

# *Digitalisation of Science and Technology as a Driver for Financial Innovation in Support of High-Quality Real Economy Development*

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**Abstract:** At the present stage, digital technology and the real economy are carrying out the deep integration and development, and it is also the new power to promote the rapid development of China's real economy in the new era. At the present stage, China is actively promoting the development of the digital industry, hoping to achieve the effective integration of digital technology and the real economy, and promote the rapid transformation of the traditional economy, so as to develop a high-quality real economy platform. However, there are different degrees of problems in the Internet financial platform in China at the present stage, which seriously affect the development of digital economy, which requires financial enterprises to make corresponding changes. From the perspective of promoting financial innovation and promoting the high-quality development of the real economy, this paper aims to promote the sound development of the real economy.

## **1. Introduction**

At the present stage, China gradually begins to pay attention to the combination of "finance + technology", and promotes the current business model to have a new development direction. More and more enterprises also began to respond to the call of the country, try to integrate finance and digital technology, develop fintech companies and related financial platforms, promote the innovation and development of fintech, and create a new situation in the global economic environment.

## **2. The significance of digital technology to promote financial innovation**

With the development of digital technology, financial enterprises try to integrate with digital technology, which promotes the development of fintech, gathers a wider range of financial resources in one place, and matches and integrates with the financial resources at the present stage, and improves the quality of traditional financial services. Major financial enterprises use digital technology to develop related wealth management software, allowing users to use the Internet and mobile terminals, so as to realize the operation and promotion of financial services across regions, across time and across groups, so that more users can feel the advantages of financial products.

Through the Internet and big data, financial enterprises comprehensively identify effective customer groups, recommend products for these personnel, and connect the credit investigation system in the software to ensure the good reputation and personal information is true and effective. Artificial or intelligent customer service can be added to the software to realize user access and consultation at all times. Using digital fintech can also save a lot of manpower and physics, and through face identity authentication, reducing the risk in the traditional operation mode. Compared with the traditional financial services, it has improved the work efficiency and greatly promoted the development of the financial industry. At this stage, the financial industry is accompanying the development of society and science and technology to expand the scope of their work, their eyes are not only focused on the financing requirements of large institutions, but also closely follow the needs of users at this stage and the guidance of national policies, and begin to develop in the direction of private and micro-enterprises, personal business loans and consumer consumption of the population, and change from the original rough support to the current stage of refined services, in this rapid development process, relying on the support of digital technology, so that most of the enterprises in the financial industry ushered in the development. For example, financial institutions can meet the personal consumption needs of residents, if the amount of consumption is in the hundred to thousand dollars. In the traditional financial institutions for the process, it needs one or several staff, individually audit each resident's credit information, repayment plans and use of funds, which is a very inefficient way of working, and the use of digital technology to carry out specialised information auditing, to be able to quickly deal with the huge amount of information on the application. The use of digital technology for specialised information auditing can quickly process huge amounts of application information, effectively guaranteeing the processing speed of information, and the use of face recognition can guarantee the authenticity of residents' information, and determine whether it meets the criteria for lending based on residents' past information records, thus guaranteeing the healthy development of consumer finance. Digital technology can provide effective technical support for the current financial products<sup>[1]</sup>.

From the perspective of industry regulation, technology finance can also promote the development of the financial industry, but also promote the development of safety and regulatory means in the financial industry. According to the technology of mobile client and Internet, financial enterprises have more diversified and flexible financial channels and operate intelligently 24 hours a day, which is highly praised by users and expands the application scope of financial software. How to let users choose the best financial services in the vast and chaotic Internet environment, which places higher demands on financial software at this stage. The technological finance developed by people with the help of digital technology is able to build a better risk management system. Firstly, in the auditing stage of financial business, digital technology has developed a clear risk framework through the setting of uniform standards, so that it can efficiently approve those financial requests that meet the requirements, and for those that do not meet the standards, they are assigned to manual customer service for auditing, which effectively improves the working efficiency of financial enterprises. Second, in the work process of various financial enterprises, the node of traceability origin can be established to reduce the loss of character data, avoid the situation of staff mistakes, can timely deal with emergencies, effectively trace the processing process of the whole financial business, so as to implement the responsibility to one person. Finally, after business processing and business completion, it is necessary to build an information resource database and implement efficient information integration and governance, such as automatically generating business reports, automatically reviewing business data, sending materials to multiple departments for review, or submitting them urgently to regulatory authorities, which can not only ensure the accuracy and objectivity of information, but also improve the multi-departmental efficiency among financial enterprises. Through the use of digital technology to promote the construction of financial

network platforms, we can establish a risk assessment system with clear nodes and unified standards, and effectively improve the channels of financial management. The endogenous driving force to promote the development of the financial industry is to improve the marketization level. In different businesses, further requirements are put forward for the personnel and business management mode of the financial industry across regions. With the application of digital technology in the financial industry, some financial enterprises can make use of information technology to conduct information management on personnel and quantify assessment standards. Employees can be encouraged to regularly report the business work of the enterprise, and the strict reward and punishment system can be effectively implemented. Distributing market-oriented assessment in daily management work can help relevant financial enterprises to build more professional teams, improve the efficiency of financial business, and guide enterprises to evaluate the working ability of the existing teams in the enterprise, so as to effectively adjust and encourage personnel. Digital technology has played a vital role in the development of the financial industry. It can help financial enterprises improve their work efficiency, gradually abandon the disadvantages of traditional financial services, provide strong technical support for the newly launched financial products at the present stage, and maintain the security of users' information and assets. The technology can also effectively prevent the risks in the financial business, and formulate clear risk assessment standards to reduce the occurrence of risk accidents<sup>[2]</sup>.

### **3. The development status of fintech at this stage**

At this stage, fintech technology is not perfect, and the security of Internet financial security platform is too low. At present, the network platform is a double-edged sword, which has advantages and disadvantages. At present, there are certain risks in network security. If the financial industry uses the Internet platform for financing, ensuring the security of funds in the financing process is a key issue that enterprises must pay attention to. At this stage, problems such as network security and privacy leakage are emerging in an endless stream in China, while the rise of Internet financial platforms, thanks to the use of Yu 'e Bao, from this stage, various Internet financial products emerge in an endless stream and have been heavily invested in the online market, among which the more famous ones are crowdfunding, P2P, etc. Due to the lower entry threshold of the Internet finance industry, the need to pay the liquidated damages is lower than the real-life financial enterprises, so more and more cases of illegal fund-raising gradually appeared in front of people's eyes, more and more fraudulent groups under the banner of promoting the development of Internet financial platforms, crowdfunding funds in the queue to carry out fraud and other illegal acts, and its main purpose is to roll up the money and run away. A lot of netizens were compelled by the fraudulent groups to lose all of their money! At present, the credit investigation standard of our country is not complete, and the cost of people's dishonesty is too low, which leads to the situation of deliberately avoiding debt frequently. Especially under the influence of financial technology at this stage, lenders and borrowers often exchange virtual identities and information in the online world, because under the influence of economy and interests, they will minimize their economic losses. When the lender borrowings, the relevant financial entities will not inquire according to the real information of the borrower, which strengthens the credit risk in the financial platform. Since the identity information of most users on the Internet is virtual, which greatly hinders the process of financial enterprises to find real information, the unbound borrowers cannot perform the repayment duties after the expiration of the loan time, which increases the credit risk in the online world.

There are some problems in the legitimacy of fund-raising in the online world. Although the crowdfunding model can help the establishment and development of scientific research enterprises, there are some problems in the legitimacy of financing. In the present stage of various types of

enterprises, legal problem has become the development of the raise, enterprise equity at the development of the Internet equity platform raise business model, has been limited by the securities law and the company law and bondage, and the other part of the equity the raise financing platform, chose the use of the new form of the raise, to break through the constraints of laws and regulations, thus derived a series of legal issues. The lack of supervision system of online finance seriously affects the legitimacy of online crowdfunding platforms, so the supervision and review system of Internet financial platforms should be gradually improved. At the present stage, the Internet economy is disconnected from the real economy in the market. When regulatory problems occur, the financial model in the new era is constantly questioned. At present, the financial platform under the influence of digital technology has gradually become the leader in promoting financial innovation. The financial platform supported by digital technology is different from the credit model of the Internet financial platform. The financial system under digital technology pays more attention to the application of big data, blockchain, Internet of Things and cloud platform technology for digital development. There is a great difference between the two. With the support of digital technology, financial services break through the trading and operating restrictions of single products, and gradually expand to a large number of customers<sup>[3]</sup>.

#### **4. Countermeasures to use digital technology to promote the development of the real economy**

##### **4.1 Give full play to the advantages of users and broaden the boundaries of financial business**

Under the influence of the Internet in the current social economy, more and more technology enterprises have gradually increased a large number of customer resources, and technology enterprises have made full use of user advantages. Financial technology enterprises have established a low threshold, practical and convenient financial service system, and introduced digital financial services to a wider market. It solves the problem of small user coverage in the traditional financial industry, and promotes the effective progress and development of China's digital finance.

For example, in the rural financial sector, Ant Financial has developed a series of businesses called Wangnong Payment, Loan and Insurance, which provide corresponding financial services to more than 200 million farmers. For those micro and small enterprises, they can use these financial services and finance on demand according to their own needs, and related financial enterprises have also developed business financing platforms for small and medium-sized enterprises, such as small banks, which can meet the loan needs of small enterprises.

##### **4.2 Use digital technology to meet the diversified needs of financial users**

At present, financial enterprises can use Internet technology, cloud computing and big data to analyze and screen financial data at the current stage, and understand the current operation mode and management data information of enterprises from various aspects. These data are characterized by high accuracy and time saving, and help users analyze current investment information and predict investment risks. It can help financial firms get the best investment strategy.

These data to a certain extent alleviate the information asymmetry between the two sides of the investment, so that investors can better understand the overall operation of the invested enterprises. Under the influence of digital technology, Internet finance adheres to the principle of "tailor-made services" and integrates capital resources after examining customer needs and qualifications, effectively promoting the development of small and medium-sized enterprises, so as to meet the diversified financial needs of users.<sup>[4]</sup>

### 4.3 Applying digital technology to strengthen the efficiency of the financial supply chain

Currently, fintech can effectively promote the new development of business models, enable related industries to be reshaped, and have a more far-reaching influence in the financial field. With the support of digital technology, supply chain technology can become the main driving force to promote the development of the real economy, and can produce a great impetus in promoting the integration of the real economy and finance<sup>[5]</sup>.

China's financial industry supply chain at the present stage has accelerated the development speed through the expansion of the industry, and has become an important part of China's financial industry at the present stage<sup>[6]</sup>. Using the consensus algorithm and combining with the blockchain technology generated by smart contract can reduce the chance of investment risks in the supply chain to a certain extent, greatly improve the rate of the supply chain, accelerate the integration of finance and industry, and bring some changes to the current transaction mode of enterprises at the present stage, so as to realize the rapid development of the real economy<sup>[7]</sup>.

## 5. Conclusion

At the present stage, digital technology is rising, blockchain, big data, cloud computing and other technologies are gradually deepening into the financial field at the present stage<sup>[8]</sup>. The trend of technology and finance is coming, changing the service means and ecosystem in the current financial system with a fierce offensive. At the present stage, financial enterprises should give full play to the advantages of users in this process, expand the boundaries of the financial service industry, and provide users with more convenient financial services. Financial enterprises can also use digital technology and add diversified financial services to meet the diversified needs of users at the present stage and reduce the problem of information asymmetry with users. Finally, digital technology should be applied to strengthen the efficiency of the supply chain in the financial industry. Through blockchain technology, the information consistency between the upstream and downstream of the supply chain is guaranteed, and the security of the real economy in the financial platform should be strengthened, so as to ensure the rapid development of the real economy. In the new era, the financial industry, which leads the trend of economic development, should make reasonable use of digital technology, establish a perfect financial technology platform, and assume the responsibility and awareness of improving and serving the real economy, using the Internet of Things, supply chain technology and blockchain technology, integrating these three into a whole, and on the basis of guaranteeing the development of benefiting the people, support for the advancement and integration of micro-enterprises, and make use of its own advantages in the market economy to effectively promote and guarantee the development of the real economy

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