Cryptocurrencies Market

Cryptocurrencies Market : A Basic Introduction

Raja Nabeel-Ud-Din Jalal, PhD

In 2008, Satoshi Nakamoto introduced Bitcoin, a peer-to-peer electronic transaction system that replaces paper and plastic money with crypto coins. The primary purpose of Bitcoin or any cryptocurrency is to cut out the middleman, the financial institution, and reduce the costs incurred by using a financial institution for transactions and payments.

Low transaction costs, peer-to-peer transaction networks, and decreased user control have all increased the overall popularity of cryptocurrencies, resulting in an explosive increase in market size. The rapid growth that was triggered by this event has led to volatile market conditions, rapid market speculation, and a group-think mentality in the market. The price of Bitcoin increased from $300 to $7,500 over the course

of 3 years before peaking in June of 2018. Frisby (2014) claimed that it appears that Bitcoin exhibits the characteristics of money, while offering additional benefits. A lot of market traders find the supply and demand volatility it has, along with its resiliency, divisibility, portability, and liquidity, to be attractive(Jalal and Leonelli, 2020; Jalal *et al.*, 2020; Jalal, Alon and Paltrinieri, 2021).

Several new cryptocurrencies have emerged in a short period of time, most of which also rely on blockchain technology. Examples include Ethereum (ETH) and Ripple (XRP). Ethereum uses advanced hardware that reduces the time needed to process transactions. Ripple supports the free transfer of different currencies. Although there are no significant differences in these currencies' underlying technology, various characteristics of each currency may affect their value, stability, and relationship with other cryptocurrencies.

Bitcoin dominates the cryptocurrency market and is the world's first digital currency. Between October 2016 and October 2017, blockchain's market capitalization grew from $10.1 billion to $79.7 billion, and prices have risen from $616 billion to $4800 billion (US dollars). This substantial increase of 680% gave investors returns per annum that no other investments could achieve.   Cryptocurrencies other than Bitcoin are commonly known as "Altcoins" (alternative coin). These altcoins are divided into two categories: (i) altcoin, which follows Bitcoin's open-source protocols with minor changes in the underlying codes and (ii) independent source protocols with independent distributed ledgers. Litecoin is one of the major altcoins in the first category, whereas Ethereum and Ripple are in the second category. Although altcoins are part of the cryptocurrency market, each of them has different characteristics. Some use Bitcoin protocols, and some use a completely different system, with centralized, decentralized,

pseudo-anonymous or completely anonymous PoW or PoS

mechanisms(Jalal, Alon and Paltrinieri, 2021). Table 1 identifies the

characteristics of the major cryptocurrencies. The top 10 of these such as

Bitcoin, Ethereum, Ripple, Bitcoin Cash, Litecoin, Stellar, IOTA, Cardano,

Monero, NEO and DASH are decentralized. Most of them can be converted

into stable fiat currencies. Most of these cryptocurrencies use smart

contracts for security purposes to protect the users and are pseudo-

anonymous in nature.

Table 1: Characteristics of Majorly Traded Cryptocurrencies

Name	Symbol	Centralized/ Decentralized	Smart contacts	Altcoin category	Pseudo anonymous/completely anonymous	Open/public permissionless blockchain/Public Permissioned blockchain	PoW Mechanism /PoS Meachanism	Acceptance as payment mode
Bitcoin	BTC	Decentralized	No	Parent source	completely anonymous*	Open permissionless blockchain	PoW Mechanism	Yes, and Convertible into fiat currency
Ethereum	ETH	Decentralized	Yes	Independent source code	Completely anonymous*	Open permissionless blockchain	PoW Meachanism, but moving to PoS.	Yes, and Convertible into fiat currency
Ripple	XRP	Decentralized	Yes	Independent source code	Pseudo anonymous	Public Permissioned blockchain for transaction	None, use own conseus meachanism	Yes, and Convertible into fiat currency

Bitcoin Cash	BCH	Decentralized	Yes	Bitcoin source code	Pseudo anonymous	Open permissionless blockchain	PoW Meachanism	Yes, and Convertible into fiat currency
Litecoin	LTC	Decentralized	No	Bitcoin source code	Pseudo anonymous	Open permissionless blockchain	PoW Meachanism	Yes, and Convertible into fiat currency
Stellar	XLM	Decentralized	Yes	Independent source code	Pseudo anonymous	Open permissionless blockchain	None, use own conseus meachanism	Yes, and Convertible into fiat currency
IOTA	MIOTA	Decentralized	Yes	Independent source code	Pseudo anonymous	Public Permissionless blockchain for transaction	PoS meachanism	Yes, and Convertible into fiat currency
Cardano	ADA	Decentralized	Yes	Independent source code	Completely anonymous	Open permissionless blockchain but can be permissioned	PoW Meachanism	Yes, and Convertible into fiat currency
Monero	XMR	Decentralized	Yes	Independent source code	Pseudo anonymous	Both	PoW Meachanism	Yes, and Convertible into fiat currency
NEO	NEO	Decentralized	Yes	Independent Source code	Pseudo anonymous	Public Permissioned blockchain for transaction	None, use own conseus meachanism	Yes, and Convertible into fiat currency

DASH	DASH	Decentralized	Yes	Independent Source code	Pseudo anonymous	Open permissionless blockchain	None, use own conseus meachanism	Yes, and Convertible into fiat currency

*But can be verifiable by connected the chains.

The lack of connectedness to any central or regional authority and ease of accessibility have made cryptocurrencies a global financial asset that can be accessed in multiple locations worldwide(Corbet *et al.*, 2019; Jalal, Alon and Paltrinieri, 2021). The decentralized nature makes cryptocurrencies easy to invest in, hacking, theft, unethical use, and the financing of terror are linked with cryptocurrencies and activities on the Dark Web. It would be interesting to see the impact of cryptocurrencies on market, and individual level.

References

Corbet, S. *et al.* (2019) 'Cryptocurrencies as a Financial Asset: A Systematic Analysis', *International Review of Financial Analysis*, 62. doi: 10.2139/ssrn.3143122.

Frisby, D. (2014) *Bitcoin: the future of money?* Unbound Publishing.

Jalal, R. N.-U.-D. *et al.* (2020) 'Herding Behavior and Cryptocurrency : Market Asymmetries ', *Journal of Asian Finance, Economics and Business*, 7(7), pp. 27–34. doi: 10.13106/jafeb.2020.vol7.no7.027.

Jalal, R. N.-U.-D. and Leonelli, S. (2020) 'Does self-attribution impact investor perception about cryptocurrency market efficiency? Mediating role overconfidence in the relation of self-attribution with perceived market efficiency', in *ITAIS2020: XVII CONFERENCE OF THE ITALIAN CHAPTER OF AIS - ORGANIZING IN A DIGITIZED WORLD: DIVERSITY, EQUALITY AND INCLUSION*. Available at: http://www.itais.org/ITAIS2020_proceedings/.

Jalal, R. N. U. D., Alon, I. and Paltrinieri, A. (2021) 'A bibliometric review of cryptocurrencies as a financial asset', *Technology Analysis and Strategic Management*. Taylor & Francis, 0(0), pp. 1–16. doi: 10.1080/09537325.2021.1939001.