

Research on the Digital Transformation of the Financial Industry

Xiao Wang*

Department of Business, Beijing Technology and Business University, 100080 Beijing, China

*Corresponding author: 1811061101@mail.sit.edu.cn

Abstract. At present, digital technologies such as big data and blockchain are thriving. The financial industry is actively responding to the country's requirements for digital transformation under the trend of the times. With the support of the state and government, and the efforts of the industry and enterprises themselves, the digital transformation of the financial industry has made certain progress. This article analyzes the necessity of digital transformation in the financial industry from the perspective of meeting customer needs and innovative development. At the same time, analyze the current situation of digital transformation in both foreign and domestic markets in detail. In order to further explore the challenges and problems in the digital transformation process of the financial industry, and provide suggestions for reference. This study is beneficial for promoting the digital transformation process of the financial industry and provides a certain degree of reference for enterprises in the financial industry..

Keywords: Financial industry; digital transformation; financial technology.

1. Introduction

With the rapid development of technology and the arrival of the information age, the world is undergoing a huge transformation. Countries and industries around the world are undergoing the test of digitization. The financial industry is a link between international economic and technological cooperation, as well as political, economic and cultural exchanges. The financial industry has borne the brunt of this transformation due to its important position. In order to adapt to the development trend of the times, the financial industry actively explores digital transformation. Reshaping the pattern and operational model of the financial industry, reforming the service supply side, and meeting new requirements for national governance. At present, research on the digital transformation of the financial industry has made certain progress, but there are still some problems that need to be solved urgently. This article will start from the necessity and current situation of digital transformation in the financial industry. Using the research method of literature review, analyze the challenges encountered in transformation and provide useful solutions for reference.

2. The Necessity of Digital Transformation in the Financial Industry

Today, the financial industry is in a special period of comprehensive digitization. With the development of the times, the advancement of information technology, the abundance of customer needs, and the emergence of innovative products, traditional financial products and businesses have gradually fallen out of the ranks of the times. In order to promote the development of the financial industry, digital transformation is urgent.

Firstly, to meet the constantly changing customer needs, relying solely on traditional channels cannot achieve the goal. By digitizing, customer groups are finely classified according to their needs, targeted services are provided. Business models and service efficiency are significantly improved through technological means [1]. It can be seen that using digital transformation to more fully enhance customer experience is an inevitable choice.

Secondly, the development of innovative products and business models is the fundamental way for the financial industry to maintain vitality. Today's society is developing rapidly, and people's daily lives have entered a fast-paced state. Traditional offline financial institutions are the main

service venues. But with the development of digitization, online service platforms such as online banking have emerged. It has even become the most effective platform for communicating with customers. At the same time, financial technology continues to develop. Big data, cloud computing, artificial intelligence, block chain and other technologies assist product innovation [1]. Financial institutions have launched products such as "commercial e-loans" and characteristic financing models such as "finance + tourism". It can be seen that digitization drives the construction of online platforms and industry innovation, stimulating the development potential of the financial industry.

3. The Overview of Digital Transformation in the Financial Industry

3.1. Preconditions for Digital Transformation in the Financial Industry

3.1.1 National government plays a leading role

The digital transformation of the financial industry cannot be achieved without the support of the state and government. The "Financial Technology Development Plan (2022-2025)" issued in 2022 emphasizes the high-quality promotion of financial digital transformation. The overall idea and development goals for financial digital transformation have been clarified. This plan points out the tasks and paths for transformation, and also provides guarantees for transformation.

In 2020, the "Recommendations" of the 14th Five Year Plan specifically designed a section to highlight the importance of digital development [2]. In 2021, the 14th Five Year Plan outlines the direction and path for the development of financial technology. National leaders also emphasize that financial technology is an important means to achieve the main essential requirements of society. The digitization of the financial industry is conducive to establishing a platform for benefiting farmers, which can utilize financial resources to support agricultural development [3]. It can also break down digital barriers between groups. The 14th Five Year Plan outlines the country's determination to promote the digital transformation of the financial industry.

3.1.2 Keep up with the development pace of the times

Digital transformation is the trend of the times. Since the 2008 financial crisis, various sectors of the financial industry have been hit by varying degrees of severity. The development of the financial industry has been constrained by a bottleneck period. Among them, the development situation of banking institutions is the most unfavorable [4]. Financial institutions need to be based on a new stage of development. Financial institutions need to actively implement new development and innovative concepts. At the same time, grasp the development trend of the digital era. Only in this way can risks be reduced and the threat of financial crises be effectively alleviated. The financial industry under full digitization has enormous potential. But in the past few years, the financial industry failed to seize the business opportunities [5]. It is even more evident that the digital transformation of the financial industry is a wave of the times.

3.2. Current Status of Digital Transformation in the Financial Industry

3.2.1 Current status of global digital transformation

Digital transformation is the core force driving global economic growth. The digital economy can promote high-quality development of the global economy [6]. With the development of the digital economy, the scale of digital transformation in the global financial industry will reach 50% of the global economy in 2021 [7]. Take Switzerland, the world's important offshore financial center, as an example. The Swiss financial regulatory authorities actively cooperate with the digital transformation of the banking industry. It fulfills its responsibilities of supervising risks and maintaining market stability. In the process of practice, new types of digital banks are constantly emerging, and traditional banks are actively building digital service platforms [8]. At the same time, Swiss financial technology companies are also thriving with national support. Switzerland is a global leader in various fields of finance. With the advancement of information technology, many countries around the world are increasingly valuing digital technology and actively engaging in digital transformation.

3.2.2 Current status of digital transformation in China

Driven by domestic economic development, the digital transformation of the financial industry has begun to take shape. However, the degree of transformation in various fields of the financial industry is not the same, presenting different development situations. The transformation of the banking industry has accelerated under the pressure of the epidemic. Among them, state-owned banks and large joint-stock banks have laid out digital finance with the help of financial technology. Industrial and Commercial Bank of China has accelerated the process of digital construction through the development of other industries, with outstanding development. Other banks need to improve their digital transformation system and strengthen their construction [9]. The securities industry is actively promoting digital transformation. In 2021, 71% of securities companies formulated digital transformation strategies. In recent years, the securities industry has entered a new stage of development. The securities industry has increased investment in information technology and entered a stage of diversified and intelligent development. But the development path of the securities industry is not clear. The fierce competition among peers has also been exposed. So new ideas are needed to solve the problems faced by development [10]. In terms of the insurance industry, the China Banking and Insurance Regulatory Commission guides insurance institutions to implement digital transformation. Top insurance companies actively develop digital transformation plans at the strategic level. Small and medium-sized enterprises strive to seek differentiated development paths.

4. The Challenge of Digital Transformation in the Financial Industry

4.1. Lack of Awareness of Transformation

The digital transformation of the financial industry relies on the integration of technological progress and innovative thinking. But the traditional culture of risk awareness conflicts with a high risk preference for innovation. So currently, some managers still have vague awareness of transformation. Some financial institutions still persist in their inherent profit model and have weak enthusiasm for transformation. There is a lack of digital thinking. A customer-centric service concept has not yet been formed. In terms of product development, traditional business models are also continued, making it difficult to adapt to the rapidly changing needs of the market and lacking innovative thinking. Some managers are not familiar with or willing to actively learn cutting-edge technologies and knowledge, unable to adapt to the speed of market changes.

4.2. Market and Government Regulatory Challenges

With the increase of digital transformation institutions, the situation of information asymmetry between regulatory agencies and financial institutions is gradually increasing. So the government needs to provide more data protection [11]. The digital transformation of the financial industry may also generate new risks such as technology, business, network, and data. It is also prone to behavior of escaping regulation due to interests and other delusions. This also poses new challenges to the market and government. The country and government also do not attach enough importance to the criminal risks involved. There is inadequate supervision at the legal system level [12]. In addition, excessive regulatory burden can lead to insufficient budget and resources for digital transformation plans. The market and government need to grasp the strength of regulation and give enterprises some space.

4.3. Intense Market Competition in the Financial Industry

Nowadays, most financial institutions invest a significant amount of manpower and material resources in technology and product development during the process of digital transformation. The development differences between various financial institutions are gradually emerging, and the differentiated competition between industries is obvious. These companies utilize technological innovation and data-driven methods to provide more efficient and convenient financial services.

Traditional financial institutions are facing fierce competition from fintech companies and must seek innovation to cope with market changes. In order to enhance their position in the industry and adapt to the industry environment, financial institutions need to continuously follow up on new technologies and apply them to their business to maintain competitiveness.

4.4. Digital Security Risks

The financial industry is an extremely important industry for the country and people. Its level of security plays a crucial role in national development. However, in the process of large-scale and rapidly developing digital transformation, it is necessary to use digital technology to collect a large amount of information and data for calculation and transmission. During this process, it is extremely easy to encounter security risks such as information leakage and theft [13]. Meanwhile, with the rapid development of information technology, the speed of information dissemination will become faster and the internal program will also become more complex. Security risks will also increase accordingly. This will bring great challenges to the digital transformation of the financial industry.

4.5. Insufficient Financial Technology Talents

Talent is the focus of digital transformation in the financial industry, but currently there is a serious problem of insufficient technological talent in the financial industry. The field of financial technology requires high professional skills for talents, such as data analysis, machine learning, block chain and so on. However, there are relatively few talents in the current market with such professional skills. Many financial institutions and technology companies lack innovative spirit in their R&D teams, resulting in insufficient industry development potential. There is also a lack of a complete talent training system within financial technology enterprises. Many enterprises often overlook the training of employees when introducing new technologies, resulting in employees being unable to master new skills in a timely manner. The digital transformation of the financial industry cannot meet the demand for the quality and quantity of composite talents. Traditional financial institutions do not have a clear talent profile compared to financial and technology companies, and the internal innovation atmosphere within the institution is weak. And many outstanding financial technology talents choose to enter more promising enterprises or overseas enterprises after graduation. So traditional institutions are unable to retain talent [14].

5. Suggestions for Digital Transformation in the Financial Industry

5.1. Improve the Construction of Digital Transformation System

The financial industry should continuously improve its own digital transformation construction in the process of digital transformation. Each field of the financial industry should develop digital strategies that are in line with their own actual situation, including the vision, mission, values, and goals of digital transformation. In the meantime, a clear implementation path should be established and coordinated with professional digital organizations to ensure the effective implementation of digital strategies. The country should accelerate the improvement of relevant legal systems and fully improve the digital market economy system. The government should simultaneously strengthen the construction of collaborative governance and regulatory mechanisms. Enhance the government's digital governance capabilities. Improve the diversified governance pattern.

5.2. Innovate the Digital Market Supervision Methods in the Financial Industry

In the digital age, regulators can strengthen the application of financial technology and digital technology. By using digital technology to monitor and analyze the market, problems can be identified and addressed in a timely manner. For example, big data technology can be used to analyze changes in market demand and predict industry development trends. At the same time, it is possible to change the traditional centralized regulatory model and innovate targeted regulatory methods based

on different financial objects and fields. Regulatory agencies should balance financial innovation and regulation. On the basis of innovative development, scientific supervision of digital transformation should be carried out [15].

5.3. Strengthen the Innovative Concept of Digital Development

Faced with new opportunities and challenges in digital transformation, the financial industry should actively transform its traditional concepts. Enterprises should pay attention to the latest developments and trends in digital technology. Apply it to various links such as product development, production, and sales. Enhance the innovation level and market competitiveness of enterprises. Within the industry, the direction of innovation and development should be clearly defined at the strategic level, and the transformation path should be scientifically planned. Enterprises should strengthen the construction of innovation culture. Cultivate a team of employees with innovative awareness and abilities, and establish a sound innovation incentive mechanism. Enterprises actively advocate innovative thinking and promote innovative concepts.

5.4. Regulatory Authorities Strengthen Network, Data Security and Privacy Protection

In the process of digital transformation in the financial industry, network and data security play a crucial role in the long-term development of the financial industry. The country has introduced the Cybersecurity Law, Data Security Law, and Personal Information Protection Law. These laws assist regulatory authorities in supervising the safety and feasibility of financial institutions [16]. Financial institutions are also transitioning independently towards a security defense system. More than half of the institutions have established security defense systems. More than thirty institutions have established a security operation system. Nearly ten institutions have carried out zero trust planning [17]. Regulatory authorities have raised the level of network security protection in key industries. Comprehensive assessment and real-time monitoring of normalized data security risks. Regulatory authorities develop early warning systems and emergency filing to prevent the occurrence of socioeconomic risks.

5.5. Concentrate on Cultivating Financial Industry Technology Talents

Talent cultivation drives technological progress and innovative development. To cultivate high-quality financial technology talents, it is necessary to grasp the development trend of education and construct a talent cultivation system. Talent cultivation is difficult, requires a lot of investment, and has a long cycle, so it requires the cooperation of the government, universities, and industry.

The government should improve talent training policies, attach great importance to them, and provide financial support. Universities should customize their curriculum system according to market demand. Emphasize the cultivation of students' practical abilities in financial technology. Universities should shift from pure theoretical teaching to a combination of theoretical and practical teaching. United government optimization of practical teaching conditions, creating practical bases and opportunities for students [18]. Within the industry, talent development plans can also be developed, and managers should increase investment in talent development to cultivate talents in the process of retaining and employing talents.

6. Conclusion

Through research, this article finds that digital transformation has broad application prospects in the financial industry. Digital transformation can significantly improve the efficiency of the financial industry, optimize risk management, enhance customer experience, innovate business models, expand markets, enhance compliance capabilities, reduce costs and increase efficiency, and enhance data analysis capabilities. However, in the process of digital transformation in the financial industry, there are still problems such as unclear transformation awareness, regulatory difficulties, fierce competition, security risks, and insufficient talent. In response to these issues, this study proposes specific

suggestions and measures, including improving the construction of transformation systems, innovating regulatory methods, and centralizing talent cultivation. To provide reference and inspiration for the digital transformation of the financial industry. Although this study has achieved certain results, there are still certain limitations. Firstly, the research in this article mainly focuses on the theoretical level, lacking more in-depth empirical research. In the future, more detailed data can be obtained for analysis through on-site research on more financial institutions. This can further explore the application effects and development trends of digital transformation in the financial industry. Secondly, the research in this article is not comprehensive enough. In the future, the research scope can be further expanded, focusing on more influencing factors and implementation paths.

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