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# FinTech : A Revolution in the World of Finance

Fusing financial services and IT, FinTech is on the rise, and is spurring the successive appearance of new services based on groundbreaking technologies in the financial sectors of the U.S. and Europe. Japan has lagged behind in this area, and it will be essential for the nation's financial sector to respond to this new trend, with consideration of financial services as a public good. What needs to be done to spur the diffusion of FinTech-based services in Japan?

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### **Expert Opinions**

# How can We Promote the Use of FinTech in Japan?

The use of information technology is generating dramatic changes in financial services. How will Financial Technology, or FinTech, change our lives and the world of finance? What are the issues for Japan in promoting the use of FinTech? In this issue of *My Vision*, we ask the opinions of representatives of a U.S. venture company which pioneered the application of FinTech, an IT company which has recently newly entered the same field, a Japanese mega-bank, and the Bank of Japan, in addition to a scholar in the field of finance law.

Interviewer: Yuji Hayashi, NIRA Senior Researcher Editor: Kazuyoshi Harada Period of interviews: June - August 2015

### Mobile technologies will bring the greatest change in the history of financial services

Elena Wise

Country Manager Japan, PayPal Pte. Ltd.

One of the reasons why PayPal [a major online payment service] has been adopted globally is trust. When you use PayPal to pay for things, card information is not shared with merchants, meaning that even if the merchants are hacked, people using PayPal are safe from leaking information. PayPal also provides enhanced twenty-four-hour customer support available in 20 languages, in addition to fraud detection and prevention.

The Japanese have a strong fear of fraud, both in physical retail and online. I believe Japan is still a very cash-based society. If we take a look at credit card usage, which is a basic form of digital payments, adoption is low in Japan compared to the US or South Korea. Building trust in digital payments is the key. The take-up of digital payments or any other FinTech services in Japan will be about how we can provide customers with comfort and trust, enabling them to feel safe and secure using the service.

In the next three to five years, we will see more change in the financial services industry than we have seen in the last 20 to 30 years. I believe mobile will be driving the biggest change in financial services history. Mobile is said to be the fastest mass adoption of a technology in history. There are already 7.2 billion mobile devices today. With PayPal, mobile was only 1% of all transactions in 2010, it is now 30% in 2015.

Mobile is becoming the big disruptor, and is already having a major impact on our lives, our jobs and the economy. When you look at all of the services that are disrupting very traditional industries, like Uber (taxis) or AirBnB (hotels), these tech start-ups are all mobile-based. We believe payments will migrate to mobile. Money will become digitized, and physical wallets will be relegated to the past.

Ms. Wise is Country Manager, Japan, for PayPal Pte. Ltd, one of the world's leading Open Payments Digital Platform and a pioneer in the field. She took up her present position in 2013, after having served as Head of Merchant Services for PayPal Australia. Ms. Wise was previously Vice President, BtoB, Asia Pacific and Japan for American Express.

### Realizing safety, security, and higher added value through technology

### Yuka Koga

Vice President, Producing Division, Financial & Payment Services Company, Yahoo Japan Corporation

Payment services were previously mainly the preserve of banks and credit card companies, but a variety of new players have now entered the field. For example, Yahoo! Japan's auction site offers a simple mechanism for card payments without any necessity for vendors and bidders to exchange personal information. We also offer a payment service that can be used on other sites in addition to Yahoo! Japan sites.

The drawback of payment mechanisms of this type is that it is difficult for users to know what is happening when they use the services. When a user purchases an app on their smartphone, for example, they are almost completely unaware of the mechanisms at work behind the scenes of the payment. Given this, it is generally hoped that the feeling of safety and security offered to users by their trust in banks and credit card companies will in future be realized by the "tech" aspect of "FinTech."

In actual fact, the use of technology makes it possible to realize greater security. For example, when a diverse range of devices are connected via the Internet of Things (IoT), it will be possible to obtain historical data concerning peoples' daily activities. Using these life-logs, we will be able to analyze patterns of regular and illicit activity, increasing our ability to detect illicit activity.

This technology will not only detect illicit activity, but will also enable credit checks to be performed when lending, and could make it possible to extend services similar to the generous "private services" currently only offered to certain investors to a greater number of people.

Ensuring safety and a feeling of security for users while attempting to add value will be the key factors in payment and financial services from this point on.

Ms. Koga heads the department of Yahoo! Japan responsible for planning payment, finance, and ID services. She is currently a member of the Working Group on Payments and Transaction Banking of the Financial System Council (Financial Services Agency).

### Financial institutions must take up the challenge of FinTech

#### Naoyuki Iwashita

Head of Center for Advanced Financial Technology, Bank of Japan

The term "FinTech" refers to the provision of new solutions in the field of finance by IT venture companies. New business models are being created one after another, particularly in the area of BtoC services using the Internet. The major difference between these new businesses and traditional finance companies is their thinking regarding IT investment.

The computing centers and information systems (communication lines, information terminals, etc.) that financial institutions have established up to the present have been uniquely created by the institutions, and their construction, maintenance and management has involved enormous expense. Financial institutions have prioritized the provision of standardized services based on law and safe and stable operation. As a result, despite the fact that the information society has arrived and user needs have changed, they have not been able to respond in a timely fashion.

FinTech, by contrast, makes it possible to employ users' terminals and resources available on the Internet to establish businesses extremely cheaply. This enables venture companies to test diverse new ideas, irrespective of the systems in place or the prevailing business practices. Not all of these ventures succeed, but they contain the potential to produce and spread novel technological innovations which would not previously have been considered, thus generating significant change.

Of course, it is essential that we work to maintain safety and stability in the financial systems that support the functioning of the national economy. However, giving consideration to the ability to respond to users' needs, it will be essential for traditional financial institutions to learn about FinTech and challenge themselves to realize innovation with a sense of urgency. It is very much to be hoped that the interaction between FinTech and financial institutions will produce a richer range of customer services.

Mr. Iwashita is the Head of the Bank of Japan's Center for Advanced Financial Technology, which provides support for financial institutions in increasing the sophistication of their risk management and business administration. With close attention to convenience, security and cost, Mr. Iwashita and his department seek a vision of the future of finance that makes strategic use of information technology.

### Promote innovation in BtoB services, which remain a bastion of banks

#### Jun Ota

Senior Managing Director & Member of the Board, Sumitomo Mitsui Banking Corporation

Japanese banks are lagging behind in the area of FinTech for several reasons. One of these is that the obverse of the banks' rigorous management of accounts and commitment to the provision of social infrastructure through the construction of safe and robust payment systems is a lack of vision with regard to increasing convenience for their users. Another factor is the restriction of banks' duties by the Banking Act, generating an environment in which it is difficult to create new businesses. However, high-volume BtoB payment services will remain a bastion of banks into the future. BtoC services are the main area of FinTech activity at present. The economic scale of BtoC in japan is no more than 300 trillion yen per year; the figure is 1,000 trillion in the case of BtoB services. Without a highly robust and convenient system in place in the BtoB area, you will have no chance of winning out in global competition.

As banks, our role is to evolve more convenient platforms and offer the businesses which are our customers more sophisticated payment services, while further increasing the safety that has been cultivated over years of operation. The development of FinTech does not mean the end of bank accounts. FinTech has taken the lead in terms of convenience, but safety and stability may represent issues. One can send 10,000 yen by smartphone without worry, but sending one billion yen is another matter.

SMBC's recent conclusion of a partnership contract with a Silicon Valley venture capital firm is an attempt to borrow the talents of a diverse group of people in order to create new products and services via open innovation. Products and services utilizing new technologies will not only represent resources for the bank. The ideal would be for the company to increase its discernment in the area of leading-edge financial technology, and to commercialize the technology in the form of an in-house venture.

Also a Director of the Sumitomo Mitsui Financial Group, Inc., Mr. Ota has for many years headed a department dedicated to enhancing payment services business for the Sumitomo Mitsui Banking Corporation, a financial institution which is actively promoting FinTech initiatives.

### Cooperation between industry, government and universities and dialogue between the technological and legal sides will be important factors

### Tetsuo Morishita

#### Professor of Law, Sophia University Law School

The diffusion of FinTech has the potential to change the standing that traditional banks have possessed up to the present. Payment is not the only area which might be revolutionized by technology-based financial transactions; the potential extends to areas including lending, the operation of funds, securities and the provision of financial advice. The use of technology can even be considered in the field of financial supervision.

Throughout the world, governments are aware of the magnitude of FinTech's impact, and are actively pushing ahead with related initiatives. A report recently published in Britain, for example, outlines a vision in which the nation leads the world in the development of FinTech, and stresses the importance of cooperation between government, business and researchers, with consideration of an appropriate balance between potential risks and returns, in its realization. Initiatives based on cooperation between industry, government and academia will also be important in Japan, and we should be establishing forums for consultation and cooperation towards the formulation of action plans and the resolution of the issues that will arise. It will be essential to boldly take up the challenge without being afraid of a certain amount of mistakes.

FinTech also raises a number of issues related to financial rules. It will be necessary for practitioners and scholars to urgently combine their efforts and extend the scope of their discussions. Technology evolves at an incredible pace, and new technologies succeed one another even over the course of a mere five years. To enable us to respond to change of this rapidity, it will be more practical to guide the outcomes that we seek on the basis of general principles rather than formulating detailed rules. In order to protect what should be protected and consider the essential direction for rules and enforcement in response to risks while avoiding excessive regulation, we will need to promote closer dialogue than is normally the case between those involved in the formulation of rules and those involved in the development of business and technology.

Professor Morishita conducts research in areas including the harmonization of public and private law in the field of financial law and the systematization of international transaction law. He is currently chairperson of the Working Group on Payments and Transaction Banking of the Financial System Council (Financial Services Agency).

This is a translation of a paper originally published in Japanese. NIRA bears full responsibility for the translation presented here. Translated by Michael Faul.

#### About this Issue

#### FinTech: A Revolution in the World of Finance

In 2014, Jamie Dimon, the CEO of JP Morgan Chase Bank, warned that companies like Google and Facebook would be the bank's future rivals. The diffusion of smartphones and other mobile terminals on a global scale has spurred the rapid growth of phenomena such as mobile payment services and peer-to-peer lending. In addition to Google and PayPal, a large number of new players are entering this developing business area, and competition between new services is fierce. As the traditional providers of payment services, banks are viewing the advance of FinTech with considerable unease.

Aware of the limits of self-sufficiency, banks in Europe and the U.S. are actively promoting open innovation, for example through investment in IT companies, and are already engaged in initiatives including the provision of electronic trade services (virtual malls, etc.) and services offering the ability to make payments via multiple devices, including smartphones.

In Japan, by contrast, while there are moves in this direction - for example, the Rakuten Group operates a virtual mall, and provides financial services through its bank, and Yahoo! Japan and other non-financial businesses are also actively developing financial services businesses - the scale remains limited. Traditional banks have not yet put responses into effect, and the necessity of establishing the appropriate business environment is still under discussion.

In this issue of My Vision, we have sought opinions regarding the relevant issues from representatives of businesses at the leading edge of FinTech both in Japan and overseas, senior officials of a Japanese megabank and the Bank of Japan, and a leading academic in the field of financial law. Our interviewees in this issue share an awareness that technological innovation moves at an extremely rapid pace, and financial businesses are facing a period of enormous change. In addition to further advancement of security technology, they see the establishment of a flexible regulatory system able to respond to the speed of technological innovation as essential to broadening the range of financial services in line with user needs. Allowing a diverse range of entities to compete in the provision of a wide variety of services, FinTech has the potential to significantly change norms in the financial industry, and to increase the convenience of our daily lives. The future of this technology merits close and interested scrutiny.

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