The Development and Impact of FinTech in the Digital Economy

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Abstract: FinTech can also be seen as technology-driven financial innovation, which uses various technological tools, such as combining big data, cloud computing, blockchain, and artificial intelligence, to innovate the services provided by the traditional financial industry, thereby improving efficiency and reducing operational costs. FinTech is currently developing at a rapid pace and will become the mainstream form of the financial industry. Components of FinTech include big data finance, artificial intelligence finance, blockchain finance, quantitative finance, and the development and use of cryptocurrencies, such as Bitcoin. FinTech currently exists most centrally for the purpose of financial services companies to integrate it with their own service offerings for the purpose of improving the consumer experience. FinTech can be used in a wide range of applications such as digital payments, peer-to-peer lending, venture capital, crypto services, robo-finance related advisory services, and fraud fighting. FinTech can maintain national financial security, achieve universal access to people's livelihood, improve the efficiency of financial companies' services and reduce staff management costs, promote the construction of "One Belt, One Road" by sharing financial results, solve the problem of financing difficulties for some SMEs, etc. However, there are still certain risks associated with finTech, such as the privacy of big data, the lack of comprehensive risk assessment of new technology applications, the operational risks, and challenges of finTech companies, the credit crisis of consumers due to irregular cooperation, and imperfect regulation, the intensification of competition in the financial industry, the probability of inflation and the formation of oligopoly, etc. FinTech is currently at the tipping point between the Internet finance stage and the deep integration of the finance and technology stage. In the future, FinTech will develop towards digital technology and blockchain technology, which will combine finance with network technology, psychology, cryptography, digital currency, and blockchain concept in the future.

Keywords: FinTech, Big Data, Artificial Intelligence, Blockchain, Quantitative Finance, Risk Control

1. Introduction

FinTech has developed rapidly in recent years, technology promotes business, technology defines business, financial technology emphasizes the deep integration of finance and technology, and scientific and technological support includes artificial intelligence, blockchain technology, interconnection technology, big data analysis, etc. On the one hand, traditional financial industries such as banking and insurance rely on these technologies to promote their own transformation and development, on the other hand, technological innovation has spawned emerging fields such as robo-advisory, supply chain finance, consumer finance, third-party payment, and regulatory technology. This article aims to introduce the way finance and technology are combined, the specific application of financial technology, and the risks derived from financial technology and its risk control measures.

2. The Evolution of FinTech

The development of FinTech can be divided into three stages, namely FinTech 1.0, the stage of financial informatization; FinTech 2.0, the stage of Internet finance; and FinTech 3.0, the stage of deep integration of finance and technology [1].

The first is FinTech 1.0 stage, the financial informatization stage, roughly 1866 - 1986, this stage through the traditional IT technology software and hardware, automation and paperless, improve efficiency, and reduce operating costs, financial institutions gradually realize electronic

informatization, and this stage of FinTech mainly for the government This period was dominated by the government's efforts to promote financial liberalization, which in turn created a huge demand for financial services, and the computerization of finance made a large number of financial operations simpler, thus meeting the changing market environment [2, 3].

The second is the financial technology 2.0 stage, that is, the Internet finance stage, roughly 1987-2009, this stage in the context of the rapid development of the Internet, the Internet drives the rich development of the financial industry, this stage is essentially the reform of financial channels, through the Internet to collect a large amount of user information, to achieve the financial business in the asset end, transaction end, payment end and other interoperability and union, to achieve information sharing and business integration, the most typical example is online crowdfunding and online lending, etc. This stage expands the scope of business services of financial products and reduces information asymmetry [1].

The third is the FinTech 3.0 stage, i.e. the stage of deep integration of finance and technology, roughly from 2009 to the present, this stage is based on comprehensive multi-angle technology application reform in the front, middle and back office of the business, and the transformation and optimization of financial business driven by cutting-edge technology as the core, in the era of deep integration of finance and technology, financial products apply big data, cloud computing, quantitative system, blockchain decentralization technology, and artificial intelligence, etc. In the era of deep integration of finance and technology, the application of big data, cloud computing, quantitative systems, blockchain decentralized technologies, and artificial intelligence to financial products has enabled the enrichment of financial products and their high efficiency [4]. Technology-enabled financial innovation has changed the traditional financial industry in terms of risk investment decisions, risk pricing models, and information collection sources, inspiring new financial industry service behaviors such as big data information collection, intelligent investment advisors, as well as price movement prediction, and stock securities purchase integrated with algorithms and corresponding mathematical and scientific foundations [3, 5].

3. Technology Components of FinTech

3.1. Big Data Finance

Big Data, also known as Big Data, refers to information that is so large that it cannot be captured, managed, processed, and collated in a reasonable amount of time by mainstream software tools to help make business decisions for more positive purposes. The integration of big data into finance, i.e. the fusion of massive amounts of unstructured data, based on cloud computing, extracts useful core information from the vast amount of data and analyses it in real time, which can provide financial services companies or financial institutions with a more accurate analysis of consumers' spending habits and personal preferences, and even their risk measurement

levels, so that financial services institutions can design products specifically for consumers based on these habits. The financial service provider can then design and deliver the right financial service product to the consumer based on these habits. This can greatly improve the success rate of marketing and the efficiency of the business of financial services institutions and can control risks to a greater extent. However, there are certain risks associated with big data finance that need to be regulated [6].

At the same time, big data finance is also influencing the buying and selling of global stock markets and the investment decisions of investors, which is of contemporary significance. The core of this application is the processing of big data for financial services, i.e. big data is analyzed through certain algorithms or models to make decisions, for example, time series models, Grach (1,1) models, neural network models, etc. may be used for predicting stock market prices, while the most commonly used decision models are machine learning models, the essence of machine learning is that through certain algorithms The essence of machine learning is to understand human behavior through certain algorithms so that machines can quickly and efficiently imitate human behavior to make optimal decisions, for example, in investment, machine learning can better and more efficiently predict the return on investment and payback period. In the case of lending, the machine learning algorithm used can be GBDT (Gradient Boosting Decision Tree), also known as MART (Multiple Additive Regression Tree), which does not consist of a single decision tree, but of multiple decision trees, usually hundreds of trees, each of which is small in size (i.e. the depth of the tree is relatively shallow). GBDT, as a boosting algorithm, naturally incorporates the idea of boosting, where a series of weak classifiers are combined to form a strong classifier. It does not require each classifier to learn too much, but only requires each classifier to learn a little bit, and then add up this knowledge to form a powerful model. Once the model is built, it still needs to be evaluated for its predictive power and stability [6, 7].

From the above, it is clear that big data finance is essentially algorithmic finance, for example, robot investment advisors in the financial industry are based on algorithms that use recursive neural networks to achieve an optimal estimation of complex and variable data in the financial market at all times, and to obtain dynamic and optimal portfolio allocation; the XGBoost algorithm can be used to predict the probability of stock rises and falls, and to select stocks with a higher probability of rising stock prices; the SVM algorithm can be used to SVM algorithm to classify the rise and fall of stocks and make predictions about the trend of individual stocks or the general market. In, for example, in credit card marketing, the consumer's own reputation and their ability to repay are taken into account. The nearest neighbour algorithm (KNN), which is the most commonly used big data financial algorithm for credit card marketing, projects the location of POS machines based on massive credit card transaction information and transaction amounts, so as to understand the user's consumption trajectory and spending power, providing a basis for accurate user profiling, personalized This provides the basis for accurate user

profiling, personalized recommendations, financial product marketing and more [5, 9].

3.2. Artificial Intelligence Finance

Artificial intelligence finance, that is, the deep combination of artificial intelligence technology and finance, that is, through artificial intelligence technology, to empower financial industry institutions, improve the ability and efficiency of financial services, and expand the depth and breadth of financial services. Artificial intelligence is an advanced computer algorithm program designed to simulate human consciousness and behaviour, and apply it to financial services products to bring more possibilities to them [8]. Artificial intelligence finance can greatly reduce the cost of verifying identity, through artificial intelligence fingerprint recognition, live recognition, OCR recognition, and other technologies to verify the user's identity before carrying out specific financial services. The principle of fingerprint recognition technology can be divided into three types: optical recognition, capacitive sensing recognition, and biological radio frequency identification.

Artificial intelligence can also be used for intelligent customer service, which greatly reduces the cost of manual services and improves service efficiency. The more information and knowledge stored in the knowledge base, the more questions the bot can answer and the higher the resolution rate for the user. The customer service robot's question and answer knowledge base can be collected by manually adding questions and answers, or by directly importing question and answer information from each industry, or by using an interface call to access external industry-related information. Next is semantic understanding, where intelligent customer service robots use natural language processing technology and deep network neural algorithm models to understand the user's meaning through the structure and content of entire sentences and understand the true meaning of their statements. The customer service robot uses a combination of rules and statistics in computer algorithms to perform operations such as stemming, lexical reduction, disambiguation, lexical annotation, named entity recognition, lexical disambiguation, syntactic analysis, and chapter analysis on sentences to simulate the human brain to understand the meaning of the sentence and the entire communication scene (context) [9, 10].

Artificial intelligence in finance can also be applied to risk assessment, using sophisticated machine learning algorithms to analyze risk histories and detect potential risks before they occur.

There are, of course, certain risks associated with AI finance, such as the possibility of compromising or stealing personal data from users, and the possibility of AI technology getting out of hand. All of which require more attention and appropriate measures to be taken at a later stage [3].

3.3. Blockchain Finance

Blockchain finance is a combination of finance and blockchain technology. Blockchain is an underlying technology based on Bitcoin, which is actually a decentralized trust mechanism in essence. The security and accuracy of information are achieved by sharing in distributed nodes to collectively maintain a sustainably growing database. A blockchain is a chain of block after block in a certain order. Each block contains specific information and this chain is held in all servers, and the entire blockchain is secure as long as one server is available for work throughout the system [5]. These servers are called nodes in the blockchain system and they provide storage space and arithmetic support for the entire blockchain system. If you want to modify the information in the blockchain, you must get the consent of more than half of the nodes and modify the information in all of them, and these nodes are usually in the hands of different subjects, so tampering with the information in the blockchain is an extremely difficult thing to do. Blockchain is therefore decentralized and difficult to tamper with [9].

The application of blockchain to finance can result in specific financial services products. For example, consensus mechanism, in the traditional network, there is a center, all data is based on the data released by the center, and the data released by the center is the authority, if the data released by the center is wrong, the information received by the participants will be wrong, while in the network without authority, the consensus mechanism of blockchain can be used to ensure that the data received by the participants in the blockchain is completely consistent, the consensus mechanism can be regarded as a programmable protocol. The consensus mechanism can be seen as a programmable protocol, the most famous being the proof-of-work algorithm, in which all participants should generate data on the blockchain in strict accordance with the protocol, and if someone violates the protocol, the rest of the participants can choose to reject it, so that the wrong data can be eliminated from the blockchain, thus ensuring the authenticity and accuracy of the blockchain data. This smart contract can be seen as a ledger with multiple accountants, each of whom follows the same bookkeeping guidelines and keeps track of the financial transactions received in chronological order, without interfering with each other, but supervising each other, at certain intervals (programmed according to actual circumstances). If any of the accountants violate the bookkeeping rules, they are eliminated and kicked out of the blockchain, and the final data is selected from the remaining blockchain as the one that best meets the first set of criteria [12].

In addition, the decentralized nature of the blockchain determines that payments are peer-to-peer, with the nodes in the blockchain immediately and unanimously accepting or rejecting payments, and the blockchain currency is universal, with no exchange rate, thus saving time and money.

3.4. Quantitative Finance

Quantitative finance is a form of financial investment that relies on technological advances in financial big data, financial technology, and smart finance to issue trading orders through quantitative methods and computer algorithmic programs for the purpose of obtaining stable returns.

Quantitative finance provides the knowledge needed to analyze financial markets and securities. This analysis is essentially done through the use of mathematical models and large data sets, hence why experts in the field are known as quantitative analysts or quantitative analysts [11].

Quantitative finance can be applied to portfolio management and risk management of portfolios as well as the foreign exchange market, and knowledge of quantitative finance is evident everywhere alongside the aforementioned blockchain finance and big data finance. Quantitative analysts need to have a certain level of quantitative analysis skills, such as differential equations, probability theory, statistical analysis, various algorithms, and programming languages [3, 13].

Quantitative finance is often applied to trading decision strategies, such as quantitative trading strategies in the event of a stock market crash, where crash timing strategies and crash momentum reversal strategies are utilized. A stock market crash, i.e. a period of time prior to a stock market crash, sees stock prices fluctuate in a similar pattern, with stocks continuing to surge until the bubble reaches its peak, and then suddenly the bubble bursts, and the stock market plummets, which is the process and nature of a stock market crash that A stock market bubble can be understood macroscopically as a phenomenon where the price of a stock in the stock market trading market is much higher than its investment value, and how one can profit from an impending stock market crash is by using the two quantitative trading strategies described above. The crash timing strategy is based on crash factors and market timing (CTS), and the other strategy is the crash momentum reversal strategy (CMRS) [14]. The crash + timing strategy is described in detail here to consider the right time to buy and sell. According to the mean reversion and gambler's fallacy in quantitative trading strategies, it can be obtained that the stock market may usher in a rebound after a crash and may experience another crash after the rebound, so buy during the stock market crash and dump the stock after the rebound and before the next crash this to gain profit. Judging the stock market crash can be based on the last stock market The RSI is an indicator of the relative strength of the stock market itself and is a technical curve based on the ratio of the sum of the rise and fall in a certain period of time [10]. It can reflect the boom of the market within a certain period of time, so you can find the best time to buy stocks based on the RSI, and then use the momentum factor, the momentum factor can be understood as the return on earnings within a certain window of time, here you can judge the approximate time of the next crash based on the momentum factor 5-10 days before the last month, so as to decide to dump the stocks The best time to sell.

4. Key FinTech Application Scenarios

FinTech is based on the core technology of the above-mentioned financial product applications and currently has numerous application areas, such as credit financing, the cryptocurrency sector, wealth management, and cyber security. The following will elaborate on several aspects of the use of finTech [17].

4.1. The Impact of FinTech on Commercial Banks' Credit Risk Management

First of all, influenced by the financial technology, and its efficient empowerment of commercial banks' credit risk management control ability, commercial banks can use the financial technology of big data and cloud computing and data processing capabilities, the commercial bank's customers for accurate positioning and portrait, improve the user identification ability, and thus can reduce the risk of lending, in addition, through the financial technology in the lending of personal information of users before the loan, In addition, the personal information and reputation of the borrower can be mined through finTech before the loan is made, so as to filter out malicious fraudulent users and achieve the purpose of safe and stable lending. Of course, in the process of lending, through the big data of financial technology to monitor the borrower's repayment ability, willingness to repay, as well as the company's business situation, development prospects, personal work income capacity, and work stability, after the loan, dynamic management, to reduce the rate of bad loans, in addition to the use of blockchain technology, the lending company's transaction expenses and financial transactions to monitor, to ensure the integrity and transparency of information and accuracy, In addition, blockchain technology can be used to monitor the transaction expenses and financial transactions of lending companies, guarantee the integrity and transparency of information as well as accuracy and form an intelligent and low-risk financial ecosystem. Of course, through the application of financial technology such as intelligent customer service, the risk of commercial bank lending can also be reduced to a certain extent. Here, blockchain and big data are combined to share credit rating data, collect data in large quantities, process data and define specific credit rating mechanisms through certain algorithms, thereby reducing the risk of lending due to credit problems [10].

Secondly, FinTech can reduce the market risk of commercial banks. With the continuous help of FinTech, the accuracy of the predicted market risk can be greatly improved, thus achieving the goal of reducing the market risk of commercial banks, which is achieved by establishing an internal market risk assessment model, which can be updated and improved independently by introducing machine learning algorithms to better assess the market risk assessment mechanism. internal risk. In addition, as the borrowing users may be each individual or company, coupled with the repayment level of the borrowing users and the acceptable level of loan interest rate, therefore, using the big data processing of financial technology, the pricing can be differentiated and personalized according to the different aforementioned affordable levels, so that the interest rate may vary for different borrowing users to enhance the willingness of the borrowing users to borrow and repay, while It also reduces the risk within the lending market for commercial banks [1, 14].

Finally, through the use of FinTech, commercial banks can also reduce their operational risks to a certain extent. Traditional commercial banks may incur greater or lesser

commercial risks due to staff errors, but with the introduction of FinTech, some of the work can be done efficiently and accurately by artificial intelligence, which can then be used to further empower their resource allocation management, greatly enhancing Commercial banks can build a solid technical foundation by utilizing their resources. They can also build a database of errors, and by collecting past operational errors and analyzing them for record purposes, the possibility of such operational errors will be minimized in the future, thus minimizing the operational risks of commercial banks with the energy efficiency of finTech [15].

4.2. The Impact of FinTech on Cryptocurrency Sector

FinTech also has applications in cryptocurrencies. The most notable application of cryptocurrencies is the use of blockchain technology in finTech. In particular, some non-profit organizations are using blockchain transactions, i.e. cryptocurrency, when accepting donations, which ensures the security of donors' personal information and significantly reduces the cost of donation transactions, e.g. donating 100 cryptocurrencies using blockchain technology, which saves bank transfers, withdrawals and conversions to The most famous cryptocurrency is Bitcoin, which uses the blockchain technology of financial technology to make it a cryptocurrency and is globally accessible, allowing it to be traded globally without the involvement of a third party (such as a bank) and with no intermediate price difference. generation, is efficient and low cost, and cryptocurrencies are inclusive and trustworthy, so if policy allows, Bitcoin could potentially be common worldwide, meaning that using finTech technology, anyone with a mobile phone worldwide could transact in cryptocurrencies, such that the population base is far higher than the population base with bank accounts and therefore, to a certain extent, financial inclusion could be achieved [16].

Blockchain technology is driving the development of cryptocurrencies, which in essence will drive the development of electronic money and the future of finance will tend to be decentralized rather than dependent on the current central financial institutions. Digital currencies based on blockchain technology have the advantages of high security, decentralization, controlled anonymity, and ease of transaction, and can be divided into two types: privately issued and state-issued. The privately issued digital currencies are not based on the credit of the state, but on agreements drawn up by the user and owner groups to achieve their monetary functions [2, 8]. As a private cryptocurrency, Bitcoin, for example, is issued in fixed quantities and has a storage value, but its price fluctuates and is subject to risk due to changes in demand. Bitcoin was initially designed as a means of payment for digital cryptocurrencies based on financial technology, however, due to its price fluctuations, it has also, on the other hand, become a financial product that can be invested in, its significant price fluctuations and the existence of risk, which has driven the development of stable coins, which are used by issuers to improve and adjust prices to stabilize currency prices through judgment, and in the future with the in-depth application of financial technology, through In the future, the use of cryptocurrencies and stable coins can be promoted through more reasonable regulation and the application of cryptocurrencies and stable coins.

4.3. The Impact of FinTech on Wealth Management

FinTech also has a wider application in wealth management. FinTech promotes digital transformation in financial management, analyses user preferences through big data and cloud computing, build a library of user preferences and portraits, recommends corresponding financial services products and risk-specific forms of investment portfolios according to their preferences, creates a financial services platform from the internet, implements a combination of online and offline wealth management methods, and gradually realizes digitalization of wealth management [2].

Apply financial technology to promote the service efficiency of the wealth management industry. Using big data, cloud computing, and artificial intelligence technology, through machine learning and other algorithms, intelligent investment advisors and other financial services platforms can be built, using semantic analysis, knowledge search, and other technologies, based on customized knowledge base content, to be able to respond more quickly to customer needs and improve the service efficiency of the financial management industry [11].

The application of financial technology to reduce the cost of services in the financial management industry, with more intelligent service platforms as well as fast and convenient machine responses, can greatly save manpower costs and also reduce time costs at the same time, in addition, greatly save the cost of hardware and software required for manual wealth management advice [17].

Finally, the use of financial technology to build a financial technology service evaluation system is also helping the development of the wealth management service industry. The evaluation system for this wealth service should start with user experience, face up to the importance of partners in the ecosystem, and at the same time do a good job of developing digital capabilities within the institution, including data capabilities, technology capabilities, and cultural identity. It should also focus on the extent to which the theory of financial technology is integrated with practice, which will help wealth management institutions to further enhance the ability to apply technology in the financial industry from the pain points of traditional business, and ultimately achieve deep integration and coordinated development of finance and technology, and improve customer satisfaction with digital, networked and intelligent financial products and services [15].

5. Risks of FinTech and Corresponding Responses

5.1. Risks of FinTech

A significant feature of the financial industry is credit and credibility, whether it is an investment, lending, or even the

purchase of financial products, etc., are based on credit, so the financial industry emphasizes the control of risk, emphasizing the slow and steady development process, while the financial technology empowerment, emphasizing the use of big data, cloud computing, artificial intelligence, etc., to accelerate the development of the financial industry, broaden the scope of business of the financial industry, at the same time, the accumulation of risk, Therefore, in essence, there is a certain conflict between finance and technology, so the emergence of financial regulation is to weigh finance and technology to find the best balance, to control the risks while ensuring the rapid development of the financial industry. The risks associated with finTech can be summarized in the following ways [13].

5.1.1. Data Risk

The first is data risk, which arises from the emergence of big data finance in the financial sector. The issue of data privacy is the most important issue in the finTech sector, where massive amounts of data help to enhance and understand consumers' information and rate their credit rating, but this can also lead to the leakage of users' private data, with serious consequences, for example, process automation and the digitization of data makes finTech systems vulnerable to hackers. Recent hacking attacks on credit card companies and banks have shown how easy it is for bad actors to access systems and cause irreparable damage. In addition, data risks include the risk of data monopoly. Financial services companies will later acquire massive amounts of user data through various channels as a way to obtain user preferences, etc. Later on, finTech companies will establish the main status of user data, monopolize it and use the monopolized user data for their own company's customized financial product design, leading to a difficult environment for other traditional financial companies to survive and this could lead to discrimination in lending or financial product sales [13].

5.1.2. Technical Risks

The rapid development of financial technology may not be matched by the speed of development of the security technology that it wants to support. The development and popularity of mobile communication technology have led to the frequent occurrence of pseudo-base stations, forged banking service information, and information "dragging" and "crashing", all of which are examples of imperfect security technology. In addition, the application of some new technologies in financial technology may not be assessed for risk or the risk assessment is not perfect, and some financial institutions may be disruptive and innovative without risk assessment, which may lead to misalignment of technology, waste of resources and This may lead to misalignment of technology, waste of resources and a further increase in financial risks, or worse, fraud and market manipulation [15].

5.1.3. Operational Risks

The combination of the financial industry and technology will increase the complexity and uncertainty of the financial industry, and when financial institutions receive certain shocks, it is also a considerable challenge for them to resist risks as well as their resilience. If they fail to control risks in a timely manner when market changes are detected, it may strengthen the herding effect and market resonance, which will in turn increase risks, in addition, big data while concentrating on cloud computing will also cause greater operational risk impacts on financial institutions once they encounter cyberattacks [10].

5.1.4. Credit Risk

The lack of a sound credit system, incomplete credit entry data and an imperfect credit regulatory environment in China have made it easy to induce credit risk when providing technological empowerment to traditional financial companies. At the same time, FinTech's constant emphasis on digital payments, crowdfunding and multi-agency cooperation with technology, where there are problems such as irregularities and irregularities in operations, is also prone to user credit crises and increased FinTech risk.

5.1.5. Policy Risks

The rapid development of financial technology will also affect the formulation and modification of relevant policies, such as monetary policy, etc. The development of financial technology will inevitably gradually eliminate some traditional financial companies, intensifying competition among financial companies, financial companies are more sensitive to changes in prices and interest rates, and price changes in the financial market will become more frequent, financial companies will also begin to focus on intangible assets, while weakening the role of money, frequent price Frequent price changes may cause inflation and give rise to certain financial risks. Moreover, with the development of financial technology, a monopoly may be formed in the industry, with wealth concentrated in the hands of a few financial companies, which is not conducive to market competition and may also affect the revision of relevant policies [7].

5.2. Regulatory Measures to Control FinTech Risks

First, build a finTech regulatory system. Regulatory authorities need to continuously improve and revise the development of finTech regulatory rules and tools, and establish a targeted and effective finTech regulatory infrastructure, basic rules, micro indicators, and regulatory tools; strengthen knowledge sharing and communication between regulators and the market, especially to enhance finTech and its integration with the financial system; and strengthen financial regulatory coordination under the existing sectoral regulatory landscape, with various regulators collaborate with each other.

Second, reform the organizational structure of finTech regulation. The development of finTech highlights the significant development advantages of cross-border operation and integrated operation in China's financial sector, and the most ideal regulatory approach is to set up a finTech innovation center under the Financial Stability Development Commission of the State Council, focusing on improving the

innovation and regulation of finTech. At the same time, the regulation of FinTech requires the establishment of a national-level financial data collection and analysis system and a sound financial infrastructure as well as an information base [6, 9].

Third, strengthen the technological capacity of financial regulation. The relevant authorities should strengthen regulatory technology to address potential financial and technological risks arising from finTech. The focus of regulators is to leverage the power of the IT sector to improve the IT knowledge of financial regulators and internalize it into regulatory systems and regulatory micro standards. Improve the risk monitoring, early warning, and disposal mechanism of the finTech industry to prevent risk prediction errors, delayed warnings, or financial security problems.

Fourth, build a long-term mechanism for the regulation of finTech. There are more unknowns and uncertainties about the impact of finTech on the future financial system and the financial regulatory framework, so it is necessary to build a long-term financial regulatory system, from online to offline, from the center to various organizations, to coordinate and cooperate, and this regulatory system and rules should change with the times and constantly improve and innovate.

Fifthly, in order to strengthen the technical capacity and efficiency of financial regulation, it is necessary to increase investment in the research and development of financial technology, cultivate compound talents for the development of financial technology, maintain the general direction of financial technology development without wavering [2], government departments to give corresponding policy support, strengthen international cooperation, introduce more advanced regulatory technology, and further improve the regulatory system. In addition, the integration of big data, cloud computing artificial intelligence, and blockchain technology will significantly improve risk control capabilities and promote the development of the financial real economy, and build a new intelligent risk control system in line with the trend, which will be intelligent, real-time and accurate through the algorithm of each module and model for credit rating, risk assessment, model stability assessment, etc., for example, to establish a more complete For example, we have established a better access model to select customers who meet the access requirements through cloud rating and cloud computing technologies, and then optimize the credit approval model using artificial intelligence and big data to improve credit approval efficiency; we have also improved the post-loan management model to deeply integrate with business scenarios [8].

6. Conclusion

Financial technology is the trend of the times and is the inevitable product of the era of science and technology, financial technology using science and technology, blockchain, artificial intelligence, big data analysis, the Internet of Things, etc. are giving new energy to the financial industry, the essence of the combination of finance and technology is, the financial industry with the convenience of science and technology, try to seek advantages and avoid disadvantages, so that technology in the financial industry to achieve the best use of the effect, accelerate the development of the financial industry, innovation to broaden the financial business, these effects from a deep level affect the core elements in finance and economics, as explained in this article, FinTech affects the three core elements of financial information, financial risk, and financial credit, and technology is realizing more efficient, low-cost and more stable financial business. The application of financial technology is also gradually diversified, such as wealth management, quantitative investment, cryptocurrencies, digital payment, etc., but the development of financial technology must be accompanied by certain risks, such as credit risk, the risk of big data leakage, etc., which can be controlled or predicted by other technological means or some means of unified finance, to minimize the harm caused by financial technology risks. In the future, finTech will usher in greater development, such as artificial intelligence and other technology companies, through finTech iterative optimization of trading models to obtain higher profits. The financial industry will develop at a higher speed, give birth to more opportunities, and form a "new financial" service model with deep integration of science and technology.

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