Fintech and the Digital Transformation of Financial Services

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Abstract. Fintech is one of the most important research subjects nowadays. China's financial computerizing has gradually realized the traditional business, which built a customer-centric electronic financial service system, and the rapid development of mobile banking, peer-to-peer payment services, and trading platforms. Under the backdrop of the rapid development of financial computerization, there are a series of clear and potential risks in financial computerization. Therefore, the research topic of this paper is the impact of today's digitalization on the development of financialization. This paper will collect the data of today's digital financialization application and analyze these data from the perspective of finance. At present, the financial industry and technological innovation are increasingly closely linked, and technology-driven financial innovation covers the whole world. In addition, the COVID-19 pandemic is accelerating the global digitization process, accelerating the competitive development of global big data and digital economy. As isolation measures increase the demand for telecommuting and online education, the global demand for broadband communications services has soared. Meanwhile, the consumption of content based on short videos and live broadcasts has soared, resulting in a rapid increase in the amount of information created and captured worldwide. As a result, the progress of fintech has promoted the great prosperity of the financial industry.

Keywords: Financial computerizing; digitalization; fintech.

1. Introduction

In the recent past, with the popularization of Internet technology, it has become highly involved in the innovation and development of the financial industry. Considering the quick expansion of mobile Internet and e-commerce platforms, fintech has also entered a period of rapid development. It improves the information asymmetry between the two sides of financial supply and demand, effectively improves the degree of matching between the two sides of the transaction and expands the scope of the transaction. Additionally, the capabilities and efficiency of financial services have been significantly improved by the extensive adoption of cutting-edge technologies in the banking sector, including big data, cloud computing, artificial intelligence, and blockchain, which brought people more convenient and safer financial assistance, and continuously the price of financial services was decreased, and effectively improved efficiency and expanded the scope of services.

Depending on the type and source of their investment, different fintech startups will experience the epidemic in different ways. Investor money, which initially decreased during the epidemic, is a source of capital for many fintech startups. As a result, bigger, more established fintech businesses prosper while smaller, less well-funded businesses, many of which are not yet profitable, struggle [1]. Over the decades, digitization and finance have undergone a constant evolution in terms of service delivery. This development extends connectivity and increases the speed of information processing from the customer interface and background processing. Currently, the goal of digitization is to create new revenue models for financial services companies rather than to improve the delivery of traditional jobs. Fintech companies provide their consumers with a variety of innovative financial services, financial goods, financial software, and new ways to communicate and engage [2].

This paper mainly studies fintech from four aspects: Payment systems, P2P lending, Robo-advice and Blockchains. Since finance is the backbone of the modern economy and science and technology are the main producing factors, the speed and efficiency with which scientific and technical advances are converted into practical productive forces will be substantially improved by the organic coupling of finance and technology. In addition, the truth demonstrates that fintech scientifically improve the

financial capacity and heightened risk prevention awareness. It can show its advantages in response to many problems such as the misinformation of financial information. Additionally, it is crucial for decreasing transaction costs and increasing the size and scope of industry development. As a product of the development of the times, technology-driven financial innovation is also compared with forgotten finance, which has a wider range of use and can be used to promote the development of new businesses. Thus, it is of great significance to discuss related issues arising from the topic of fintech.

2. Payment System

The age of information and communication technology and digital innovations have led to dramatic changes in the business environment, with business transactions beginning to shift from cash to electronic transactions. Electronic payment methods were developed as an improvement over cash and barter trade, not to completely replace them. A payment method using electronic media and excluding cash might be referred to as an electronic payment. The use of electronic payment methods in e-commerce is also crucial [3].

Internet banking is one of the most common and practical electronic payment systems. The process a user uses is simply to log into a personal bank account with a username and login password. To ensure the security of the user, an OTP (one-time password) will be sent to the user's bound contact information during the payment process. Nowadays, the client desires to carry out and complete his or her financial activities from in any place without having to go to the bank and be free from the restrictions of bank hours at any time and complete all their payments (purchases, notes, stocks) in a timely and economical manner. The independence, freedom, and flexibility of financial services should be used to demonstrate their excellence to meet these objectives [4]. For example, customers can handle deposits and loans, credit cards, investment, and wealth management without going out. It is because online banking makes use of network technology, it can proactively offer account management and information enquiry to clients, savings deposits, money transfer, credit, securities, investment, and financing services through the Internet. Therefore, it provides customers with great convenience. There are also many electronic Shopping Software like JingDong and TaoBao. The money from the bank is transferred to the wallet of the software, and then the money from the wallet can directly buy the goods provided by the software. Customers prefer electronic shopping to offline shopping because online shopping is convenient, wide range and cheap. Firstly, online shopping brings people more convenience than traditional offline payment. Nowadays, people can use their mobile phones to choose what they need. Whether it is to buy clothes, daily necessities, or order takeout food, people can make purchases throng online, so that they do not have to go out to the store to buy what they want, which reduces the traffic trouble and truly realizes that they can buy what they want without leaving home. Secondly, online shopping has a wide range of choices. In today's shopping software, whether it is Taobao or Jingdong, all relevant products can be found if people search the keywords. In addition, with people purchase conditions attached, they can narrow down the scope and more accurately screen out the goods that meet their requirements. In addition, people can compare multiple stores online and find out the one they want to buy according to the comments of buyers. If people go to a physical store, they must run a lot of miles to compare prices, which is both physical and time consuming. Thirdly, online goods are much cheaper than offline stores. The belief of low price is a very important reason why many people are willing to shop online. Because online stores need less expenses, and business can sell goods at a lower price, and customers will certainly choose cheaper under the same conditions, which is a big advantage over physical stores.

3. P2P Lending

Fintech business models are growing, such as peer-to-peer lending. P2P online lending platform is a business model combining the Internet and finance. It collects small amounts of funds and lends

them to people in need. The loan process such as funds, contracts and other information procedures can be conducted entirely via the Internet [5]. With the widespread popularity of P2P lending, some popular lending software has also appeared, such as JingDong BaiTiao, Ant Credit Pay and so on. However, P2P lending has both advantages and disadvantages. There are three advantages of P2P lending. First, the loan threshold is relatively low. This kind of loan model attracts many young people to take out loans. This is because today's young people almost have no stable jobs and matching economic sources. In addition, those young people's consumption desire and the heart of comparison is relatively heavy. However, through the bank loan not only needs collateral, but also the audit process is relatively troublesome, so most young people will choose this way of loan. Second, the procedure is convenient. For investors managing money on P2P lending platforms, one of the reasons for the benefits is convenience. After they register on the platform and open a third-party payment account, they can start to invest. Third, the financing costs are low. This is because the customers who borrow money from P2P lending platforms are usually short-term lending customers, and the financing review cycle to banks is longer, while the financing cost to offline small loan companies is too high. However, P2P online lending platform as an information intermediary charges a certain percentage of loan management fee as the operating cost and profit of the platform, and the rest is the income of investors. Therefore, it just solves the shortage of bank financing and offline small loan financing and opens a door for small and micro enterprises to carry out rapid financing for short-term capital turnover.

Ant Financial is also a typical representative of P2P, but Ant Financial has not been listed successfully. Ant cited changes in the "regulatory environment" as the reason for the delay. The deeper reason is that Ant Financials' business mode has huge security risks. This is because Ant Financials' loans do not require any property collateral, which relying mainly on credit. In such a situation, Ant Financial has the potential risk of huge bad debts. This also shows three of the risks that presence of P2P. The first has a high risk, high interest, and is insecure. Compared to the conventional approach to financing, the gross loan is completely unsecured loan, unlike the traditional financial institutions, the need for mortgage registration guarantee and a series of complex procedures. The second is credit risk. The network loan platform's intrinsic capital is modest, thus it cannot support a significant size of the guarantee. It is hard to solve a huge loan problem once it arises. In addition, some borrowers also make loans for the purpose of fraud, and some loan platform creators are not simple, and there are frequent cases of escaping with money. The absence of efficient regulatory mechanisms comes in third. The central bank and China Banking Regulatory Commission have not yet established clear laws and regulations to govern internet lending because it is a novel kind of finance. The regulatory layer for net loans primarily adopts a neutral stance, failing to notice any infractions. However, with the prevalence of online lending, people can believe that relevant measures will be formulated and implemented in time.

4. Robo-Advice

As the number of online financial investment users increases, the emergence of Robo advisors provides users with a faster and more convenient way, where the conventional retail customer advice procedure is gradually being replaced with robot advice [6]. As an intelligent assistant in the financial industry, financial customer service robots have been increasingly accepted by enterprises in the current development of artificial intelligence. Many enterprises accept and even welcome customer service robots to participate in their business. Financial robots can respond to customers in a timely manner. Providing a good customer experience is almost always in direct proportion to customer loyalty, as well as customer retention. In fact, data shows that poor customer service is the leading cause of customers switching service providers. For example, customers can now access financial services anytime via the Internet and mobile phones. However, the service hours of financial institutions are fixed, so the 24 x 7 service capability of intelligent customer service robots is reflected. In addition, through some specific functions, human customer service can create a new conversation

at the first time after work, and get in touch with customers, without worrying about the loss of customers because of missed customer visit time. In addition, Ai-driven customer service robots can answer customers' common and repetitive questions and provide customers with self-service options so they can search for solutions in the fastest time. For example, when customers choose wealth management products in mobile banking, the robot will automatically pop up a series of related financial products and provide common business entrance or other convenient business entrance. In addition to lowering the cost of recruiting service staff, this expedites client business operations and improves customer satisfaction, loyalty, and retention. Also, the intelligent customer service robot should also have smooth customer service access experience. When the customer's problems exceed the preset range, the customer service can quickly take over and help the customer solve the difficulties. Intelligent robots can also provide personalized services. In addition, through the setting of the rule answer function, financial institutions can realize the robot to ask or inquire the questions of customers, to achieve accurate service. For example, when a customer asks "details", the robot will ask: "Would you like to check [income and expenditure details] or [business details]?" When the customer replies to the "business details" again, the robot can reply with a precise answer. Besides, financial robots can also provide value-added service products. Financial institutions need to regularly push activities or benefits to customers, especially those with high loyalty, frequent business contacts, and high spending. Therefore, financial institutions can push benefits to different levels of customers through the targeted mass messaging function, which filters customers according to their labels.

In conclusion, the retail and private banking industries are seeing an increase in demand for digital financial consulting services, particularly robotics consultants. With the help of these tools, customers can assess risk, choose a portfolio, or rebalance their accounts. They may eventually amount to human financial counselling. Additionally, robotics consultants have enormous potential to influence the direction of the financial consulting sector, albeit there is still a lot of untapped potential [7].

5. Blockchain

Block chain technology is recognized as the financial industry's core technology and offers significant potential for advancements in the areas of economic growth, financial innovation, internet development, and other areas. For the financial sector to successfully integrate block chain technology, digital transformation and strategic deployment are required [8]. Digital money is a result of block chain technology's use in the financial sector. The most popular and successful application of block chain technology is by far Bitcoin. Numerous other types of decentralized digital currencies known as copycat coins have emerged as a result of the birth of Bitcoin. In addition, the bank credit management also as one of the applications of block chain. The benefit of block chain in the area of credit inquiry is that it may count on software algorithms to automatically capture and save information about credit on every machine on the block chain network. It has the characteristics of information transparency, immutable and inexpensive to use. Credit data from commercial banks can be shared and stored in an encrypted way. When a consumer requests for a loan, the lending institution can immediately finish the credit inquiry by accessing the relevant information data of the block chain after receiving authorization, instead of having to apply for the credit investigation information inquiry from the central bank.

Cryptocurrencies are being actively introduced into daily life by crypto enthusiasts, but they are still finding their place and domain to activate their synergistic financial system. However, there are several objective reasons why cryptocurrencies are not ready to completely replace fiat currencies. Because the closest view of cryptocurrencies will be stricter laws to regulate the nation and fulfil a legal duty in the financial sector of the payment system. In the long run, block chain protocols provide technical drawbacks that are fixed. In the meantime, a revision of the global financial system and the completion of the withdrawal from cash and non-cash fiat currencies are likely only to be followed by cryptocurrencies becoming a more effective form of money [9]. Block chain technology was first applied as a public ledger of cryptocurrency transactions. However, block chain technology has

recently been taken into consideration for many other applications in addition to cryptocurrencies since it embodies distinctive qualities such as decentralization, safety, accountability, and anti-tampering. These attributes are especially helpful given the several significant problems the banking industry is now experiencing. Therefore, by changing the way various services are supplied in the financial sector, block chain technology has the potential to revolutionize that industry [10].

6. Conclusion

The economic new normal promotes the degree of financial electronation, and the electronic financial management is of great significance. At present, China's financial computerization has achieved rapid development, but there are still some potential problems. First, there is a lack of overall planning. This is due to how tiny China's financial electronics market is, the quality of information technology is low, and the lack of professional information platform. Second, there is a lack of regulatory tools. It is because China's electronic financial supervision means lag, the construction of electronic financial regulations is insufficient, the industry rules of electronic financial business is not perfect, so it restricts the orderly development of financial electronic to a large extent. The optimization suggestion to China's electronation is to improve the development planning of financial electronation and improve the supervision of financial electronation. The government can introduce industry standards for financial electronation, improve the Internet interface standards for financial systems, and clarify the format of financial information transmission. In addition, service standards for financial electronation have been introduced to lower the expense of financial electronic exchange and strengthen the operation speed of financial data information based on the clear requirements of the process, standard and data accuracy of financial electronic business. Finally, the development of fintech has in fact aided the banking sector's tremendous prosperity. Fintech can increase financial capabilities scientifically and raise risk prevention awareness. The innovation and development of fintech requires incentives and constraints at the government level, as well as the populace's collective efforts to actualize the success and expansion of China's fintech industry.

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