

Research on Wenzhou Industrial Upgrading based on Blockchain Technology

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Abstract

If Wenzhou is to strive to become a demonstration area for the digital transformation and development of traditional industries in China, it is necessary to seize the opportunity for the development of blockchain technology and vigorously promote blockchain technology to land in Wenzhou's traditional industries. However, there is no real effective docking of traditional industries of blockchain products, the lack of effective drivers of technology landing, technical professionals difficult to introduce, the initial data authenticity difficult to confirm the outstanding problems. Based on the analysis of the above-mentioned problems, this paper puts forward some countermeasures to speed up the layout of blockchain technology in Wenzhou's traditional industries.

Keywords

Blockchain, Industrial Upgrading, Countermeasure.

1. Introduction

Blockchain technology is considered to be the 5th subversive computing paradigm after large computers, personal computers, the Internet, and mobile social, and the fourth milestone in the history of human credit evolution, after blood-relative credit, precious metal credit, and central bank paper credit. Using blockchain technology, it can reduce the cost of industrial clusters, improve efficiency, optimize the environment of industrial integrity, improve the management mechanism of industrial clusters, and promote the transformation and upgrading of traditional industries. On November 9, 2018, the Wenzhou Municipal People's Government publicly released the Wenzhou Digital Economy Five-Year Multiplier Implementation Program, which proposed to seize the window period of opportunity for the development of blockchain technology and promote the development of Wenzhou blockchain application industry chain. The Program focuses on the application of blockchain in finance, product anti-counterfeiting traceability, credit system construction, smart city, intelligent manufacturing, etc., and uses the characteristics of blockchain distributed decentralization to build blockchain application industry system. Therefore, blockchain technology has important application prospect and research value in promoting the transformation and upgrading of traditional industries.

From the perspective of blockchain technology, this paper analyzes the advantages of blockchain technology and the main problems of blockchain technology in traditional industries, and puts forward suggestions to speed up the layout of blockchain technology in Wenzhou's traditional industries.

2. The advantages of blockchain technology

Blockchain is one of the most popular technology concepts available. Institutions such as the United Nations and the International Monetary Fund, as well as a number of developed countries, have published a series of reports on blockchain technology and its applications. At home, BAT as the representative of the Internet giants in recent years have issued white papers, invested heavily in blockchain technology research and development and application promotion. The explosive growth of cryptocurrencies such as Bitcoin, which is closely tied to blockchain, has attracted many investors.

According to statistics, the total market value of domestic cryptocurrencies has exceeded 5 trillion yuan, daily trading volume of more than 500 billion yuan, the scale of direct pursuit of A shares.

Decentralization, openness and non-tamperability are the core advantages of blockchain technology, which determine that blockchain technology has a wide range of applications. As long as there is a multi-party involvement and lack of trust between them, there is the possibility of adopting blockchain technology to solve this problem. Blockchain is a new technology that can disrupt and reconstruct the world. It can solve the problem of information asymmetry in the process of economic development, as well as the difficulties of high communication costs and trust between strangers. Blockchain decentralization, with non-tamperable characteristics, chain enterprises and individual developers can easily be chained, so that their products and services become reliable, open, transparent, traceable characteristics, can greatly improve business efficiency.

The financial world is a major scenario for blockchain technology applications because blockchain technology can effectively reduce the cost of trust building and delivery, increase efficiency, and significantly reduce regulatory and audit costs. Blockchain technology is not only related to financial tracking and management, but may also be applicable to the need for personal identification, peer review, and commercial transactions. It can reduce asymmetries between people in information, increase transparency, and ultimately help build trust. Although the technology is now easier to use than ever before, more research and exploratory development are needed to translate blockchain into real value in many industries.

3. The main problems of blockchain technology in Wenzhou's traditional industries

3.1 Lack of blockchain products that can truly serve traditional industries

Blockchain has been successful in many fields such as finance, e-commerce, copyright protection, cross-border payments, and digitalization of assets. But in the traditional manufacturing industry we have not yet seen the appropriate blockchain products landing. There are three main reasons for this. First of all, enterprises generally equate Bitcoin with blockchain, they think that blockchain is the currency speculation, traditional manufacturing enterprises generally lack of awareness of blockchain technology, enterprises for manufacturing information, financial security considerations are not willing to use the technology. Second, most enterprises do not yet have the power to carry and operate the public chain, because the simplest small public chain needs to invest at least tens of millions, and not necessarily solve the related problems. In the traditional industries, small and medium-sized enterprises are the majority, the general level of enterprises is not high, the profit are small, if blockchain products can not produce immediate effect, enterprises will not invest. Finally, the core business of traditional manufacturing enterprises is mainly offline, and only the main business escloseand and online enterprises will have more momentum to introduce blockchain technology, and the reality is that few such enterprises are.

3.2 Lack of effective blockchain technology drivers

Blockchain has the typical characteristics of "decentralization". It uses distributed storage and algorithms to achieve the same rights and obligations of the entire network node, the data in the system is basically maintained by the entire network node, so that the blockchain no longer relies on the central processing node to achieve distributed data storage, recording and updating. Then, its decentralization characteristics will most likely weaken the industry's leading enterprises in the central position, and even subvert the status quo of the entire industry. We know that the industry's leading enterprises in the industrial chain generally dominant, meaning that its product innovation, information, brand has been in the center of the industry, leading enterprises worry that the application of blockchain technology will make it lose its voice in industry competition, naturally unwilling to decentralize, but will likely resist the technology in the industry landing. Blockchain technology can also quickly build mutual trust in the industrial chain, without having to work as hard to build up their own reputation, as in the past, leading enterprises in the industry to establish a reputation will be less

effective. Then the leading enterprises have all kinds of opportunities, power, scale of the industry leadership will be weakened. As the industry's second or third place, in order to enhance their voice in the industry, but there will be greater momentum to promote the landing of blockchain technology.

3.3 Difficult to introduce Blockchain technology professionals

Today, blockchain professionals are generally in short supply, and it's hard to find a suitable CTO for millions of dollars a year. The main reason is that the existing professionals are mainly concentrated in universities and research institutes, these experts generally work with people in some markets to do the public chain, or in the past in the enterprise to do public chain projects of the core personnel out to start a business to do the public chain. Blockchain developers are mainly concentrated in the central cities such as the North, such as software companies and Internet giants, because traditional industries still lack the application of blockchain technology, the introduction of professionals, retention are very difficult. In addition, enterprises must introduce talents in accordance with Wenzhou City" on the high-level construction of talent ecological optimal city 40 opinions, in order to enjoy the individual talent award, housing subsidies, children attend school and other series of preferential policies support. Enterprises urgently need technical, skill-based and applied professionals, while the existing talent introduction policy is biased towards theoretical research-oriented talents, lack of effective communication and docking with enterprises, resulting in the existing talent policy and the actual needs of enterprises out of touch, which is not attractive to industry leaders and excellent teams. And Wenzhou and Hangzhou, Shanghai and other cities compared to the location advantage is poor, the overall business costs are higher, good educational resources are scarce, the lack of high-quality environmental support, which has a considerable constraint on the introduction of blockchain professionals.

3.4 The authenticity of the initial data is difficult to confirm

Blockchain technology allows you to establish cross-enterprise organization boundary books, including not only the traditional internal departments of the enterprise, but also the external members of the enterprise. Enable all enterprises in the supply chain, production chain, sales chain, such as suppliers, partners and other customers and supervision and management departments can fully understand all aspects of production and sales terminals, improve the safety and reliability of production and sales. In this case, blockchain is not only applicable to the enterprise, the enterprise and industry authorities to establish a chain of alliances, but also to establish alliance chain within the enterprise. However, blockchain technology does not guarantee the authenticity of the data initially entered, nor can it break through the constraints of the database itself. In fact, in addition to the information on the chain, the information on the chain must be reconfirmed. Because once the information is chained, it becomes an untamperable, full traceable trusted information stored. But how to ensure the authenticity of the initial chained information? However, there is still a lack of the corresponding industry standards and government authority certification to ensure the authenticity of the chain information, the relevant legal provisions are also out of the blank.

4. Countermeasures to speed up the layout of blockchain technology

4.1 Increase publicity efforts to enhance the awareness of enterprises

Blockchain technology is complex and highly specialized, and as a brand-new technology, it is difficult to realize the advantages of this technology without professional tutoring. As the key governance subject of traditional industry, the government, industry associations and core enterprises play a very important role in promoting industrial upgrading. Among them, the government should increase support, through the creation of publicity and communication platform to enhance corporate awareness, while formulating relevant preferential fiscal and tax policies to guide the promotion of blockchain technology in industrial clusters. Strive to launch more than 10 blockchain technology development forums every year, mining our city blockchain development typical cases and excellent models. Industry associations should play an active role in providing industrial information, blockchain technology consultation, blockchain technology personnel training for member

enterprises. The core enterprises in the traditional industry should also deal with the benchmark enterprises in the same industry, speed up the digitization of enterprise information, promote the application of blockchain technology in various practical scenarios inside and outside the enterprise, and promote the advantages of the same industry's small and medium-sized enterprises to recognize blockchain technology with practical actions.

4.2 Speed up the landing of blockchain technology in traditional industries

Speeding up the application of blockchain technology in Wenzhou's traditional industries is of great significance for building hundreds of billions of industrial clusters and guiding the development of high-end core industries. At present, all over the country are actively from the industrial height to locate blockchain technology, Wenzhou traditional industry must grasp this technology upgrade brought about by the new opportunities for industrial upgrading. First of all, we can combine the characteristics of blockchain technology de-centralization and de-trust, and study how blockchain system can prevent the information tampering of cluster enterprises with its own stable chain structure, guarantee the authenticity, integrity, traceability and security of transaction information inside and outside the cluster, and construct a cluster governance mechanism based on blockchain technology. Then combined with the key demand point of Wenzhou industrial upgrading, build the scene of blockchain technology landing application, attract the arrival and gathering of blockchain enterprises, attract more high-quality blockchain industry development resources, can introduce mature blockchain products and existing industries docking.

4.3 Increase the training of professionals

First of all, increase cooperation with blockchain professional companies in the Yangtze River Delta region, establish a high-level team of expert consultants, and hire relevant experts for wenzhou traditional enterprise information departments for blockchain technology professional training, enhance the existing technical personnel of enterprises blockchain professional skills. Secondly, increase the efforts of Wenzhou colleges and universities to train blockchain technology professionals, in all colleges and universities to open blockchain-related courses, training talents at all levels as soon as possible to meet market demand. At the same time to increase the recruitment of foreign excellent blockchain enterprises to Wenzhou landing, so as to introduce more blockchain professionals to warm up business, employment. In addition, policies to retain foreign blockchain expertise in housing, children's schooling and social environment must be implemented and strengthened.

4.4 Speed up the development of a system of institutional norms for the authenticity of the information on the chain

Government regulators, industry associations, professional third parties and other institutions are required to jointly establish incentives and penalties for providing unreal information, and to speed up the development of standard ways similar to ISO to ensure the authenticity of the information chain. However, in view of the current problem of the lack of the main body of blockchain market governance, the implementation and landing of the disciplinary mechanism still need the government to do, it is suggested that the government by the letter department to take the lead to coordinate the trade associations and professional third parties to establish a system of realty of the chain information. Drawing on the successful experience of blockchain technology applications, the government to develop relevant rules can ensure the effectiveness of policies, from the maximum extent to ensure the accuracy of the chain information.

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