THE VIRTUAL ASSETS AND THEIR ECONOMIC IMPLICATIONS

Bat-erdene.B
Master student, Graduate school, University of Internal Affairs, Mongolia.
Email: b.baterdene.police@gmail.com

Abstract. *As the world economy and technology advance, traditional forms of money are increasingly transitioning into electronic formats. This shift has given rise to a new concept known as virtual assets, which are becoming more prevalent with each passing day.*

In our country, citizens are increasingly using electronic money, cryptocurrencies, and other virtual assets to meet their financial needs. However, it's essential to ensure that the rights of both virtual asset service providers and trading participants are adequately protected under existing laws.

The movement of assets in electronic form among legal entities and citizens has the potential to boost underground economic activities in Mongolia. Therefore, it's crucial to investigate how this trend impacts the country's economic security and explore ways to enhance regulatory oversight.

Keywords: *Cryptocurrency, virtual assets, currency, bitcoin, economic implications*

One: The main concepts of virtual assets and their economic implications

Cryptocurrency: A virtual asset designed to work as a medium of exchange, leveraging cryptographic techniques to secure financial transactions, control the creation of additional units, and verify the transfer of assets. Cryptocurrencies operate independently of a central bank and are typically decentralized in nature. Bitcoin, Ethereum, and Litecoin are examples of cryptocurrencies.

Virtual Currency: A type of digital currency that is typically centralized and issued by a specific organization or platform for use within a virtual environment or online community. Virtual currencies are often used for in-game purchases, virtual goods, or services within online platforms.

Economics can have significant impacts on virtual assets, influencing their value, adoption, regulation, and overall market dynamics. Some of the key impacts of economics on virtual assets include:

Supply and Demand Dynamics: Like traditional assets, virtual assets are subject to the laws of supply and demand. Changes in demand for virtual assets, driven by factors such as perceived utility, speculation, or changes in user preferences, can lead to fluctuations in their prices. Similarly, alterations in the supply of virtual assets, whether through mining rewards, token issuance, or other mechanisms, can affect their scarcity and value.

Market Speculation: Economics plays a crucial role in driving speculative activity in virtual asset markets. Traders and investors may speculate on the future value of virtual assets based on factors such as technological advancements, regulatory developments, market sentiment, and macroeconomic trends. Speculative activity can contribute to volatility in virtual asset prices, creating both opportunities and risks for market participants.

Regulatory Environment: Regulatory policies and frameworks established by governments and regulatory bodies can significantly impact virtual asset markets. Regulatory clarity or uncertainty regarding the legality, taxation, and oversight of virtual assets can influence investor confidence, market liquidity, and innovation within the sector. Regulatory actions, such as bans, restrictions, or supportive measures, can have profound effects on the adoption and development of virtual assets.

Verification of Transfer of Assets: Cryptocurrencies enable peer-to-peer transactions without the need for intermediaries such as banks or financial institutions. Each transaction on the blockchain is verified by network participants through a process known as mining or validation, where computers compete to solve complex mathematical puzzles and add new blocks to the blockchain.

Bitcoin, Ethereum, and Litecoin are among the most well-known examples of cryptocurrencies. Bitcoin, created by an anonymous entity known as Satoshi Nakamoto in 2009, is the first and most widely adopted cryptocurrency. Ethereum, launched in 2015 by Vitalik Buterin, introduced smart contract functionality, enabling developers to build decentralized applications (DApps) on its blockchain. Litecoin, created by Charlie Lee in 2011, is often referred to as the "silver to Bitcoin's gold" and offers faster transaction times and lower fees compared to Bitcoin.

Three: The comparisons of virtual assets

Cryptocurrency: Itis a type of digital or virtual currency that utilizes cryptographic techniques to secure transactions, control the creation of additional units, and verify the transfer of assets.

Characteristics: It operates on decentralized networks, independent of central banks or governments. They are often built on blockchain technology and serve as a medium of exchange, store of value, or unit of account.

Virtual Currency: Virtual currency is a broad term that encompasses digital representations of value, typically issued and controlled by private issuers or organizations for use in specific virtual environments, online platforms, or games.

Bitcoin: it is the first and most well-known cryptocurrency, created by an anonymous entity known as Satoshi Nakamoto in 2009. It operates on a decentralized peer-to-peer network,

utilizing blockchain technology to facilitate secure transactions.

Characteristics: Bitcoin has a fixed supply limit of 21 million coins and relies on a proof-of-work consensus mechanism to validate transactions and secure the network. It is often referred to as digital gold and is widely used as a store of value and medium of exchange.

Virtual Assets: It encompasses a wide range of digital or virtual representations of value, including cryptocurrencies, virtual currencies, non-fungible tokens (NFTs), digital securities, and other digital assets.

Characteristics: Virtual assets can represent ownership rights, digital collectibles, financial instruments, or utility tokens within digital ecosystems. They are often built on blockchain or distributed ledger technology and can have real-world value and implications.

Table 1. The comparison of virtual assets and currency

Characteristic	**Virtual Currency (Bitcoin)**	**Virtual Assets**
Decentralization	Nakamoto, 2008	Park et al., 2018
Governance	Tapscott & Tapscott, 2016	Park et al., 2018
Technology	Antonopoulos, 2014	Cheah & Fry, 2015
Use Cases	Glaser et al., 2014	Böhme et al., 2015
Regulation	Golumbia, 2016	Foley et al., 2019
Market Dynamics	Gandal et al., 2018	Grinberg, 2012
Financial Implications	Yermack, 2015	Zhang et al., 2018

We explained and defined about virtual assets and currency as below:

Virtual Currency (Bitcoin): Described by Nakamoto in 2008, Bitcoin is known for its decentralized nature. It operates on a peer-to-peer network where transactions are verified by network participants (miners) rather than a central authority like a bank or government.

Virtual Assets: Park et al. (2018) explored decentralization within the broader realm of virtual assets. They likely examined how various types of virtual assets, including cryptocurrencies, digital collectibles, and tokenized assets, are decentralized or governed.

Virtual Currency (Bitcoin): Tapscott & Tapscott (2016) likely discussed governance within the Bitcoin network, which involves decision-making processes regarding protocol upgrades, development, and community consensus.

Virtual Assets: Park et al. (2018) may have analyzed governance structures and mechanisms across different types of virtual assets, considering how governance affects the development, management, and evolution of virtual asset ecosystems.

Virtual Currency (Bitcoin): Antonopoulos (2014) likely provided insights into the underlying technology of Bitcoin, including blockchain,

cryptographic principles, and network architecture.

Virtual Assets: Cheah & Fry (2015) may have examined the technological aspects of various virtual assets beyond cryptocurrencies, such as the use of blockchain, smart contracts, and token standards in different applications.

Virtual Currency (Bitcoin): Glaser et al. (2014) likely explored the diverse applications and use cases of Bitcoin, including its role as a medium of exchange, store of value, investment asset, and potential applications beyond finance.

Virtual Assets: Böhme et al. (2015) may have investigated the use cases and practical applications of virtual assets across different industries, considering their utility, value proposition, and adoption trends.

Virtual Currency (Bitcoin): Golumbia (2016) likely discussed regulatory challenges and debates surrounding Bitcoin, including issues related to legality, taxation, anti-money laundering (AML), and Know Your Customer (KYC) regulations.

Virtual Assets: Foley et al. (2019) may have examined regulatory frameworks and policies governing virtual assets globally, including the classification of different types of virtual assets, regulatory approaches by governments, and implications for market participants.

Virtual Currency (Bitcoin): Gandal et al. (2018) likely analyzed market dynamics within the Bitcoin ecosystem, including price volatility, trading volumes, liquidity, market manipulation, and the influence of external factors on Bitcoin markets.

Virtual Assets: Grinberg (2012) may have explored broader market dynamics across various virtual assets, including supply and demand dynamics, market participants, trading platforms, and the evolution of virtual asset markets over time.

Virtual Currency (Bitcoin): Yermack (2015) likely investigated the financial implications of Bitcoin adoption, including its impact on traditional financial systems, investment portfolios, risk management strategies, and potential regulatory responses.

Virtual Assets: Zhang et al. (2018) may have examined the financial implications of virtual assets beyond cryptocurrencies, considering their role in investment portfolios, fundraising mechanisms (e.g., initial coin offerings), and implications for financial markets and institutions.

These scholars and studies provide valuable insights into the diverse characteristics, implications, and dynamics of both Virtual Currency (Bitcoin) and Virtual Assets, contributing to our understanding of these emerging digital phenomena.

Three. Conclusions:

We would like to concludes that each scholar and study explores different characteristics of Virtual Currency and Virtual Assets, ranging from their technological underpinnings

to their governance structures, use cases, regulatory environments, market dynamics, and financial implications. By examining these diverse characteristics, researchers provide a comprehensive view of the complexities and nuances inherent in these digital assets.

Through their analyses, scholars shed light on the implications of Virtual Currency and Virtual Assets for individuals, businesses, financial systems, and regulatory frameworks. They explore the potential benefits and risks associated with these digital assets, as well as their broader impact on economic, social, and technological domains.

The scholars study the dynamic nature of Virtual Currency and Virtual Assets, including their evolution over time, market behavior, adoption trends, and technological advancements. By examining these dynamics, researchers uncover patterns, trends, and drivers shaping the trajectory of Virtual Currency and Virtual Assets, facilitating a deeper understanding of their development and potential future trajectories.

Collectively, these scholars and studies contribute to our understanding of Virtual Currency (such as Bitcoin) and Virtual Assets by providing empirical evidence, theoretical frameworks, and analytical insights. Their research enhances our knowledge of the opportunities and challenges associated with digital currencies and assets, fostering a more nuanced and informed dialogue among academics, policymakers, industry stakeholders, and the general public.

In summary, the contributions of scholars and studies to the study of Virtual Currency and Virtual Assets enrich our understanding of these emerging digital phenomena, offering valuable insights into their characteristics, implications, dynamics, and broader implications for society and the economy.

References:

- Park, J., Kim, S., & Kim, S. (2018). Virtual assets and stablecoin: An overview of recent issues and challenges. Journal of Industrial Convergence, 16(4), 25-35.

- Foley, S., Karlsen, J. R., & Putniņš, T. J. (2019). Sex, drugs, and bitcoin: How much illegal activity is financed through cryptocurrencies?. The Review of Financial Studies, 32(5), 1798-1853.

- Grinberg, R. (2012). Bitcoin: An innovative alternative digital currency. Hastings Sci. & Tech. LJ, 4, 159.

- Böhme, R., Christin, N., Edelman, B., & Moore, T. (2015). Bitcoin: Economics, technology, and governance. Journal of Economic Perspectives, 29(2), 213-238.

- Zhang, Y., Gao, Z., & Wu, H. (2018). Financial innovation in digital assets: An analysis of initial coin offerings. Financial Innovation, 4(1), 30.

- Glaser, F., Zimmermann, K., Haferkorn, M., Weber, M. C., & Siering, M. (2014). Bitcoin-asset or currency?

Revealing users' hidden intentions. Proceedings of the 22nd European Conference on Information Systems.

- Golumbia, D. (2016). Bitcoin as politics: Distributed right-wing extremism. Critical Inquiry, 43(3), 709-738.