Thoughts on Information Technology's Transformation of Financial Digital Teaching

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Abstract. Digital transformation is an important trend in the world economic transformation. Completing the digital transformation of the economy will become an important leap in economic development. This paper mainly analyzes the financial reforms of information technology and digitalization.

Keywords: College Students, Ability, Evaluation System

1. Introduction
5G information technology is developing rapidly, it not only increases the internet speed, but also changes the operating modes of various industries. It becomes a truly universal technology. The in-depth application of 5G information technology will become the key to enter the field of Internet of Things, so it will become a strong foundation for the digital transformation.

2. The digital era of finance is coming
The rapid development of the Internet and new technologies has given birth to new business forms. New business forms have in turn strengthened and promoted the urgency of digital transformation of enterprises. New perspectives, new scenarios, and new technologies have triggered changes in financial services and strengthened customer experience. To give birth to online, mobile, and intelligent financial services. Figure 1 shows the development of the financial industry era [1].
3. **5G information technology + digital transformation of finance**

Looking back at the history of the development of financial and communication networks, 2G combined with financial outlets, 3G combined with online web pages, and 4G combined with mobile apps to accurately deploy financial services. The financial industry combined with 5G information technology will realize the reconstruction of traditional financial scenarios, optimize the ecological and scenario-based integrated business applications in the 4G era, assist the landing of emerging technologies, transform business models, improve service levels, and contribute to the digital transformation of finance Inject new life [2].

The impact of 5G information technology on financial digitization is mainly reflected in two aspects:

1) **Comprehensive optimization of financial services.** The first is the branch of large financial institutions represented by banks. The migration cost of households is gradually reduced, which is convenient for centralized management and layout. The convenience of 5G information technology will enable financial front-end service equipment to connect to the cloud anytime and anywhere, and the availability of data will be greatly improved. The degree of lightness and intelligence of the mechanism will also be significantly improved. In the past, traditional financial services were based on optical fiber private networks, which were costly and time-consuming and laborious to install. These devices were gradually eliminated as the 5G information technology matured, communications were fully wireless, and outlets cooperated with cloud big data and intelligent AI systems to better serve financial customers, improve customer experience and satisfaction [3]. At the same time, 5G information technology will accelerate the integration of finance and other Internet industries and expand the financial Internet ecological platform.

2) **Change information asymmetry.** In the era of the Internet of Everything, because IoT device sensors can obtain information efficiently in real time, the credit rating data obtained by financial institutions has a wider dimension and higher credibility. By analyzing massive, polymorphic, and interrelated project data in real time, financial institutions identify the natural attributes of enterprises or individuals, grasp their real-time asset status, and track their behavioral characteristics, thereby making the risk monitoring of financial institutions more effective. Therefore, the level of credit evaluation and risk monitoring of financial institutions will be a qualitative leap, and the current rating system will be completely subject to strong subjectivity, poor reliability, and data fraud. At the same time, reducing information asymmetry is conducive to the development of inclusive finance, simplifying the credit process, popularizing online microfinance, and alleviating the difficulties of small and micro enterprises in financing. 5G information technology will usher in the era of comprehensive digitalization [4]. A large number of items will be digitized and given financial attributes. Internet of Things finance will
soon emerge. The Internet of Everything will promote the penetration of the financial industry into new spaces, upgrade customer experience, sink service levels, and industrial boundaries. expand.

4. Difficulties in the application of 5G information technology in financial digital transformation

Traditional finance has always had problems such as unbalanced regional development, poor service availability, and high uncertainty. The application of 5G information technology technology can solve these problems to a certain extent, but there are still some problems in the process of gradual maturity and commercialization of technology [5]. Difficulties that cannot be ignored (as shown in Figure 2).

- Lack of relevant regulatory policies
- Supporting technology to be developed
- The standard specification has not yet been finalized
- Data security is not guaranteed

![Figure 2. Difficulties in the application of 5G information technology in financial digital transformation](image)

4.1. Lack of relevant regulatory policies

While the financial sector is welcoming new 5G information technology, dual supervision in the two sectors of technology and finance will inevitably follow. Especially with the gradual optimization of the application conditions of 5G information technology, the implementation of new technologies also needs to solve the lack of corresponding technical specifications. Up to now, there is still no clear plan for the regulatory policy framework or related management in the field of open banking, among which data privacy security is the current main difficulty. From a regulatory perspective, there is no clear statement on how to achieve compliance with intelligent voice instead of artificial language. The validity of face recognition and video interactive authentication are not confirmed for the time being, and customer willingness verification and multi-dimensional identity verification methods are still required [6]. In addition, due to the requirements of core business not to be outsourced, data localization and other content under the original financial supervision, 5G information technology + cloud computing, blockchain and other cross-regional data services will also be difficult to implement. From the perspective of supervision methods, the existing top-down supervision path is not suitable for the development situation of banks in the form of decentralization and distributed honeycomb, and iterative adaptation is required.

4.2. Supporting technology to be developed

The landing and promotion of related applications in the financial industry under the 5G information technology network environment also depends on the support of technologies in many fields, such as big data, Internet of Things, artificial intelligence, blockchain, AR/VR, high-definition video, and distributed architecture. Subject to the evolution and application conditions of these new technologies,
a large amount of unstructured data will be generated in the era of 5G information technology, and the storage requirements will be greatly increased. For example, the current digital scale of the banking industry is about 20%, and standard transaction links have basically been realized. Digitization. However, some non-standardized links of records and data are missing, such as customer interviews when customer managers go out, and waiting for customers to handle business at branches, and it is very difficult to transmit and store these data. The storage of data and the provision of solutions in the 5G information technology environment have become major difficulties. Related Internet of Things technology and blockchain technology have not yet reached the requirements of full digitalization of finance. Due to the limitation of network transmission speed and the lack of financial equipment, many key technologies have yet to be developed in depth [7].

4.3. The standard specification has not yet been finalized
The application of 5G information technology in the financial sector requires the formulation and implementation of 5G information technology technical standards and specifications. However, the current 5G information technology standards still have shortcomings and are not fully finalized. In the 82nd meeting of 3GPP in December 2018, 3GPP deferred the Rel-16 time plan. This version will fully meet the needs of the three major application scenarios of 5G information technology and is a truly complete 5G information technology technical standard. Low-power wide-area IoT technology is also expected to be officially included in the 5G information technology candidate technology set, but further clarification is needed. At the same time, the digitization and intelligence of the financial industry require new technologies to adapt to various systems, machines and equipment, and the high-performance equipment that has emerged in the financial sector with the era of 5G information technology also requires unified management that meets financial industry standards [8]. Therefore, the key to the application of new technologies is to do well in the relevant standards for the financial industry's information infrastructure, risk prevention and control and other relevant standards.

4.4. Data security is not guaranteed
On the one hand, the pressure on network and data security protection has increased. Larger user access, more complex device interaction, and data transfer from a relatively closed system to a more open system. Organizations will suffer more large-scale and higher-frequency network malicious attacks, data leakage and other risks. Sex will also improve. On the other hand, the substantial increase in data volume puts higher demands on hardware resources, computing performance, and cloud platform architecture. The widespread use of 5G information technology has promoted the formation of the era of big data. Many criminals obtain relevant data from various channels, infringing on personal privacy. Conversely, criminals have an opportunity to take advantage of, which also reflects that the technical security of software operators is not up to standard. Therefore, in the era of 5G information technology, information security should be safeguarded from multiple dimensions such as network service providers, technology providers, financial institutions, and financial customers.

5. Strategic recommendations
With the advent of the new era of digital infrastructure, to speed up the digital transformation of finance, and to ensure 5G information technology to better promote the digital transformation of finance, it is necessary to proceed from the macro perspective to make overall layout, break down industrial barriers, and cooperate with all parties [9].

The first is to accelerate the improvement of 5G information technology related policies and strengthen the support for digital transformation. Policy makers should consider formulating new regulations for the development of 5G information technology and digital transformation as soon as possible, increase the exchange of policies related to finance and various transformation fields, promote the introduction of cross-industry regulatory policies and related laws and regulations, and actively create new regulations that are conducive to technological innovation and development. Fair competition environment. On the basis of a good balance between development and security, explore
the application of new technologies in the financial field. In response to the new financial business formats and models promoted in the 5G information technology environment, it is recommended that the financial and technology management departments jointly issue application-related regulatory policies, such as product management under the application of new technologies, cross-industry data sharing, and risk prevention and control. Wait.

The second is to encourage 5G information technology research and innovation, and promote the implementation of domestic and foreign standardization. We must pay attention to the research and development of 5G information technology terminal equipment, make up for the shortcomings of the country's terminal manufacturing technology, and build a competitive advantage. Increase investment in scientific research, combine cloud computing, AI, biometrics, Internet of Things, blockchain and other next-generation technologies to comprehensively upgrade supply chain financial services, accelerate the digital transformation process of smart outlets, and accelerate the implementation of artificial intelligence applications to meet 5G New opportunities and challenges brought by information technology networks. Quickly establish a comprehensive distributed intelligent system based on cloud computing and big data with decision support functions through mergers and acquisitions and other means to form a "closed-loop management" intelligent system integrating data mining, behavior analysis, precision marketing, risk warning, and after-sales service. It is recommended that universities and scientific research institutes make use of their own advantages, extensively cooperate with all parties in the industry to strengthen research in the field of 5G information technology and finance, promote the transformation of technological achievements through special cooperation, pilot projects and other methods, and establish a multi-party win-win ecological cooperation relationship [10]. At the same time, we will comprehensively deepen international consensus, actively carry out international cooperation in digital transformation strategies, planning, and supervision, and strive to create an open and win-win international industrial system, and promote the development of a global digital economy. Promote relevant organizations to formulate and improve financial product and service standards, financial infrastructure standards, financial supervision and risk prevention and control standards related to the application of new technologies, and promote the establishment of a more complete financial industry standard system to ensure the quality and quality of financial services. Safety level.

6. Conclusion

The digital transformation of finance will produce more new applications and new products. Maybe there will appear some unbelievable business models. The digital transformation not only makes the traditional financial industry more digital and intelligent, it also deepens the integration of the real economy and financial technology. It can meet the new requirements of the real economy.

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