March 2017

McKinsey Quarterly

The digital reinvention of an Asian bank

The CEO of DBS says it's not enough to apply digital "lipstick."

DBS is one of the leading financial-services groups in Asia. Headquartered and listed in Singapore, the company has a growing presence across the region and aspires to be what it calls "the Asian Bank of choice for the new Asia." One of the most important prongs of that ambition is the bank's digital strategy—notably its determination to embrace technology, reimagine the customer journey, and make the bank's culture more entrepreneurial. McKinsey senior partner Joydeep Sengupta recently sat down with Piyush Gupta, the CEO of DBS since 2009, to discuss the challenges and opportunities Gupta has encountered along the way and the future shape of banking, including the threat from platform companies.

The *Quarterly*: *What led you to set out on a digital journey?*

Piyush Gupta: The experience of telcos, transport, and retailing shows that we're changing the way we communicate, the way we commute, and the way we consume. So why would banking be immune or be safeguarded from any of this? Banking is arguably the most digitizable industry of all, so in some ways it's surprising that we haven't been more disrupted. I think part of that has to do with psychology—people think about money a little bit differently than they do about other things—and it's partly to do with regulatory barriers.

That said, with so much money going into fintechs, we have reached a tipping point in the last couple of years. Incumbent players are wrestling with the challenges of how to transform themselves. In Asia, and notably in China, the actions of new players, such as Alibaba and Tencent, and of established banks, like Minsheng, Ping An, and ICBC, have made this all the more visible. In 2013, the DBS board therefore took the view that the future for us and for our industry would have to be digital. We felt that if we didn't lead the charge, frankly, we might die.

The *Quarterly*: *When you started out, did you have a game plan for what DBS might look like in three to five years' time?*

Piyush Gupta: Not really, but we tried to embrace some of the main macrotrends, like cloud computing and big data and analytics. Our credit-card businesses, for example, may have been using data analytics for 25 years, but today, with off-us and on-us[1] and online data, you can do a heck of a lot more. The shared economy—producers becoming consumers, consumers becoming producers—has been another opportunity, and we've been thinking hard about how we can collaborate with other partners in the ecosystem.

The most important driver of change in the banking industry, though, has been the smartphone. Instead of going to a branch, to an ATM, or even to a desktop, customers can now go around with the bank in their pockets. In theory, the bank can become invisible and seamlessly embed banking services into day-to-day life.

The *Quarterly*: *To what extent were you inspired by new-economy companies?*

Piyush Gupta: When we first started out along this road, we compared ourselves with emerging fintechs and the start-up world and concluded that we really had to digitize completely, not just by putting on digital "lipstick." We made killing paper a big mantra in the organization, for instance, and were determined to go beyond just tacking on a bunch of digital apps at the front end—that's the easy bit. We wanted to go all the way through to middleware and the back end.

A company like Uber has reimagined its processes and digitized everything from end to end, and that's what we have done. This has required rethinking our technology architecture—hard for banks or any company sitting on legacy applications that are 30, 40, or 50 years old—so as to make it API[2] based and integratable with other applications, maybe open source.

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[1] Digital shorthand for transactions where the card issuer and the acquirer bank are, respectively, different and identical.

[2] Application programming interface.

A second big priority, to me more important than digitizing per se, was to embed ourselves in the customer journey. This is about much more than automation. Hotel chains, after all, had been automating for the last two decades—most have a version of SAP, Oracle, or what have you—but when Airbnb came along, it fundamentally rethought the customer journey for people seeking accommodations. Doing this at DBS led to some very significant changes in what was offered and how it was offered.

The third—and perhaps most challenging—priority was around culture. Today, we are up against businesses that work out of a garage, take risks, operate in a nimble way, and have a different kind of energy and drive. Large incumbent companies that can't create a similar kind of culture just won't be able to compete. One of our rallying cries has been "how do you create a 20,000-person start-up?"

The *Quarterly*: *What were some of the things you did to make this cultural change successful?*

Piyush Gupta: I once worked for an organization that tried to create a separate R&D organization, but several billion dollars and several years later, we had to shut it down without getting much productive output. I realized then that a lack of ownership at the core of a company is a hurdle. There were too many detractors, people on the sidelines, taking potshots. That's obviously not helpful. Nor is a separate R&D organization able to embrace the issues that are really fundamental to a company. It did a lot of stuff that was nice at the margin, nice to have. But the core P&L and the balance sheet were not addressed. My takeaway from that earlier experience is that if you want to make change real, and if you really want to make change cohesive, then you have to attack the core.

It's not easy to do, but three or four years down the road at DBS there is momentum and energy. We've reached the stage where we have 100 flowers blooming in the core, including the audit team, the compliance team, the back office, the people in the call center, and in sales. Everybody is part of this reimagining of the customer journey and of the process, and part of the digitizing. We have many more people who are part of this transformation than we would if we had just focused on one part of the company.

We invested initially in two small, central teams of 12 to 15 people, which over time I merged. One of the teams was focused on customer experience, the second on innovation. In both cases, the objective was to catalyze a sense of *how* to innovate—what had to be done about customer journeys in the way of training, exciting people, getting this on the agenda. In hindsight, this focus on customer experience and innovation turned out to be good. When you give people the freedom to go and try a few things with a rubric that says, "As long as it helps the customer, it is worth doing," it opens people's minds and it opens up a lot of possibilities.

The *Quarterly*: *What mechanisms did you set up to help people think differently?*

Piyush Gupta: One of the big things we focused on was how to get the company technology literate. After a couple of months, the learning group reported back that classroom sessions didn't work. But they came up with a different idea—running a series of "hackathons." This involved taking seven or eight DBS employees and forming them into a joint team with a couple of people from a start-up company. We had about 20 teams of this size and

PIYUSH GUPTA

Vital Statistics
Born January 24, 1960, in Meerut, India

Education
Earned a BA (with honors) in economics from St. Stephen's College, University of Delhi, and an MBA from Indian Institute of Management, Ahmedabad

Career highlights
DBS Group
(2009–present)
Director and CEO

Citibank
(1982–2000, 2001–09)
Roles included country officer for Indonesia, Malaysia, and Singapore; head of strategic planning for emerging markets; regional director of Global Transaction Services for Asia–Pacific; and CEO for Southeast Asia, Australia, and New Zealand

Fast facts
Member of the executive committee of the Institute of International Finance, Washington, DC

Member of the board of trustees of Asia Society

Deputy chairman of SPRING Singapore

Board member of the Institute of Banking and Finance and Dr. Goh Keng Swee Scholarship Fund put them through a five-day hackathon process, with one day devoted to understanding technology and skill building in human-centered design, then three days or so of working together with start-up kits to help the teams code and create an app. We gave them mattresses, Ping-Pong tables, and free-flowing beer, but at the end of 72 hours they had to have an app.

On the final day, they would showcase these apps to a judging team. In many cases, people came up with fairly good creative solutions, but the real power came from the experience of recognizing that you could do something and you could actually come up with an app. The first hackathons we did involved young people in their 20s. But by the third, we started throwing in 40- and 50-year-olds and other employees not naturally comfortable with technology.

The renewed confidence and self-belief among employees was astounding. This made them realize that they could do things differently and have a real impact. It made us realize that if you want to change the company, you have to give people opportunities to experiment and that by making this mandatory you can start to shift the culture. In 2015, it was in everyone's KPI[3] to run an experiment, and we ran 1,000, with most of the senior leadership taking part.

This year, the KPI for all of my direct reports—about 300 people—is that they must either own an employee journey or a customer journey. We have also redesigned many of our physical premises, hiring a couple of anthropologists to help build human-centered design labs. We've done away with cubicles, so in large parts of the bank it's all open space. People stand up, conduct "agile" meetings, do Post-its on the walls, and huddle together in scrums every morning.

Interestingly, the citation that went with our Digital Bank Award from *Euromoney* was not about having the best and most profound applications in digital banking but for the most pervasive embrace of digital. Our call-center head count has fallen from 700 to under 500 this year, yet our volumes have gone through the roof because the call-center people are now using data analytics and tools from the app store to redefine ways to handle, automate, and digitize incoming calls.

On ATMs, we used to have 98 percent uptime, which sounds good but it's actually terrible when you have a large fleet of ATMs and thousands of transactions a day. Consequently, the ATM team used data analytics, worked with an external set of data scientists, and came up with a new algorithm and

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[3] Key performance indicator.

new models for preventive maintenance, as well as cash recycling. Last year, we had insignificant downtimes and we're saving $20 million. This is not driven from the top—the team came up with the idea of how it could be done.

The *Quarterly*: *At the same time you were going through the transformation of your core, you also set up a new digital bank for other markets. Tell us a little bit about why you came up with this idea.*

Piyush Gupta: By and large, 90 percent of what we did was to attack the core. But with the digital—that is, the mobile-only—bank, we decided to create a separate group that was independent of business as usual. When we operate as a retail bank in large countries like China, India, or Indonesia, it's very hard to compete with large brick-and-mortar distribution networks. Indeed, many foreign players in retail banking have already withdrawn because of this challenge. So we felt digital distribution was the only way to get to large numbers of people without a large footprint. Alibaba's $100 billion fund-raising for its Yu'e Bao online money-market fund in seven months, with zero branches, seemed to me a clear sign that this could be done. ING Direct, too, had some success in Germany and Australia.

At the same time, even in our core markets, like Singapore and Hong Kong, we have to have an appropriate defensive play. We have large market shares, but we're as vulnerable to attackers coming in with digital solutions as incumbents are to banks like us grasping opportunities in, say, India or China.

The idea of this separate group was to see if we could create a mobile-only bank, completely paperless and branchless. We have chosen to do this in India first, and if it works, we will take it to different markets. So far, we're very encouraged with the results—over 800,000 customers in just nine months. It's all driven by a digital identification process that uses artificial intelligence. An intelligent bot handles all inquiries, so you only need a minuscule call center. There are no checks or checkbooks. If you can do payments well, you can do online lending well, and you can kill paper. You change the customer experience immeasurably. We believe we can run a bank of this sort with 10 percent of the head count needed to run a traditional bank. Today, we are at 25 percent, but we think in another year or 18 months we will get to 10 percent.

The *Quarterly*: *How did you get your board and senior management aligned around the new approach?*

Piyush Gupta: That's a really important question, as most CEOs have to find a balance between short-term results and investing in the long term, which may mean compromising short-term financials. In our case, the board got behind this agenda very swiftly, in part because in 2012 we had an inorganic opportunity that failed. The board concluded that inorganic acquisitions would be very hard to come by. In 2014, after the board had signed off on the planning process, it gave us an incremental $200 million, in their words, "to go blow it up." They said that if you can blow it up, then we might be able to make something worthwhile for the future.

The management team, too, got aligned very quickly. We spent a lot of time getting ourselves onto the same page about our future direction and what we'd need to go there. This included thinking through our purpose—what we were all about, what we hoped to be able to do, and how we thought we could make an impact. We came up with a fairly quirky statement of intent, which was to make banking joyful. When you do that, you very quickly step into the realms of technology and digitization. Most research says 74 percent of customers prefer going to a dentist to going to a bank. So if you could make banking joyful, that would be pretty cool.

The *Quarterly*: *How do you know if you are succeeding in the challenge?*

Piyush Gupta: There's really been a measurable and visible revenue impact. This comes from a reimagined customer experience that leads to customer stickiness and an increased share of the customer's wallet. A customer doesn't want a mortgage. He's buying a house. A customer doesn't want an auto loan. She's buying a car. If the mortgage and the auto loan can be hidden in the house- and car-buying processes, you naturally get more business. The customer experience helps a lot.

Second, when you are completely digitized, you can create products that you couldn't have done previously. A couple of years ago, for example, we created a set of money-transfer products around Asia, which enabled us to transfer money in just three seconds. Our cross-border remittances are up some five or six times, and we make $75 million more of incremental revenues. Our bancassurance market share in our home market, meanwhile, has doubled in the last two years, from about 17 percent to 35 percent, largely because we reimagined the bancassurance journey and process. Intelligent use of data is another factor, not just in risk management, but because it allows you to create differentiated, income-generating opportunities.

I talked about productivity in the context of the call center, but thanks to going digital and going paperless, we'll halve the number of tellers in our branch system over the next two years. We're changing the way people actually withdraw cash. Over the next five years, we believe that we should be able to make substantial improvements in the cost–income ratio of our core bank, which is currently above 45 percent. In the pure mobile bank, we think the cost–income ratio can be as low as 30 percent.

There are other areas where you don't obviously see the revenue–expense impact, or at least it takes time to come through. So we have measures we call ATE. The *A* stands for *acquisition*. What percentage of our customers can we acquire without paper, totally digitally and in the online space? *T* stands for *transacting*, which essentially is about straight-through processing. What percentage of transactions can we put through with no manual intervention? The *E* stands for *engagement*, the hardest metric. Here we're trying to measure how much more of the customer's time, share of mind, and incremental wallet can be retained as a result of a digital experience. We do that by measuring how many products the customer buys when he or she is digitized, as opposed to not digitized.

The *Quarterly*: *Is there anything that worries you as you look to the future?*

Piyush Gupta: In Asia and China at least, the so-called platform companies are doing a remarkable job and, with the support of regulators, are moving rapidly into financial-services territory. This is quite worrisome for incumbents, because these are not only technology companies with a technology culture, they also have a large customer base, perhaps as many as a billion. Their cost of customer acquisition is low, and they can pretty much do everything a bank can—raise money, lend money, move money around. I think most fintechs will end up collaborating with incumbent banks due to the high cost of customer acquisition, but the platform companies could be a different story.

The *Quarterly*: *Do you see any bank effectively emerging as a platform company?*

Piyush Gupta: One of the challenges for banks is a regulatory one. In most parts of the world, banks are prohibited from doing anything except a very narrow range of banking activities—which obviously comes from us being a fiduciary business. But that positive protection means there are some fairly tight barricades around what banks are permitted to do.

That said, I understand that you can buy designer goods like handbags through the ICBC[4] site, one of the leading online shopping malls in China. And banks like Ping An have been able to create an ecosystem of activities outside core banking—they own a housing company and a car dealership. I think the logic is compelling, and there are a number of areas where a banking service can be nicely integrated into e-commerce. It is not entirely clear to me whether the regulatory barriers will be removed very easily. If they are, then there is no reason for banks not to want to move into adjacent businesses.

When we compare ourselves with the platform companies, we will have a lot of heavy lifting to match their speed, technology, and culture. On the other hand, there are new technologies every day, and each time we think we're embracing something, six more opportunities—artificial intelligence or blockchain,[5] for example—come along, which we realize we could be doing ourselves.

On blockchain, I think it will take some time to get to the point where there is a shared protocol, enough critical mass, and enough players. But in time, the possibility of transforming a hub-and-spoke system into a distributed-ledger system has enormous possibilities. The key questions are cultural—are you able to create a company that has got adaptability, energy, and nimbleness and where the vast majority of employees are willing to act and think like entrepreneurs? Q

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[4] Industrial and Commercial Bank of China.

[5] Blockchains provide a way to structure data that allows competitors to share a digital ledger across a network of computers without need for a central authority.

Piyush Gupta is the CEO of DBS. This interview was conducted by **Joydeep Sengupta,** a senior partner in McKinsey's Singapore office.