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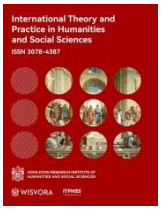

Research on the Application of Blockchain Technology in the Optimization of Credit Guarantee and Financing Environment for Small and Medium-sized Enterprises

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Abstract

Small and medium-sized enterprises, as the indispensable backbone of national economic development, are not optimistic in financing situation due to their narrow direct financing channels and low rate of credit support. At present, due to the characteristics of block chain technology, such as unforgery, traceability, uniqueness and openness, it can bring new development opportunities and change the existing financing mode to a large extent. It can be used to solve some pain points of financing problems of small and medium-sized enterprises and provide new solutions. In this paper, through case analysis of the traditional financing mode of small and medium-sized enterprise financing the main problems and its reason, specify how to combine block chain technology advantage, through the development of chain blocks the technical small and medium-sized enterprise financing difficulties, so as to promote the sustainable and healthy development of national economy, puts forward the construction of credit platform, design the financing mode, optimize the financing environment, such as strategy, It is of great significance to the credit construction and financing development of small and medium-sized enterprises.

1. Introduction

In the contemporary economic landscape, small and medium-sized enterprises are often the backbone of innovation and employment, yet they frequently face significant challenges in securing the financing necessary for growth and sustainability. The traditional financing landscape for small and medium-sized enterprises has been fraught with inefficiencies and barriers, which has led to a persistent search for innovative solutions. The advent of blockchain technology has opened up new avenues for addressing these challenges, offering a potential revolution in the way small and medium-sized enterprises access and manage financing.

The rapid advancement of technology in China has been a catalyst for exploring novel approaches to the age-old problem of small and medium-sized enterprises financing. Blockchain, in particular, has emerged as a key area of interest for scholars and practitioners alike. Research into blockchain's potential to disrupt the financial services industry has led to the development of new

frameworks and mechanisms that could significantly benefit small and medium-sized enterprises. Wang Zhenzhen (2020) posits that blockchain's decentralized nature can eliminate the need for third-party intermediaries in the supervision and assessmall and medium-sized enterprisesnt process, thereby reducing transaction costs and increasing efficiency .Xue Yuzhe et al. (2020) further argue that the government has a crucial role to play in incentivizing financial institutions to enhance their credit technology. By doing so, they can improve the accessibility and affordability of financing for small and medium-sized enterprises . This is particularly important given that small and medium-sized enterprises often lack the collateral and credit history that traditional financial institutions require.Hu Linke and Ge Tiantian (2020) have also contributed to the discourse by suggesting that small and medium-sized enterprises should take a proactive role in engaging with blockchain technology. They propose the establishment of an information-sharing platform that leverages blockchain to expand financing channels and reduce the costs associated with securing capital . Such a platform could provide a transparent and secure environment for financial transactions, leveling the playing field for small and medium-sized enterprises in the competitive financial market.

The significance of this research is underscored by the substantial contributions of small and medium-sized enterprises to the economy. They account for more than 50% of tax revenue, over 70% of technological innovation, and provide more than 80% of urban employment opportunities. Despite these contributions, small and medium-sized enterprises have struggled to secure the financing necessary for their growth, with the issue of access to credit being a persistent hurdle.The introduction of blockchain technology has the potential to reshape the business processes that have traditionally hindered small and medium-sized enterprises financing. By analyzing the current state of China's small and medium-sized enterprises credit guarantee system through the lens of blockchain, this paper aims to explore the constraints on small and medium-sized enterprises financing and provide actionable solutions. The goal is to alleviate the financing difficulties faced by small and medium-sized enterprises, thereby supporting their healthy development and contributing to the high-quality growth of China's economy.

Employing a variety of research methods, including literature reviews and empirical analysis, this paper reveals that the primary challenges in small and medium-sized enterprises financing are the limited direct financing channels and the low rate of obtaining credit support. The study delves into the possibility of constructing a new trust model and economic operation mechanism through the application of blockchain technology. It proposes countermeasures and suggestions that could significantly improve the financing landscape for small and medium-sized enterprises.

The blockchain's decentralized and transparent nature offers a unique opportunity to create a more equitable financing ecosystem for small and medium-sized enterprises. By reducing the need for intermediaries and increasing the transparency of financial transactions, blockchain can help to mitigate the information asymmetry that often leads to challenges for small and medium-sized enterprises. Furthermore, the immutability of blockchain records can enhance the credibility of small and medium-sized enterprises, making them more attractive to potential investors and lenders.

In conclusion, the integration of blockchain technology into the financing models for small and medium-sized enterprises presents a promising avenue for overcoming the longstanding issues of access to credit. By leveraging this technology, it is possible to create a more efficient,

transparent, and inclusive financial system that can support the growth and success of small and medium-sized enterprises, which are vital to the health and vitality of the economy. The research presented in this paper aims to contribute to this goal by providing a comprehensive analysis of the current challenges and proposing innovative solutions that can help to unlock the full potential of small and medium-sized enterprises in China and beyond.

2.Literature Review

2.1 Research on Blockchain Technology

Representative scholars of blockchain technology research abroad include Mougayar W (2016), Economist (2016), Narayanan A et al. (2016). Combining their discussions, blockchain technology can be defined as the foundational technology for constructing the data structure of Bitcoin and the encryption of transaction information transmission , realizing the mining and transaction of Bitcoin, and creating Bitcoin on the basis of blockchain. Hofmann E (2018) believes that blockchain not only makes financial technology possible but also serves as a tool for social and political change, creating the possibility for a more decentralized world.

In China, many scholars are also discussing blockchain technology. Zhang Rui (2019) believes that the reconstructive role of blockchain technology on the banking industry is very significant. Zhang Rong (2017) believes that the application of blockchain technology has a positive impact in reducing trust risks and optimizing the business processes of financial institutions. Tang Yifu (2020) points out that blockchain technology can to some extent solve the current financing difficulties of small and medium-sized enterprises, and it is necessary for the government to guide, all guarantee companies to participate, establish a collaborative mechanism, and jointly build an "Blockchain + Guarantee" intelligent financial ecosystem.

2.2 Research on Credit Guarantee for Small and Medium-sized Enterprises

The study of guarantee risk in developed countries abroad began much earlier than in China. American economist John Haynes (1895) defined risk in his work "Risk as an Economic Factor," considering guarantee risk as a relatively common category of financial risk. Salop S and others (1982) proposed the theory of adverse selection and moral hazard in the credit market, suggesting that small and medium-sized enterprises might opt for riskier projects to invest in due to increased financing costs.

Although China's research on the credit guarantee system for small and medium-sized enterprises started relatively late, its development momentum is very strong. Zhao Quanhou and Huang Rong (2019) believe that insufficient government attention will restrict the financing efficiency of small and medium-sized enterprises, making it difficult to leverage the role of financial leverage and credit investigation. Liang Junfeng and Zhao Liang (2017) argue that one of the reasons for the risks associated with small and medium-sized enterprises credit guarantees is the influence of internal and external factors on the operation of guarantee companies.

2.3 Literature Review

Regardless of the blockchain technology or the credit guarantee system for small and medium-sized enterprises, there are certain research differences among scholars both domestically and internationally. The study of credit guarantee risks for small and medium-sized enterprises abroad has a history of over a hundred years, while in China, it has only been a few

decades. Moreover, foreign research has delved into model establishment, quantitative analysis, and systematic management, while domestic research is still focused on the identification of risk types, exploration of laws and regulations, and analysis of the causes of risks.

The commonality in the research of scholars worldwide is that the global development of blockchain is gradually shifting from a wholesale rejection or blind admiration to a rational understanding. Both domestically and internationally, there is a greater focus on exploring the potential application value and business models of blockchain, and there is a consensus that blockchain can construct a control system for the credit guarantee of small and medium-sized enterprises. Therefore, this paper chooses to draw on research theories from both abroad and domestic sources, combined with China's current economic environment and level, to conduct a more in-depth discussion on this topic. This not only deepens the domestic research results but also clarifies the direction of this paper's efforts.

3.Blockchain Technology Promotes the Improvement of Credit Guarantee

3.1 Improve credit management system, reduce information asymmetry

In the market economy, information asymmetry is very common. small and medium-sized enterprises, due to poor internal management, leading to financial supervision chaos, weak profitability, and for privacy reasons, cannot open all their transaction information to the public.

The "Blockchain + Public Credit Information Sharing Service Platform" (hereinafter referred to as the "Blockchain + Credit" platform) is about to be launched first in City C, introducing a one-stop new initiative that covers all areas of the social credit system, including credit alerts, credit inquiries, credit report downloads, and credit repair. Once the "Blockchain + Credit" platform goes live, corporate legal persons will no longer need to fill out various cumbersome materials. They can simply download the complete company credit report by facial recognition and signing a "Statement of Integrity," largely eliminating the reliance on professional credit management personnel for enterprises. At the same time, if a corporate legal person goes to the service hall to handle business, the "Blockchain + Credit" platform will automatically confirm the company's information. If there are any dishonest or default situations under the company's name, the platform will proactively remind them to repair their credit integrity. The platform fully utilizes and leverages the characteristics of blockchain, such as decentralization and traceability, effectively ensuring the security, authenticity, and traceability of data encryption. It guarantees the confidentiality of user information, fairness of evaluation, authenticity of data, and non-tampering, greatly simplifying the internal information management process for enterprises.

3.2 Promote credit transparency, speed up credit information query efficiency

At present, when commercial banks provide credit services, the first thing to consider is the financial credit of the loan object itself. Commercial banks will judge the repayment ability of each subject based on their credit status, report and review through the People's Bank of China's credit system, and query whether there is a default repayment and other breaches of trust in the central bank's credit system with the consent of the customer.

In the field of credit reporting, the greatest advantage of blockchain technology is that it can automatically record the business activities related to credit of small and medium-sized enterprises through programming and store them in the computers within the blockchain,

thereby achieving transparent information. With the help of this technology, commercial banks can store customers' credit information in an encrypted form within their institution and can also achieve real-time sharing of credit information. When a business applies for a loan, as long as the customer grants authorization, the lending institution can directly obtain the required credit information from the relevant blockchain, thus eliminating the need to request credit information inquiries from the central bank.

3.3 Improve credit platform construction, reduce the impact of third-party institutions

By leveraging blockchain technology, the information of the parties can be searched and saved by each other, which can to some extent alleviate the dependence on intermediate guarantee institutions, avoid human intervention by third-party institutions, and enterprises can also find more suitable sources of financing, thereby further solving financing difficulties and reducing financing costs.

For example, the "ICBC Blockchain" system independently developed by the Industrial and Commercial Bank of China (ICBC) has become one of the first to obtain the five major credible blockchain certifications from the Ministry of Industry and Information Technology of China. Currently, the "ICBC Blockchain" has achieved over 150 innovative research outcomes in technology, and has built dozens of scenarios in areas such as fund management, supply chain finance, trade finance, and public services, serving more than 1,000 institutions. In terms of capital management, conventional financial accounting methods often encounter issues such as long reconciliation periods, the possibility of tampering with accounts, and low audit efficiency. To address the handling of funds, this blockchain technology adopts an integrated approach of data flow, approval flow, and fund flow, achieving automation in fund declaration and approval, effectively improving the management and payment efficiency of funds. At the same time, by comparing data from multiple channels, it can effectively prevent information asymmetry and reduce the reconciliation cycle. The traceability of the blockchain makes the financing chain clear and transparent, facilitating standardized management and strengthening the overall control of capital.

4.Development of Blockchain to Help Improve the Financing Environment for small and medium-sized enterprises

4.1 Reduce information asymmetry, reduce financing costs

The financing landscape for small and medium-sized enterprises is often characterized by higher borrowing costs compared to their larger counterparts, as revealed by data from leading guarantee companies. The interest rates for small and medium-sized enterprises borrowing from banks are notably higher, ranging from 2 to 3 times the rates offered to large enterprises. With the current benchmark interest rate for bank loans standing at approximately 6%, small and medium-sized enterprises typically face loan interest rates that are 30% to 50% higher, which translates to a significant financial burden.

When additional banking requirements are factored in, such as deposit pledges and the issuance of bank bills, these costs can escalate further. The comprehensive interest rate, including these ancillary fees, generally settles around 10%. This high cost of borrowing is a substantial deterrent

for small and medium-sized enterprises seeking to expand or even maintain their operations, as it limits their access to critical growth capital.

In the quest for more affordable financing, many small and medium-sized enterprises turn to bond issuance or seek loans from non-bank financial institutions and private lenders. Unfortunately, these alternative financing routes often come with even higher costs. The prohibitive expense of raising funds through these channels not only deters small and medium-sized enterprises from pursuing much-needed capital but also perpetuates a cycle of high borrowing costs and limited growth opportunities.

The advent of blockchain technology, however, presents a potential solution to these challenges. Its decentralized and secure nature allows banks to have greater confidence in the data they receive during the loan approval process. Smart contracts, a key feature of blockchain, enable banks to track and monitor the flow of funds in real-time, providing an additional layer of security and transparency to the lending process.

In the event of a breach of contract, the blockchain's automated protocols can trigger a warning signal, alerting the relevant parties and facilitating the execution of collateral rights. This level of oversight can significantly reduce the regulatory costs for lenders, including banks, and potentially lead to a reduction in the interest rates charged to small and medium-sized enterprises. Lower interest rates would directly contribute to lowering the overall cost of corporate financing for small and medium-sized enterprises, making it easier for these businesses to access the capital they need to thrive.

Moreover, the implementation of blockchain in financing can lead to a more efficient allocation of resources, as banks can better assess the creditworthiness of small and medium-sized enterprises with access to accurate and tamper-proof financial records. This can help banks make more informed lending decisions, potentially increasing the availability of loans for small and medium-sized enterprises and fostering a more inclusive financial ecosystem.

In conclusion, the integration of blockchain technology into the financial services industry has the potential to revolutionize the way small and medium-sized enterprises access financing. By reducing the costs associated with borrowing and increasing the transparency and efficiency of the lending process, blockchain can help level the playing field for small and medium-sized enterprises, providing them with the financial support necessary to drive innovation, job creation, and economic growth.

4.2 Optimize the financing environment, enhance corporate credit awareness

In the context of China's market economy, credit is one of the essential intangible assets for enterprises, providing direct or indirect guarantees for their financing. However, due to the weak integrity concepts and poor credit awareness in financing, operations, and financial management among many small and medium-sized enterprises, they have neglected the necessity of building a good social credit system, lacking necessary integrity files, resulting in incomplete credit records. Consequently, they do not possess the credit qualifications that financial institutions like commercial banks particularly value, making it difficult to gain their trust and secure financing. For instance, Zhengzhou Commercial Bank, which focuses on serving the Zhengzhou regional

economy, has provided more than 40% of small loans to small and medium-sized enterprises in Zhengzhou. However, during the period from 2018 to 2020, its non-performing loan ratio has consecutively reached over 2%, with the total amount of non-performing loans even reaching 4.645 billion yuan. This not only puts Zhengzhou Commercial Bank in a significant financial crisis and greatly increases its operational risks but also leads to a credit crisis among small and medium-sized enterprises, revealing their weak credit awareness and laying a deep hidden danger for their financing dilemmas.

By utilizing blockchain technology, each node can verify the content of the ledger, constructing a true and complete historical record, which significantly achieves accountability for economic actions. This ensures that all participants in economic activities receive credible and authentic information about the operational status of enterprises, largely eliminating the interference of false information, thereby achieving "mutual trust" and reducing the credit risk of the system. With its decentralized nature, blockchain technology can establish an open, searchable distributed network for banks, ensuring that all transaction data within it is transparent and shareable. Its characteristic of transparency also allows all participants in economic activities to understand the rules concerning the matters, enabling all involved parties to jointly witness and supervise transactions. Under such circumstances, relevant departments can also increase penalties for illegal and non-compliant behaviors of small and medium-sized enterprises and strengthen the crackdown on dishonest behaviors such as maliciously evading financing debts, jointly constructing a trustworthy business environment and a social credit environment.

4.3 Expand financing channels, solve the single financing structure

The primary avenues for financing available to businesses encompass a range of options such as bank loans, equity financing, bond financing, financing leases, and foreign financing. However, in China, the financing of small and medium-sized enterprises (small and medium-sized enterprises) remains predominantly reliant on bank credit. This reliance creates a "path dependence" on the indirect financing-oriented system that is prevalent in China, which is characterized by a heavy reliance on debt financing through banks rather than equity financing through capital markets. This single-structure financing model limits the diversification of funding sources for small and medium-sized enterprises and hampers their ability to explore alternative financing channels.

A central bank survey indicates that an overwhelming 98.7% of small and medium-sized enterprises financing is sourced from banks. This statistic highlights a growing phenomenon of "polarization" within the small and medium-sized enterprises sector: while profitable small and medium-sized enterprises are sought after by financiers and are considered attractive investments, those lacking substantial financial security and with smaller scales are often deemed too risky. These less fortunate small and medium-sized enterprises are frequently met with rejection from banks, which cite their inability to meet the stringent guarantee conditions as the reason for denying loans.

The stringent regulation of corporate bond issuance further complicates the landscape for small and medium-sized enterprises. The capital market, which could potentially offer an alternative source of financing through stock issuance, is largely inaccessible to small and medium-sized enterprises due to the high barriers to entry. The listing requirements for stock exchanges are particularly onerous, preventing the majority of small and medium-sized enterprises from going

public and raising funds through this avenue. Although the introduction of the New Third Board market was intended to mitigate the financing challenges faced by small and medium-sized enterprises, it has not been a panacea. The majority of small and medium-sized enterprises still do not meet the criteria for listing on the New Third Board, and even those that do manage to list often fail to secure significant transactions or financial support.

In light of these challenges, many small and medium-sized enterprises are left with the option of internal financing or turning to private lending. Internal financing, which involves funding from the company's own resources or reinvestment of profits, may not be sufficient to cover the operational and production needs. As a result, private lending has become a popular choice for small and medium-sized enterprises. This method of financing is appealing due to its speed and simplicity; it bypasses the complex approval processes and bureaucracy associated with traditional banking and regulatory frameworks. However, this convenience comes at a steep price, with interest rates for private loans often being significantly higher than those of conventional bank loans.

The high cost of private lending can place a considerable burden on small and medium-sized enterprises, potentially stifling growth and limiting the company's ability to invest in expansion or innovation. Moreover, the lack of a formal regulatory framework around private lending can also expose small and medium-sized enterprises to additional risks, including usurious lending practices and potential disputes over loan terms.

To address these issues, there is a growing consensus that the financing ecosystem for small and medium-sized enterprises in China must evolve. This evolution could involve the development of more inclusive regulatory policies that encourage a diversity of financing options, the expansion of the New Third Board to accommodate a broader range of small and medium-sized enterprises, and the promotion of financial literacy and advisory services to help small and medium-sized enterprises navigate the complex world of financing. Additionally, the integration of innovative financial technologies, such as blockchain and peer-to-peer lending platforms, could provide small and medium-sized enterprises with more accessible and cost-effective financing solutions.

In conclusion, while the current financing landscape for small and medium-sized enterprises in China is dominated by bank credit and beset with challenges, there are opportunities for reform and innovation. By addressing the path dependence on traditional financing models and fostering a more diverse and inclusive financing ecosystem, it is possible to create a more conducive environment for the growth and success of small and medium-sized enterprises, which are vital drivers of economic development and employment in the country.

5.Conclusion and Suggestion

This paper, combined with actual case studies, analyzes the financing dilemma of small and medium-sized enterprises in China. Based on an extensive literature review, it attempts to introduce blockchain technology to fundamentally solve this problem. The following conclusions are drawn:

Blockchain technology is a rapidly developing emerging technology that has greatly changed the current financing situation of enterprises in China, addressing most of the potential issues in the

financing process. The key to using new technology, especially applying blockchain technology to solve the "bottleneck" of funds between banks and small and medium-sized enterprisess, lies in transforming originally asymmetric information into controllable information through technical, methodological, and operable means, and turning the originally flawed credit system into a more precise and transparent credit assessmall and medium-sized enterprisesnt system.

Firstly, the excessive reliance of small and medium-sized enterprisess in China on bank loans leads to a single source of funds. Establishing a sound credit system can broaden the company's sources of funds, making the company's financing structure more diversified. The distributed ledger technology of blockchain can integrate the fragmented data between originally dispersed and separated businesses, allowing each user to search and maintain information, enabling public sharing of information among different participants. It can also help small and medium-sized enterprisess attract more potential partners, unify and efficiently organize market resources, and ensure high credibility, which is conducive to small and medium-sized enterprisess obtaining more financing channels.

Secondly, there is a serious problem of information asymmetry in the financing process of small and medium-sized enterprisess in China. Banks are often at a disadvantage in terms of information, and the lack of transparency of small and medium-sized enterprisess in credit information will increase this asymmetry, which often leads banks to doubt risks, resulting in banks being reluctant to lend to small and medium-sized enterprisess. With the help of blockchain technology, the transaction data and records of enterprises are open and transparent. Therefore, when enterprises apply for loans, banks can conveniently collect credit data and asset conditions related to the enterprise. Compared with the conventional financing model, enterprises do not need to prepare cumbersome proof materials to be sorted out by banks, which greatly shortens the approval speed of banks and other fund providers, thereby greatly improving the efficiency of financing.

Thirdly, due to the lack of good credit awareness and professional talents, most small and medium-sized enterprisess find it difficult to bear the costs required for financing. In the current era of big data, establishing a new type of credit platform based on blockchain technology can effectively solve many of the deficiencies in the government's establishment of the credit system, creating a safer and more stable environment for all participants in investment and financing, thereby strengthening the supporting role of credit and reducing financing costs.

The integration of blockchain technology into the financial sector presents a unique opportunity for small and medium-sized enterprisess to overcome the traditional barriers to financing. The decentralized nature of blockchain allows for the creation of a more inclusive and transparent financial ecosystem, where small and medium-sized enterprisess can access a wider range of financing options with reduced reliance on traditional banking systems. This can lead to a more level playing field, where small and medium-sized enterprisess can compete more effectively for the capital they need to grow and thrive.

Moreover, the use of smart contracts on blockchain platforms can automate and streamline the financing process, reducing the need for manual intervention and paperwork. This can significantly lower the administrative burden on small and medium-sized enterprisess and financial institutions, leading to faster and more efficient financing transactions. The automation

of contractual agreements also reduces the risk of human error and fraud, further enhancing the security and reliability of the financing process.

Another significant advantage of blockchain technology in the context of small and medium-sized enterprises financing is its ability to enhance the credibility of small and medium-sized enterprisess through the provision of a verifiable and immutable record of transactions and financial data. This can help to build trust between small and medium-sized enterprisess and potential investors or lenders, as the blockchain provides an auditable trail that can be used to assess the creditworthiness of the enterprise. The transparency afforded by the blockchain can also help to mitigate the information asymmetry that is often a barrier to financing for small and medium-sized enterprisess, as all parties have access to the same set of information.

In addition to these benefits, blockchain technology can also facilitate the development of new financing models, such as tokenization and initial coin offerings (ICOs), which can provide small and medium-sized enterprisess with alternative sources of funding. These models leverage the blockchain to create digital tokens that represent ownership or rights to assets, allowing small and medium-sized enterprisess to raise capital through the issuance of these tokens to investors. This can open up new avenues for small and medium-sized enterprisess to access funding from a global investor base, potentially reducing the cost of capital and increasing the speed at which they can secure financing.

The potential of blockchain technology to transform the financing landscape for small and medium-sized enterprisess is immense. However, for this potential to be realized, there must be a concerted effort from all stakeholders, including government agencies, financial institutions, and small and medium-sized enterprisess themselves. Policymakers must create a regulatory environment that fosters innovation while ensuring consumer protection and financial stability. Financial institutions must be willing to explore and adopt new technologies, and small and medium-sized enterprisess must be educated on the benefits and potential applications of blockchain in their financing strategies.

In conclusion, the introduction of blockchain technology offers a transformative solution to the financing challenges faced by small and medium-sized enterprisess in China. By addressing the issues of information asymmetry, enhancing transparency, and providing new financing models, blockchain has the potential to significantly improve the accessibility and efficiency of financing for small and medium-sized enterprisess. As the technology continues to mature and gain wider adoption, it is expected to play an increasingly important role in the economic development of small and medium-sized enterprisess, contributing to the overall growth and prosperity of the economy.

The research presented in this paper is a call to action for all stakeholders to embrace the potential of blockchain technology and work together to create a more inclusive and efficient financing ecosystem for small and medium-sized enterprisess. By doing so, we can help to ensure that these vital enterprises have the support they need to flourish, driving innovation, job creation, and economic growth.

In recent years, the research on blockchain by various enterprises in China has been progressing steadily, and it is unanimously believed that its development potential is huge. Therefore, how to

use blockchain technology reasonably and give full play to its effectiveness is an important topic in the current research stage of various fields. It is not difficult to see from the relevant materials that abroad, blockchain technology has been widely applied in various industries, which also shows that the research of this paper is meaningful and feasible. As the global community continues to explore and implement blockchain solutions, the findings of this paper will contribute to the growing body of knowledge on how to harness this powerful technology for the benefit of small and medium-sized enterprisess and the economy at large.

References

Wang Zhenzhen. Discussion on the Application of Blockchain Technology in small and medium-sized enterprises Financing [J]. National Economic Circulation, 2020(19): 146-149.

Xue Yuzhe, Zhang Mingyuan. Analysis of the Financing Dilemma of small and medium-sized enterprises in China and Countermeasures - Learning from the German small and medium-sized enterprises Financing Framework [J]. Southwest Finance, 2020(2): 18-30.

Ge Tiantian, Hu Linke. Research on New Ideas and Risk Prevention of Blockchain Technology Promoting Supply Chain Finance - From the Perspective of small and medium-sized enterprises [J]. China Collective Economy, 2020(30): 102-103.

Mougayar W. Working as a layer on top of the internet, blockchain is an instrument of change. 2016.

The Economist. The blockchain in finance: Hype springs eternal [J].

Narayanan A,Bonneau J,Felten E ,et al.Bitcoin and cryptocurrency technologies.A comprehensive introduction.[M].Princeton University Press,2016.

Hofmann E,Strewe U M,Bosia N.Discussion—How Does the Full Potential of Blockchain Technology in Supply Chain Finance Look Like?[J].2018,10.1007/978-3-319-62371-9(Chapter 6):77-87.

Zhang, Rui. Digital currency Libra: Connotations, impacts, and future prospects prospect. Southern Finance, 2019, 000(009): 12-19.

Zhang Rong. Blockchain Finance: Structural Analysis and Prospects [J]. Southern Finance, 2017,000(002):57-63

Tang, Yifu. The integration of blockchain technology into the financing guarantee trust enhancement pathways and their research on paths. Journal of Southwest University of Political Science and Law, 2020, v.22; No.129(03): 130-139.

John,Haynes.Risk as an Economic Factor[J].Quarterly Journal of Economics,1895.

Salop S,Stiglitz J E.The Theory of Sales: A Simple Model of Equilibrium Price Dispersion with Identical Agents[J].American Economic Review,1982,72.

Zhao Quanhou, Huang Rong. Learning from International Experience in Policy-based Financing Guarantee for Small and Medium-sized Enterprises [J]. Local Finance Research, 2019,000(006):106-112.

Liang Junfeng, Zhao Liang. The Current Development Status of China's small and medium-sized enterprises Credit Guarantee System and Learning from Foreign Experience [J]. Reform and Strategy, 2017(05): 172-175.