

Research on Digital Transformation of Financial Industry under the Influence of COVID-19 Epidemic

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Abstract. In the prevention and control of epidemic situation in COVID-19, a large number of Internet companies actively use big data to analyze and display epidemic situation, providing important support for orderly resumption of work and production while preventing and controlling epidemic situation. The epidemic situation has promoted the continuous emergence of various online services, ensured the basic needs of people's life and study, brought vitality to the real economy, and at the same time gave birth to a number of new formats and models of digital economy. The growth of the digital economy itself is also greatly affected by the epidemic, and different formats are affected to varying degrees. During the epidemic, banking institutions made full use of the digital transformation achievements in recent years, innovated financial service methods through various online financial service platforms, and enriched online and offline collaborative products and service systems. This paper mainly discusses the problems and development strategies of digital transformation of financial industry under the influence of COVID-19 epidemic.

Key words: COVID-19 epidemic; Finance industry; Commercial banks; Digitization

1. Introduction

At the beginning of 2020, the outbreak and spread of COVID-19 epidemic caused great impact on various industries and economic and social activities [1]. It can be expected that the response to the COVID-19 epidemic will be normal and will last for a long time. The sudden outbreak of COVID-19 has a direct impact on economic activities, namely, the shutdown, and a large number of enterprises' supply chains and capital chains are "double-chained" broken. The role of monetary policy in resource allocation is not only a matter of short-term moderate easing, but more importantly, it promotes the balance and stability of price signals. In addition, there is the vitality restoration of the enterprise sector. After the epidemic period, enterprises have to resume work and production [2]. During this period, in order to prevent the spread of the epidemic, social and economic subjects must not contact each other, including the contact between finance, enterprises and individuals. The epidemic situation has promoted the continuous emergence of various online services, ensured the basic needs of people's life and study, brought vitality to the real economy, and at the same time gave birth to a number of new formats and models of digital economy.

As far as the financial market is concerned, each financial sub-sector has not only developed rapidly in its own scale and business capability, but also no longer has its own way of doing things independently, and the frequency and scope of cooperation and exchange have also increased

greatly. Mergers and acquisitions, shareholding and other business methods have become more and more frequent, which has led to the increasingly inseparable relationship among the financial sub-sectors in China's financial market [5-6]. The communication between people is ruthlessly cut off by the epidemic, but the financial exchanges between banks and enterprises and between enterprises cannot be broken because of the epidemic, and they are even closer than when there is no epidemic, because enterprises, especially small and medium-sized enterprises, need financial support more at this time [7].

2. COVID-19 promotes the digital transformation of commercial banks

2.1 Digital economy is conducive to promoting economic growth

The digital transformation of commercial banks is a commonplace topic, but this COVID-19 epidemic has made the digital and online financial service capabilities of commercial banks prominent. The epidemic also prompted the rapid transfer of consumer demand from offline to online, which brought development opportunities for online education, online medical care, telecommuting and fresh e-business [8]. There is a lot of digital infrastructure in the new infrastructure. In order to overcome the barriers of communication between banks and enterprises caused by the isolation between people,

the CPC Central Committee, governments at all levels and regulatory authorities have actively introduced policies to support innovative services of commercial banks. As a city commercial bank that serves the small and medium-sized enterprises most affected by the epidemic, facing the struggle of many small and micro enterprises on the verge of survival, it rushed to the front line of digital services without hesitation.

Compared with the real economy, the digital economy has obvious advantages in flexibility in responding to the epidemic [9]. The current problems are not only the impact and impact of the epidemic on the demand level, but also the impact on the supply level. Offline entities are greatly affected by the epidemic, especially the small and medium-sized enterprises, which are faced with the problem of life and death due to the low return to work rate and small capital budget. The degree of influence depends on the duration and scope of the epidemic. Digital content services are mostly entertainment and leisure applications, which are in line with the scenes of Spring Festival and long-term home vacations, and can be carried out without offline. Digital content is hardly affected by the epidemic, but has gained huge traffic and considerable growth.

2.2 Digital economy is conducive to accelerating the optimization of industrial structure

Looking at the development history of China Commercial Bank, it can also be abstracted as the history of technological innovation, from the use of primary PC to the Internet, as well as the application of new generation technologies such as big data, blockchain and artificial intelligence in commercial banking, etc. [10]. The competition of commercial banks has changed from fighting for personnel and outlets to fighting for technology, innovation and application. Financial technology has become the capital and sharp weapon for domestic and foreign commercial banks, domestic banks and big and small banks to compete. The deep learning framework of digital finance is shown in Figure 1.

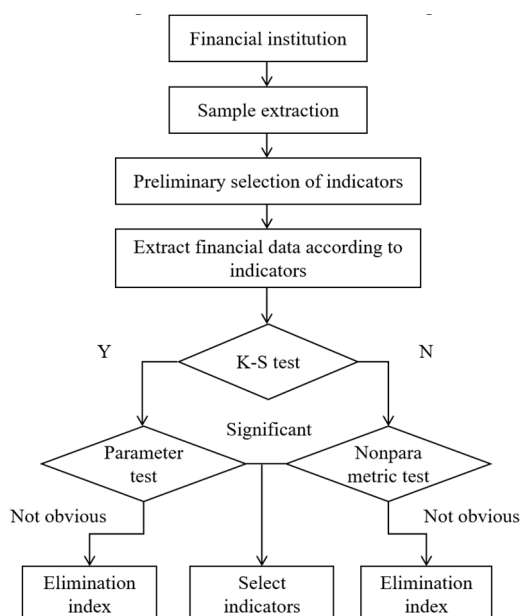


Figure 1 Deep learning framework of digital Ffinance

What is really valuable is the technology behind the products, not the products themselves. Although the effectiveness of financial technology is obvious to all, digital technology, digital economy and digital banking form a rigorous development logic. Commercial banks are financial institutions with strong digital genes, and the scene of applying digitalization is at that time. However, from the perspective of commercial bank ecosystem, due to the great differences among institutions, there is still a big difference in understanding whether, how, strategy and degree of their application. Digital enterprises can conduct business through the Internet without or with less restriction of personnel flow and space, and the adverse impact is less than that of entity enterprises. Generally speaking, pure online business is affected more positively. Because of staying at home for a long time, people's demand for external communication through the Internet has also increased rapidly. Besides daily communication, health communication, work communication and education communication have become new highlights. Contrary to the surge in demand for home-based services such as catering, entertainment and communication, businesses involving travel are most adversely affected, such as online car-booking, bike-sharing, travel booking and maps. The digital enterprises involved in offline will be affected by the epidemic to varying degrees, and the degree of influence mainly depends on the proportion and type of offline business.

3. Digital transformation strategy of commercial banks under the impact of epidemic situation

3.1 Incorporate into digital thinking

While all banks are carrying out centralized management of various businesses, many commercial banks, especially city commercial banks, are vigorously carrying out "flat" management vertically and merging institutions horizontally. Using big data method to solve information asymmetry, more importantly, it lays an important accumulation of production factors for the digital age. Because the public sector and the enterprise sector have accumulated and applied personal information and data more deeply in order to cope with the epidemic. With the contactless or zero-contactless, pure online loan business as a breakthrough, commercial banks take the whole online business process and multi-head follow-up as a breakthrough, embedding new technologies such as big data, blockchain, artificial intelligence, Internet of Things, cloud computing, etc. into all business processes and links of commercial banks, and promoting the lightness and intelligence of commercial banks by digitalization. An emergency and timely digital service has gradually evolved into a digital revolution of commercial banks. The underlying technology and practical application of digital transformation of commercial banks are shown in Figure 2.

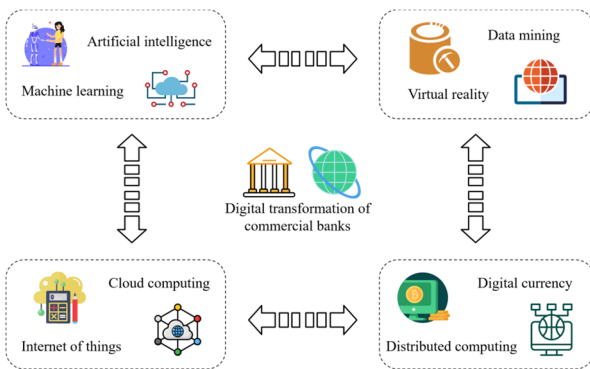


Figure 2 The underlying technology and practical application of digital transformation of commercial banks

The epidemic situation has tested the effectiveness of smart city construction in China, and put forward higher requirements for public governance capacity, which will surely trigger people's summary and reflection, and adjust the thinking of smart city construction in the future. The importance and urgency of "data-in-the-middle" has become increasingly prominent, and it will become the key to the future smart city construction. As far as the whole economy and society are concerned, the epidemic has undoubtedly caused the deterioration of the macro environment, such as the reduction of production resumption rate, the reduction of business transactions and the decline of economic vitality. All industries are affected by this, and digital enterprises are no exception. Digital assets are intangible assets in bank accounting statements. At the same time, the financial market mechanism and financial market structure also tend to be digital, which includes the behavior of financial market participants, trading patterns, risks, pricing and so on. Under the background of digitalization, digital assets have become important new assets of commercial banks, and the proportion of this asset in the whole assets will be further enhanced with the advancement of digital economy and digital banks.

3.2 Promote data governance

Now, the new infrastructure of the economic system is about technical infrastructure, and the financial infrastructure also needs to be discussed, which mainly includes various payment and settlement organizations and systems, as well as the basic credit information system. The digitalization of financial infrastructure is also the most important thing. With the development of digital economy, the value of digital assets will become higher and higher. On the one hand, as a use value, it can directly serve the management decision of commercial banks; on the other hand, as a resource, it can trade data assets with partners. At this time, it can not only realize its use value, but also realize its value. At present, big data has been widely used in the pre-loan investigation of commercial banks. Commercial banks' access to the loan object information is not only limited to the accounting book information provided by the company, but also exhausts all relevant information of the loan object through the powerful search function of the system, so as

to realize the objective, comprehensive and true information of the decision-making basis.

While operating traditional credit assets, commercial banks should attach great importance to the operation and management of digital assets, formulate the business objectives of digital assets, determine the core digital assets of their own units, and make digital assets an important source of income. Digital business decision-making solves many problems in corporate governance, such as scientific decision-making, efficiency, objectivity and inconsistency of views, and is conducive to the effectiveness of corporate governance. In the epidemic situation, most enterprises are under increasing operating pressure, and they have to try their best to control costs and reduce expenses in advertising and cloud computing, which will drag down the pace of digital transformation of traditional enterprises in the short term. The "data center" system with top-level design and unified operation and management supports the flexible deployment of different services, gives consideration to personalization and standardization, and realizes the organic combination of centralization and decentralization flexibility, thus improving the digital governance capability and helping the modernization of public governance.

4. Conclusions

At present, the whole process of personal consumption loans in commercial banks has basically been realized by digital employees, and even some structural businesses have been approved as business decision makers. In positions such as financial management and consulting, digital employees perform even better. The financial solutions provided are fast and intermediary, and the consulting services provided are all-weather and customers can get the corresponding information at any time. The digitalization of commercial banks brings online business, intelligent operation and information transmission, and the risks they face are also enormous. Therefore, while making full use of digital transformation, it is necessary to design the top-level digital risk control.

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