



CRIPTOMOEDA COMO UM FENÔMENO SOCIOECONÔMICO CRYPTOCURRENCY AS A SOCIOECONOMIC PHENOMENON

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ABSTRACT

Objective: To explore the socioeconomic significance of cryptocurrency, identifying its key functions, features, characteristics, and the primary stakeholders representing the interests of the crypto industry.

Method: The study employed qualitative content analysis of sources from Scopus, Web of Sciences, and Google Scholar databases using the PRISMA algorithm to gather and analyze relevant information.

Results: The research identifies key stakeholders in the crypto industry representing different interest groups and proves that the functions of cryptocurrency are still taking shape. It highlights the positive socioeconomic characteristics of the market, including apoliticism, independence, freedom, reliability, and accessibility, which need critical reinterpretation.

Conclusion: The study suggests further research avenues for cryptocurrency, emphasizing the need for a critical reevaluation of its socioeconomic characteristics and functions.

Keywords: Cryptocurrency, Social significance of cryptocurrency, Assets, Legal regulation, Volatility, Transactions, Crypto owners.





RESUMO

Objetivo: Explorar a importância socioeconômica da criptomoeda, identificando suas principais funções, características, recursos e os principais interessados que representam os interesses da indústria de cripto.

Método: O estudo utilizou análise qualitativa de conteúdo de fontes dos bancos de dados Scopus, Web of Sciences e Google Scholar, utilizando o algoritmo PRISMA para coletar e analisar informações relevantes.

Resultados: A pesquisa identifica os principais interessados na indústria de criptomoedas representando diferentes grupos de interesse e prova que as funções da criptomoeda ainda estão se formando. Destaca as características socioeconômicas positivas do mercado, incluindo apoliticidade, independência, liberdade, confiabilidade e acessibilidade, que precisam de uma reinterpretação crítica.

Conclusão: O estudo sugere novas vias de pesquisa para criptomoedas, enfatizando a necessidade de reavaliação crítica de suas características e funções socioeconômicas.

Palavras-chave: Criptomoeda, Significado social da criptomoeda, Ativos, Regulação legal, Volatilidade, Transações, Proprietários de cripto.

INTRODUCTION

The capitalization of cryptocurrency is rapidly growing, and its influence on the global economy and the internationalization process of financial relations is inevitably rising (Yablonsky, 2000).

On the one hand, cryptocurrency has the potential to transform traditional financial systems and provide access to financial services to millions of people around the world, contributing to the development of industries and expanding job creation opportunities (Bhagat et al., 2024). Cryptocurrencies offer decentralized solutions that eliminate intermediaries and reduce transaction costs. This is especially important for developing countries where access to banks is limited and traditional financial institutions often cannot meet the population's needs.

On the other hand, blockchain technologies powering many cryptocurrencies open new horizons for managing data, contracts, and payments (Gurinovich et al., 2023; Stepanova et al., 2023). These technologies can increase the transparency and security of transactions, curb fraud and corruption, and improve the population's economic well-being (Kucharova & Pfeiferova, 2021; Almahasnah et al., 2024).





Apart from its financial significance, cryptocurrency is also beginning to fulfill a socioeconomic function in society.

Experts raise valid questions (Steinmetz & Von Meduna, 2021): Does cryptocurrency fulfill the basic functions of fiat money? What characteristic features distinguish it from traditional means of payment? What is the socioeconomic significance of the new virtual money?

Our study aims to examine the socioeconomic significance of cryptocurrency, highlight its main functions, features, and characteristics, and identify the stakeholders representing the interests of the crypto industry.

LITERATURE REVIEW

Researchers argue that in their technological refinement, cryptocurrencies have acquired additional socioeconomic significance (Au, 2023), contributing to the emergence of the crypto industry. Scholars note that cryptocurrency presents a new economic category, while economists believe that cryptocurrency is not money, but a financial asset whose functions are limited to the financial field (Giudici et al., 2020). Concurring with this position, researchers emphasize the function of cryptocurrency as a means of payment (Truby, 2018).

In developing the socioeconomic concept of cryptocurrency, researchers question whether cryptocurrency can be considered money in terms of its functions (Au, 2023). One of the functions of fiat money is a measure of value. The measure of value of money refers to the ability of money to measure the value of goods and services. The price of a good or service is expressed in money. In the case of cryptocurrency, it must be approached as a unit of account in the pricing of goods and from the standpoint of the cost of producing cryptocurrencies (Giudici et al., 2020). According to Saxo Bank (2024), the cost of mining a single bitcoin in 2023 was more than \$1,000. Thus, the function of cryptocurrency as a measure of value is just beginning to take shape and, while traditional calculations use the formula "money=goods", virtual money requires consideration of the costs of producing cryptocurrency.

Other important functions of fiat money are the ability to exchange it and make payments. In some countries, cryptocurrency is legalized and can be used to pay for goods (Truby, 2018). The use of cryptocurrency as a means of payment is hindered





by several factors: government bans on the use of cryptocurrency, volatility, lack of ATMs for transactions, high transaction fees, etc. Cryptocurrency can serve as a means of payment, but this requires several conditions. As for cryptocurrency exchange, statistics show that as of 2023, more than 55% of electronic wallets for storing cryptocurrency had exchange functions. Of these, 82% could exchange national currency for crypto assets. The remaining 18% were associated with credit services, thus making cryptocurrency involved in the exchange processes (Nikiforova et al., 2019).

The functions of fiat money are also connected with saving and accumulation. Cryptocurrency is saved in special wallets protected by passwords and access codes. There are several varieties of wallets, such as smartphone applications, carrier wallets, gadget wallets, storage on a personal computer, and online storage in the form of special online accounts. There is also an option to invest cryptocurrency using smart contracts and thus increase savings.

The functions of cryptocurrencies are still in their formative stages. So far, the functions of payment and saving are predominant. The function of accumulation and investment in the real economy is actively developing (Abdullaev & Khamraev, 2020). Finally, the function of global money is only just taking shape, although private cryptocurrency emerges instantly regardless of territorial boundaries. As a result, cryptocurrency acts as a monetary material, an asset similar to stocks and bonds, and a financial reserve.

It is reasonable to highlight the economic features of cryptocurrency closely tied to the technical and algorithmic features of cryptocurrency production. Cryptocurrency ownership is private, state ownership can arise only in case of issuance of state crypto coins. Cryptocurrency turnover is decentralized, meaning that the state, tax authorities, and banks have no control over cryptocurrency transactions, and electronic payments do not involve third parties. The value of cryptocurrency is materially secured at the expense of fiat money (Nakamoto, 2008).

Therefore, given its socioeconomic importance, cryptocurrency should be considered a new type of digital money not backed by the state authority (Aitimov et al., 2015). Moreover, the asset's safety is ensured by new mechanisms, such as blockchain and source software codes that determine the maximum issue volume of a cryptocurrency (Abdullaev et al., 2023).



METHODS

The primary methods included the content and comparative analysis of articles from Scopus, Web of Science, and Google Scholar and analytical reports.

Guided by the PRISMA analytical procedure, we selected 74 studies containing the keywords "socioeconomic importance of cryptocurrency", "cryptocurrency as a social phenomenon", "cryptocurrency as an economic category", and "cryptocurrency functions" for comprehensive analysis. The desk research systematized various points of view on the socioeconomic aspect of cryptocurrency and the characteristics of cryptocurrency and the cryptocurrency market. We analyzed the group of key stakeholders in the cryptocurrency market, which is important when investigating the social significance of cryptocurrency.

RESULTS

The comparative analysis showed the following features of cryptocurrency distinguishing it from fiat money (Table 1).

Table 1. Distinctive features of cryptocurrency

Feature	Description	References
Cashlessness	Cryptocurrency only comes in the form of non-cash or virtual money	Ben Dhaou & Rohman, 2018; Abramova, 2018; Ermolaev & Cheremisinov, 2020
Security	Due to the security of the asset, it cannot be blocked, seized, or withdrawn	Gagarina et al., 2019; Doria, 2020; Massó et al., 2021
Single-use	Unlike fiat currency, which can be used repeatedly, cryptocurrency can only be used once	Soloviev & Belinskiy, 2019; Caliskan, 2020
Anonymity	The owner of the asset and participants in transactions using cryptocurrencies remain anonymous	Meera, 2018; Chaykina et al., 2022
Liquidity	Cryptocurrency has high liquidity in the financial market	Miroshnichenko & Okminskaya, 2021; Huber & Sornette, 2022

As a result of our research, we identified the following socioeconomic approaches to the cryptocurrency market (Table 2).

Table 2. Main approaches to the cryptocurrency market as a socioeconomic phenomenon



Crypto market characteristics	Description	References
Apoliticism	The cryptocurrency market is apolitical, i.e., indifferent to political processes and social and political life	Nica et al., 2017; Laboure et al., 2021; Draheim et al., 2023
Freedom and independence	The cryptocurrency market is free, independent, and unencumbered by centralized control. It is decentralized and uses blockchain, which ensures transparency and security of transactions	Nica et al., 2017; Laboure et al., 2021; Draheim et al., 2023
Reliability	The crypto market is highly secure and protected from fraudulent activity and other risks, which is achieved through blockchain that protects transactions	Yaneva, 2020; Sharma et al., 2021; Laboure et al., 2021
Accessibility	The cryptocurrency market reduces global inequality, as citizens can buy cryptocurrency in terminals, websites, or anonymous networks	Aliyev, 2022; Obreja, 2024; Jackon, 2024

In highlighting the characteristics of the cryptocurrency market, we should draw attention to the direct market stakeholders or actors that shape the current form of the crypto industry. For this purpose, we highlighted the key stakeholders pursuing their interests in the market (Table 3).

Table 3. Key stakeholders of cryptocurrency

Stakeholder group	Description	References
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Cryptoproject founders	The founders of projects that pursue financial, socio-political, professional-technical, and research interests	Maciejasz-Świątkiewicz & Poskart, 2020; Saiedi et al., 2021
Investors	Investors who pursue financial interests contributing to the exploration of the prospects and opportunities of the new instrument	Mavrodiev et al., 2014; Sutanrikulu et al., 2020; Nurgaliyeva et al., 2023
Users	The users of monetary systems	Mukkamala et al., 2018; Jalal et al., 2021
Miners	The miners who produce cryptocurrency	Abramova et al., 2019; Soloviev & Belinskiy, 2019; Zaiets & Yeskov, 2021
Cryptocurrency exchanges	Crypto exchanges providing intermediary services	Onyeke, 2020; Tsindeliani & Egorova, 2020
Online sellers	Online cryptocurrency sellers who profit by circumventing the rules of the financial system	Yue et al., 2021

DISCUSSION

In approaching the cryptocurrency market as a socioeconomic phenomenon, researchers identify several theses about this structure: apoliticism, freedom, reliability, and accessibility **(Table 2). These provisions require additional discussion.**

The apolitical nature of the cryptocurrency market is relative, as cryptocurrency was created as a counterweight to political regimes and the traditional fiat money market. Politics affects the exchange rate of cryptocurrencies and the ability to possess them. In 2022, political events led to restrictions on the cryptocurrency wallets of Russian citizens on major cryptocurrency exchanges (Cryptocurrency exchanges restrict Russians' operations, 2022). Western European countries have developed measures against Iran, Venezuela, and others to thwart their attempts to bypass sanctions using cryptocurrency (Serbina, 2023; Staroboitov et al., 2023). It would be inaccurate to view the crypto market as apolitical. On the contrary, political processes impact the ability to own and use cryptocurrency (Hashimy & Magoge, 2024; Sitnikov, 2024).

Regarding freedom and independence, cryptocurrencies depend on a wide range of factors. First, information broadcasted through traditional media and social networks is a powerful factor influencing the price of cryptocurrencies. Another influential factor is financial crises (Degtev et al., 2022), as people invest in





cryptocurrencies when faced with economic turmoil. We should also note poor network security and cyberattacks. Young projects face threats connected with low security and low computing power. Therefore, we should be cautious in regarding the cryptocurrency market as independent (Russkevich, 2023; Gurinovich & Shakhmametiev, 2024).

Another provision that can be debated is the high reliability of the crypto market. There are widely known cases of fraudulent activities and hacker attacks that led to the loss of crypto assets. In 2018, BitConnect ran a classic pyramid scheme that caused investors to lose more than \$2.4 billion in invested funds (Kanzlei & Herfurtner, 2018). Cryptocurrency exchanges can also be attacked by hackers stealing funds, with exchanges unable to reimburse their clients. In 2013, 850 thousand Bitcoins were stolen from the Japanese crypto exchange Mt. Gox as a result of a hacker attack. As a result, the exchange stopped trading and was forced to announce liquidation procedures. Clients could only recover less than \$200 thousand worth of funds (Steinmetz, 2021).

It is also possible to criticize researchers' thesis labeled by us as "accessibility". Digital inequality is a real issue (Riczu et al., 2023; Jiménez-Reina et al., 2023). First, many people lack basic access to the Internet. Second, to become a cryptocurrency owner, one needs money, and mining requires power and special equipment (Nosova et al., 2018; Akhmetshin, 2023). In this vein, there is also the problem of "crypto whales" – the largest cryptocurrency holders. The latest statistics show that 58% of all Bitcoins are stored in the top 0.01% of wallets, and 76% of ether is held in the top 0.02%. Major cryptocurrency stakeholders can influence the cryptocurrency exchange rate and manipulate the market (The Guardian, 2013; Bai et al., 2024).

Given that stakeholders are influential participants in the cryptocurrency market, their activities require special discussion (Table 3). However, other categories of stakeholders are indirectly interested in the legal regulation of cryptocurrency circulation (Kirillova et al., 2021; Larutin & Gulyaeva, 2023). The first category of such stakeholders consists of governments trying to either reduce the risks of cryptocurrency proliferation or legalize it and develop projects to ensure national, social, and economic security (Antonova, 2023; Muradyan, 2023).

The second category of stakeholders includes banking and financial structures showing a keen interest in the new instrument and devising ways to control the cryptocurrency market (Markhaeva et al., 2023).





CONCLUSIONS

The comparative analysis uncovered the following features of cryptocurrency distinguishing it from fiat money: cashlessness, security, single-use nature, anonymity, and liquidity. The study also proved that the functions of cryptocurrencies are still taking shape.

We highlighted the key socioeconomic characteristics of cryptocurrency: apoliticism, independence, freedom, and accessibility. Each characteristic was subjected to critical analysis through detailed discussion. Thus, we demonstrated that each characteristic needs to be approached cautiously.

Finally, the selected research papers were analyzed to determine key stakeholders pursuing their interests in the crypto industry: investors, payment system users, miners, cryptocurrency exchanges, and online sellers. We added banking and financial institutions and national governments to this list of interested parties.

The sample of sources limited the scope of our study, as we selected 74 works devoted to the socio-political significance of cryptocurrency.

Further research should comprehensively examine the function of cryptocurrency as a world currency and determine its socioeconomic status.

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