Research on Digital Economy Model Based on Virtual Currency

Aizeerjiang Aisikaier^{1,a}, Du Ruimeng^{2,b}

¹Beijing University of Technology, Beijing, China ²China Agricultural University, Beijing, China ^a2350478039@qq.com, ^b1464600998@qq.com

Keywords: Artificial Intelligence; High Quality Development; Intelligent Service; Interactive Mechanism; User Satisfaction

Abstract: Artificial intelligence has entered the high-quality development stage with the coming of a new era. Due to the people-oriented development thought, this paper proposes a better way to meet the social demand for the intelligence industry. Based on the dynamic evolution of the development of artificial intelligence, this paper constructs a theoretical analysis framework according to the internal logic of intelligent development. It explains the development mechanism generated by the interaction mechanism of human-computer participation and feedback loop mechanism. From the perspective of the change and practice of artificial intelligence development, researchers continue to explore the possibility of moving towards intelligent, high-quality development. The purpose of the development of artificial intelligence is to provide society with services that meet the expected standards. In addition, the researchers are committed to continuously improving service quality and user satisfaction. Therefore, this paper puts forward a series of measures, including strengthening the control based on the internal cycle of service quality, constructing the interaction and feedback mechanism between users and intelligent service quality perception, and establishing an intelligent service evaluation system to realize the high-quality development of artificial intelligence, boost social progress and truly meet the needs of the people.

1. Introduction

The integration of virtual currency and digital economic models is one of the leading research directions in the field of contemporary economy, and it is also the key to understanding the future economy. Virtual currency is a crucial part of the digital economy. Its digital transformation not only promotes market trends but also significantly influences economic decision-making processes [1]. Since the advent of virtual currency, its relationship with the digital economy has become an essential indicator for judging the level of economic modernization. Unlike the traditional economic model, virtual currency focuses more on user demand, market dynamics, and technological innovation. Therefore, this study proposes a digital economy model based on virtual currency, aiming to provide a new theoretical perspective on the role of virtual currency in the digital economy.

Virtual currency originates from the digital economy. Its development fits the demand for economic modernization and is also a tool to promote economic transformation. From the structure perspective, virtual currency pursues economic efficiency and realizes economic modernization by combining technological innovation with market demand. However, it existed in the theory. Today, the practice of virtual currency in the digital economy has formed a unique development approach. The comprehensive promotion of virtual currency has changed the traditional economic model and reflected the direction of economic modernization. Furthermore, it will have a profound impact on the global economic landscape. To discuss the role of virtual currency in the digital economy, we must have an international and forward-looking vision and pattern. Therefore, this study proposes a digital economic model based on virtual currency.

In summary, virtual currency is the critical condition and guarantee for developing the digital economy model. From the current situation, virtual currency has made remarkable progress in the digital economy, but there are also many challenges and shortcomings. A practical path has yet to be

DOI: 10.25236/icamfss.2024.002

found, so experts are constantly exploring and working hard. It is of great significance for theoretical development to study the role of virtual currency in the digital economy. At the same time, it is the key to guide practice and meet challenges. This paper puts forward a digital economy model based on virtual currency. Through theory and demonstration, it is of great theoretical and practical significance to solve the problems of virtual currency in the digital economy and effectively deal with related risks [2].

2. The Integration of Virtual Currency and Digital Economy Will Achieve New Economic Changes

2.1 The Digital Transformation of Virtual Currency Content

The "integration" of virtual currency and digital economy has developed in parallel with internet technology, which reflects the digitalization concept and shows the digital economy's forward-looking orientation. At the same time, it reflects the digital strategy under the influence of internet technology and economic form. However, when we use some traditional economic standards to determine the definition and essence of virtual currency, it isn't easy to get a unified understanding. The core of this digital transformation of integrated entities lies in how virtual currency interacts with the traditional economic system and how interaction promotes transforming and upgrading the financial structure.

2.2 Virtual Currencies, Market Trends and Economic Decisions

2.2.1 Analysis of User Needs and Experience Needs

Virtual currency is a concept developed from the traditional financial system, which contains the idea of decentralization, highlights the innovation orientation in the digital economy era, and reflects the evolution strategy in the economic field since the popularization of Internet technology. However, when we use traditional financial standards to construct the essence of virtual currency, it is still difficult to get universal recognition.

2.2.2 Market Trends Promote Economic Decision-Making

Market trends are an essential criterion for economic decision-making and a real-time expression of the financial situation. Economists and analysts discuss the definition of market trends from the perspectives of supply and demand, price fluctuations, consumer behavior, etc. In addition, some scholars believe that market movements represent the degree of economic vitality or an indicator of future trends. Because the market trend is forward-looking, it belongs to the science of optimizing resource allocation [3]. The research history of market trends can even be traced back to Adam Smith's theory, which mainly includes price mechanism, competitive strategy, and consumer preference analysis [4-5]. Moreover, the concept and theory of market trends are closely related to the healthy development of the market economy. Accurate market analysis allows governments and businesses to make more informed economic decisions. The main contribution of economic theory in the industrial revolution is to reveal the essential role of market mechanisms in the allocation of resources. Therefore, the concept of market trends initially focused on quantitative measurement based on market standards.

3. Challenges Brought by Virtual Currency and Digital Economy

3.1 Economic Chaos: The Excessive Influence of Virtual Currencies Causes Imbalances in the Economic System

The fundamental difference between virtual currencies and the digital economy lies in their technical characteristics. The regulatory standards and market rules are aimed at market stability, and their development primarily reflects technological innovation and market diversity. In the new framework of digital economy, supervision, market transparency, risk control and consumer protection are the core values and highest standards for the development of virtual currency. At

present, the diversity of virtual currency types and the difference in the market lead to the chaotic situation. Although technological innovation is remarkable, the supervision mechanism is still not perfect, and there is no effective self-regulation mechanism for virtual currency. Therefore, the "short board" of virtual currency has emerged, which has affected the stability and healthy development of the entire economic system. The excessive involvement of virtual currency causes the imbalance of the economic system as shown in Figure 1.

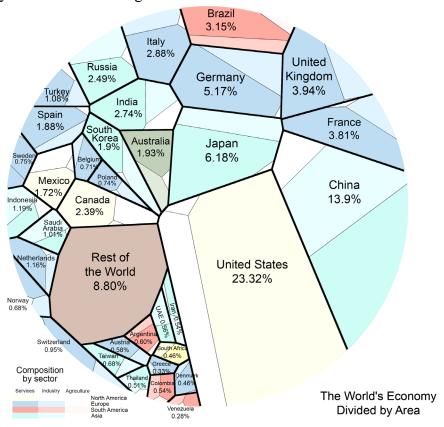


Figure 1 The excessive influence of virtual currencies causes imbalances in the economic system

3.2 The Economic Problem: The Virtual Currency over the Economic Operation

3.2.1 The Error of Economic Decision-making and the Deviation of Management

From the perspective of the decision-making dimension, virtual currency is the essential link of the digital economy and the core embodiment of economic decision-making [6]. Therefore, economic decision-making considers data analysis to be the leading generation logic. Virtual currency is the primary variable of economic decision-making and the core of information management. At this stage, economic decision-making strengthens information control from the data perspective. There are three primary forms: The first is a data-driven decision-making model. Virtual currency can achieve effective docking between economic decision-making and practical operation. The second is the formulation of informatization standards. Managers formulate data standards and regulatory standards and disclose these standards to the market to achieve standardized control of economic operations. The third is the reconstruction of information from the internal process. Information management has recently improved decision-making efficiency and management level using data. However, compared with the ideal state, the degree of informatization of economic decision-making needs to be further enhanced.

3.2.2 Cultural Grudges and Economic Risks

Virtual currency is a "double-edged sword" in cultural communication and economic development. In globalization, virtual currency is a standard and effective cross-border transaction tool that plays a vital role in the digital economy. As a result, virtual currency is not only an economic concept but also a cultural concept. Meanwhile, transactions based on "virtual currency" have become the cultural

communication mechanism of the digital economy. Generally speaking, the practical deduction is globalization gradually formed based on technology, which reflects cultural differences. From cultural communication to economic risks, virtual currency is closely related to global integration [7]. Researchers should devote themselves to using virtual currency to promote international trade and meet globalization requirements. However, the increasing cultural differences also bring a dilemma: culture invasion. In other words, virtual currencies need to adjust cultural communication and economic risks to some extent, and globalization, a vital issue in virtual currency management, needs further improvement.

3.3 The Birth of Derivative Risks under the Domination of Virtual Currency

3.3.1 Economic Risk

For risk management, the instability of virtual currency has long restricted the progress of economic risk management. Since the 21st century, virtual currency has integrated financial technology and has reshaped financial transactions through blockchain. However, the disadvantages of the traditional financial system restrict the broad application of virtual currency. Due to the influence of market fluctuation and insufficient supervision, the risk management of virtual currency needs to be improved. On the premise of financial innovation, virtual currency is regarded as a new way of monetary transaction. However, the actual control of economic risks by the trading mode based on virtual currency remains to be discussed. At the same time, the difficulty of technology realization leads people to need effective risk monitoring for virtual currency. Therefore, virtual currency only sometimes achieves the expected risk management objectives. It can be seen that virtual currency is not only a technical problem but also a risk management problem.

3.3.2 User Experience

From a user experience perspective, virtual currency cannot provide the comprehensive risk management that users require. The risks of virtual currency for users are mainly expressed in satisfaction ratings, but there is a lack of relevant risk information and early warning mechanisms. The core of this problem is a mismatched user experience. In the digital economy, virtual currency is usually described as "safe and reliable", and the user experience directly reflects its risk management ability. However, most information is about technical characteristics, and user experience data is rare. In general, user experience risk is difficult to measure. Asymmetric information and imperfect risk management directly hinder the user experience.

4. The Coping Strategies of the Development Process of Digital Economy Based on Science and Technology

4.1 Two-way Ascension: Getting Rid of Challenges

The development of virtual currency aims to build mechanisms and optimize systems to provide services to the digital economy that meet expectations. Researchers are also committed to risk management and user experience improvement. Although virtual currency is not a new topic, it combines various elements such as blockchain and big data in a technologically innovative way, outlining new dimensions of the digital economy and expanding the technical implications. It gives virtual currencies the value of combining financial transactions, risk management, and user experience. Virtual currency has successful practical exploration in decentralization, transparency, and risk control, which provides experience for the digital economy. In addition, compared with the requirements of theoretical construction and mechanism design and the development of the digital economy, the development of virtual currency should be further optimized and closely linked with risk management and user experience to meet the development needs of the digital economy.

4.2 Risk Sharing: System Optimization and Virtual Currency Governance

From the perspective of risk sharing, virtual currency is the key to optimizing the digital economy system and the core subject of risk management. Therefore, economic system optimization takes risk

sharing as the main generating logic. Virtual currency is the main factor of economic system optimization and the core of risk management. We strengthen virtual currency governance from the perspective of risk sharing. There are three primary forms: the first is the risk-sharing mechanism. Let virtual currency achieve effective docking between economic operation and risk management. The second is the formulation of governance standards. Standardized control of virtual currency governance is realized by formulating risk management and regulatory standards and making them public. The third is the optimization of the internal governance process. In recent years, managers have improved governance efficiency, risk prevention, and control by utilizing risk sharing. At the same time, compared with the ideal state, the risk-sharing in the current economic system needs to be improved further.

4.3 Cultural Return: Managing Virtual Currency and Enriching Personal Experience

As far as cultural integration is concerned, the development of virtual currency and digital economy is the "bridge" of cultural return. In globalization, virtual currency is an essential tool for promoting cultural exchanges, and it plays a bridge role in connecting various cultures. The practical conclusion is that globalization develops gradually, based on technology and reflecting cultural differences. From cultural communication to user experience, virtual currency is closely related to global integration. Researchers should devote themselves to using virtual currency to promote international trade and meet globalization requirements. However, the increasing cultural differences also cause a dilemma: culture invasion. In summary, virtual currencies need to adjust cultural communication and economic risks to some extent, and globalization, a vital issue in virtual currency management, needs further improvement.

5. Conclusion

The integration of virtual currency and digital economic models has promoted new economic changes, which pose challenges and requirements to the traditional economic model. Virtual currency is a symbol of the "modernization" of the digital economy and an essential means of economic transformation. Furthermore, it meets the urgent need of improving economic efficiency and maintaining market stability. It embodies the inherent requirements of economic modernization. Under this guidance, the integration of virtual currency and digital economy has established a theoretical analysis framework and practical mechanism. In recent years, modern information technologies such as artificial intelligence have facilitated the development of virtual currencies, and technological innovation has enabled economic transformation and the accuracy and science of decision-making. Its value fits the internal logic of the digital economy. Therefore, the digital economic model based on virtual currency provides a new method for high-quality economic development. In conclusion, the sustainable improvement and development of virtual currency will help to better cope with economic challenges, promote social progress, and meet the needs of the people.

References

- [1] Dibrova A. Virtual currency: new step in monetary development[J]. Procedia-Social and Behavioral Sciences, 2016, 229: 42-49.
- [2] Mikołajewicz-Woźniak A, Scheibe A. Virtual currency schemes—the future of financial services[J]. Foresight, 2015, 17(4): 365-377.
- [3] Nabipour M, Nayyeri P, Jabani H, et al. Predicting stock market trends using machine learning and deep learning algorithms via continuous and binary data; a comparative analysis[J]. Ieee Access, 2020, 8: 150199-150212.
- [4] Lungu M R, Brad I, Urlica A, et al. Adam Smith: about capitalism and the ethics that makes it possible[J]. Agricultural Management/Lucrari Stiintifice Seria I, Management Agricol, 2021, 23(2).

- [5] Patel N, Adelman D C, Anagnostou K, et al. Using data from food challenges to inform management of consumers with food allergy: a systematic review with individual participant data meta-analysis[J]. Journal of Allergy and Clinical Immunology, 2021, 147(6): 2249-2262. e7.
- [6] Galli B J. Economic decision-making in private corporations versus public sector: How to compare both sectors[J]. International Journal of Service Science, Management, Engineering, and Technology (IJSSMET), 2020, 11(1): 73-98.
- [7] Kwilinski A, Vyshnevskyi O, Dzwigol H. Digitalization of the EU economies and people at risk of poverty or social exclusion[J]. Journal of Risk and Financial Management, 2020, 13(7): 142.