

The Impact of Internet Financing on Commercial Banks -A Case Study of Savings Business

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Abstract—The rise of internet financing in China has brought considerable changes to the life style of people. It provides easier ways for different kinds of payments. It also derives other financing service such as on-line saving, online-lending, etc., which has impact the old structure of finance in China and also challenged the traditional banking service. This paper will focus on internet financing provider and traditional commercial banks. With the competition exists between these two parties, this paper will analysis the impact of third party on-line saving service to traditional commercial banks. And propose corresponding solutions in response to the third party payments shocks. Furthermore, to provide possibilities that may promote financing cooperation with other countries in accordance with the Belt and Road initiative.

Keywords—internet; financing; third party; on-line saving; commercial bank

I. INTRODUCTION

Over the last decade, with the rapid development of network technology, the internet financing has grown quickly in China. It has changed people's life in different aspects. In the initial stage of e-business development, internet financial products have a huge space to grow due to lack of business network payment system in traditional commercial banks. Therefore, a lot of on-line payment provider appeared and took over the market share, such as Alipay, Caufutong, etc. The on-line payment providers have enjoyed years of rapid development and huge profit. The average turnover of Alibaba Alipay was more than 6 billion yuan per day. The rapid pace of development of third-party on line financing services has aroused great concern of commercial banks. For any commercial bank, the on-line payment market absolutely cannot be ignored. Especially in 2013, the internet online-service extended into saving business. It was a revolution in finance world in China. The traditional financial industry is undoubtedly gone through a huge change. It is necessary to understand the impacts, and actively explore how the traditional commercial banks should be deal with the challenges and create opportunities. And how to improve online service quality, accelerate the pace of innovation and how the online finance provider and commercial bank could gain a win-win result.

To response the Belt and Road initiative, a lot of international cooperation has been conducted with these countries. The financing cooperation is an important part of the initiative. The internet financing products could be a very useful and convenient way to speed up the cooperation.

This paper will use relevant data to analysis the situation of internet financing products and commercial banks. And provide practical suggestions on the situation.

II. PREVIOUS STUDY OF ONLINE FINANCING PRODUCTS

A. Study on internet finance and internet finance product

Internet finance use internet as a resource based on the new financial model. The core resources are big data and the core technology is cloud computing. The connotation of on-line finance services lies in the use of internet technology so that everyone in the socio-economic has the power and means to participate in financial activities, access to financial services in information symmetry, and gradually close to the financial effectiveness [2].

According to the different levels of internet finance, it can be divided into mobile payment, direct marketing bank, data finance, channel finance, personalized insurance, and transactional level P2P loan.

The development of various forms of internet finance depends both on the penetration of internet technology and on the degree of transformation of financial markets with the growth of the internet [4]. The future of internet finance may show a large number of local central nodes and countless individual nodes coexisting mixed structures [6]. Internet finance may also present a matrix of horizontal integration and vertical specialization

In internet financial theory, Xie Ping (2014) [4] first proposed the concept of internet finance, detailed description of the internet financial representative case in China. At the same time, the economic analysis method and the sociological analysis method are adopted, and the internet financial model is analyzed from different aspects. They believed that the core of the financial information, financial infrastructure is the way of payment. The biggest difference between financing and commercial bank financing in the internet financial model is

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the time of processing information, and the efficient resource allocation.

Compared to the minimum starting point of bank financial products with the investment starting point, the internet financial products launched lower investment threshold of financial products. It could attract a lot of users in a short time.

B. Study on the relationship between internet finance and commercial banks

Some scholars use practical cases of internet finance, to detailed the impact of internet banking on commercial banks, and given pertinent recommendations. Zhang Xu (2014) [5] first analyzed the main areas of internet finance, namely, third-party payment and internet financing; and pointed out the characteristics of the two businesses. Secondly, from the aspect of the bank's asset business, debt business and intermediary business to analysis the impact of internet banking on commercial banks. Then, use SWOT to analysis the status of the development of commercial banks, and established the bank cooperative Cournot model. The cooperation are not only among commercial banks, but also between commercial banks and internet financial companies. It will more than a separate competition of the profit margins. Liang Zhang, Shen Fan (2014) [3] stated that the internet finance is an extension of e-commerce technology in the financial sector, namely "financial online". Traditional commercial banks cannot adapt the development of e-commerce model will be eliminated soon or late.

Commercial banks have been impacted, however, there are several solutions. For example, the Bank of Communications introduced a bank electricity business platform. On one hand, banks can combine their own financial advantages to provide customers with a wide range of financial services to create online supply chain financial system; on the other hand, this platform can build a set of financial services, including a comprehensive B2B and B2C model of the business platform.

Internet finance is not a simple technological and channel innovation, but a new financial format that subverts the traditional business model of commercial banks. Guo Na (2013) [7] pointed out that under the influence of financial restraint, China's financial market lack of adequate competition for a long time. Supply and demand are not balanced, resulting some customers' financial needs cannot be met.

In short, from the predecessors of the study can be seen that internet finance has taken attention these years. Many of them generally believed that commercial banks and internet finance are in the relationship of competition. But the degree of competition in the degree of view is different. Some scholars believed that the development of internet finance has a significant impact on commercial banks and challenges; while some scholars stated that the development of internet finance on the impact of commercial banks is limited, mainly from the complementary role. This paper chooses a typical internet financing product: on-line saving product and banks' saving business as the representatives of internet finance and traditional finance, analyzes the influence of internet finance on commercial banks.

III. RESEARCH

This article use questionnaire survey to collect data that could reflect the influence of internet finance on the commercial banks. The impact is multifaceted, this article focused on the on-line saving products and its influence on the most stable and traditional business-saving.

Based on the rapid development of technology, the dynamic changes of the environment and the data lag effect; the results of the study will be adjusted over time. But the basic trend of the study and the development of the law are relatively stable.

A. Questionnaire survey

The questionnaire survey contained 16 questions regarding people's attitude towards the on-line saving products and traditional saving service in commercial banks. The questionnaire survey was published on the social network. The valid survey is 764 copies.

B. Data collection

Through the official website of the Industrial and Commercial Bank of China gain the published annual report. The data of 2010-2016 deposit changes of the Industrial and Commercial Bank of China.

Through the China Statistical Information Network to obtain 2010 - 2016 urban and rural residents RMB deposits and Change situation.

C. Validating Key Hypotheses and Measures

Key Hypotheses: Assuming the development of internet saving products will reduce the savings of commercial banks.

This paper mainly selects the following indicators to analyze the impact of internet financial products on commercial banks:

Industrial and Commercial Bank of China deposit changes in 2010 - 2016.

The value and variation of RMB deposit of Chinese Urban and Rural Residents in 2010-2016.

Balance of the market size of the situation changes in 2012-2015.

IV. DATA DESCRIPTION

This chapter mainly collected the data regarding the changes in deposits of urban and rural residents of ICBC in year 2010 - 2016 and Chinese internet financial market development and the company scale questionnaire.

A. Data description

- (1) Changes in the amount of deposits

TABLE I. CHANGES IN DEPOSITS OF ICBC FROM 2010 TO 2016

Year	Total deposits (unit: RMB one trillion)
2010	11.15
2011	12.26
2012	13.64
2013	14.69
2014	15.36
2015	16.28
2016	17.75

TABLE II. CHINA'S URBAN AND RURAL RESIDENTS RMB DEPOSITS AND THEIR CHANGES IN 2010 –2016

Year	Total deposits (unit: RMB one trillion)
2010	30.72
2011	35.20
2012	41.02
2013	46.54
2014	50.70
2015	55.19
2016	59.48

It can be seen from the table that the absolute value of total deposit increased from 2010-2016. While the growth rate decreased year by year.

(2) Data regarding the on-line financing products

TABLE III. CHINA'S INTERNET FINANCIAL PRODUCTS MARKET SIZE CHANGES IN 2012- 2016

Year	The size of the market (unit: RMB one trillion)
2012	2.37
2013	4.16
2014	10.51
2015	15.87
2016	18.26

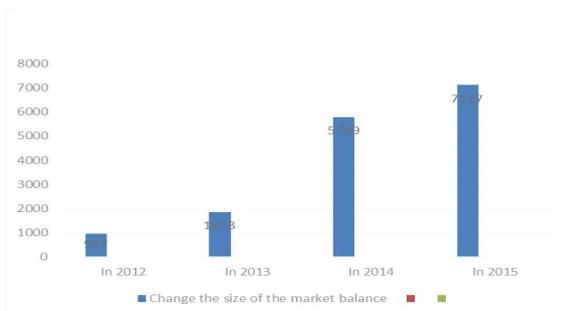


Fig. 1. market size changes in 2012 - 2015 of Alibaba's Yuebao

This figure comes from the annual report of Alibaba's on-line saving product-Yuebao. It can be seen that the market balance of this on-line saving product has a substantial growth during these years, especially from year 2013 to 2014.

B. Questionnaire data description

(1) The characteristics of survey people: in 764 copies of survey, 392 were male and 372 were female. From the age aspects, 618 of 764 were filled in by age between 18 to 25 years old people. 639 people who answered the survey have bachelor degree.

(2) Saving habits: 481 people just invest 10% or below of the idle funds to the on-line financing products, 112 people will invest 10%-20%; 68% people choose to use four state-owned commercial banks.

(3) Attitudes: 54% people incline to choose on-line financial products rather than traditional commercial banks, 37% of them could accept both.

(4) Subjective feelings: 57% person think the number of clients has slightly decreased, while 28% of them think the decrease is substantial. 59% of 764 people think the saving business of banks has been affected, 24% of them think the decline is sharp.

(5) In-depth exploration: 81% person agree mobile payment and third party on-line payments (such as Alipay, caifutong) has impacted the traditional banks the most. 60% of them recognize the flexible access and easy to operate as the main reason. 85% person suggest the credit evaluation system, industry supervision system and network security protection need to be improve for internet banking, as 78% person admit the fundamental advantage of traditional banks is safety factor, namely low risk. 51% people are optimistic about traditional commercial banks involving in the field of internet banking and 33% of people think that the internet financing will promote the reform of traditional commercial banks.

V. DATA ANALYSIS

Data analysis will be based on the information collected in the above part.

A. Data analysis on traditional banks (ICBC)

TABLE IV. CHANGES IN DEPOSIT GROWTH RATE OF ICBC FROM 2010 TO 2016

Year	Deposit growth (unit: RMB one trillion)	Fluctuation range (unit: %)
2011	1.11	+9.96
2012	1.38	+11.26
2013	1.05	+7.70
2014	0.67	+4.5
2015	0.92	+5.99
2016	1.47	+9.03

This is an annual report from the official website of the ICBC to collect deposit changes. From the beginning of 2011,

compared with 2010 deposits increased by 111 million yuan, an increase of up to 9.96% for the year of 2010;2012 deposits increased 138 million yuan over the same period in 2011, an increase of 11.26%;2013 deposits increased 105 million yuan over the same period in 2012, an increase of 7.70%;2014 deposits increased 67 million yuan over the same period in 2013, an increase of 4.5%;2015 deposits increased by 92 million yuan in 2014, an increase of 5.99% in 2016 compared with deposits in the growth of RMB 147 million yuan in 2015, an increase of 9.03%. As can be seen from the data, although the total amount of deposits increased every year, but from 2012 to 2016, the growth rate decreased year by year, 2016 deposit growth rate has been greatly improved, because ICBC raised the deposit interest rate.

TABLE V. CHANGES OF RMB DEPOSIT GROWTH RATE OF URBAN AND RURAL RESIDENTS IN CHINA FROM 2010 TO -2016

Year	Total deposits (unit: RMB one trillion)	Fluctuation range(unit: %)
2010		
2011	4.48	+14.6
2012	5.82	+16.6
2013	5.52	+13.5
2014	4.16	+ 8.9
2015	4.49	+8.9
2016	4.29	+7.8

From the data we can see that the total amount of China RMB deposit has been increasing year by year, but since 2012, the total amount of deposits of annual growth have reduced the deposit growth rate fell from 16.6% in 2012 to 7.8% in 2016.

TABLE VI. CHANGES IN MARKET SCALE OF INTERNET FINANCING PRODUCTS

Year	The size of the market (unit: RMB one trillion)	Fluctuation range (unit: %)
2012		
2013	1.79	+75.52%
2014	6.35	+152.64%
2015	5.36	+50.99%
2016	2.24	+15.25%

As can be seen from the data, the internet financial products between 2012 and 2016, the market size has increased significantly, especially in the market size of the growth rate in 2014 was 152.64%.From the above data, the development of Internet banking products to some extent led to a reduction in the amount of commercial bank deposits.

B. Data analysis of survey

From the results of the survey can be seen, 51% of people think that the internet financial products have a certain impact on the traditional commercial banks, but not to subvert the traditional banks. 33% of people think that the internet financial products will promote the reform of commercial banks. 12% of people believe that the internet financial

products will subvert the traditional commercial banks, 4% of people believe that the internet financial products have no impact on commercial banks.

From the questionnaire data, most people use the internet financial products, and tend to the internet financial products. Internet financial products are easier to accumulate the idle funds, therefore affecting the savings business and intermediate business of commercial banks, resulting in savings of traditional commercial banks decreased.

VI. CONCLUSIONS AND SUGGESTIONS

From the analysis above, it can be concluded that, as the internet saving increase, the saving business of traditional commercial bank has experienced a market share loss. Even the absolute amount seems fine, the relatively share has sharply decreased. The impact of internet finance is real; it has influenced the whole society from different ways.

On the other hand, most of people has become aware of the change and adapted the change. It is another proof of influence that internet banking has put on the traditional financing system.

This paper just investigated the saving business; however, the influence happened in different aspect of finance. It is not a negative event, on the opposite, it is a chance to create a new modern financial system and a force the traditional financial bank to change and create a win-win situation.

Based on the results, the paper puts forward the corresponding policies and suggestions.

A. Optimize organizational structure

In the network of institutional settings, commercial banks should learn from the experience of e-commerce enterprise development. Build own financial platforms to better serve customers. For the mobile client, create customer access i.e. App. Or to build large financial supermarkets in the core commercial areas and comprehensively display the commercial banks brand image and business services. In the vicinity of residential areas and office area, shop-based small financial service shop would be proper. It can provide timely and convenient services to achieve online and offline channel synergies [3].

B. Build a customer-centric business model

On the internet financial age, customer experience has become the lifeline to determine the survival of commercial banks. When the financial disintermediation and technology have become a reality, optimizing the customer experience has become a key measure to increase customer stickiness and attract potential customers. Commercial banks' individual needs to customers, from the discovery, response, provision, evaluation, feedback to improvement, need to optimize the business model of commercial banks, change the traditional business processes. Internet banking needs to use social marketing, experience marketing, interactive marketing and event marketing and other customer marketing, commercial banks to implement these marketing measures should be around the "equal communication" customer marketing theme, so that customers feel convenient and safe, and constantly

simplify business processes, optimize the beautification of the client interface and functionality, and ultimately enhance the customer experience.

C. Establish a customer and market-oriented business philosophy

It is surprised that third-party payment enterprises has obtained great success. A very important reason is that it has always keen to meet the diverse needs of the market and customers. And it has introduced differentiated financial products and services. Commercial banks are not willing to change due to long-term monopoly and the formations of a sense of superiority. They should enhance their own service and innovation. First of all, all the strategies should be based on operating conditions clear market positioning [4]. Large commercial banks can use the rich resources to consolidate their services with large enterprises and VIP customers. Small and medium-sized commercial banks should focus on serving local business and carry out differentiated business to highlight their own characteristics. Second, no matter large banks or small and medium-sized banks, should be fully aware of the importance of customer resources through the internet, mobile phones, WeChat platform and other channels to expand the target customer base, to carry out efficient publicity and marketing.

D. Promote capital custody, to achieve win-win cooperation

With the rapid increase in the amount of funds through internet finance, the on-line saving attracted many third party payment agencies. The cooperation with deposit bank is in urgent need. it will be a great opportunity for commercial banks. At present, Alipay has chosen Industrial and Commercial Bank as its deposit reserve bank, which brings a lot of precipitation funds for ICBC, and in determining the ICBC as a deposit depository bank at the same time, Alipay also reached a strategic cooperation agreement with them, both sides will be in the network payment, bank card receipt and other aspects of the establishment and deepening cooperation. This is significant for the major banks, as long as the strengthening of the internet financial and financial institutions with the full cooperation, commercial banks' related business will also win a greater development opportunities.

E. Improve the electronic money payment system, seek international cooperation

Commercial banks should constantly improve the network banking and electronic money system, and enhance the operational efficiency of e-commerce flow. First, response to market demand, optimizing the electronic payment products, speed up mobile payment, telephone payments, online installment and other product innovation and practice. Enhance customer experience, enhance customer stickiness, consolidate the dominant position of payment business; Second, in-depth

[4] P. Xie, "Internet banking technology can replace the central bank," Shanghai economy, 2014, p. 15.

[5] X. Zhang, "Influence of Internet Finance on commercial banks and Countermeasures," Chinese and foreign entrepreneurs, 2014, pp. 39-40.

study the characteristics of e-commerce processes in different industries. Extending existing standardized payment products to both ends of the function, for the aviation, railways, tourism, insurance, public utilities and other vertical industries to provide personalized electronic payment solution; Third, in the electronic payment process to provide financial supervision, credit guarantee and other intermediary services to protect the security of the transaction between the buyers and sellers to promote the e-commerce industry chain credit level upgrade; Fourth, make full use of the central bank's latest "second-generation online payment inter-bank clearing system", through "a little access, multi-point docking" system architecture, to provide customers with a unified authentication, cross-line account management, cross-line funds to plan, cross-line capital pool, unified direct platform, unified financial management and other functions of the one-stop online payment management platform.

The rapid development of internet finance has pointed a way. The mature technology and a large number of practitioners have provided the possibility that online financing service could serve for international cooperation. Chinese government has made the Belt and Road initiative. It has provides a large space of all-round economic cooperation. With many financing cooperation has been conducted already, the internet finance could be an accelerator and lubricants to deepen the cooperation.

F. Limitation and further study

The data collected mainly by questionnaires, subject to human subjective factors, and with age, work, geographical constraints. And the data collected is relatively simple, cannot reflect the overall situation of China's financial markets.

More research could be conducted in the area of the mode of internet financing participate in international cooperation. The new business mode may be further discussed between internet finance and commercial banks.

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