

The Impacts of FinTechs on Financial Service Innovations

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Introduction

The banks put efforts increasingly to enhance their mobile banking capability as they face the pressure from customers, the emergence of new technological innovation, and grow competition from new entrants (KPMG, 2015). Recently, the new kinds of financial technologies (abbreviated as FinTech) receive much more attention from all over the world (Chuen & Teo, 2015). The concept of FinTechs emphasizes the firms' usage of new technologies to provide new financial services in a more effective and efficient way (KPMG, May 2015). It provides more extensive functionality by virtual channels which develop beyond basic transactions to enhance onboarding and servicing (Deloitte, 2015). Mobile has already widely used to be the largest banking channel by the volume of transactions in most banks (KPMG, July 2015). In global, the demographics of the users of innovation service in mobile banking tend to young population, the average age is at mid-thirties (KPMG, May 2015). The number of global users in mobile banking encompasses over 25% of the world's population and is predicted to be 1.8 billion double over the next four years (KPMG, August 2015). Obviously, it is in an exceptionally rapid phase and is forecasted in an effective exponential growth in the next 5-10 years (KPMG, July 2015). The banks and other financial services companies attach great importance to the momentous innovations from FinTech and attempt to comprehend the threats and find the responses to some fundamental questions (Gulamhuseinwala, Bull, and Lewis, 2015). Financial institutions also utilize virtual channels to improve the relationships with customers (Deloitte, 2015). The Banks apply the forecast behavior models, cash management and big data to offer new, low-risk, and customized service and to reduce the cost in administrative management (KPMG, May 2015). Non-financial firms not only join in the management of customer relationship, but also compete to share the market distribution of financial services. The alternative providers also compete with

full-service retail banks in the partnership networks. Therefore, financial firms need to think about externalized strategies to gain enough resource. They depend more on external providers to deliver online and mobile solutions on time (Deloitte, 2015).

The study mainly focuses on two issues. First, we investigate the impacts of FinTechs on both securities firm and corresponding ICT (information and communication technology) development firms in Taiwan. Second, we address on how the securities firms and corresponding ICT development firms endeavor to innovate and change to face the new age of FinTechs.

Literature Review

The global development trend of mobile banking

Traditional banks on the basis of telephone banking first emerge in the 1990s and continue to progress to virtual banking which depend on online and mobile channels (The World Economic Forum & Deloitte, 2015). Mobile phone and smart phone are used widespread and conduct a revolution of digital development trend in the world. Mobile banking in the global has evolved rapidly to be a personal device by customers' using experience (KPMG, May 2015). Most virtual banks which are built by large traditional financial institutions aim at their customer segments of price-sensitive and provide novel and compelling value propositions to their customers (The World Economic Forum & Deloitte, 2015).

In the East, the giants in the internet industry, such as Alibaba and Tencent, are rising to become providers of banking services with branchless banks such as Ant Financial and WeBank. These technologies do not only enhance the financial services sector, but also provide wider access to the banking and financial services (Chuen & Teo, 2015). The banking service will continue to develop towards wearables beyond mobile. The numbers of smart wearable devices are predicted to 130 million in 2018 that is 10 times higher than they estimated at 2013. These wearable devices will create a number of innovation opportunities for financial institutions worldwide (KPMG, May 2015).

Many financial institutions adopt mobile devices rapidly and use digital channels for basic transactions (The World Economic Forum & Deloitte, 2015). KPMG (May 2015) indicates that in the early 20 centuries, the smartphones with WAP support can enable the use of the mobile web. The mobile and tablets contain the access of bank websites and the services. The banks often attempt to use these channels to satisfy customers' demands and build them up to complete the functional mobile platforms (The World Economic Forum & Deloitte, 2015). The mobile banking applications are based on the beginning success of the iPhone and speedy growth of android since 2010. Non-traditional players design and develop mobile apps to make financial transactions more convenient for customers, such as applying the service of P2P money transfer,

Photo Bill Pay, and voice recognition (The World Economic Forum & Deloitte, 2015). The customers are diverted to mobile-based websites or applications. The mobile banking initially offers a basic portfolio of banking offerings via mobile, then evolve from basic to abroad, then become rich set of capabilities in mobile banking (KPMG, May 2015).

The preferences of customers have practiced on some innovations, such as the development of evolution from virtual banks to mobile banking capabilities, as well as the “banking as platform” movement (The World Economic Forum & Deloitte, 2015). At the same time, new entrants, such as non-banking players, venture capitalists, large internet companies, telecom firms and others (KPMG, May 2015), have put more efforts to satisfy customers demands to push banks to rethink their roles compulsorily (The World Economic Forum & Deloitte, 2015) and grasped the chances more enthusiastically in the mobile banking market (KPMG, May 2015).

The FinTech Development and Strategy in Global Perspective

FinTech, as firms have combined innovative business models and technology to enable, enhances and disrupts financial services (Gulamhuseinwala, et al., 2015, p. 18). FinTech also mentions that innovative financial services or products delivered via new technology. Consumers’ expectation alters with advancements in technology (such as mobile and internet) and a couple of their global widespread adoption (Chuen & Teo, 2015, p. 2). Additionally, they also need to fit the customers’ expectations, ease of use for customers and improve efficiency. The customers’ preferences and their fast-growing expectations change the interaction model with the banks speedily (KPMG, May 2015).

FinTech still develops in early stages, nevertheless, success is obviously difficult, in the situation of extreme competition as financial service firms face challenges from competitors from both inside of, and outside of the securities industry (Chuen & Teo, 2015). As far as new entrants of FinTechs are concerned, it seems that these start-ups have begun to “unbundle” banking services and carve out business in some of the established banks' most profitable business lines (KPMG, July 2015). The banks have to build mobile capability and increase higher budgets to develop innovative apps and functionalities for smartphones and digital tablets (KPMG, May 2015). The Internet Finance Guidelines indicated that China is creating both a financial market infrastructure and a regulatory framework that is specific for FinTechs. In fact, FinTech-related services are booming in China with numerous peer-to-peer (P2P) lending providers (Arner & Barberis, 2015). From the global perspective, it appears that most of young population, and average age of mobile banking users at mid-thirties,

are all acceptable to adopt new mobile banking services (KPMG, 2015; KPMG, May 2015).

Some traditional companies begin to either cooperate with partners or to implement outright acquisitions to respond to FinTechs. That money transference and payment services provided by FinTechs are also an essential part of the customer journey in many popular e-commerce sites, which are designed to eliminate conflicts and enhance conversion rates at the purchase stage (Gulamhuseinwala, et al., 2015).

In 2016, the Taiwan's Financial Supervisory Commission (abbreviated as FSC) publishes a report - "FinTech Development Strategy White Paper" (FSC, May 2016). This report suggests the Taiwanese securities industry follow the goals of raising the online order rate up to 70%, improving the automated trading mechanisms, such as Robo-advisors and online fund sales platform, strengthening the cloud services of securities and futures, and deepening the Big Data applications (FSC, May 2016). The restrictions of regulations in the financial service industry keep increasing, especially about the security problems. One of the major restriction factors of mobile banking is the penetration of the authorities of regulation (KPMG, May 2015).

In the reasons of the broad range of chances and intricacies of mobile banking globally, banks must put more emphasize on building the mobile banking channel. In order to take the lead of the competition and maintain their market share, they have to aim at segments and markets by proposing distinguished value propositions (KPMG, May 2015).

Methodology

Because the issue of Fintech has been discussed in recent years, this study can be regarded as an exploratory research. The use of a case study approach for obtaining a clear understanding is thus appropriate (Yin, 1994). A multiple-case approach is more effective than single-case approach and yields a more accurate and generalizable theory because it enables researchers to collect comparative data (Eisenhardt, 1991; Yin, 1994) and permits the application of replication logic, in which a series of events from the cases confirms (or disconfirms) emerging conceptual findings (Eisenhardt & Graebner, 2007; Davis, Eisenhardt, & Bingham, 2007). On the basis of the lack of theories of how securities firms innovate in the areas of Internet and mobile banking, we conduct an inductive, multiple-case study.

Data Sources

We collect data by using the following sources and methods: First, extensive archives, including corporate annual reports, Internet sources, and business publications; Second, interviews with leading experts; Third, attendance at several

industrial conferences; Fourth, repeated semi-structured interviews with managers of the focal firms and their firms; Fifth, informal follow-up conducted using e-mails, phone calls, and observations. Triangulation of the data collected from multiple sources at multiple times increases the reliability of findings (Jick, 1979). We assemble qualitative data from three interviews with the managers.

Research Framework

The study aims to investigate how FinTech impacts on both securities firms and corresponding ICT development firms and how these firms respond and change concerning the coming age of FinTechs. Thus, a conceptual framework for this study is proposed as follows:

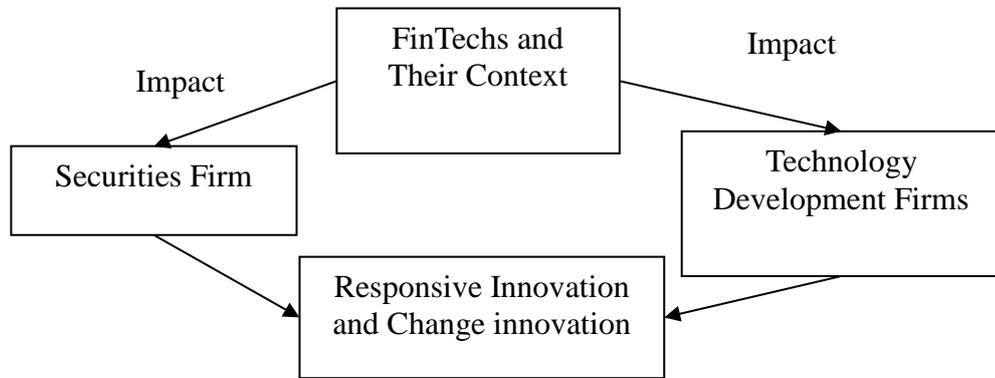


Figure1 Conceptual Framework for the Study

Research Approach and Research Subjects

As mentioned earlier, the development of FinTechs is still in its infancy stage. Additionally, very few studies in this area have been completed. Thus, the use of a case study approach for obtaining a clear understanding is appropriate (Yin, 1994).

We eventually chose one top securities firm, JihSun Securities, and two corresponding ICT development firms, Mitake Corp. and SysJust Corp. as the major research companies for investigation. The latter two firms take more than 95% of market share of special ICT & software for the financial service sector in Taiwan. We selected nine managers from these three firms for our in-depth interviews. The background information of these interviewees is listed in Table 1.

Table 1 Overview of Interviews

Times	Bank Name	Interviewee department	Title of Interviewee	Hours
1	JihSun Securities	Electronic Commerce Department	1 Manager	2
2	MITAKE	Information management department	1 President General Manager	2
3	JihSun Securities	Electronic Commerce Department	1 Senior Manager 3 Manager 1 Assistant manager	2
	MITAKE	Information management department	1 Assistant manager	
	SysJust	Electronic Banking Department	1 Assistant manager	

Research Discussions and Findings

The Impacts of FinTechs

The interviewee from JihSun mentioned that FinTechs have impacts on their company in many ways. For examples, they may face competition from new entrants which are originally outsiders, such as Alibaba. Additionally, a securities firm faces more pressure from customers as they are equipped with advanced handheld devices and request prompt feedback from securities. Furthermore, as the consumers and marketing actions become more individualized, the firm needs to find a better way to identify needs down to a particular level. Finally, the interviewee pointed out that the government policies are also crucial influencing factors as financial service firms ask for help from government because of more intensive global competition as a subsequent result of FinTechs. As for the corresponding ICT development firms, the interviewees indicated their original dominated markets appear to be affected as the financial service companies plan to build their internal innovative capabilities for innovation due to the threats and opportunities from FinTechs. Additionally, they have to update their technological capabilities as the related technologies, such as online transaction platform and big data, change much faster than before. The major impacts of FinTechs on both securities firms and corresponding ICT development firms are listed in Table 2.

Table 2. The Impacts of FinTechs

	Impacts
FinTechs and Their Context	<p><u>Securities firm</u></p> <ul style="list-style-type: none"> ● More competitions from new entrants and global competitors ● Deregulation in areas of online account, online payment, online order, personal information protection, prediction risk notice, forbiddance in investment suggestions etc. ● Provision of new business development fund and consulting services from government to support firms to develop new services. ● Increased customers' bargaining power <p><u>ICT development firms</u></p> <ul style="list-style-type: none"> ● Gradually losing customers from, and markets of financial service sector ● Facing new and broader technologies, such as online transaction platform, APP technology, Robo-advisor, big data, cloud service

Responsive Innovations and Changes

Facing the challenges from FinTechs, both security firms and ICT development firms seem to have shown some changes in direction of technologies, services and products and in innovation management and strategy. The interview from the securities firm mentioned that his company is putting more resources into the new areas of Robo-advisor big data, APP, and third-part payment. He further indicated that they need to analyze the customers' behavior more quickly and accurately by using these new technologies to provide better services. To reach the aforementioned goals, the company has tried hard to establish internal innovative capabilities. For instances, they hire some new employees with particular expertise in new areas. The securities firm also puts much effort to train their employees. Additionally, they tried to cooperate with several universities with expectation either to conceive new service ideas or to develop new technologies in a more effective and efficient way. On the other hand, the ICT development companies seem to have realized the change of their customers. They need to upgrade their technological capabilities as FinTechs bring some new technologies which are quite different from the traditional "information" technologies. Furthermore, they have to reposition their products and markets as both technologies and customers have tremendous changes. The detailed results from the case study are listed in Table 3.

Table 3. Responsive Innovations and Changes

Securities firm	ICT development firms
<p><u>New Product and Service Innovation</u></p> <p>New Products</p> <ul style="list-style-type: none"> • Currency trading, funds <p>New Services</p> <ul style="list-style-type: none"> • Online orders, TSMservice (for credit card), VIP service fee discount, or Investment services seminar, Openness of information about investment targets, e.g., Managed funds-push notifications, Personalized advice recommend, Third-part payment <p><u>Technology and equipment resources</u></p> <ul style="list-style-type: none"> ● Investment on software, such as APP, big data analysis, robo-advisor system ● Investment on ICT infrastructure <p><u>Human resource</u></p> <ul style="list-style-type: none"> ● Hiring and training the human talents with skills in APP technology <p><u>External Cooperation for Innovation</u></p> <ul style="list-style-type: none"> ● Cooperating with universities 	<p><u>New Product and Service Innovation</u></p> <p>New Products</p> <ul style="list-style-type: none"> • Security mobile order platform, Data base, Cloud testing centers, Third-part payment system <p>Service-Mobile Security</p> <ul style="list-style-type: none"> • message order, e.g. LINE, voice order, mobile banking order, Web banking order; APP order, e.g. Mitake Estock, Cloud service, Analysis of big data, e.g. customer behavior, investment, Customized service <p><u>Technology and equipment resources</u></p> <ul style="list-style-type: none"> ● Investment on ICT infrastructure, IT resource for APP <p><u>Human resource</u></p> <ul style="list-style-type: none"> ● Hiring and training human talents in APP technology and big data. <p><u>External Cooperation for Innovation</u></p> <ul style="list-style-type: none"> ● Cooperate with securities firms to design the online platform

In the above, the securities firms cooperate with ICT firms frequently and widely. But the securities firms also need to rethink their core capability and build up their advantage in the market to compete with the ICT firms or other new entrances. Therefore, financial institutions need to collaborate with non-traditional players and other institutions to enhance their ability and make decisions about what ability they should specialize and how to leverage external partners. For example, they should consider about what product they should manufacture versus how to create from customer experience (The World Economic Forum & Deloitte, 2015).

Conclusion

The study aims to investigate how securities firms and corresponding ICT development firms respond to the threats and opportunities of the coming era of

Fintech. Based on the results of preliminary qualitative case studies, several conclusions can be drawn: 1) the securities firms may need to rethink the way they interact with customers and they find customers' needs as the consumers are equipped with much more advanced and fast changing handheld equipment than before. 2) The securities firms may need to consider building their own innovative capabilities inside in order to be capable of quickly responding to customers need and social and economic change. 3) The relationship between securities firms and the corresponding ICT development firms may have changed as the former ones appear to have intension to develop mobile system and service innovations by themselves. 4) The corresponding ICT development firms may need to reposition their products and services to the financial service industry while keeping updating their ICT technologies.

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