, you will definitely lose out to your competitors, so that in imperative that digital is very, very important for any business, not only a bank.

Kar Leong: 12:04 Is digital banking more effective than the traditional marketing for banks?

Mr. Nawin: 12:16 Okay. There are many digital ages right? You guys are so much younger than me. So where do you get consume the business? I mean consume the news generally through to all the social media channels, everything is on your mobile phone, right? I'm not saying hard copies like your magazines or newspapers are not important now, there will always be a channel for that, but I feel that the shift in span when you advertise through digital, the shift in strategy should be more incline to digital marketing. Remember about one thing: if you talk about like traditional marketing, let say if you have a panel on the MRT station or maybe a bus stop, you can't measure that. You only know that there are so many people going through the MRT station. They might see this poster or they might see this ad, but you can't count it digitally. Now media is shifting slowly. I think Starhub has some partnership now with, I think was it sp, one of it Basically like now people when they are watching TV, let's say they are watching soccer for instance, or cricket, and they are doing advertisement or doing commercial, they go to look at their Facebook or social feeds. All this be a track to cross device marketing. There's a conversion now even with traditional media like television, right? Everything has moved to a digital space where a marketer can actually track people better. Because of that, advertisers will be able to have better strategies.

The answer is digital is very important. We should be using a lot more effort in digital. Old school channel traditional media is always still there, but you should put effort there, but not as much effort versus digital.

Kar Leong: 14:26 Thank you, and since banks always advertise personalized care, what do the think about, like how does digital marketing ensure about that?

Mr. Nawin: 15:02 You need to have personalization to give consumers what they want, because, for instance, let's say I want to go to Bangkok for holiday, right? So I take my travel trip or go down like media or whatever and if I do not buy a travel insurance while doing my booking process, next I will type in travel insurance on Google for instance. I then see an advertisement about travel insurance, I click on it then it goes directly through a travel insurance page or if I have a page it goes to a page which has travel insurance in Southeast Asia for instance. If I create an advertisement for the consumers, once they click on it they are redirected to car insurance or home insurance, it is not something personalized. So that's an example where you need to ensure that when you give that person an experience, he gives you a chance by clicking on that link to go to your site. Give him the exact link he wants to purchase that travel insurance going to South-East Asia for instance, not go to the car page or car insurance. I still look for travel insurance, click then travel insurance in South-East Asia, North America, South Asia. There is many experiences. You need to just give him the direct page for him so give him a very good experience then. That's The

personalization, customization part you're talking about. That's an example.

Kar Leong: 16:37 Even though digital banking is as easy as a single tap on the phone for consumers, it can be a longer process for bank employees. Is it truth for Standard Chartered Bank?

Mr. Nawin: 17:12 Generally there are two sets of people people. I'm talking basically from my experience which is DBS because I was there for nearly five years versus Standard Chartered one year. Within the bank itself, there are many people. First we are talking about yongsters, all the younger people like you who just joined the bank, basically tech savvy millennials. They understand a lot of things. Then you'll get people who have been in a bank for a long time. I believe the oldest staff we had last time was around 30 over years. Some of them pick up digital technology, some of them find it tough to understand all these things. Within the bank itself there will definitely be processes for staff to be able to take certain training to understand digital banking better.

Anggad Khaneja: 18:30 Yes sir. But I think actually, the question that we were asking was that consumers just have to go on the mobile application and with one or two clicks, they can transfer money. But from our research we found out that, inside the bank they actually have to authorize a lot of these transactions. Just wanted to know if that was true for Standard Chartered as well.

Mr. Nawin: 19:07 Sometimes it's not that the processes are long, but it's through regulation. If you have a banking transaction which takes like a couple of billion dollars, if there's no

authorization is a bit tough. So a lot of things required guidelines. It requires internal settings as well. If you authorize certain amount person so much, you need certain other processes. Traditional system is moving to a new system. There's a lot of legacy. So that's the reason why things are a bit slower so that's the challenge that I think every bank will face. Of course we want to have more simple process where by everything gets done in one touch very fast, but historically it is not that easy to do, and that's one of challenges that I think a lot of bank are facing. Most banks are trying to do streamline in process. Whoever can give customers better and faster service, they will succeed more, so I think all banks are going towards that and it's just that it's taking slower.

Kar Leong: 22:10 Okay. Thank you. And we would like to move on to some personal questions. What are some of the core values that you think every business leader or manager should have?

Mr. Nawin: 22:25 I think it would be clarity to be very clear because I know the day, if you're not clear what you want to communicate, there'll be a lot of misunderstandings and you can't get along next time. So in terms of clarity and understanding this is very important. The other thing will be the vision, right? We need to communicate the vision that company has. If you are a senior leader in the company, we are moving towards this path, not only communicate but have to make everybody understand why this vision, what is this vision about and why striving to achieve this so that everybody can move towards a one single goal.

Kar Leong: 23:12 Okay. And what are your thoughts on business equality and fairness?

Mr. Nawin: 23:23 Business equality and fairness. This is a trick question. Okay. I've been working for 20 years, right? End of the days, I think what all businesses want to achieve, but to say that everything is equal, everything is fair, I think even in school, you're studying right? Your lecturer gives you something, the last-minute request. So everybody or every organization seize to be fair and equal, but it's a bit difficult do. It is something like a very general question, right? Everybody was trying towards that to give their staff or their colleague a fair chance to do things but it general it is difficult to do. That's all I can say about it.

Kar Leong: 24:38 Yeah. Okay. Thank you. What are some of the challenges you have faced in your journey to reach where you are in now?

Mr. Nawin: 24:48 So one would be depending on the company you are at how fast you can move things. So I think I brought this up the last time, I think during the last few questions, both about how fast things can move, legacies and things like that. So generally if you work for start-up company, like I used to work in Facebook, Mark Zuckerberg, at that point of time when I joined the company back in 2010, was to move fast and produce things. So move fast meaning very agile. You work on the agile methodology. When you do things, you come up with products extremely fast. We'll then talking about within 24 hours, 48 hours you come up with new APP, a new product or a new service, but because you move things very fast, you tend to break things. There is no

way to work perfectly if you go extremely fast. By moving fast, you can build a lot of fancy products, you can build a lot of great products very fast and there is no legislation. It's very fast to come up with things whether they work well or not, that's another thing, but when the challenge comes when you worked for the digital company, when you have a lot clients that rely on reliability, right? Let's say if I come up with a banking Apps now and within one touch or within a fingerprint and just one or two settings then I can transfer money, $1 million within five seconds. But if it doesn't work, what happens, right? When you work for bigger companies that have a lot of legal stuff as well as the low production services and clients that are relying on you for stability that comes as a challenge. There must be a balance somewhere. It cannot be like, "We need to get things right all the time. Every time I will take 10 years to implement" , And I think a lot of companies are facing that right now. So getting the right balance would be the challenge in that area.

Kar Leong: 27:42 Okay. Thank you. Lastly. Can you tell us the most important quality or quote that you live by?

Mr. Nawin: 28:06 I think that the most important quality for me will be honesty and reliability because I rather the person be honest with me and tell me, "Hey look, you know, this is the actual situation." better than lying to me or misrepresenting to me and then I find out, right? This is not actually the case and you will be wasting more time. I think the most important quote for me, it's just like what I strive to be. I don't like to point fingers at people whether who is right or who is wrong. I like to get the thing solved. I think that's the most

important thing in life to just fix the problem and move on and work for another thing. If you start finger pointing, that's not the way to work because the situation will never change. It will never get solved. So fix the problem and move on quickly.

Interview 3

shashank:	00:00	Good morning. My name is shashank pacheriwal , hello mr. atin bhutani. I would like to conduct an interview on digital banking. Can you start with an introduction of the company?
atin bhutani:	00:10	, this is a group called incorp group. It's a corporate services, , provide services ranging from formation of corporate entities to statutory compliance in the form of corporate work , accounting, payroll taxation, a little bit of immigration, , business advisory , covering internal audit, liquidation, insolvency, et cetera. and related services, regional, headquartered out of Singapore, 200 people here across the region. About 500 people present in Singapore, Indonesia, Malaysia, Philippines and China and India.
Speaker 1:	00:55	Thank you so much. so moving on to our questions. The first question, what is global incorp. Policy for digital banking?
Speaker 2:	01:05	So policy is that all the payments that we make to our vendors as well as our employees are done using online banking channels. Okay. So the finance team essentially, , issues, very minimum of minimal payments using paper based methods. So everything is done using digital banking. Okay.

Speaker 1:	01:32	Thank you. So moving onto the next question, what changes have been made in your company in order to adapt digital banking services ?
speaker 2 :	01:41	so the changes. Are we have stopped making any payroll payment to the employees through cheques, everything happens online, vendor payments, the policy is that the will work through the online channel?, and , I have just said that I will not sign cheques.
Speaker 1:	02:03	Okay, thank you. So moving on to the next, what were the difficulties faced by our employees in order to adapt digital banking?
Speaker 2:	02:11	So there's no real difficulty is just a bit of behavioral change and signing a cheque is easy versus going online, going through two factor authentication, creating the payment, then it goes to the authorizer. So , it takes a bit of time to get used to it. Nobody likes change. And so inertia was the biggest difficulty. Otherwise there is, there's nothing that's challenging.
Speaker 1:	02:38	Okay. Moving on to the next, in what ways has incorp. Group gained an advantage in comparison to its competitors through digital banking industry?
Speaker 2:	02:48	So in general, across Singapore most of the large corporates have moved to digital banking. So there is little benefit with other competitors. But if I were to break it down into some small benefits because we transfer payments online to employees, my employees get paid on 27th or 28th of the month and instead of them waiting till end of the month or in some cases still the first week of next month, it helps a

bit. An employee retention one and second employees typically have the loans, a GYRO set up for 30th or 31st of the month. So it helps vendors typically get paid a lot faster. So they are happy and , the entire ecosystem remains happy. Okay.

shashank: 03:41 So moving on to the next, what do you think about DBS or OCBC making joint affects and attracting customers through launching Flash Pay and NETS?

atin bhutani: 03:50 , sure. I think it can be very interesting if all the banks were to come together, not only these two in general, all of the banks can come together, , to ease the entire payment mechanisms. So there are two aspects to this. If it's a consumer, , then the settlement system would be different for corporates to keep it different. , but yes, if they were to come together and come up with the, um, you know, with something that can link all the banks, it will be great. Right. Industry becomes agnostic.

shashank: 04:27 Next, can you describe the usage of digital banking in Singapore?

atin bhutani: 04:33 so in general, Singapore is one of the more advanced countries across the region when it comes to using digital channels. In fact, if you look around, most of the students that you will go out with to the food courts even, they will be using the cards, very little usage of cash. Most of the food courts have their own digital tokens and dbs paylah or whatever. Therefore , the usage of digital banking in Singapore is, is significantly more compared to the other jurisdictions. Okay.

shashank: 05:07 So moving on to the next, how do you secure all your users from digital banking threats such as hacking and online frauds?

atin bhutani: 05:15 So again, two aspects to this. One, the banks themselves need to secure the platform, , and they typically secure it by multiple ways. So for instance, banks like HSBC, HSBC, net, all the instructions are encrypted and it follows a two factor authentication where they give you a token that you have to first log in to that token generates or dynamic number that you have to use to log onto the system. Any authorization you have to follow the same process. So significant bit of security built on the platform. Same processes are followed by some of the other banks as well. Yeah, that's from the technology standpoint. But from a governance standpoint of corporates have to set their own policies, procedures to ensure , you know that you are setting up processes where you have a maker. Do you have a Checker, you'll have an authorizer. , you are not acting. Getting the finance team to act on instructions that are not coming through. Authenticator channel is a very common fraud. And somebody, it's an email, a masking as me. , mail goes to my CFO, can you process $100,000 in the money goes out. So the corporates therefore need to be aware and educate their teams to not fall for this. and set up their own processes.

shashank: 06:32 So this was for the bank. So what do you think the steps consumer should take to protect themselves from banking fraud ?

Speaker 2:	06:41	So this was in the consumer then feel have to fill if you are an individual consumer there are again a lot of frauds where , you may get a call from someone saying, I'm calling from this, this plan, can you give me a user name, password, et Cetera. Then you will have a lot of phishing scams or you get these emails. So you need to be vigilant, uh, that you cannot share all this information with anybody over the phone call. No Bank would ask you for it. It comes with education and it comes into you being a little more careful. Okay,
shashank:	07:15	okay moving onto next, what kind of new digital banking feature can banks provide in future?
Speaker 2:	07:20	So I would love it if I can have a very easy infrastructure for corporates to collect payments using something like, um, net leave with the payment is from corporate to corporate, right? Yes. If you are a customer and you are going to a restaurant, you can use your card, you can use card, same go with, if you have a company and then you've got a company that's looking to make payment, then you have to go online and transfer the funds or the companies individually has to use the corporate credit card. So they, I don't know if such a mechanism exists for the feminine transferred. It's a lot easier like it is for consumers. So for the, for an entrepreneur that could be ideal. Setting up the entire payment backbone online payment collection back is very expensive to run a half percent on every transaction, whether your profit margins, if they add 10% profit margin and two and a half percent is going to visa and mastercard. What am I going to,

Speaker 1:	08:28	so moving onto the last question, , we would like to know about your success story. Like first you used to work in HSBC, then you came here and you're the CEO of the Company so share your experience?
Speaker 2:	08:37	. So this is success or not will not really get to know in a few years, but, uh, everybody wants to do something of their own. I come from an art background. I come from a city that's known for is entrepreneurs. I was doing quite well in the bank, but then I thought I should do something of my own, uh, found this industry to be a lacking, a real regional leader. A company that's headquartered out of Singapore is helping international SMA's and their international expansion and instead of compliance needs, uh, there was nobody and so talk, this is something we'll be able to do and do it. Uh, and has been good. 40 years. We've expanded, expanded, quite significantly, but their background in vacuum obviously helped.
shashank:	09:30	thank you so much Mr.Atin Bhutani Thanks for your help and providing us your time.
atin bhutani:	09:34	Thank you

Interview 4

1. What changes have been made in your company in order to adopt digital banking service?

In 2013, I was working in one of Dutch Banks of Singapore that name is Norddeutsche Landesbank on 6 Shenton Way. I worked there as a bank teller and as a loan officer. So, what can I say to you about adoption of digital banking services is by "original digital banking" that is not improved, I mean something even primitive, which people used by going on the website of the bank and checking a balance, it was okay. But later when people started to want get our new service "contactless payment". It was harder for me because there was a case when the customers' money disappeared from their bank accounts, on that time I was still working as a bank teller. Our management concluded it as a theft.

2. What were the difficulties/dilemma your company, specifically the employees met in order to adopt to the digital banking service at first?

In my generation it was still ok. But I also gave the same question to the staff that worked here before and also who are from the other banks. So, the difficulties were to get something new for those who are above than 40 years old. I mean just imagine you are around 46 years old, and when you were studying in University there was not a lot of information about it or even it was not existing on that time. So, the hard thing was get illuminated the employees by this sphere.

3. Why the management won't just fire the old employees?

I'm not sure but, I think it was because management is trying hard not to have any problem with a local people and don't get the bad reputation for the bank. So, actually management were transfering our staff to the personal financial advisors team or to the loan department.

4. Let's turn back again to our topic, so Chermen. What do you think about user's reaction at first? Was it just as you expected?

As I told before, I came when everything was existing already, and I'm really not sure about their first reaction but when the db of our bank started to improve, for customers it was something new. New things make people feel themselves advanced. So, it was the point of attraction for our customers. As I know the human natural behaviour, they were glad to see the new way of payment, or receiving a salary as well.

5. Can you tell some interesting stories from your working experience there?

Yeah, why not. So, on that period of time there were a lot of cheap Chinese microchips. I mean all around the world was like that. So, I think because of low-qualitied microchips, the credit card was becoming demagnetized, which means the access of your transaction will be unavailable for you until you go to the bank and solve the problem. So, this is the whole story actually.

6. Wow, it was very interesting, thank you for sharing with this story to us and let me turn to the next question. Which group of people has the most ratio in using digital banking service from your company? Can you describe the status and usage of digital banking in Singapore?

   Teenagers and who are from 21 to 40. I think they were the most who were using digital banking services on that period of time. Also, we had a lot of old users who are above 45. But the thing is if talking only about db in total, then percentage of adults were the most. I mean who are from 21 to 40. I've been in a lot of different countries also because of my work, so my point of view is Singapore is doing a lot of actions, I mean social productivity and social conditions to the citizens, that making them use it. And even by using one card you can buy the things in the markets such as 7/11, or buy a food in McDonald's and pay for bus fare, which doesn't exist in the most of countries.

7. How do you secure your users from digital banking threats such as hacking and online scams/frauds?

   It is a good question. So, our digital defence was on a high level of cyber-ciphering. Also, these actions have their own divisions and it is a big topic actually. So, if malefactors, doing it directly, that mean that they don't have a chance to hack the system, because the time of their hacking it is equivalent to the time of police capturing their building. So, the only way that I remember we had a biggest problem is, well thought and planned theft. What means, the robbers were really well prepared to start their action. A lot of cases don't proved, but I think it was exactly like in China, when the cases with machines that could open and transfer your money was a lot.

8. How should people protect themselves from digital banking fraud? What kind of insurance people should have to open a digital bank account and why?

Nowadays, there is a lot of cases with money transferring fraud. Because people want to earn easy money what is impossible, money earning is one of the hardest sciences, which is a mixture of philosophy, understanding the world, and versatility. For example, we had a lot of people who put the money in the famous crypto-platform that called OneCoin. Which in the end was a swindle company. So, for this we have a special Financial Consultant to our bank customers. Anyway, the decision will be done only by customer, consulting is an a friendly advises that will help you effectively control your capital. And a consultant does not take a responsibility for customer's own actions. That's why we're doing a contract with a customer, where was written about own financial transfer actions, where the responsible for it will be led by themselves

9. Wow, nice to hear it from you Chermen, next question is What kind of new digital banking services or features would you like to provide your customers in future?
   I want to see how my customers are using my platform without any troubles. So, I am starting to employ the new service which will be the most protective and won't be seen by third members of a customer's account. Nowadays, as you can notice everyone are using an untouchable transaction, so they don't need to enter their pin-codes anymore, all of the people would think that it is the biggest strength of it cause the effectiveness of using of it is increasing, but what I think is that this action is a weakness. I want to make a verification pass that will be concluded in bio-metrical data. So, all what will be need for a customer is just plug a card and then put a bio-metrical code which on their thumb fingers. By these services, client's capital would be in a safe.

10. What do you think about the future of digital banking industry? In what way it will be improving?
    Let be a futuristic, soon the papers won't exist anymore. All of the money will be on the phones or some gadgets. So, digital banking will be only one platform that everyone will use, in the casual days. It will sound stupid, but traditional banks are in the past, so we've got to move on our next level of this banking evolution. I believe that all of the transactions will be made by digital banking, more than 85% for sure. In the end of the next decade.

Survey Questions

1. Do you use digital banking?

- yes
- no

2. which bank do you prefer?

- DBS
- POSB
- OCBC
- UOB
- STANDARD CHARTERED BANK
- CITI BANK
- OTHER

3. Which form of transactions do you prefer?

- Card
- Cash
- Digital wallets
- Others

4. Do you think that Flashpay and NETS and other similar services attract you towards local banks such as DBS and OCBC? If yes, please explain why or skip to the next question.

5. Do you hesitate before using digital banking due to cyber frauds and hacking?

- Yes
- No

6. Do you believe that digital banking is user-friendly? and if not, what are the problems or difficulty have you faced?

7. What are the future changes you would like to see in the digital banking industry?

8. How long does it usually take to complete a transacion?

- 1-5 days
- 5-10 days
- 10-15 days
- more than 15 days

9. Are you satisfied with the current digital banking industry?

- very satisfied
- satisfied
- Not satisfied at all

10. Do you prefer digital banking or the traditional banking process?

- Digital banking
- Traditional banking process
- Neither