Research on the Application of Blockchain Technology in Digital Inclusive Finance

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Abstract: With the rapid development of the digital economy, digital inclusive finance, as an important development direction of financial services, is providing more equal, convenient and efficient financial services for all sectors of society by means of the Internet, big data, cloud computing and other technical means. However, issues such as information asymmetry, high transaction service efficiency still costs, and low constrain its further development. Blockchain technology provides new ideas and methods to solve these problems. This article analyzes the practical progress of blockchain technology in the fields of credit reporting, payment settlement, supply chain finance, and other areas of digital inclusive finance. It delves into the challenges faced, such inconsistent currently as technical standards, insufficient security and privacy protection, and low participation of financial institutions. Based on this, targeted application strategies are proposed. including strengthening technology research and development and improving standard setting, data privacy management and protection mechanisms, and enhancing the of participation financial institutions. Through multi-party collaborative efforts, application promoting the deep blockchain technology in the field of digital inclusive finance can not only improve the quality and efficiency of financial services, but also promote financial equity and sustainable socio-economic development.

Keywords: Blockchain Technology; Digital Inclusive Finance; Application; Financial Services; Supervise

1. Introduction

1.1 Research Background

In the era of booming digital economy, the digital transformation of financial services has become an important trend in the global financial industry. As a key field in this transformation, digital inclusive finance is committed to providing equal, convenient and efficient financial services for all sectors of society with the help of digital technologies such as the Internet, big data and cloud computing. Its core goal is to fill the gap in traditional financial services, especially to provide financial support for small and micro enterprises, rural residents, low-income urban populations, etc., in order to promote financial equity and economic growth [1]. China's digital inclusive finance is developing rapidly and its coverage is constantly expanding, but it still faces many challenges in the development process. The emergence of blockchain technology, with its decentralized, tamper proof, and traceable characteristics, not only provides new technological means for the digital transformation of the financial industry, but also provides new ideas for solving pain points in the development of digital inclusive finance. Applying blockchain technology to the field of digital inclusive finance can further expand the boundaries of financial services and promote the realization of financial fairness [2,3].

1.2 Research Significance

In depth research on the application of blockchain technology in digital inclusive finance is of great significance for enriching the theoretical system of the financial technology field. At present, the research on the integration of blockchain technology and digital inclusive finance is still in the development stage, and the relevant theoretical research is not yet perfect. Through in-depth analysis of the current

application status, challenges, and response strategies of blockchain technology in digital inclusive finance, the impact mechanism of blockchain technology on digital inclusive finance can be further clarified, and the inherent logic and development laws of the integration of the two can be revealed. This not only provides theoretical support for subsequent research, but also lays the foundation for the continuous improvement and development of financial technology theory.

From a practical perspective, this study has important guiding significance for promoting the sustainable development of digital inclusive finance. On the one hand, it helps financial institutions better understand and apply blockchain technology, innovate financial products and service models, and enhance market competitiveness. On the other hand, it provides a reference basis for regulatory authorities to formulate reasonable policies and regulations, standardize the application of blockchain technology in the field of digital inclusive finance, prevent financial risks, and ensure the stable operation of financial markets. In addition, this study also contributes to promoting social and financial equity, allowing more groups to enjoy high-quality financial services, and promoting sustainable economic and social development [4].

2. The Current Application Status of Blockchain Technology in Digital Inclusive Finance

2.1 Application in the Field of Credit Reporting

Credit reporting is one of the core links in the development of digital inclusive finance. Its role is to provide reliable credit evaluation basis for financial institutions, thereby reducing credit risks and expanding the coverage of financial services. However, the traditional credit reporting model has many limitations, such as scattered information, serious data silos, and easy tampering of information. These problems result in high costs for financial institutions to obtain customer credit and information. the accuracy completeness of information are difficult to guarantee [2]. Blockchain technology, with its decentralized, tamper proof, and traceable characteristics, provides new ideas and methods for solving the above problems.

Under a decentralized architecture, credit information is no longer centrally stored in a single institution, but distributed across multiple nodes, with each node participating in data maintenance and verification to ensure the authenticity and integrity of the data. This distributed storage method effectively avoids the risk of data tampering and reduces the possibility of data loss due to a single point of failure. In addition, the traceability of blockchain can clearly record the source, generation process, and every subsequent change of credit information, providing institutions financial with a more comprehensive and reliable credit evaluation basis.

Taking the blockchain credit alliance constructed by some financial institutions as an example, each member institution encrypts and uploads customers' credit data to the blockchain platform, achieving secure sharing of credit information [5]. When an institution needs to query customer credit information, it can authorize queries on the blockchain to obtain comprehensive and accurate credit data. Meanwhile, due to the transparency and tamper proof nature of blockchain, the authenticity and reliability of credit information have been greatly improved, which enables financial institutions to treat different customer groups more fairly, especially small and micro enterprises, rural residents, and low-income urban populations that traditional financial services cannot cover.

2.2 Application in the Field of Payment Settlement

Payment settlement is a fundamental function of financial services, and its efficiency and security directly affect the operational efficiency and user experience of financial markets. The traditional payment settlement system has many problems, such as multiple intermediate links, long settlement cycles, high transaction fees, and low efficiency of cross-border payments. These issues not only increase transaction costs, but also limit the popularity and application scope of financial services. The emergence of blockchain technology provides new possibilities for solving these problems [6].

The decentralization and distributed ledger characteristics of blockchain technology enable payment parties to conduct transactions directly without the need for third-party intermediaries. This peer-to-peer trading model greatly shortens payment settlement time and reduces transaction costs. Taking cross-border payments as an example, traditional crossborder payments require multiple banks and clearing institutions for transfer, with complex processes, long fund arrival times, and high transaction fees. The cross-border payment system based on blockchain technology can achieve point-to-point direct payment, with real-time transaction information recorded on the blockchain. All parties involved can share transaction data in real time without the need for cumbersome reconciliation and clearing processes, thereby improving the efficiency and transparency of cross-border payments. Due to the tamper proof nature of blockchain, once transaction records are generated, they cannot be modified, effectively preventing fraud and errors from occurring and ensuring the security of financial transactions. With the gradual popularization of blockchain technology, the barriers to cross-border payments will gradually be broken down, and the flow of funds will become more free and efficient, which will promote further integration and development of the global economy.

2.3 Application in the Field of Supply Chain Finance

Supply chain finance is an important field of digital inclusive financial services for the real economy. Its core lies in optimizing the operational efficiency of the supply chain through financial means, providing financing support for small and medium-sized enterprises, and promoting the coordinated development of the industrial chain. However, under the traditional supply chain finance model, it is difficult for the credit of core enterprises to be transmitted to upstream and downstream small and medium-sized enterprises. Due to the lack of effective collateral and credit records, small and micro enterprises face greater financing difficulties [7]. In addition, the problem of information asymmetry in the supply chain has seriously affected financial institutions' accurate assessment of the credit status of small and medium-sized enterprises, leading to low financing efficiency.

The traceability and tamper proof characteristics of blockchain technology provide strong support for solving the above

problems. Through blockchain technology, transaction information, logistics information, and financial information on the supply chain can be integrated and recorded on the blockchain, forming a complete supply chain information chain. Financial institutions can obtain real transaction data of various enterprises on the supply chain through blockchain platforms, accurately evaluate the credit status of small and medium-sized enterprises, and provide them with more convenient financing services. At the same time, the smart contract function of blockchain can achieve automation of the financing process. When the preset conditions are met, the smart contract is automatically executed and funds automatically disbursed. improving financing efficiency and reducing transaction risks [8]. It can be seen that the application of blockchain technology in the field of supply chain finance has promoted the digital transformation of the supply chain. By combining blockchain with the Internet of Things, real-time monitoring and management of logistics information can be achieved, further optimizing the operational efficiency of the supply chain.

3. The Challenges Faced by Blockchain Technology in Digital Inclusive Finance

3.1 Inconsistent Technical Standards

Currently, there is no unified technical standard for the application of blockchain technology in the field of digital inclusive finance. There are significant differences in technical architecture, consensus algorithms, data formats, and other aspects among different blockchain systems, which makes it difficult for them to achieve interconnectivity and data sharing [9]. The fragmentation of this technical standard not only increases the cost and difficulty of financial institutions applying blockchain technology, but also limits the widespread application and promotion of blockchain technology in the field of digital inclusive finance.

Taking cross-border payments as an example, blockchain payment systems in different countries and regions face many difficulties in docking and cooperation due to inconsistent standards. Some countries adopt payment solutions based on public chains, while others tend to use consortium chains or private chains.

This difference leads to complex technology integration and significantly increased costs, which in turn affects the efficiency and convenience of cross-border payments. In addition, the lack of uniformity in technical standards also poses significant challenges to regulation. Regulatory agencies find it difficult to effectively regulate and standardize blockchain applications with different standards, which can lead to regulatory loopholes and potential risks.

3.2 There are Hidden Dangers in Data Security and Privacy Protection

Although the encryption algorithms and distributed storage methods of blockchain technology have improved data security to some extent, data security and privacy protection remain important challenges faced by blockchain technology in digital inclusive finance applications. On the one hand, although data on the blockchain is encrypted, if the encryption algorithm is cracked or the private key is leaked, the security of the data will be seriously threatened. On the other hand, the distributed ledger feature of blockchain enables data to be stored and shared across multiple nodes, increasing the risk of data being illegally obtained and abused.

The field of digital inclusive finance involves a large amount of personal information and sensitive data of users. Once leaked, it will bring serious economic losses and privacy risks to users, and also affect the reputation and social stability of financial institutions. In addition, the issue of cross-border data flow is becoming increasingly prominent. There are differences in data protection regulations among different countries and regions, which poses compliance challenges for cross-border data flows. For example, the EU's General Data Protection Regulation (GDPR) has strict regulations on cross-border data transfer, while regulations in other countries may be relatively lenient. This difference may lead to legal risks for financial institutions in cross-border business, further exacerbating the complexity of data security and privacy protection [8].

3.3 Low Participation of Financial Institutions

Some financial institutions are cautious about the application of blockchain technology in the field of digital inclusive finance, with low participation. On the one hand, blockchain technology is relatively complex, and financial institutions applying blockchain technology require a large amount of technical research and system transformation, as well as relevant technical training for employees, resulting in high investment costs. On the other hand, the traditional business models and management concepts that financial institutions have long formed make them more conservative when facing new technologies, and they have doubts about the application prospects of blockchain technology.

In addition, the cooperation mechanism between financial institutions is not yet perfect. In the application process of blockchain technology, it is necessary for financial institutions to share data and collaborate on business. However, due to the competitive relationship between institutions, willingness to share data is low, making it difficult to form effective cooperation. For example, when building a blockchain credit alliance, some financial institutions concerned that data sharing may leak their trade secrets, and therefore hold a reserved attitude towards cooperation. The lack of this cooperation mechanism not only limits the application of effectiveness blockchain technology, but also affects the overall development of digital inclusive finance.

3.4 Imperfect Regulatory Policies

The decentralization and innovative nature of blockchain technology significant pose challenges to existing financial regulatory policies. At present, the regulatory policies for the application of blockchain technology in the field of digital inclusive finance are not yet perfect, and there are regulatory gaps and lagging issues. On the one hand, the application of blockchain technology has blurred the boundaries of financial business, and the traditional segmented regulatory model is difficult to meet the development needs of blockchain finance. For example, some blockchain based financial innovation products and services involve multiple financial fields, making it difficult to clearly define regulatory responsibilities. On the other hand, the rapid development of blockchain technology makes it difficult for regulatory policies to keep up with the pace of technological innovation. New blockchain applications and business models

continue to emerge, making it difficult for regulatory agencies to formulate corresponding regulatory policies and norms in a timely manner, which can easily accumulate financial risks [2,4]. For example, the legal effectiveness of smart contracts is not yet clear, and their application in financial transactions may lead to contract disputes and legal risks.

In addition, the cross-border application of blockchain technology has also brought difficulties to international regulatory coordination. There are differences in regulatory policies among different countries and regions, which can easily lead to regulatory arbitrage and further exacerbate financial market instability.

4. Optimization Strategies of Blockchain Technology in the Application of Digital Inclusive Finance

4.1 Strengthen Technology Research and Development and Standard Setting

4.1.1 Increase investment in technology research and development

development of The rapid blockchain technology has brought new opportunities for digital inclusive finance, but it also puts higher demands on its performance, security, and scalability. The government should play a leading role, establish special research funds, cooperation encourage deep between universities. research institutions. enterprises, and build an innovative research and development system that integrates industry, academia, and research. Focusing on core blockchain technologies such as consensus mechanisms, encryption algorithms, smart contracts, etc., we aim to overcome performance bottlenecks and enhance the processing power, transaction speed, and scalability of blockchain [10]. For example, actively exploring new consensus algorithms (such as Casper, Algorand, etc.) to improve transaction efficiency and reduce energy consumption while ensuring security. For smart contracts, it is necessary to conduct in-depth research on their formal verification techniques, reduce code vulnerabilities and security risks. and enhance the reliability and stability of smart contracts in financial business. In addition, attention should also be paid to the integration of blockchain technology with other emerging technologies such as AI and the Internet of Things, exploring its comprehensive application potential in digital inclusive finance. 4.1.2 Promote standardization construction

The widespread application of blockchain technology cannot be separated from unified technical standards. A unified, standardized, and forward-looking blockchain technology standard will be jointly developed by the government, industry associations, regulatory authorities. technical experts. financial institution representatives, and other parties. Covering various aspects such as technical architecture, data formats, specifications, security standards, etc., to ensure compatibility and interoperability between different blockchain systems. For example, in terms of data format, establishing unified standards enables blockchain systems of different financial institutions to recognize and process data in the same format, breaking down data silos and achieving smooth flow and sharing of data. In terms of security standards, clarify the usage norms of encryption algorithms, the detection and repair process of security vulnerabilities, etc., to ensure the safe and stable operation of blockchain systems. At the same time, actively participating in the formulation and cooperation of international standards, enhancing China's international discourse power in the field of blockchain technology, and promoting the coordinated development of blockchain technology in the global digital inclusive finance field.

4.2 Improve Data Management and Privacy Protection Mechanisms

4.2.1 Strengthen encryption and access control technology

Data security and privacy protection are key issues in the application of blockchain digital inclusive finance. technology in Comprehensively utilizing various advanced encryption technologies, such knowledge proof and homomorphic encryption, to encrypt and protect data throughout the entire lifecycle in digital inclusive finance. Zero knowledge proof can prove the authenticity and validity of data without disclosing specific data content, effectively protecting user privacy: Homomorphic encryption allows specific calculations to be performed on encrypted data, and the decrypted calculation results are consistent with those calculated on plaintext data, ensuring that the data can also be analyzed

and processed in an encrypted state while avoiding the risk of data leakage. In terms of access control, we will build an identity based multi factor authentication system that combines biometric technology (such as fingerprint recognition, facial recognition), digital certificates, and other methods to strengthen user identity authentication and ensure that only legally authorized users and institutions can access sensitive data. Strictly follow the principle of minimum privilege, allocate data access permissions accurately based on the business needs of users and institutions, and minimize data exposure risks. 4.2.2 Establish data privacy protection standards

Develop specialized data privacy protection regulations and industry guidelines, clarifying the full process norms for data collection, storage, use, sharing, and deletion. In the data collection stage, follow the principle of "minimum sufficient", only collect user data directly related to the business and necessary, and obtain explicit authorization and consent from users; In the data storage process, secure and reliable storage technologies are used to classify and classify data for storage, and additional encryption is applied to sensitive data; Strictly limit the purpose and scope of data use during the data usage process, and prohibit any use beyond the authorized scope; When sharing data, it is necessary to obtain re authorization from the data owner and anonymize the shared data to ensure its security. For illegal operations, strict punishment measures should be formulated to increase the cost of illegal activities and effectively protect users' data privacy rights.

4.2.3 Introduce privacy computing technology Privacy computing technology provides a new solution for blockchain data privacy protection. privacy Actively applying computing technologies such as federated learning, multiparty secure computing, etc., to achieve collaborative computing and analysis of data without leaking raw data. Federated learning enables all participants to jointly train models without local data being out of domain, improving the accuracy and generalization ability of the models; Multi party secure computation collaborative supports computation of encrypted data among multiple participants, ensuring the security of the computation process and results. Through these

technologies, financial institutions can fully utilize various data resources while protecting user privacy, enhance business capabilities such as risk assessment and credit modeling, and provide stronger data support for the development of digital inclusive finance.

4.3 Enhance the Enthusiasm of Financial Institutions to Participate

4.3.1 Policy incentives and support

The enthusiasm of financial institutions in the application of blockchain technology directly affects the development effect of digital inclusive finance. The government should introduce a series of targeted policy measures to reduce the cost and risk of financial institutions applying blockchain technology. Provide financial subsidies to financial institutions that actively apply blockchain technology to carry out digital inclusive finance business, for technology research development, system upgrades, and talent cultivation; Implementing tax preferential policies, reducing or exempting taxes on related businesses, and improving the economic efficiency of financial institutions; Establish a special risk compensation fund to provide a certain proportion of compensation to financial institutions when they experience risk losses due to the application of blockchain technology, enhancing their ability to resist risks. Through these policy incentives. stimulate enthusiasm and initiative of financial institutions to apply blockchain technology.

4.3.2 Strengthen training and communication The complexity of blockchain technology requires financial institution practitioners to have a high level of technical proficiency and business capabilities. Organize multi-level and multi form blockchain technology training activities, invite industry experts and technical backbones to provide professional training for financial institution practitioners, covering blockchain technology principles, application scenarios, business processes, security risk prevention, and other aspects, to enhance the technical level and business capabilities of practitioners. At the same time, establish a communication and cooperation platform between financial institutions, regularly hold seminars, experience sharing sessions, and other activities to promote information sharing and experience exchange among financial institutions [11]. Encourage financial

institutions to participate in international blockchain technology exchange activities, learn from advanced application experience and practical cases abroad, broaden their horizons, and enhance their innovation capabilities and competitiveness.

4.3.3 Building a cooperative and win-win ecosystem

Promote the establishment of strategic partnerships between financial institutions and fintech enterprises, technology companies, etc., fully leveraging their respective advantages. Financial institutions have rich financial business experience, customer resources, and financial strength, while fintech enterprises and technology companies have unique technological advantages and innovation capabilities in blockchain technology research and development, as well as innovative applications. Both parties will collaborate to jointly develop digital inclusive financial products and services based on blockchain technology, achieving complementary advantages and mutual benefit. For example, financial institutions collaborate with fintech companies to optimize supply chain financial services using blockchain technology, providing more convenient and efficient financing channels for small and medium-sized enterprises; Financial institutions collaborate with technology companies to develop blockchain based digital identity authentication systems, enhancing the security convenience of financial services [7]. At the same time, strengthen cooperation among financial institutions, establish blockchain alliances or cooperative organizations, jointly formulate industry norms and standards, and promote the widespread application and healthy development of blockchain technology in the field of digital inclusive finance.

4.4 Establish Sound Regulatory Policies and Laws and Regulations

4.4.1 Optimize the regulatory framework

The decentralization and innovative nature of blockchain technology pose challenges to traditional financial regulatory models. Build a regulatory framework that adapts to the characteristics of blockchain technology, clarify the responsibilities and division of labor of regulatory entities. Establish a dedicated blockchain finance regulatory department or institution responsible for coordinating and

overseeing the regulatory work of blockchain technology in the field of digital inclusive finance, in order to avoid regulatory gaps and Strengthen communication and overlaps. collaboration among regulatory departments, establish information sharing mechanisms and joint supervision mechanisms, and achieve comprehensive and full process supervision of blockchain financial businesses. For example, financial regulatory authorities are responsible for regulating the compliance of financial businesses. while technology regulatory authorities are responsible for regulating the security and stability of blockchain technology. The two work closely together to prevent financial risks.

4.4.2 Improve laws and regulations

Accelerate the formulation and improvement of laws and regulations related to the application of blockchain technology in the field of digital inclusive finance, clarify the legal status, business rules, regulatory requirements, and consumer rights protection of blockchain finance business. Clarify the legal validity, data ownership, privacy protection, and other issues of smart contracts, providing clear legal basis for the development of blockchain finance business. For example, it is clear that smart contracts have the same legal effect as traditional contracts under certain conditions, ensuring the legality of the execution and transactions of smart contracts; The ownership of data belongs to the data subject, and financial institutions must obtain legal authorization when using data to protect the data rights and interests of users. At the same time, based on the development and application of blockchain technology, timely revisions and improvements should be made to laws and regulations to ensure their adaptability and effectiveness.

4.4.3 Innovative regulatory methods

Actively introducing innovative regulatory methods and technological means to improve the efficiency and accuracy of supervision. Adopting the "regulatory sandbox" model to provide a secure testing environment for blockchain financial innovation, allowing financial institutions to conduct innovation experiments within a controllable range, timely discover and solve problems, and effectively prevent risks while encouraging innovation. By utilizing technologies such as big data and AI, real-time monitoring and risk warning of

blockchain financial businesses can be carried out to achieve dynamic supervision. For example, using big data technology to analyze transaction data on the blockchain, timely discovering abnormal transaction behavior and potential risks; Establishing a risk prediction model through AI technology to provide early warning of financial risks and enhance regulatory foresight and proactivity.

5. Conclusion

Through in-depth analysis of the application of blockchain technology in digital inclusive finance, the following conclusions are drawn: the advantages and potential of this technology significant. and its decentralized characteristics can solve many drawbacks of traditional finance, reflect unique value in multiple fields, promote financial digital transformation, and improve fairness and efficiency. However, the application faces challenges such as inconsistent technical standards, insufficient data security and privacy protection, low participation of financial institutions, and imperfect regulatory policies, which require multi-party collaboration to address. To this end, optimization strategies such as strengthening technology research and development and standard setting, improving data management and privacy protection mechanisms, enhancing the enthusiasm of financial institutions, and improving regulatory policies and regulations are proposed to promote deep application, enhance financial services, and promote economic development. However, this study also has certain limitations. Due to the rapid development of blockchain technology, some content does not cover the latest developments and practices, and lacks indepth analysis of the rapid advancement of standard setting in complex environments, as well as forward-looking research on new risks and vulnerabilities. In the future, we will continue to pay attention to cutting-edge technology research and development, increase research on the integration of emerging technologies, and strengthen risk warning and prevention in data security research. Actively carry out empirical and case analysis, improve scientificity and practicality, strengthen interdisciplinary research, and achieve the joint promotion of blockchain technology in the field of digital inclusive finance by governments, financial institutions, technology enterprises

and other parties.

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References

- [1] Manna Lin, Jia'an Zhang, Zeqi Li, et al. Research on the Application of Blockchain Technology in the Construction of Zhejiang Rural Credit Information System under the Background of Digital Inclusive Finance. Heilongjiang Human Resources and Social Security, 2021, (07): 23-26
- [2] Shuzhen Zou, Qiang Xu & Chen Ying. "Blockchain+Rural Credit Reporting" Promotes Research on Digital Inclusive Financial Services. New Western, 2024, (06): 104-106+110
- [3] Tao Zhu & Zhiguang Zhang. Decentralization of Digital Inclusive Finance: A Study Based on the Blockchain Project GSENetwork. Southern Finance, 2019, (04): 63-72
- [4] Xian Zhang. Research on the Innovative Development of Digital Inclusive Finance in Commercial Banks Based on Blockchain Technology. Tianjin University of Commerce, 2021
- [5] Yanqing Ge. Discussion on Local Governments Building Credit Systems with Blockchain and Big Data to Support Inclusive Finance. Business News, 2019, (29): 78-79
- [6] Shusong Ba & Ruoyu Qiao. Empowering Digital Finance with Blockchain Technology. Fintech Era, 2021, 29 (07): 14-18
- [7] Zongqian Nian & Hang Fu. The integration and path of blockchain technology and inclusive finance. International Finance, 2019, (08):76-80.
- [8] Yu Wang. Realistic Reflection on Empowering High-Quality Development of Digital Inclusive Finance with Blockchain. Changbai Journal, 2022, (05):113-122.
- [9] Guiliang Xing & Laipeng Zhang.

- Exploring the Construction of Blockchain Credit Reporting System from the Perspective of Digital Inclusive Finance. Heilongjiang Finance, 2019, (06):38-40.
- [10]Minghong Sun. Research on the Upgrading of Digital Inclusive Finance Industry Based on Blockchain Technology. Economic
- Research Guide, 2021, (03):67-69.
- [11]2020 China Blockchain and Digital Inclusive Finance Application Development Forum (Shanghai). East China Science and Technology, 2020, (01):74.