

Fintech Innovates Financial Services — Co-Creation with Startups and ICT Vendors is the Key

Fintech is making headlines, producing new services that fuse finance and information and communication technology (ICT). Fintech started out by utilizing the latest technologies, such as smartphones and the cloud, to make it easier to develop financial services. In terms of developing attractive, secure financial services, the key is to connect financial institutions and their ideas on businesses to create and services to develop, with the drive of startups and the knowledge of ICT vendors. The following outlines the latest in Fintech trends.



White paper Fintech

Fintech is getting a lot of attention. Many in the financial and insurance industries are flocking to seminars and events on this new sector, which utilizes ICT to create new financial services. Masahiro Kumamoto, a senior managing consultant at Fujitsu Regional Finance Research Division who is up to speed on Fintech trends worldwide, weighs in: "Although a lot of expansion can be seen, the situation is more complex."

"Financial institutions see Fintech having a major impact on management. In recent years, banks, major insurance and credit card companies—even local financial institutions—are getting serious about the technology, doing more than just gathering information. However, some financial institutions are flummoxed on exactly where to start" says Kumamoto.

Two primary factors are generally thought to underlie the sudden interest in Fintech. First is the emergence of millennials: the name given to the generation of adults in the Unites States that came to age in or after 2000. While not the case in Japan, this generation accounts for a quarter of the US population. Digital services appeal to this younger generation, a fact that is increasingly important across all industries.

Second, digital technology itself is evolving. Compared to supercomputers from just ten years ago, today's smartphones can either pace with or outperform them in terms of computing power. With high-performance computers now in the pockets of so many, services need to be sophisticated to seamlessly connect the online world to the real world. In addition, wearable devices that can utilize digital services near the user are becoming more common; technologies such as virtual reality (VR) and augmented reality (AR) are also gaining traction.

Furthermore, the widespread use of cloud services will dramatically change how we provide our financial ICT systems. "Soon, we could see a shift in the conventional business model away from installing large general purpose computers, opening branches at various locations, and providing ATMs. If cashless mobile payments such as Apple Pay and Osaifu Keitai (Japan's de facto mobile payment standard) truly catch on in Japan, users will be able to pay for everything with nothing but their smartphone. If that happens, we'll need smartphone apps for easy-to-use financial services and a cloud environment instantaneously accessible to those apps" (Kumamoto).

Creating New Value with Efficiency and Productivity

Fintech has wide applications. For financial institutions, Fintech helps them perform their core business services: deposits and asset management, loans and financing, fund settlement and remittance. On the receiving end of these services, Fintech can help financial corporate clients manage their expenses and payrolls. Fintech solutions also aim to convenience the financial institutions themselves by making their front-end tasks—the user interface and user experience (UI/UX)—and back office tasks—database management and marketing—more efficient and sophisticated.

Those in the Fintech sector expect Fintech services to create added value impossible with conventional ICT alone, and to make the accompanying financial services more convenient for financial institutions and other users. Says Kumamoto, "The high level of productivity and sophistication brought about by ICT also adds new value and generates new services. As these services spread into general use, they will



Figure 1: Main hall at Financial Innovation for Japan (FIFJ) Fall Meeting 2016

generate new markets."

Mobile payment service provider Square is prototypical of this evolution. Beginning its service in 2010, Square offers small credit card readers for smartphones and tablets, virtually for free. Whereas only businesses of a certain size would accept credit cards before, with Square offering such unusually low cost payments, now considerably more private business operators can accept credit card payments. Now, Square has also expanded its services, producing a new screening model through the collection and analysis of payment data and providing business loans. Square is taking a different approach from conventional financial institutions to grow as a provider of new financial services.

Technological evolution will expand both corporate and private markets alike. The elderly market, where smartphones are used less, will be ushered in with advances in natural language processing and speech recognition technology, as well as artificial intelligence (AI) based on machine learning. Soon, smartphones may allow us to interact with our personal financial advisors and utilize financial services. In addition, once payment services bitcoin and other blockchain formats become more practical, real time global remittance services will be available at low cost.

Financial Institution and ICT Vendor Collaborations are Vital

Precisely because it is fueled by technological advancement, ICT vendors play a vital role in the Fintech industry. Kumamoto's believe is thus: "Financial institutions depend on ICT vendors to change up their activity and build new forms of financial information systems in order to guide how they utilize Fintech solutions." Continuing on ICT vendor roles, he states that, "By proactively collaborating with financial institutions in their Fintech activity, vendors will be able to provide new user-friendly, customer-centric financial services."

Until now, financial institutions and ICT vendors have basically regarded one another as contractor and seller; developing new services together was rare. The problem then was how to get financial institutions and ICT vendors, as well as Fintech startups, to discuss creation of new Fintech services on a wide scale. Enter Fujitsu's Financial Innovation for Japan (FIFJ).

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In the spring of 2015, Fujitsu called on companies in various fields to establish a cross-industry consortium, finally establishing FIFJ in July 2015 and holding the first FIFJ general meeting on September 3. With nearly one hundred Japanese financial institutions and Fintech startups from Japan and abroad in attendance, the first general meeting featured networking and presentations by the Fintech startups.

FIFJ is a public consortium. Kazuhide Sato, Director of Solution Promotion Dept. of Fujitsu's Innovative Solution Business Division, Financial Services explains: "We invited both our clients and other companies with an interest. The event was significant in bringing together financial institutions, ICT vendors, and startups working with Fintech as members." Financial institutions looking to create new business and services can use the FIFJ as a springboard to interact with driven startups and ICT vendors to tap into their expertise. General meetings are held biannually, with membership at 256 as of December 2016. (Figure1)

Full-scale Collaboration with Financial Institutions

FIFJ members share the latest Fintech information and discuss problems, thus matching established financial institutions and Fintech companies faster. Fujitsu also facilitates this process by assisting with various services: planning and market research for service introductions, Proof of Concept (PoC) work, sales promotion policies. The list goes on. Sato says that, "Fujitsu's strength lies in understanding both the conventional customer relationships and tasks from working in the realm of Systems of Record (SoR), and the advanced ICT in the realm of Systems of Engagement (SoE) represented by Fintech. We can act on this strength by assisting clients in working on their PoC."

Member companies are already collaborating with each other. Nanto Bank provides smartphone-based service with a solution it collaborated with a FIFJ member to create. Forming the base of this service is the FUJITSU Cloud Service Smart Biz Connect for Finance, a Mobile Backend as a Service (mBaaS) product built on the FUJITSU Digital Business Platform MetaArc. For the first time, regional banks, such as Ashikaga Bank and Hyakugo Bank, are adopting mBaaS; similar developments are spreading in the credit banking industry, with Johnan Shinkin Bank and others.

For mega banks and other major financial institutions, Sato says that, "since Fujitsu itself can promote Fintech, the client often evaluates their possibilities while working together with us on a PoC." Some examples include Mizuho Bank's recent demo of blockchain technology and Sony Bank testing an Al-enabled chatbot service.

Changes for ICT Vendors through Digital Innovation

The progress of Fintech is changing not only financial institutions,but also ICT vendors. Shinichi Muto, Senior Manager of the Business Strategy Division in Fujitsu Financial System Business Unit, says: "With everything we know about financial services overturned, we also have to switch up our business models." One such result of that change is Finplex, a financial solution newly systematized by Fujitsu.



Figure 2: Finplex Concept Map

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Financial institutions are working to keep conventional account settlement systems operating reliably in the SoR realm, while consecutively pioneering the SoE realm to respond to financial service user needs. Finplex, a cloud-based AI service, presents various solutions to reign in both realms. Thus, with Finplex, Fujitsu has built a platform for co-creation with financial institutions (Figure 2).

Finplex focuses on four new areas to provide value outside of conventional core and peripheral financial businesses: the UI/UX, which makes financial services convenient and fun to use; Omni-Channel, which enables seamless cooperation between multiple channels; Analytics, which deepens customer insight; and Smart Sales, which improves customer response and sales efficiency (Figure 3).

Finplex has already produced solutions. We have already delivered Nanto Bank their mBaaS, which meets the security level required by financial institutions as a Finplex SmartBiz Connect for Finance. Other solutions to be released by April 2017 include an AI chatbot service for enterprises and the Finplex Robot Agent Platform.

Collaborating with a Global View

A closer look at Finplex reveals that Fujitsu is preparing to expand the reach of financial APIs into related markets. "With Finplex," says Muto, "we look to produce two values when providing APIs."

First, Fujitsu looks to produce new value with collaboration between different industries. This could mean collaborating with a logistics company on a local point service, or with medical institutions and nursing homes to provide an adult guardianship trust service for Japan's super aging society. All of these allow financial institutions to create new value that was impossible before.

Second, Fujitsu works to leverage advanced technologies, such as AI and blockchains. APIs enabled to use these technologies grant them a wider audience of user companies outside of just financial institutions, promising the creation of new financial services.

In the ever-changing realm of digital business, ICT vendors who provide services to financial institutions are likely to face various hurdles not present with conventional financial services. To this, Muto shares four challenges when working with Finplex.



Figure 3: Value provided by Finplex

First, we must provide speedy service in an SoE. Fujitsu must concurrently expand both target and scope with agile development and offshore development to respond more quickly to market changes. To predict market changes and to stay at the forefront, Fujitsu started a financial services lean startup program in April 2016. With the program, we aim to quickly start services by making prompt investment decisions on the business ideas of new financial services born within the company.

Second, we need to be proactive in utilizing new technologies such as AI and blockchains and provide reliable services for enterprises. Active participation in global open consortiums and expanding research and development of new technologies are likely to spur the digital transformation of financial business. Third, we must collaborate with more companies so that we can contribute to client businesses promptly. FIFJ and the Silicon Valley Innovation Creation Center, newly established in 2016, will help to accelerate and globally expand cooperation with emerging Fintech companies.

Fourth, we must create new services and new businesses using usercentric design thinking. We are currently working on co-creation activities such as ideathlons for creating new financial services, workshops for creating usage scenarios, and workshops for revitalizing local economies.

Muto says, "It is natural to assume that the Fintech market will expand, both in Japan and globally. Fujitsu aims to create solution services that bring about innovation in business and development on a global scale."

*This content appeared on ITpro Active in January 2017.

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