Financial services in the age of the Internet of Things

Sustaining GROWTH

As it is doing to every other industry, the internet is providing unprecedented opportunities for disruption to financial services. Disruption will only accelerate with the continued proliferation of the "Internet of Things", the connectivity of everyday objects that can send and receive real-time data about their use and consumers' transactions. "We are seeing disruption but also significant opportunities" in the sector, said Tim Pagett, Leader, Financial Services, Deloitte China, in a workshop held at the recent Asian Financial Forum 2015 in Hong Kong. Over 600 participants attended the interactive Deloitte workshop on 20 January 2015. The panelists, who included leaders of internet platform providers, a traditional bricks-and-mortar provider, an independent think tank and government, debated these critical changes, how new players are disrupting the industry, and what incumbents have to do to respond.

"FinTech is very hot," agreed Brett King, CEO and Founder of Moven, a mobile banking application provider and one of the world's leading FinTech commentators. "Technology is redefining the way we think about financial services."

King predicted that there would be more changes in the industry over the next decade than in the past 100 years. In 2014, he noted, FinTech represented 6 percent of global growth equity investment (expansion capital), or US$100 billion, with Hong Kong significantly lacking behind accounting for just 0.1 percent of the total. Last year, there were US$400 million in Bitcoin investments alone. Yu'e Bao, the online money market fund under the Alibaba Group's third-party payment platform Alipay, took in deposits of US$90 billion in less than 10 months—a record in asset accumulation by a fund without bricks-and-mortar branches.

Banks recognize that not only do they have to look at the way they are organized, operate and do business but they also stand to benefit substantially through supporting the development of the eco-system required to drive FinTech innovation. King pointed out that HSBC, Sberbank, BBVA and Santander have each invested more than US$100 million in the FinTech sector, particularly focused on start-ups and early-stage ventures. Well beyond Silicone Valley, London and New York have now emerged as the leaders in generating FinTech jobs.

The opportunity is clear. By 2017, millennials—those who have come of age since the turn of the millennium—will have surpassed baby boomers in earnings. By 2023, they will have overtaken Generation X (people born from the mid-1960s through the 1970s) too. Millennials are the first generation to have grown up with the internet. "They are embedded in a world of technology," noted King. "They don't use

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the same language that older people use. They are not going to behave like their parents when it comes to banking." To emphasize the point, King pointed out that it was unrealistic to think that a generation that would pay money to watch a live concert performance by an avatar accompanied by pre-recorded sound track would ever really want to visit a bank branch. This generation will be put off by having to fill out and sign paper form. It is unlikely to insist that services be rendered with a human touch—and this generation may even prefer not having any human interaction.

"Financial institutions that continue to rely on a physical signature will be in deep trouble."
But it is not just about the current generation. Adopting FinTech, particularly the rapid development and deployment of functionality within the latest enhancements in mobile telephony, offers financial institutions new ways to reach the 1.5 billion people in the world who are "unbanked" or have had limited access to financial services.

But how is technology transforming the financial services industry? Disruptions will continue to be unexpected, King observed. Consider how Uber, the mobile application, has revolutionized the taxi and hire-car business. Not just in the way we pay for services, but rather in the way that we solve the problem of transport in crowded cities. Similar disruptions are coming from the search for solutions to human problems—in Uber's case, the difficulty people have finding a cab or a limo when you need one the most.

Mobile phones pack enormous processing power, enabling users to conduct online transactions that previously required them to go in person to a store or bank branch. **"Technology is changing human behavior," King explained.**

Bank branches will not disappear but it is reasonable to assume that they will not be the big revenue earners they once were. The Internet of Things is the game changer. Smartphones, the number of which is expected to reach 2.2 billion this year, are just the start. Imagine the potential when, according to Deloitte research*, only 5 percent of the estimated 650 million phones equipped with near field communication (NFC) are being used just once a month to make a no-contact in-store payment at retail stores.

More and more devices and other items such as everyday appliances, watches, eyeglasses and even clothing are coming equipped with sensors that collect information about individuals, their condition and the transactions they make, storing the data and even transmitting it to service providers. Gartner forecasts that there will be more than 26 billion internet-linked devices and appliances worldwide by 2020.

Already, wristbands are recording exercise and fitness data, information that could be relayed to healthcare providers or even life insurers to help in pricing and underwriting decisions. Computers can now make medical diagnoses more accurately than doctors. Smart chopsticks or eating utensils can gather data about a person's diet and nutrition or prevent you eating contaminated foodstuffs. Customers entering an auto showroom can see on an eyeglass screen an instant assessment of whether they can afford the car they are viewing. A watch can advise wearers that they should keep grocery spending to a specific limit, given the amount of money in their bank account. Coffee drinkers buying a morning latte through a mobile payment will know how much they have spent on their daily caffeine fix that month.

Through data collection and analysis, financial services platforms will aid people in managing their money from day to day. With a click of a phone button or a glance at a watch, customers can get the information they need to make smart financial decisions. "The way to get people to save money is to stop them from

Deloitte Workshop at Asian Financial Forum 2015

* TMT Predictions 2015

spending it," King observed. Interaction with customers will have to be contextual and without friction, he added. "The best advice is delivered in real time." Banking by forms, mailed statements and cards must ultimately become obsolete, especially as millennials age. Financial services will be all about contactless real-time interaction delivered through mobile devices and other means of contactless interaction.

This brave new world of FinTech is already a reality. According to Amy Choi, Vice President of Ping An Bank Company Ltd, China. **China is well on its way to integrating the internet into the financial services industry and 2015 could be a "breakthrough year."** With mobile phone and tablet PC penetration rates of 92 percent and 54 percent respectively, China has a unique place in the world of appreciating the impact of connectivity. Loans are already being arranged and disbursed online. Technology brings major benefits to banking, Joe Chen, Chief Strategy Officer and Secretary of the Board of Directors, WeBank, said. These include lower costs, greater transparency and more efficient, convenient and consistent customer experiences.

But there are challenges that FinTech players—both the established banks and the start-ups—will have to address. "What about the emotional context surrounding money?" asked Robert Johnson, President of the Institute for New Economic Thinking. **"There is deep resistance there that will have to be overcome."**

Legacy institutions have advantages. "Traditional banks will be disrupted but not destroyed," Choi argued. Customers are naturally faithful to their banks. Tangible branches make them feel secure. "Banks with strong financials are the cornerstone of the economy and provide confidence to customers," she explained. "All traditional banks, however, will have to learn to go from bricks-and-mortar to bricks-and-clicks."

Other key issues are privacy and security, said Stefan M. Selig, U.S. Under Secretary of Commerce for International Trade, U.S. Department of Commerce. Will consumers be comfortable knowing that details of their transactions are recorded and shared? Will they be willing to share health data with their insurer? Trust can be built, Chen and King insisted, if financial services providers undertake not to share data and make clear to customers the benefits of sharing information.

Regulators will be skeptical. **"There is a need to resolve the tension between innovation and regulation,"** Under Secretary Selig said. So far, the focus of FinTech disruption has been on retail banking. But if FinTech is truly to revolutionize other parts of the financial services industry such as asset management and insurance, service providers will need to address the trust issue comprehensively and convincingly. It is notable that, during the workshop, a significant number of the questions from the audience were focused on privacy, security and regulatory concerns.

According to King, Moven won over doubting regulators in one U.S. state by demonstrating that its ability to detect fraudulent account applications could be as good or better than traditional branch scrutiny. The trust the company has established with users has led to a rise in its conversion rate (the percentage of people who open an account after downloading the app) from 8 percent to 43 percent. Moven's customer acquisition cost is a fraction of that of the bank branch networks. Said King: "Banks today don't want to tell regulators things because it may mean having to disclose too much. But you do have to change the way you work with them to bring them along."

Another major challenge will be to change the face of banking—literally. The bankers of tomorrow will be programmers who can develop algorithms and code to capture valuable data and provide useful analysis and advice to consumers. "We need to be teaching young people coding" King advised.

The challenge for China and Hong Kong will be to heed the warning signs and promote innovation across the industry. In many respects, working from a standing start on policies and regulations, China has been able to move forward fast. Can Hong Kong, which was built on a bricks-and-mortar model, catch up and pursue the enormous opportunities by diversifying its economy and turning itself into an innovation hub—maybe unleashing the "Silicon Dragon" or creating the "Silicon Harbor"? Economies such as Hong Kong in which transparency and the rule of law are well entrenched will have an edge, Under Secretary Selig confirmed. "Creative economies cannot exist without those two things."

The job landscape in financial services will inevitably change. Some positions will disappear, with the embedding of technology across services—tellers, the head of digital and the head of cards, among them. Financial institutions will need new skill sets. Concluded Chen: **"What we are doing is unbundling banking services and then doing each process much better."** Financial services—from retail banking to wealth management—will become thoroughly infused by technology. Processes and client relationships, as they are today, will be completely transformed. The winners will be those who embrace change and understand how to take advantage of this extraordinary and comprehensive shift.

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