DBS
REBOOTING BANKING
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Piyush Gupta, CEO of Development Bank of Singapore (DBS), left no doubt as to what his concerns were when he warned that “banks in Asia are on a burning platform of competition from mobile and internet companies” in the DBS News July 2015 article “Banking Disrupted” (DBS, 2015c).

Indeed, with the development of technologies in recent years, a scenario of banking where customers did not require banks but simply transferred money directly from payer to payee had become more practically feasible. The idea of peer-to-peer payment scheme was not new. But its feasibility as a wide-scale implementation had grown with more matured technologies, like secured payments, encrypted network transmissions, digital identity certificate and affordable mobile smartphones. Customers’ need for an intermediary agent such as a bank to effect their payments diminished as payment alternatives grew.

During an interview with Forbes Asia in June 2014 (Tan, 2014), as if sounding an alarm bell in the financial industry, Piyush publicly highlighted the need to fundamentally move swiftly into digital banking. Whether people or businesses, customers required banking services, not banks to get things done. This was true in the past. People initially queued up at bank branches to physically perform all kinds of services including updating bank books and withdrawing cash. When ATM machines and postal mail of bank statements came about, visits to bank branches were made less necessary. When the web and Internet banking offered various safe, convenient remote banking services, there was even lesser reason to visit banks. People did not want to go to banks for banks’ sake; they just needed banking services.

When Alibaba went on Initial Public Offering (IPO) on 15 September 2014 (Ho, 2014) raising a record of USD 25 billion, surpassing Agricultural Bank of China’s USD 22.1 billion and VISA’s USD 19.7 billion (Ho, 2014), it was not just the amount raised from the IPO that grabbed the limelight. What could have caused a stir in the financial circles was also the fact that Alibaba was the largest e-commerce company operating at the forefront of end-to-end payment solutions technologies. Alibaba boasted a successful transaction platform called Alipay, which could be widely used to complete payments for purchases on Alibaba’s e-commerce platforms. To DBS, Alibaba could just provide the next generation of banking service if it wanted to. Alibaba was not the only threat. Other large technology companies could also possibly be eyeing the very financial sector which traditionally, due to regulatory controls, counted only banks as the major players.

Apple was another such potential threat. Apple’s successful iTunes and related AppStore payment services suggested its capabilities in providing financial services as well. If Apple were to push an “Apple Bank” app in its AppStore, it could swiftly turn all Apple devices into virtual banking terminals. If Apple had wanted to go into banking, it had the technological sophistication and financial muscle to instantly bring its banking services to millions of users worldwide. If Alibaba or Apple or any of those technology companies (or tech companies in short) chose to extend their services into the financial sector, how would banking be redefined? The rules could be rewritten. Incumbents like DBS could be marginalised.

As a major bank in Singapore as well as the Greater China region, DBS would likely be affected if a disruptive change was to cause a major transformation in the banking industry. DBS could not afford to run its banking business as usual. There was a greater and more urgent need to build deeply
connected relationships with customers, both existing corporate customers as well as customers on the long tail of the distribution, namely the newly rich, small and medium-sized enterprises, as well as under-served young individuals.

**Background**

DBS, the largest among the three local banks in Singapore, had a humble start in 1968 as a government-linked bank. Over the years, with the gradual opening up of the banking industry in Singapore in the 1990s, DBS merged with another local bank, Post Office Savings Bank (POSB), in 1998 to retain competitiveness over foreign-based banks coming into Singapore. Over time, DBS grew to be the largest bank in Singapore and the largest bank by assets in South East Asia (SEA). It further expanded overseas with operations and branches in China, Malaysia, Hong Kong, Indonesia, Thailand, Philippines, Vietnam, Dubai, Japan, South Korea, Myanmar and Taiwan.

As a large multinational corporation (MNC) with 21,000 staff and a long history of being constantly under the regulation of monetary authorities of the countries it operated in, DBS had to run highly disciplined operations to meet regulatory requirements. In addition, many of its key operations were subject to regulatory audit, reporting and control. Over time, it had developed an entrenched culture of following procedures.

**Regulatory tightening**

Even when DBS functioned healthily under benign regional economic performance, any overseas financial-related problems could have strong repercussions. Just when the financial industry was about to get over the crippling effects of Lehman Brothers’ collapse in 2008, the LIBOR\(^1\) scandal broke out in 2012, leading to increased regulatory scrutiny. Prompted by the scandal in London, an investigation by Monetary Authority of Singapore (MAS) in 2013 involving suspicion over LIBOR/SIBOR\(^2\) fixing resulted in some 20 banks, including DBS, being reprimanded severely through orders that led some banks such as Royal Bank of Scotland (RBS), Union Bank of Switzerland (UBS) and Internationale Nederlanden Groep (ING) to increase their reserves to the tune of SGD one billion, effectively crimping their working capital and potential profitability (Vallikappen & Tan, 2013).

The tech-companies which were trying to offer financial solutions, however, did not have to comply with banking regulations since they were not regulated. Unlike banks, their capitals were not regulated; their software was not regulated; their people were not regulated. Yet, they were increasingly offering banking-look-alike services and somehow managed to capture and grow their markets without regulatory supervision.

**Rising China – money and connectivity**

One of the key markets for DBS was China and the Greater China region. This was not surprising given China’s economic performance in the past two decades. According to World Bank data, China’s per capita Gross Domestic Product (GDP) had grown from USD 608 in 1995 to USD 7,594 in 2014, more than 10-times increase over 20 years (Appendix C). Even though there were worries about

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\(^1\) LIBOR – London Inter-Bank Offer Rate – a key interest rate reference benchmark that could affect trillions of dollars’ worth of loans originated by banks. If banks were found to have manipulated LIBOR, serious conflicts of interest would have ensued.

\(^2\) SIBOR – Singapore Inter-Bank Offer Rate – Singapore’s version of LIBOR.
China’s high growth coming to an end in late 2015, China’s growth trend had not seen long-term signs of abating. It would be a market worth committing to. As households garnered higher income, thereby generating more disposable income, the propensity to buy useful high-tech gadgets like smartphones and use of Internet also increased.

According to World Bank data, from 1995 to 2014, China’s mobile cellular subscriptions grew from three million to 1.286 billion respectively. In the same period, the number of Internet users also grew from fewer than 60,000 people in 1995 to 673 million people in 2014 (Appendix C), a 10,000-times increase over 20 years. Connectivity in China alone had given rise to many online opportunities. One such sector of opportunities would be Alibaba’s territory – e-commerce – in which Taobao would be Alibaba’s largest e-commerce site connecting millions of merchants to even more millions of China and international users. Within a short span of a few years, Alibaba had rapidly sprung from Taobao to online payment solution Alipay, and subsequently to other innovative and related financial products and services that began to look more and more like banking products and services.

**Business problem**

*Pressure from Financial Technologies (Fin-Tech) and products*

With the growth of mobile and Internet technologies, tech companies were offering more and more digital services that should have been offered by a bank. For instance, conventional cheque payments and bank transfers in businesses were replaced by the convenience of PayPal. Not everyone could have a chequing account to issue cheques. Not everyone could have a credit card. Not every merchant could afford to have a merchant credit card account. A payer with one payment method could not pay to a payee who could only receive payments in another payment method. But PayPal had solved all these issues online – anyone could easily set up a PayPal account to pay and get paid. This could erode banks’ payment and related services in due course.

Many looked upon Alipay as China’s equivalent of PayPal. What was different about Alipay was that its very large parent company, Alibaba, had effectively digitised the export business and trading for hundreds of thousands of factories and merchants in China. By developing, deploying and deepening the level of trust by their enormous network of users in Alibaba’s Escrow Payment services, there appeared to be increasing likelihood that traditional banking facilities for trading, such as letters of credit, could one day be totally replaced. If manufacturers on Alibaba’s platforms trusted that their goods would be paid, and if buyers trusted that their monies would only be paid to manufacturers upon shipment of goods, then going forward, traders could just perform their trading and banking on Alibaba’s platform directly – there would be no need for banks.

One of Alipay’s products, YuEBao (余额宝), was yet another innovative financial product and service. YuEBao, meaning “the treasures of remaining balanced” in English, started in mid-2013 with just about USD 32 million. By late 2014, it had amassed 534 billion CNY (USD 87 billion) in fund size with 149 million users, implying about one out of nine Chinese used YuEBao. With a respectable performance return of 20 billion Yuan (USD 3.3 billion) in 2014 (China Internet Watch [CIW], 2013), YuEBao was one of the top-ranking funds in the world.

Alipay also teamed up with Taobao to launch Lvyou Bao in July 2014 (CIW, 2014b). By making payments for purchased tour packages early, tourists could earn either discounts or even a one-
night free hotel stay. It was attractive for tourists to buy through Alipay and to pay earlier. With more money streaming in, YuEBao’s fund size could grow further and become a formidable force in the market, if it had not already been so.

Alipay’s creative, out-of-the-box ideas of attracting, leveraging, and growing its money services on its payment platform did not end there. In 2014, it launched a service to provide Chinese tourists tax refund services in Europe (CIW, 2014a). A year before that, it had launched a similar tax refund service for Chinese tourists in Korea. What was normally a banking service involving crediting, debiting of bank accounts and credit cards or issuance of refund cheques had been replaced single-handedly by Alipay by simply by-passing the need for banks. Essentially, when Alipay users login via Internet to see their account balances, it would be as if they were looking at their account balances in banks.

Could Alipay offer tax-refunded tourists the option of investing in YuEBao with potential of gaining extra dollars next? Would Alipay eventually become a “super credit card” company beyond VISA and MasterCard, at least perhaps for the China market? After all, all the elements necessary for credit facilitation were there – merchants, users and trust. This would bring a step closer to reality the scenario where users enjoy banking services completely without the presence of banks. The threat of Alipay and Alibaba to banks like DBS could not be under-estimated. Describing how non-bank companies were offering more and more bank-alike services, Piyush, in his July 2015 “Banking Disrupted” DBS article, used the word “encroachment” to describe these intrusions into the traditional banking services industry. DBS had to react with appropriate and optimal strategic responses soon before Alipay and others like it grew too big and threatening.

Operational priorities
DBS had always focused on wealth management, consumer banking and small business banking. DBS stated in its 2014 Annual Report chapter on DBS’ priorities that the bank aimed to become the bank of choice for its customers, measured by customer satisfaction scores in wealth management, consumer banking, and small and medium-sized enterprise (SME) banking.

With Alibaba’s ambitious fully digital, end-to-end payment solutions and YuEBao’s fully digital, wealth management platform, DBS’ business portfolios were all under serious threat. Furthermore, with Asian consumers and entrepreneurial small businesses getting more Internet- and mobile-savvy, the demand for fast, accurate, timely and quality banking services to help these millions of users get things done was colossal. While the usual banking activities of making contact through email, telephone calls, and face-to-face meet-ups at bank branches were not all lost, they would be too slow, too short on capacity, and too cumbersome to meet modern banking service demands.

Strategic responses
The key competitive lever was not in doing things faster and better in the usual way. Instead, there were several initiatives which DBS had been exploring to get ready for fully digital banking:

- Extend DBS’ Internet banking services to be more comprehensive and all-rounded
- Expand DBS’ wealth management asset size quickly to match or exceed YuEBao
- Develop knowhow and access to key technologies like big data analytics
- Crowd-source for new ideas by working with start-ups
Change the entrenched “follow-the-rules” culture of DBS to one that would be dynamic, adaptive and nimble.

Extend DBS’ Internet banking

The post-2008 financial crisis period had seen an increase in cost-saving pressure in many sectors. The banking industry was no exception. Internet banking became a necessary channel to develop so as to relieve staffing pressures at the branches and various processing departments. DBS had good success with its iBanking platform, not just for retail customers, but also SMEs and MNCs. By making its customers take over some of its banking tasks in the form of D.I.Y (do it yourself) services, DBS’ iBanking customers were not only delighted with the new-found capability of banking anywhere anytime, but were also more connected with DBS. They perceived that DBS understood them better. DBS was able to learn more about various aspects of customers’ banking behaviour through electronic traces, such as which transactions were used more frequently, how long transactions lasted, and so on.

E-statements – the electronic equivalent of paper bank statements mailed to customers – were introduced in November 2010 as part of DBS’ iBanking services (DBS, 2010b). It was a win-win for DBS and its customers. Customers could keep their bank statements in soft copy form which was more amenable to computer searches, while DBS saved millions of dollars of paper statement processing costs, such as procuring paper, printing and postage.

DBS also quickly tapped into the worldwide online payment services by partnering with PayPal to offer direct PayPal top-up services via DBS’ iBanking (DBS, 2010a). Using DBS’ iBanking, customers could remotely top-up PayPal accounts via the Internet any time, especially when they urgently needed to do so due to e-commerce transactions. PayPal provided truly anytime, anywhere, multi-channel, mobile- or non-mobile, credit- or non-credit card payments to merchants worldwide. With the boom of e-commerce and online transactions requiring payment solutions, PayPal’s growth was quite assured despite upcoming challenges by newer start-ups. While this partnership with PayPal might not be a huge source of income to DBS, it provided a thermometer for DBS to know the growth of payments, the velocity of transactions and the volume of monetary transfers involved in the online world, at least for those account holders with DBS.

However, whether DBS should partner with Alibaba’s Alipay in the same way as it did with PayPal would be a different story. If the partnership were carried out, users of Alipay, for instance, could top up their Alipay accounts through DBS accounts just like how PayPal accounts were implemented. Such a partnership could well be a double-edged sword. On the one hand, one of the potential advantages with this partnership could be for Alipay to provide DBS with a native and well-established network of clients to bank with DBS in China. DBS might benefit from tapping the existing customers of Alipay and understanding the user behaviours better, the same way DBS had benefited from partnership with PayPal. On the other hand, partnering with Alipay would not be exactly the same as partnering PayPal, as PayPal did not have a wealth management unit like YuEBao to potentially compete with DBS. Besides, supplementing Alipay with a large and reliable bank like DBS might serve to enhance the image of Alipay while relegating DBS to a mere traditional back-end supporting bank in the
minds of customers. DBS might end up having a hard time trying to brand its own wealth management skills in China. The up-side to DBS in such a partnership with Alipay was becoming less clear.

Expand DBS’ fund size
In wealth management, fund size matters. Both cost efficiency of fund management and branding could be positively enhanced when a fund’s size became market-leading. When DBS acquired Société Générale Private Banking Asia (SGPB Asia)’s management unit in October 2014 (DBS, 2014b), it leapfrogged into seventh place as Asia’s leading private banking business with approximately SGD 88 billion (USD 63 billion) worth of assets under its management. It had been aiming to reach USD 100 billion by 2017 by tapping into the growth of wealthy millionaires in the Greater China region (Azhar & Daga, 2015). It would be an ambitious plan, given that the traditional way to build wealth management fund would be through branding, tapping relationships with wealthy individuals, families and corporations, and performing enough investment activities to realise the returns. These sources of funds were larger in size but gathered from fewer, more wealthy individuals or businesses and were typically managed for a longer period of time like a year or more. The bank needed a critical mass of stable funds so that fund management would be cost effective. Without the insistence of a huge minimum sum of, say, SGD one million per customer over a locked-in period of, say, a year or more, the costs of managing voluminous amounts of small transient funds would be prohibitive. The traditional way of building a wealth management fund took a long time to build brand name, credibility, infrastructure, customer relationships, investment know-how, and many other tangible and intangible factors before clients would sign up.

In contrast, YuEBao’s USD 87 billion was gathered from 149 million users with an average of about USD 584 per person (CIW, 2013). In other words, YuEBao had been performing wealth management for as small a size as USD 584 with no lock-in period and no minimum fund size. The drastic reduction in the qualifying requirements for clients immediately opened up a very large market of “nano-investors” – anyone with about USD 500 of investible money could have his or her “wealth” managed by YuEBao, even for just a day. But more importantly, this tiny quantum of fund was increasingly affordable to millions of increasingly affluent people in China who would see this as a viable alternative to grow their savings. The lack of a lock-in period meant that YuEBao’s customers need not think very hard about taking up an investment with it. They could view an investment with YuEBao as an alternative to savings which can be cashed out at any time. In fact, this would mean that in days of good returns, it could even be a better alternative than a fixed deposit which offered low interest returns and longer lock-in periods.

With such a versatile digital wealth management platform, YuEBao could conceivably capture many other sources of investible monies, especially small sums of transient payments. YuEBao indeed partnered with Taobao to launch a large online travel site, Lvyou Bao (CIW, 2014b), in mid-2014 to capture payments for travel packages. Imagine having a checkbox on the five-day tour package to Beijing suggesting, “check here if you allow YuEBao to invest your payment until you complete your tour for a potential gain of a free night’s stay”. With a supporting partner’s agreement to share the gains and absorb some losses, YuEBao could even offer no
principal loss assurance to Lvyou Bao package tour customers. Such offers would be too tempting to ignore, since at the point of check-out, the buyer would have already been mentally prepared to pay the tour package’s fees anyway.

The qualitative difference between YuEBao’s USD 87 billion and DBS’ USD 63 billion could not be more different. YuEBao’s USD 87 billion was made up of very small investment amounts such as USD 500 from 149 million people who would not expect much relationship building. DBS’ USD 63 billion, on the other hand, was made up of very large investment amounts from a smaller pool of wealthy and sophisticated investors who require higher level of relationship building.

**Gain access to big data analytics**

One attractive characteristic which a platform like YuEBao could enjoy would be the opportunity to apply big data analytics to extract golden nuggets of investment trends, customer latent behaviour, and profitable marketing or sales opportunities from extremely large datasets. YuEBao’s customer base would contain voluminous amounts of data gathered from a variety of sources that could be mined in real time to identify where profitable wealth avenues might reside. However, talents with a good combination of big data analytics, computing, and business skills were scarce, both locally and internationally. News about poaching of key staff from competing local banks kept up the worry about how this key initiative could be grown.

DBS signed two partnerships almost in quick succession of each another in January and February 2014. The first partnership, announced on 9 January 2014, was signed with IBM to tap Watson cognitive computing analytics technology for wealth management to improve the advice to and experience for DBS’ customers. This made sense as IBM was eagerly looking for application showcases to monetise the worth of Watson technology – IBM’s crown jewel technology in artificial intelligence that beat human players and won the Jeopardy show in 2011. Like a tailor-made search engine targeted to find useful information from enormous amounts of big data, DBS could use Watson technology to find timely, profitable investment strategies that would be custom-fitted to individual investor requirements.

There was, indeed, some degree of exoticness in this application of big data analytics technology in wealth management. At the very least, DBS could tap on the novelty of applied analytics to differentiate itself from other wealth management firms. IBM had formed a business group around Watson, having invested billions of dollars to fund its research and development, and had hired nearly 2,000 highly specialised people to develop Watson’s technology. IBM would almost certainly be grooming Watson further in the future. The more IBM invested into Watson, the more DBS could benefit indirectly. It was a sure-win partner.

However, there are always two sides to a coin. Watson might be able to analyse billions of investment documents and mine data from myriad sources, but could it come up with a definitive solution so that DBS could guarantee profit to its wealth management clients? Could Watson’s analytics actually identify sure-win investment solutions? So far, the answer was “no”. Winning an entertainment show was one thing. Developing investment solutions and
being responsible for millions of dollars of investment gains and losses was a totally different thing altogether. Should DBS’ future competitiveness be staked on Watson alone?

The other partnership DBS signed in February 2014 was with local A*Star’s Institute for Infocomm Research (I²R) (Agency for Science, Technology and Research [A-STAR], 2014). The partnership sought to jointly develop research into leading technologies such as data analytics, mobile and social media technologies. DBS could tap on the research results to internalise the know-how as well as the potential to use them in its operations. In this way, DBS would not have to be constantly disadvantaged by the dependence on third parties for analytics skills and technology that would be critical to its future business successes. But this partnership was also not without its own challenges.

One notable concern would be that I²R had been predominantly focused on research work. Well-founded research might not always equate to commercial viability. Furthermore, DBS would not be in the best position to perform commercialisation or operationalisation of the research findings. This could mean that there might be time gaps and development gaps even if interesting research findings were discovered by I²R teams. In addition, the pace of I²R’s research might not meet the needs of DBS. I²R might not face the same pressure which DBS faced in getting new services to be urgently commercialised in order to leverage first-mover advantages. It had been a year and a half since the partnership was signed in February 2014, yet there was no major announcement of results from the partnership. This might be a sign of long gestation time required in a research-oriented setting.

A quick probe in the online world, such as LinkedIn, would reveal that in just the past year, at least two I²R data scientists at doctorate level had either left on their own, or were poached by DBS, to work in DBS’ analytics team. At around the same time, another I²R data scientist with doctorate degree who was working on the DBS-I²R left to join VISA. It would not be surprising that the progress on DBS-I²R project would be slowed down by employee turn-over and strategic changes. However, from a talent-acquisition perspective, DBS would still gain from such a partnership as it was able to access a pool of highly qualified analytics talents, especially those who became more acquainted with DBS’ requirements and culture through working on the DBS-I²R project.

Work with start-ups
In 2014, together with Ideatory.co, DBS organised a Start-up Hackathon event to attract financial technology (or fin-tech in short) start-ups to showcase their ideas and talents to DBS, achieving both crowd-sourcing of ideas as well as extracting true talents from the crowds. Encouraged by the apparent success of the event, DBS ran an even bigger MegaHackathon in 2015, with CEO Piyush Gupta as one of its panel of judges (DBS, 2015a). The event yielded 19 mobile apps, with cash prizes ranging from SGD 2,000 to SGD 8,000 for the winner.

Separately, in April 2015, DBS Hong Kong initiated an accelerator programme through its collaboration with incubation firm Nest, inviting start-ups with innovative or disruptive technologies to join them (DBS, 2015b). The goal was to use Nest as a platform for DBS to access fresh ideas in the hope of leading and steering a new wave of disruptive innovations.
DBS had committed SGD 200 million funding for the next three years in addition to spending SGD 600 million annually on technologies (DBS, 2015c). The hackathons and incubation program were not merely marketing campaigns. They were outreach platforms for DBS to connect with talents and start-ups. Funding, attracting and incubating fin-tech start-ups would allow DBS to essentially take charge of its banking future. By owning part of the intellectual property of fin-tech start-ups, having shares in these start-ups, building deep relationships with the founders of start-ups, and sharing the development journey with the start-up teams, DBS had made it more tangible to control its future.

Change DBS culture
During his Forbes interview (Tan, 2014), Piyush recounted one of his branch visits soon after he took over the helm of DBS. He chose to “join the queues and try and understand why people are in the queues for so long”. He recalled how the teller at a front desk had to leave the client at the counter to use the photocopier, which was inconveniently situated somewhere in the back office, to make copies of the signed paper, before returning to the client at the front desk. All this running around meant service time loss, fewer clients served, longer queues, and ultimately less satisfactory customer service. Why must DBS’ customers strain themselves so much, at times standing in the queue for more than an hour, just to do business with DBS?

“We were driven by policy and procedure,” Piyush shared plainly in his Forbes interview. To remedy the situation, the relevant managers were given the liberty to (within the limits of their authority) streamline procedures to enhance customer satisfaction. Using a combination of workflow re-engineering and a suite of technologies ranging from number ticketing to SMS queue service (The Asian Banker, 2015), DBS branches have since served customers with greater efficiency. While queuing and waiting were still inevitable, customers could wait while seated on comfortable sofa seats.

This was the kind of organisational culture change Piyush had wished to see more often in various DBS operations. More importantly, instead of always relying on observations and instructions from the top, it would be far more desirable for managers or staff to question inefficiencies, investigate the causes, and come up with solutions to improve or change the status quo. To be capable of meeting the challenges of the decade to come, the entire DBS organisation had to change from the entrenched “follow-the-rules” culture to a culture that was dynamic, adaptive and nimble.

Changing organisational culture would take time, if it could ever be changed at all. For DBS, it might be three to five years (Tan, 2014). Furthermore, such transformation could not come from a mere directive from the top. It would have to be a consistent and persistent effort.

For example, pairing up in-house staff with start-up companies in MegaHackathon event would expose staff to different work cultures and ethos. In cases of conflict, staff would have to convince or be convinced by the entrepreneurs, which sometimes ran orthogonal to “follow the rules” thinking. To emphasise the importance of such forms of training and dismiss any
thought that the collaboration with start-ups was just the flavour of the day, Piyush placed himself in the judging panel (DBS, 2015a) to gain first-hand observation on how his staff reacted to entrepreneurial situations.

The “follow-the-rules” way of thinking clearly had to go. Instead, DBS might have to adapt some form of “fail fast, learn fast” start-up culture. In all fairness, such an extreme shift in thinking culture might not even be achievable in three to five years. However, DBS might not have the luxury of time.

Final remarks
Although DBS had been executing strategic responses to the threat posed by disruptive technologies and innovative financial products and services introduced by technology companies, there would always be concerns as to whether these responses were sufficient or proper. Would those strategies backfire? What else could DBS do? Which product or function of banking will tech-companies attack next?

The effort to fend off tech and start-up companies from encroaching into the banking sector seemed unending. As the old saying goes, “if you can’t beat them, join them!” It would not be difficult to “join” the tech movement. But unlike technology companies which were typically agile in turning strategy into action, the banking industry was encumbered with layers of regulatory supervision that could slow things down.

So far, shareholders were still happy with and supportive of Piyush’s unorthodox approach in preparing DBS for future digital banking. But this was partly due to the rising DBS share price (Appendix A) buffered by an absence of significant external economic shocks. In times of economic turbulence, however, shareholders might not be as understanding and patient.

End-of-Case Questions

Question 1
Are the strategic responses by DBS to the threat of tech companies appropriate? Are they effective? Comment. What else could DBS do?

Question 2
What challenges do you think Piyush Gupta will face in steering the four-decade-old DBS against, for instance, a four-year-old technology start-up? List and explain them.

Question 3
Why does Piyush Gupta sound the alarm in the banking industry about his perception of the threat posed by tech companies? If his perception of the threat was right, would it not be better for him to work on it quietly to gain competitive advantage for DBS? Why would he need to alert players in the industry to brace up for the threat and share with them what DBS is doing to counter it?
Appendix A

DBS Stock Price Performance

Under CEO Piyush Gupta’s management, DBS’ stock price had been steadily rising from the lows of SGD 5 in 2009 to more than SGD 20 in 2015 (Yahoo Finance, 2009; 2015). Figure 1 below shows the bank’s share price from 2009 to 2015. The figure is constructed using raw share price data from Yahoo Finance.

Figure 1: DBS Share Price from 2009 to 2015
DBS boasts a strong balance sheet, with increasing deposits from customers to serve as the base for many financial products. However, its net profit appears to be stabilising, visibly lacking the leap shown between years 2010 and 2011. Figures 2 to 4 show the financial performance of the bank.

Figure 2: Net Profit of DBS from 2009 to 2015
Source: DBS Annual Reports, 2009 to 2014

Figure 3: Deposits from Customers from 2009 to 2015
Source: DBS Annual Reports, 2009 to 2014

Figure 4: Balance Sheet of DBS from 2009 to 2015
Data source: DBS Annual Reports, 2009 to 2014.
Appendix C
China GDP per Capita and Internet Usage

Figure 5 shows that over a period of 20 years, China’s per capita GDP had grown from a low of USD 608 in 1995 to USD 7,594 in 2014.

![GDP Per Capita (US$)](image)

Figure 5: China per capita GDP from 1995 to 2014
Source: Figure constructed using data from The World Bank (2015)

In the same period, China’s mobile cellular subscriptions grew from 3 million to 1.286 billion (see to Figure 6). The number of Internet users also grew in tandem from fewer than 60,000 people in 1995 to 673 million people in 2014 (see to Figure 7).

![Mobile Cellular Subscriptions](image)

Figure 6: China mobile cellular subscriptions from 1995 to 2014
Source: Figure constructed using data from The World Bank (2015)
Figure 7: Number of Internet users in China from 1995 to 2014
Source: Figure constructed using data from The World Bank (2015)
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About Nanyang Technopreneurship Case Centre

With funding from both the National Research Foundation of Singapore and Nanyang Technological University, the Nanyang Technopreneurship Case Centre (NTCC) was one of the initiatives of the Nanyang Technopreneurship Centre (NTC) to enhance the quality of entrepreneurship education through the case pedagogy. These are part of NTC’s efforts to foster, promote and nurture enterprising mind-sets, skills and knowledge in entrepreneurship education.

There is a plethora of business cases but a general paucity of cases highlighting the specific problems faced by technopreneurs in growing their ventures. NTCC adds value to Technopreneurship education by developing a pool of cases on technology-based local and international enterprises. Through the cases, NTCC hopes to share the experiences, success stories and challenges faced by entrepreneurs/intrapreneurs in growing their organisations and how they overcome their problems to sustain growth.

The theme of this first compendium is “innovation through technology”. It features Singapore-based and global companies confronting issues and challenges due to technological shifts in the industry and changing market and competitive dynamics; when introducing new products in the marketplace; and in using technology to drive organizational change.

Online versions of these cases are available for complimentary downloads at www.ntc.ntu.edu.sg/ntcc.

Teaching notes are also available to faculty members for use as reference, reading and/or teaching materials in various academic and professional programs. For further information, please contact Ms. Denise Lee (deniseleecw@ntu.edu.sg) and Mr. Wu Chong Chuan (wucc@ntu.edu.sg).

Acknowledgment

The Nanyang Technopreneurship Case Centre (NTCC) was supported by the National Research Foundation (NRF) and the Nanyang Technological University (NTU). We would like to thank NRF and NTU for their funding support.

We would also like to show our gratitude to all the writers, reviewers and anyone who have contributed to the accomplishment of the NTCC.