Application of Blockchain in Targeted Poverty Alleviation

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Abstract: The year 2020 will be a decisive year in China's fight against poverty. At the current stage of poverty alleviation, there are still some problems, such as information asymmetry among subjects, high costs, and difficulties in advancing and withdrawing funds. Block chain technology, due to its characteristics of non-tamper and real-time traceability, plays a positive and important role in optimizing targeted poverty alleviation, improving the transparency of fund use, and strengthening the overall arrangement ability of government departments.

1. INTRODUCTION

Since the tenth national congress of the communist party of China (CPC), the number of poor people in China has been decreasing by more than 10 million per year, leaving about 6 million people in poverty by the end of 2019. In a decisive year, we must not only monitor and help newly impoverished people, but also establish a long-term mechanism to address poverty, so that those already lifted out of poverty will not return to poverty. At present, the party and government have implemented targeted poverty alleviation strategies, making poverty alleviation work more focused and efficient. Only by accurately identifying the poverty situation and the actual needs of the poor population can we truly get rid of poverty. Traditional financial support relies on the extension and distribution of physical outlets, which makes it difficult to update information timely. Moreover, the high economic cost is not conducive to the development of poverty alleviation [1]. How to solve the problem of capital cost and timely update the information is the current research direction of financial support for poverty alleviation. In recent years, block chain technology has shown unique advantages in transaction cost saving, intelligent data processing and real-time supervision. Block chain technology is used to accurately identify, support and effectively withdraw from the system of targeted poverty alleviation. At the same time, government policies, funds, management and supervision are all involved in the blockchain, contributing to the great cause of poverty alleviation in the new era.

1. 1.The importance of blockchain for targeted poverty alleviation

1.1.1.block chain technology improves targeted poverty alleviation
The primary goal of precision poverty alleviation is to identify the people who are alleviating poverty. Relevant problems can be solved by combining blockchain with big data technology [2]. First of all, all personnel information shall be standardized and input into the block chain recognition system, and other relevant data of poverty causes, such as savings, medical care, tax and other privacy indicators, shall be combined to determine the poverty degree of the object and the need for assistance. When the information is uploaded, the cost of counterfeiters is essentially increased because of the immutability of the blockchain. In case of data fraud, relevant responsible subjects can be held accountable by tracing back to the source through the block chain, ensuring the authenticity and reliability of targeted poverty alleviation. Blockchain technology can eliminate the information asymmetry between relevant government departments and the objects of assistance. All kinds of information of the objects are screened and compared in the database, so as to timely and accurately identify the objects with real financial needs.

1.1.2.Blockchain technology reduces poverty alleviation costs
Traditional poverty alleviation work will inevitably in the investment, allocation, and use of funds due to issues such as staff cognition and work ability. Relying on blockchain technology, it can effectively match the funds of poverty alleviation projects. The effective implementation of various

financial poverty alleviation policies is conducive to solving the problem of high input cost caused by the wide coverage of financial resources in the process of poverty alleviation, so as to realize the combination of social benefits and economic benefits in financial poverty alleviation.

1.1.3.blockchain helps to manage capital flow

Blockchain technology can realize the whole process management of financial poverty alleviation, and the whole process management, tracking and supervision of poverty alleviation information. It provides financial institutions with the means to control risks and judge the effect of financial poverty alleviation, so as to form effective synergy among all parties involved in financial poverty alleviation. Block chain enables all participants to join the system with equal status, realizing the openness and transparency of project information. Secondly, the targeted work of poverty alleviation at the grassroots level can be promoted through the evaluation of rewards and punishments on the realization degree of poverty alleviation targets. According to the actual situation of poverty alleviation targets, the supporting measures of poverty alleviation targets can be adjusted dynamically.

2. Suggestion on How BlockChain Can Help Alleviate Poverty

2.1. Multi-party cooperation to increase support and policy support

Local governments take the lead, and cooperate with government service departments, financial institutions, and third-party public institutions to jointly explore the appropriate local blockchain support system. It is used for the identification of poverty alleviation targets, the use of funds and performance evaluation. The government will step up policy support and implementation, and provide financial subsidies to financial institutions and enterprises that develop "block chain + targeted poverty alleviation" technology. Promote the construction of Internet infrastructure in poverty-stricken areas, and provide basic support for the application of "block chain + targeted poverty alleviation" scenario.

2.2. Promote the applied research of "block chain + targeted poverty alleviation"

Financial institutions and related enterprises are encouraged to increase investment in relevant research areas. The application technology research and development of "block chain + targeted poverty alleviation" will be included in the research scope of the government's key funding, providing support for the development and promotion of the application scenario of "block chain + targeted poverty alleviation". At the same time, the "Blockchain + Precision Poverty Alleviation" principle will be promoted after piloting [3]. Relevant regions are encouraged to submit advanced experiences, and once the application conditions are mature, they can be gradually promoted throughout the country.

2.3. Formulate fund management processes to help poverty alleviation

All kinds of social capital should be guided and encouraged to achieve effective docking with financial institutions and enterprises in the technology development of "blockchain + precision poverty alleviation" application scenarios. Relevant departments will improve investment and financing models for R&D and application, and provide long-term financial support for "block chain + targeted poverty alleviation". At the same time, efforts will be made to support the cultivation and development of industries in poverty-stricken areas, and the training of existing regional chain technology R & D and application personnel will be strengthened.
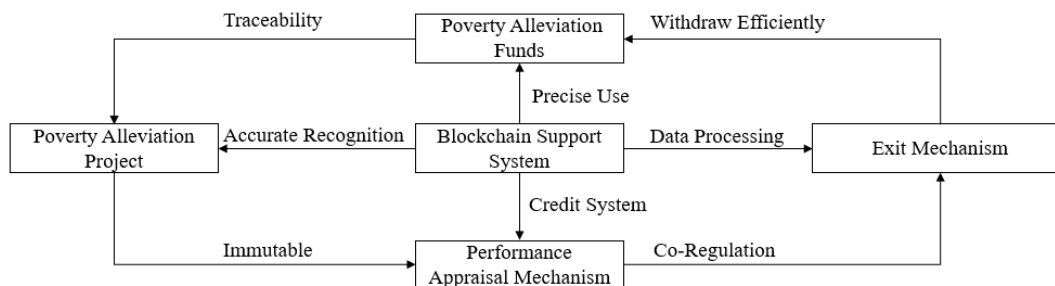
Figure1 The application of blockchain in poverty alleviation

3. Challenge of Applying BlockChain to Poverty Alleviation

Blockchain has great advantages in the application of targeted poverty alleviation, but it needs a long process of adaptation due to the acceptance, understanding and application of new Internet technologies. The investment in the early stage is also a big cost, and the large-scale infrastructure construction will also bring some pressure to the financial department [4]. It is also a challenge to ensure the smooth operation and docking of the interfaces involving all participants. Faced with the rapid development of block chain technology and the expanding application fields, the existing practitioners are obviously insufficient, and interdisciplinary talents are in short supply. Cadres with rich experience in poverty alleviation should be given short-term centralized training to strengthen technical learning and quickly adapt to the application of block chain technology in the development of targeted poverty alleviation. With the rapid development of blockchain technology, traditional regulatory concepts and methods are difficult to adapt to the development requirements of the blockchain. The technical features of blockchain can effectively protect the openness, transparency and authenticity of data between the government and poor households, but it is also easy to leak in the process of data broadcast across the Internet. Therefore, government regulation and legal regulation need to be strengthened.

4. Conclusion

In recent years, China has made remarkable achievements in poverty alleviation. The application of block chain technology in poverty alleviation work in the new era is conducive to the efficient identification of poor population, the reduction of capital cost, and the effective management of capital advance and retreat and other processes. At the same time, there are many challenges in the process of advancing the blockchain. Therefore, the characteristics of different regions should be combined to improve the operability of poverty alleviation. Relevant departments should also increase investment in research on blockchain technology for targeted poverty alleviation so that blockchain technology can truly serve poverty alleviation.

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