

## Driving Digital Transformation at the DBS Bank

"We are really going to put our efforts behind a digital growth strategy...

The window is a five-year one. If you don't get the digital transformation right in the next five years, you will be history."

Piyush Gupta, CEO of DBS Bank in an interview with the *Financial Times*, September 28, 2015

DBS, the largest bank in Southeast Asia, embarked on a journey of digital transformation in late 2013. In parallel with creating a new organizational unit called Digibank to spearhead the expansion of DBS into new markets, the bank launched the Digital Mindset program to help change the company from within. This program was run by the Leadership Institute Team within the Learning and Development Unit. At the heart of this program were "hackathons," which the bank defined as immersive learning experiences that exposed top executive talent from the bank to new ways of thinking and working "like a start-up." By March 2015, half of the bank's high-potential vice presidents, senior vice presidents, and executive directors had taken part in a hackathon event. It was now time to assess the results and decide what to do next.

"The feedback from the hackathon participants and business sponsors has been excellent, but we need to consider whether hackathons are, in the end, the best format for what we are trying to accomplish," Khoo Teng Cheong, group head of learning and development at DBS, summed up at an executive meeting. The bank's executives were generally supportive of the program but expressed several concerns about hackathons. Two particular issues required attention: (1) how to extend hackathons throughout the DBS organization and (2) how to make sure that the new ideas and practices developed in hackathons were incorporated in the daily jobs of DBS managers and staff.

This case was prepared by Professors Evgeny Káganer and Robert W. Gregory, and Catalin Codrean, research assistant, with the support of the Human Capital and Leadership Institute, Singapore, as the basis for class discussion rather than to illustrate either effective or ineffective handling of an administrative situation. October 2016.

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In about a week, the members of the learning and development team were to present their recommendations on the evolution of the bank's Digital Mindset program to the CEO. By then, they would need to address the concerns of the key executive stakeholders about the hackathons and lay out a clear plan for what would be the next step in fostering the digital mindset among DBS employees – including building core digital competencies and scaling up programs to encourage staff to embrace digital.

## DBS History and Background

DBS Bank Ltd, formerly known as The Development Bank of Singapore, started its operations in 1968 with a mandate to provide long-term loans and financial assistance to manufacturing industries in Singapore, as well as to support the development of new industries. By 2015, DBS had grown to become the largest bank in Southeast Asia, employing 22,000 staff across 18 markets. The bank catered to both consumer and institutional banking clients and had a strong capital position with S\$457 billion (about €300 billion) in assets.

In its home market of Singapore, DBS was a leader across a wide spectrum of businesses including consumer banking, institutional banking and capital markets. The bank served more than four million customers through an extensive network of nearly 100 branches among more than 2,500 "touchpoints." (According to DBS, "touchpoints include DBS/POSB branches, self-service banking machines, AXS terminals and strategic partnerships.") Outside Singapore, the bank's main focus was on affluent, corporate and SME banking. The bank's key markets were: Hong Kong with 49 branches, Taiwan with 43 branches, Indonesia with 44 branches, the Chinese mainland with 34 branches, and India with 12 branches.

The competition that DBS faced included strong regional players, such as United Overseas Bank (UOB), Oversea-Chinese Banking Corporation (OCBC), and Maybank (the largest financial group in Malaysia), as well as global banking groups such as Citibank, HSBC, Standard Chartered and BNP Paribas.

In 2015, DBS made a profit of S\$4.45 billion on a total revenue of S\$10.8 billion. (See Exhibit 1.) Some 62% of the group's revenue came from Singapore and 21% from Hong Kong, while the growth markets of the Chinese mainland, Taiwan, India, and Indonesia jointly contributed around 14%. (See Exhibit 2.) The year 2015 saw the bank achieve 28 consecutive quarters of consistent income growth, which started back in 2009 when Piyush Gupta was appointed the CEO.

## Setting Up the Stage for Digital Transformation

Gupta, a 27-year career veteran of Citibank, became CEO of DBS Group Holdings in November 2009. His main task was to help DBS realize its vision of becoming the "Asian bank of choice for the new Asia." At the time, financial institutions in the United States and Europe were still reeling from the consequences of the 2008 global financial crisis, struggling with liquidity issues and laying off employees in the regional markets. Asian banks, on the other hand, were significantly less exposed to the crisis and Gupta sought to take advantage of those circumstances to solidify and expand the market position of DBS in Asia.



#### Process Improvement and the RED Program

Process improvement was one of the first major internal initiatives spearheaded by Gupta. At the time, many managers prioritized cost concerns over customer satisfaction. Indeed, the 2009 Annual Customer Satisfaction Index published by Singapore Management University ranked DBS last among the top five banks in Singapore. Gupta was determined to reverse this trend.

Paul Cobban joined the bank as chief operating officer of technology and operations shortly before Gupta's arrival. His mandate was to streamline internal processes throughout the bank, many of which were poorly defined and structured at that time. Cobban recalled: "Our goal was to improve process management. We started by running five process improvement projects in 2009 as a pilot. Piyush liked the idea and asked us to do 50 in 2010."

To scale up process improvement across DBS, Cobban and his team introduced a new process improvement event (PIE) methodology. (See Exhibit 3.) A PIE involved a series of well-defined steps, including current-state mapping, a waste walk, future-state mapping, an action plan, documentation and an out-brief, and took five days to complete. By the end of day five, the team would define and document an action plan to eliminate waste and cut a certain number of customer hours from the process. Between 2009 and 2013, DBS employees had completed 184 PIEs, saving more than 230 million "customer hours" in the process.

In 2010, Gupta introduced a new corporate strategy to help accomplish the vision of making DBS the "Asian bank of choice for the new Asia." The strategy was based on five pillars, which it called Asian relationships, Asian insights, Asian innovation, Asian connectivity, and Asian service.

Gupta announced: "We have to become the best bank in Asia in terms of customer service and for this we need to define what Asian service is." Cobban and a colleague were given six months to work out the definition. He recalled: "We spoke to customers, experts, and employees and came up with 96 ideas about what Asian service was. Then, in August 2010, we spent two days locked up in a room with the bank's top 50 executives, trying to distill the 96 ideas into three key themes. What came out of this exercise was 'respectful, easy to deal with, and dependable,' or RED for short. And this is how the RED program was born." (See Exhibit 4.)

With red being an auspicious color for Asia and one of the corporate colors of DBS, the RED program resonated well with customers and employees alike. To build awareness of the bank's RED values, Cobban's team embarked on a massive organization-wide communication campaign, employing a variety of means – from town-hall style debates to departmental meetings to internal discussion forums. In addition, a comprehensive training curriculum was deployed at different levels of the organization. About 2,000 frontline staff, 700 RED "change leaders" (middle managers) and 250 RED leaders (top managers) were trained as part of the program. RED intranet stories, awareness sessions, customer hours, and training hours were incorporated into the bank's scorecards.

At the end of 2011, a staff survey revealed that 85% of employees knew what RED stood for, while 90% felt that RED was implemented at work. The process improvement and RED initiatives also started to bear fruit with external stakeholders as DBS bagged the coveted first place among banks in the 2012 Customer Satisfaction Index of Singapore.



## Customer Journey and Human-Centered Design

Since its launch, the RED program had relied on the PIE methodology as the main vehicle to embed RED values into the bank's products and services. Cobban explained: "We wanted to make sure there was substance to the RED program, the 'hardware,' if you will, to drive change. And so the process improvement tools and the training that came along were fulfilling that purpose."

Yet, the PIEs were also seen by many of the bank's business executives as primarily an operational concern. These were "process" events focused on improving efficiency and hence people at operations were often expected to take care of them. Another concern was the insideout perspective that the PIE approach imposed on project teams. The team would start by analyzing an existing internal process and then think about how to make it better to improve the customer experience. In a world where customer behaviors and expectations were changing fast, this approach had significant limitations.

In late 2012, Raju Nair, a member of Cobban's team, started to look into the concept of customer journeys (CJs). Having just read the book *Outside In*,<sup>1</sup> Nair set out to develop a CJ mapping methodology to take the DBS process and customer experience improvement efforts to the next level. Focused on understanding customer activities, needs, perceptions and emotions, CJ maps were designed to help the project team determine the full scope of a customer problem and, from there, design a new and improved experience. (See Exhibits 5 and 6.)

Shifting the language from "process improvement" to "customer journeys" also helped change the perception of the program within DBS. The bank broke down silos and moved away from the thinking that the "process" was the responsibility of operations, and the "customer" was the domain of business. Business executives throughout the bank eagerly embraced this new approach but taking it further required a change in methodology. To step out of the traditional process paradigm, Nair turned to human-centered design (HCD), a creative approach to problem solving rooted in a deep understanding of people's needs, behaviors and emotions to build better products and services.

In March 2013, Nair went through immersive training in HCD with a small team at the LUMA Institute in Pittsburgh, Pennsylvania. Upon their return to Singapore, the team took over a small meeting room on level five of the head office at Marina Bay Financial Centre and ran a test project using the principles and tools that they had learned. They then called in Gupta and David Gledhill, DBS Group head of technology and operations, to share the results. Both executives liked what they saw and from there on HCD became a core element of the DBS organizational change methodology.

The HCD lab was officially launched in July 2013. Nair recalled: "We didn't do a big launch event. We got the space and just started using it. We removed all the existing office furniture and replaced it with stuff from IKEA. Everything had to be movable and reconfigurable. We got ourselves a workbench. People would ask: 'Why would a bank need a workbench?' But we wanted the space to look and feel different so that it stimulated a different kind of thinking.

<sup>&</sup>lt;sup>1</sup> H. Manning and K. Bodine (2012). *Outside In: The Power of Putting Customers at the Center of Your Business*. Boston: Houghton Mifflin Harcourt. Retrieved from <a href="https://books.google.es/books?id=zBy2a9bMfXYC">https://books.google.es/books?id=zBy2a9bMfXYC</a>.



We did well, I guess. Today, when teams – including senior executive teams – feel a need to think outside the box, they come to the lab."

In 2013, DBS conducted 15 "CJ design events" in areas such as account onboarding, wealth, and co-branded bank cards. An ambitious target of 100 CJs was included into the group scorecard for 2015. Business executives from the bank started to approach Nair asking for help. "I told them they had to identify a problem to work on and form a team. We don't train folks just because they have a generic interest. You need to have a specific problem to solve," Nair explained.

HCD training consisted of a two-day workshop aimed at helping the project team learn how to observe human behavior, understand the challenges and opportunities it entailed, and envision and design better solutions. The team would then apply the new methodology to the problem at hand. Initially, HCD workshops were offered only in the head office but they quickly expanded into all markets. In less than two years, Nair's team completed 43 two-day workshops, training more than 700 staff members in the process.

#### Digitizing the Back End

Revamping the corporate IT infrastructure was another key stepping stone toward Gupta's vision of making DBS into an "Asian bank of choice." The effort took several years to complete and was led by Gledhill. He recalled:

"When I arrived, several IT mega projects were under way – replacing core banking platforms in Singapore and Hong Kong, creating a centralized data warehouse for the entire bank. All great priorities, but were they really aligned with our strategy? We weren't sure about this."

Gledhill also felt that the bank was ill prepared at the time to take on massive IT transformation projects. The internal team was small and key tasks were outsourced. Projects that had been initially planned to run for two years ended up running for three with no end in sight. "My assessment at the time was: you can't climb mountains until you know how to tie ropes. We had to start with small chunks and build the capability to attack the big things," Gledhill explained. With these ideas in mind, a decision was made to pull the plug on the ongoing projects and refocus the IT organization and budgets on three key priorities: *resilience*, *nimbleness*, and *innovation*.

Building resilient world-class core IT systems came first. "We set aside a significant chunk of money to invest every year in building the resilient core. No one could touch this money and it would never go away. We were just going to get it done," Gledhill recalled. Targets were established, such as 100% availability, 100% backup, and 100% security.

A Jenga tower<sup>2</sup> icon became the symbol of building resilient IT infrastructure inside DBS. "We were going to build better systems than Jenga – better than the cloud, we said. Even if someone had to pull a piece out of our 'core,' the systems would not fail," Gledhill reflected.

<sup>&</sup>lt;sup>2</sup> Jenga is a game of physical and mental skill in which players take turns removing one block at a time from a tower constructed of 54 blocks. Each block removed is then balanced on top of the tower, creating a progressively taller but less stable structure. (See <a href="https://en.wikipedia.org/wiki/Jenga">https://en.wikipedia.org/wiki/Jenga</a>.)



Nimbleness, depicted internally by an icon of an elephant balancing on a ball, aimed to enable the business to make progress on key strategic objectives. For DBS, these focused on expanding outside Singapore and Hong Kong and growing in emerging markets.

"We asked ourselves: What do we need for our SME business in India? New payment capability? Great new Internet front end? Best-in-class technology for trade?" Gledhill continued. "We went through this process for each product and each country and came out with this red-amber-green matrix – countries in columns and capabilities in rows – which made it clear to everybody at the bank where we were and where we needed to get to."

This color chart anchored the IT strategy conversation throughout the bank. Everybody owned a piece: country heads were responsible for the columns, and product owners for the rows such as private banking and secured loans. The Board reviewed the chart regularly, while every month the bank nominated a "star employee" for the biggest contribution to the effort of "digitizing the bank."

In a record-breaking 12 months, DBS was able to roll out a best-in-class banking platform across 12 countries. The chart, red in the beginning, gradually turned green. With a consistent stable platform in place, the bank was finally able to turn its attention to the third priority: innovation. Represented by an icon depicting drilling for oil, it called for the exploration of new business opportunities through technology.

## Digital Transformation Becomes a Strategic Concern

As DBS continued to ramp up its efforts in the areas of process and customer experience improvement, the bank also started to pay increasing attention to digitization. The rapid assimilation of digital technologies into all aspects of people's lives was key to changing customer behaviors and expectations. Furthermore, digitization was reshaping competition in financial services by lowering the barriers for fintech start-ups and large digital pure plays – such as Alibaba, PayPal and Square – to enter the fray. To meet these challenges, DBS started building a suite of digital offerings, including online remittances, mobile banking and homebuying applications for retail customers as well as online account opening and loan applications for corporate clients.

In late 2013, the digitization agenda at DBS gained new momentum. As a dominant bank in Singapore, DBS could grow only by expanding beyond its home market. Yet, growing through acquisitions had become increasingly difficult as the regulatory environment in many Asian countries was getting tougher. Organic expansion via traditional brick-and-mortar infrastructure was also challenging, as local competitors already had thousands of branches in operation. Entering a new market with a digital banking solution was a potentially more viable avenue for growth.

"Our thinking about digital banking was pretty mature at the time," Cobban explained. "While most banks viewed digitization as a way to shift their existing offerings onto the Internet and mobile platforms, we thought of it as an opportunity to create new business models, enter new markets, and establish new revenue streams."



To develop and validate this vision, DBS embarked on an extensive process of research and due diligence, engaging major strategy consulting firms, benchmarking leading companies inside and outside the industry around the world, and conducting weekend-long workshops to flesh out an action plan.

In early 2014, DBS announced that it would invest S\$200 million over the next three years in digital banking initiatives.

## Digital Bank

To move forward with the ambitious digital transformation program, Gupta and his team first had to decide on how to set up a new digital banking organization. One option was to establish a separate company and staff it with diverse talent from outside the banking industry. Alternatively, the bank could expand the responsibilities and resources of the current e-business team that had been developing digital solutions for the Singapore and Hong Kong markets.

In the end, DBS decided on a hybrid approach. The new unit – Digibank – would be part of DBS but have significant decision-making and resource autonomy. Olivier Crespin, formerly chief operating officer for retail and wealth management at DBS, was appointed to lead Digibank.

#### Staffing the Digital Bank

The first task of Crespin and his team was to staff the new Digibank team. The hiring was to take place both outside and inside DBS. Externally, the goal was to identify and attract talent that did not exist inside the bank. Crespin recalled: "We were looking for designers, technology and start-up folks, people with experience in industries other than financial services. Usually, we would go after people who had some connection to Asia, who had worked or studied in Silicon Valley or Europe but wanted to come back."

At first, attracting top talent from the likes of Google and Apple to go and work for a traditional bank looked like a daunting task. Yet the bold vision for the future of banking – where "banking is necessary but banks are not" – embraced by DBS persuaded many top candidates. Indeed, many of the newcomers described the bank's corporate culture, led by HCD and customer journey thinking, as "driven by creativity and innovation." Others were excited about joining a project that promised to transform a large established bank into a technology company focused on helping people use and manage money to meet their life goals.

Inside DBS, Digibank was hoping to attract people with a certain mindset – flexible, digitally savvy, capable of adapting on the fly and working independently. Initially, Crespin's team was looking for people with this profile in leadership positions across DBS, regardless of the business area or functional role. Over time, however, the need for certain kinds of functional expertise became more apparent. Experts in payments and, later, customer acquisition and partnerships were brought on board.

Bringing two distinct cultures – corporate and start-up – together under a single roof was not all smooth sailing. The banking side complained about the lack of structure in the daily work, while the "start-up" crowd felt the environment was too rigid, with too many rules in place. "In the beginning, it was quite difficult to find the right balance," Crespin recalled. "We spent a lot of



time figuring out how to put enough structure in place while at the same time ensuring the right level of flexibility. Open communication was key. Anyone who had a problem was able to raise it and we would respond immediately, dealing with it in a direct and transparent manner."

As of June 2015, Digibank employed 30 people in Singapore in the areas of products, UX (user experience), copywriting, analytics, business development and partnerships, and project management. In addition, 20 people were deployed "on the ground" in India, where the initial launch was planned. In Singapore, the team occupied its own floor in the Eightrium building in Changi Business Park, outside the bank's headquarters in the heart of Singapore's financial district. The organization was very flat, with Digibank's leadership sitting next to developers in a single open-floor office space.

To gain leverage and the ability to scale quickly, Digibank had a direct mandate from the CEO to draw on the resources of each and every DBS division. Gupta himself held two-hour weekly meetings with the Digibank team to review the current state of development and prepare for the roll-out. In the words of a Digibank staff member: "Piyush was almost like a member of the core team, taking several hours a week to go over key product details and main challenges of the go-to-market strategy." Stakeholders from other parts of the bank, from e-business and operations to compliance and country teams, regularly joined the meetings and reported together with the Digibank staff on the project's progress.

## Developing a Mobile Banking Solution for India

The main focus of Digibank was on developing a digital banking solution for the Indian market. At the time, DBS was only nominally present in India, with 12 physical branches in major cities, including Mumbai, Delhi, Kolkata, Chennai, Bangalore and Pune. The idea was to expand the bank's presence by launching a mobile application offering a range of services to retail customers. (See Exhibit 7.)

As the first step in the design process, the Digibank team went back to the whiteboard to try to answer the question: "What kind of needs do customers have when it comes to money?" Keeping in line with the HCD thinking, the goal was to identify key "jobs to be done" for the customer. After much discussion and deliberation, four such jobs were established. Customers cared about the ability to: (1) hold money, (2) move money, (3) grow money, and (4) get money when they did not have any.

While each of these four jobs could be linked to a particular set of banking products and services – deposits, payments, investments, and loans – the Digibank team deliberately chose to stay away from this inside-out view. "Most of us in our daily lives would like to forget about banks," a Digibank team member explained. "Moreover, we are convinced that most people would happily forget about banking. What they can't forget about is money. And so we felt our goal was to figure out how to embed the four 'jobs to be done' concerning money in people's daily experiences in a seamless and invisible way. Our motto for developing the new digital banking solution was: less banking and more living."

To make this motto operational, the Digibank team also defined the major pain points customers experienced in relation to the four "jobs to be done." Customers wanted to save time, and liked being called by their names, getting the best advice, and having peace of mind.



## Building Out the Ecosystem

Apart from designing and implementing the mobile solution, Digibank was also actively involved in developing a partner network to support the launch and, ultimately, ensure a seamless banking experience for future customers in India. A dedicated team in Singapore was charged with developing an overall strategy and process for building partnerships, while a local team in India was responsible for sourcing individual partners.

The task was seen as crucial to the eventual success of the initiative. As one of the team members reflected: "We said that we wanted to be very relevant for the customer. We wanted to be different. But you don't accomplish this by just building a mobile banking app. You don't need Digibank for that. The reason why we are different is because we're plugged into the ecosystem. Partnerships are what brings Digibank to life."

Three categories of partners were deemed important:

- (1) Partners that would help drive customer acquisition and embed the new banking solution into customers' everyday lives. To accomplish this goal, Digibank entered into direct partnerships with "lifestyle merchants" and service providers as well as teaming up with aggregators, such as merchant federations and loyalty program providers.
- (2) Partners that would provide physical infrastructure to support the digital banking experience. These included operators of ATM networks, and vendors providing biometric verification to ensure compliance with the Know Your Customer (KYC) banking guidelines.<sup>3</sup>
- (3) Partners that would enrich and extend the value proposition of DBS by plugging their innovative solutions into the DBS core digital banking platform. Such partners often included start-up firms with niche offerings that complemented traditional banking services.

The soft launch of the solution was planned for late September 2015, starting with about 2,000 select customers in the cities where DBS had a physical presence.

## Digital Mindset

In parallel with the launch of Digibank, a broader effort to help the entire DBS organization embrace the digital world was gaining traction. A senior staff member in the learning and development organization explained: "DBS is essentially betting its growth strategy on digital, and it is not enough that only people in Digibank understand what digital means. If most of our employees in the middle level still believe that it's business as usual, that would be the worst-case scenario for the bank." The goal, therefore, was to help employees throughout the bank think about customer journeys, a concept that had already taken hold in the organization, in the context of a digital world.

While the objective was clear, how to accomplish it was less certain. The learning and development team, nonetheless, was convinced of two things. First, the effort would need to start

 $<sup>^3</sup>$  DBS Digibank, "Know Your Customers" banking requirements. Retrieved from <a href="http://www.dbs.com/digibank/in/files/kyc.pdf">http://www.dbs.com/digibank/in/files/kyc.pdf</a>.



with top executive talent, irrespective of which part of the bank the executives worked in. These leaders had the level of ability, aspiration and engagement that would help build momentum within DBS. Second, a traditional "conference-style" learning event would be insufficient. Instead, the format of the engagement would have to be highly immersive and experiential.

#### Hackathons

To develop these ideas further, the team got together with Neal Cross, chief innovation officer at DBS. A serial entrepreneur, who also spent significant time spearheading "intrapreneurship" efforts at Microsoft and MasterCard, Cross suggested bringing together the executive talent and start-up entrepreneurs to work together in a hackathon event. The teams would be given three days to generate ideas for a given business challenge, develop an initial prototype, get feedback from customers, code a basic mobile app, get more customer feedback, and – by the end of day 3 – pitch their solution to top executives at DBS. (See Exhibit 8.)

The idea looked promising and a pilot hackathon with 30 vice presidents from Singapore was launched in October 2014. The event lasted five full days. The first two were devoted to a master class where participants explored key digital trends, discussed concepts of disruption and innovation, received training on HCD, and reflected on the opportunities and threats of digitization for DBS. The objective was to prepare everyone for the hackathon as such.

The remaining three days focused on the hackathon proper. The executive talent was split into six teams and paired up with start-ups so that each joint team included five vice presidents, two developers and one designer. Half of the teams worked on developing a mobile community for the Indian market. The goal was to engage local smartphone users, who might one day become DBS customers, and to learn more about their habits, preferences, and needs. The other three teams took on the challenge of developing new contextual marketing solutions for Singapore's market, leveraging credit card and merchant data.

The challenge sponsors – senior executives from Digibank and consumer banking – came in on the morning of the first hackathon day to answer questions and provide additional background detail. The teams then plunged into the iterative cycles of ideation, prototype building, customer validation, coding, more ideation, more coding, etc. (See Exhibit 9.)

For 72 hours, DBS vice presidents got a chance to step out of the corporate world and become a start-up. On the afternoon of day 3 of the hackathon, participants presented their work to the challenge sponsors and a panel of senior judges. "This process allowed participants to learn, do, and learn again. Everything they discussed hypothetically in the master class became real for them through the grueling ideation sessions and long coding nights. It changed their view about what digitization was and what it meant to a bank," said Eileen Nah, the head of the DBS Leadership Institute, who was responsible for running the master class and the hackathons.

The initial pilot's success paved the way for three more DBS hackathons in the next six months. About 120 vice presidents from Singapore, Hong Kong and elsewhere in Greater China, Indonesia, and India as well as 85 senior vice presidents and executive directors took part in the events. The hackathons attracted more than 40 start-ups from around the region, with a number of start-up teams taking part in multiple events.



In total, 50 prototypes in the areas of SME banking, digital banking, marketing, HR, and corporate social responsibility were created. Two of these were going live as part of the new digital banking solution for India and in the retail banking business, while 10 more had secured business commitment and were under review for "design and build."

## The Way Ahead

By spring 2015, DBS had about half of its top talent pool at the level of vice president, senior vice president, and executive director do master classes and hackathons. The bank now had to decide whether to broaden the initiative to include its remaining high-potential executive talent and expand it to the managing director level.

Indeed, many of the hackathon participants were returning, eager to learn more, do more, and get more involved in making DBS into a new kind of bank. At the same time, internal demand for hackathons was growing as business leaders across DBS were keen to apply the new methodology to try to solve problems they had been struggling with for a long time.

However, not everybody in the bank was convinced that talent hackathons would become the new "hardware" for driving organizational change. Nah explained: "It is critical to build mind share and a core group of evangelists and thought leaders on the ground to drive the digital agenda. But scalability and sustainability is a key question. Post-hackathon support efforts, resourcing and measuring business impact is another."

Indeed, while the events played an important role in raising awareness of the means and ends of digital transformation, they required complex logistics, the coordination of internal and external stakeholders, and significant time and resource commitments. DBS could certainly accommodate these demands to run hackathons for the remaining top executive talent. Nonetheless, it was not clear how to scale this model beyond executives and reach a critical mass of employees throughout the organization, something the RED program had done so successfully.

In addition, there was still no resolution of the issue of how to sustain the momentum and leverage the positive energy of hackathon participants after they had returned to their day jobs. These individuals ran the risk of getting bogged down in their daily responsibilities and gradually slipping back into the old ways of doing things. The bank had yet to provide explicit means to help the participants apply the digital mindset in their jobs, develop their teams, and continue learning.

With the roll-out of the digital banking solution in India under way, it had become as important as ever to ensure that the entire DBS organization stood behind the new digital growth strategy. The initial effort to foster a digital mindset among the bank's executive talent was a success. Now, the learning and development team had to present recommendations for how to take this agenda to the next level.

How can DBS build core digital competencies? How can the bank scale up programs to encourage staff to embrace digital? Should the bank continue to extend hackathons across its organization? If so, who should be invited to take part and how can the model be scaled? Alternatively, should the bank look at a different strategy and program to help employees apply digital skills in their roles?



## Exhibit 1

Full-Year Earnings for 2015

**DBS Group Holdings Ltd and its Subsidiaries** 

## Consolidated income statement

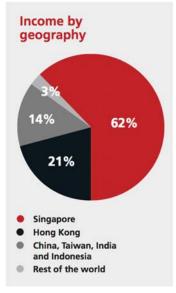
for the year ended 31 December 2015

In \$ millions	Note	2015	2014
Interest income		9,644	8,948
Interest expense		2,544	2,627
Net interest income	4	7,100	6,321
Net fee and commission income	5	2,144	2,027
Net trading income	6	1,204	901
Net income from investment securities	7	339	274
Other income	8	136	293
Non-interest income		3,823	3,495
Total income		10,923	9,816
Employee benefits	9	2,651	2,294
Other expenses	10	2,249	2,036
Total expenses		4,900	4,330
Profit before allowances		6,023	5,486
Allowances for credit and other losses	11	743	667
Profit after allowances		5,280	4,819
Share of profits of associates		14	79
Profit before tax		5,294	4,898
Income tax expense	12	727	713
Net profit		4,567	4,185
Attributable to:			
Shareholders		4,454	4,046
Non-controlling interests		113	139
		4,567	4,185
Paris assainas par ardinas shara (\$\)	42	4 77	1.52
Basic earnings per ordinary share (\$)	13 13	1.77 1.77	1.63 1.61
Diluted earnings per ordinary share (\$)	13	1.//	1.61



Exhibit 2 DBS Group Performance by Geographical Segment

In \$ millions						
		Hong Kong	Rest of Greater China <sup>(a)</sup>	South and	Rest of the World <sup>(c)</sup>	Total
				Southeast Asia(b)		
	Singapore					
2015						
Net interest income	4,658	1,330	547	382	183	7,100
Non-interest income	2,154	959	472	175	63	3,823
Total income	6,812	2,289	1,019	557	246	10,923
Expenses	2,816	951	699	343	91	4,900
Allowances for credit and other losses	320	58	140	181	44	743
Share of profits of associates	(3)	-	13	4	_	14
Profit before tax	3,673	1,280	193	37	111	5,294
Income tax expense	469	189	26	5	38	727
Net profit attributable to shareholders	3,091	1,091	167	32	73	4,454
Total assets before goodwill and intangibles	303,530	73,013	41,784	16,304	18,086	452,717
Goodwill and intangibles	5,083	34	_	_	_	5,117
Total assets	308,613	73,047	41,784	16,304	18,086	457,834
Non-current assets <sup>(d)</sup>	2,022	386	85	46	8	2,547
2014						
Net interest income	4.018	1,098	598	404	203	6,321
Non-interest income	2,130	802	352	148	63	3,495
Total income	6.148	1,900	950	552	266	9,816
Expenses	2,521	789	622	310	88	4,330
Allowances for credit and other losses	254	52	68	272	21	667
Share of profits of associates	18	3	8	50	- 21	79
Profit before tax	3,391	1,062	268	20	157	4,898
Income tax expense	487	180	31	(25)	40	713
Net profit attributable to shareholders	2,766	882	237	44	117	4,046
Total assets before goodwill and intangibles	286,633	72,487	44,637	17,254	14,538	435,549
Goodwill and intangibles	5,083	34	- 1,057			5,117
Total assets	291,716	72,521	44,637	17,254	14,538	440,666
Non-current assets <sup>(d)</sup>	1,959	382	96	41	2	2,480



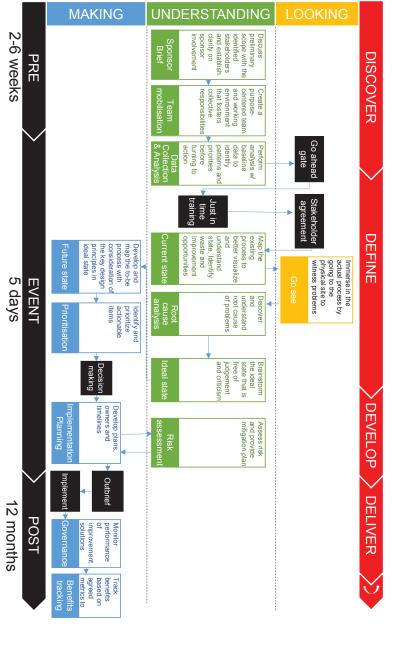
<sup>(</sup>a) Rest of Greater China includes branch, subsidiary and associate operations in Mainland China and Taiwan
(b) South and Southeast Asia includes branch, subsidiary and associate operations in India, Indonesia, Malaysia and Vietnam
(c) Rest of the World includes branch operations in South Korea, Japan, Dubai, United States of America, United Kingdom and Australia. Los Angeles Agency became a representative office on 31 March 2015 and its business was transferred to Singapore
(d) Includes investments in associates, properties and other fixed assets

## Exhibit 3

PIE (Process Improvement Event) Methodology

# PIE: Process Guide

one or combination of the tools from the "tools" handbook Black boxes: activities that do not require tools Colored boxes: Activities that can be achieved through the use of at least



Source: Document provided by the Company.

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## Exhibit 4 RED Values



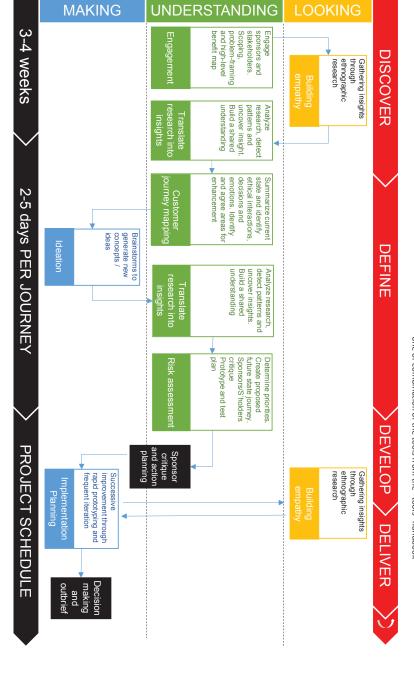
## Customer Journey Methodology Exhibit 5

Customer Journey Design:

## **Process Guide**

## LEGEND

one or combination of the tools from the "tools" handbook Colored boxes: Activities that can be achieved through the use of at least Black boxes: activities that do not require tools



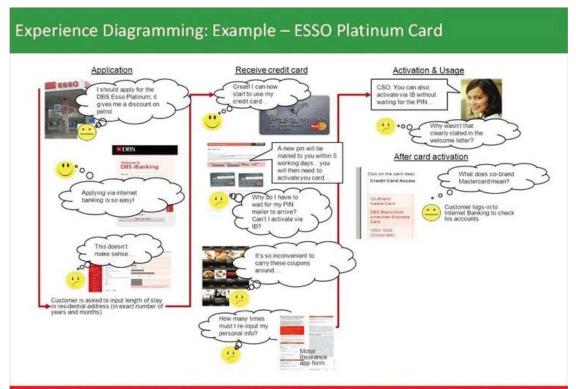
Source: Document provided by the Company.

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## Exhibit 6

## Example of a Customer Journey Mapping Case

If a customer lost her credit card, for example, the team learned that this usually also meant that she had lost her purse, ID, house keys, etc. This insight led DBS to redesign the processes at its customer contact center to provide customers with relevant information, support and empathy to help them put their lives back together.



A Journey Map is a visual representation of the the customers' interactions, decisions & associated emotions to get a job done.



## Exhibit 7 "Digibank by DBS" iOS App Screenshots









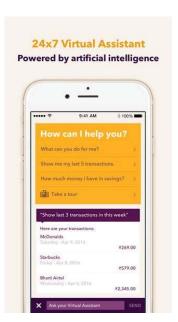




Exhibit 8
DBS MegaHackathon Event, March 2015



**Participants** 



Ideation



Collaboration



Experimentation

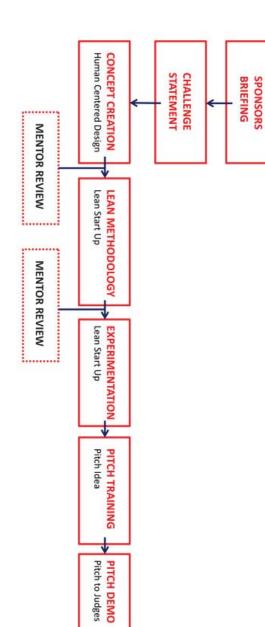


Interaction

## Hackathon Flowchart Exhibit 9



## **Hackathon Flow**



**DBS** INNOVATION

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