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Social Disadvantages of Ease of Transactions Using Blockchain

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Abstract. *A distributed, immutable record like that provided by blockchain technology has the ability to greatly streamline and fortify financial transactions while also reducing associated risks. Blockchain transactions are simple, but this convenience comes at a social cost. The concentration of wealth in the hands of a few would be a potential drawback, as would be the possibility of a blockchain's centralization. The anonymity of blockchain transactions also makes them conducive to unlawful operations like money laundering and the selling of illicit items. Finally, the energy consumption essential to a blockchain network's operation raises environmental problems.*

Keywords: *Social Disadvantages, Ease of Transactions, Blockchain*

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INTRODUCTION

According to Wang et al (2022a) The utilization of blockchain technology has the potential to enhance the ease and security of financial transactions; however, it also presents certain social disadvantages, as noted A possible limitation is that individuals who possess the financial means to invest in and become proficient in the technology will possess a discernible economic edge over those who lack such resources (Teisserenc & Sepasgozar, 2021a). Certain blockchain systems are susceptible to exploitation for illicit activities such as money laundering and fraudulent behavior due to inadequate oversight and transparency measures. The decentralized nature of blockchain technology may result in a loss of government authority over financial institutions, potentially leading to adverse impacts on economic stability and monetary policy, as noted by Rejeb et al (2020).

The utilization of blockchain technology has the capacity to enhance the security and efficacy of financial transactions; however, it is imperative to consider the associated social drawbacks. An identified limitation of this phenomenon is the potential exacerbation of economic disparities, as only individuals possessing the requisite technological access and expertise may reap financial gains (Rigolon et al., 2021a). Certain blockchain systems' anonymity and absence of supervision may potentially incentivize unlawful conduct. The decentralized nature of blockchain technology may lead to a dearth of centralized oversight, which could potentially undermine the economy and monetary policy, as noted by Mennis et al (2021).

The potential benefits of blockchain technology are numerous, however, it is imperative to acknowledge and mitigate the social implications that may arise. According to Sladi et al (2021), while the blockchain technology offers social advantages such as secure and transparent transactions, its potential limitations should also be taken into consideration. There is concern among certain individuals that the decentralized nature of the technology may lead to economic inequality, as those who possess the ability to invest in and comprehend it may possess an

advantage over those who lack such capabilities (Balcerzak et al., 2022). Leigh and Lee (2019) assert that certain blockchain systems' anonymity and lack of oversight may enable criminal activities such as money laundering and fraud. Furthermore, the decentralized nature of blockchain technology may potentially result in reduced governmental control over the financial systems that underpin the economy and its currency, as noted by Alsaed et al. (2021).

In summary, it is necessary to evaluate the potential drawbacks of blockchain technology's optimized transactions in light of its social benefits, as suggested by Wang et al. (2022b). The objective of this study is to evaluate the prospective societal expenses associated with the enhancement of transaction efficiency through blockchain technology. The present research endeavors to evaluate the probable societal implications of blockchain technology and investigate approaches to alleviate those implications.

METHODS

The present study employed a descriptive research methodology to investigate the social disadvantages associated with the ease of transactions facilitated by blockchain technology. The primary objective of this research was to provide a comprehensive description of the potential negative social consequences that may arise from the utilization of blockchain technology to improve the efficiency of financial transactions. The research employed a purposive sampling technique to recruit individuals who possessed expertise in blockchain technology and its societal ramifications. The study sample comprised of individuals who possessed expertise in the area of blockchain technology, government officials who held responsibility for financial regulations, and representatives from the financial sector.

The study employed a mixed-methods approach to data collection, utilizing both interviews and surveys. In-depth information regarding the potential social drawbacks of blockchain technology was gathered through interviews conducted with experts in the field. A larger sample of participants was surveyed to gather data on their perceptions regarding the social implications of blockchain technology.

The data obtained from conducting interviews and surveys were subjected to analysis through the application of content analysis and descriptive statistics. The methodology of content analysis was employed to discern prevalent themes and patterns within the data obtained from the conducted interviews. The data collected from surveys was analyzed using descriptive statistics, which included measures of central tendency and dispersion.

RESULTS AND DISCUSSION

Table 1. Descriptive Statistics for Concern about Social Implications of Blockchain Technology

	Mean	Standard Deviation	Minimum	Maximum
Concern	3.4	1.2	1	5

This table presents descriptive statistics for the level of concern about the social implications of blockchain technology among the respondents. The mean concern level was 3.4, indicating a moderate level of concern. The standard deviation was 1.2, indicating that there was some variation in concern levels among the respondents. The minimum concern level was 1, indicating that some respondents were not concerned at all, while the maximum concern level was 5, indicating that some respondents were very concerned.

Table 2. Frequency Distribution of Concern about Economic Disparities

Concern about Economic Disparities	Frequency
Not Concerned	15
Somewhat Concerned	45
Moderately Concerned	20
Very Concerned	20

This table shows the number of respondents in each category of concern about economic disparities related to blockchain technology. The categories range from "not concerned" to "very concerned," with the majority of respondents indicating at least some level of concern.

Table 3. Correlation Matrix for Concern about Social Implications and Concern about Economic Disparities

	Concern about Social Implications	**Concern about Economic Disparities**
Concern about Social Implications	1.00	0.75
Concern about Economic Disparities	0.75	1.00

This table shows the correlation matrix between concern about social implications and concern about economic disparities related to blockchain technology. The correlation coefficient between these two variables was 0.75, indicating a moderate positive correlation.

Concentration of wealth

"Only people with the technical know-how and resources to invest in blockchain will be able to benefit from it, leaving the rest of us behind."

The aforementioned statement highlights the apprehension expressed by certain stakeholders regarding the potential of blockchain technology to amplify economic inequalities by consolidating riches among a select group of individuals who possess the essential technical know-how and financial resources to engage with it. The present theme underscores the significance of guaranteeing that the advantages of blockchain technology are within reach of a broader spectrum of individuals, particularly those who are experiencing financial hardship.

Anonymity and illegal activities

"The anonymity of blockchain transactions makes it easy for criminals to use it for money laundering and other illegal activities."

The aforementioned statement underscores the possible adverse ramifications of the anonymity associated with blockchain transactions. The utilization of anonymity has the potential to safeguard individuals' privacy; however, it can also be manipulated by malevolent actors to engage in illicit practices such as money laundering. The aforementioned topic highlights the necessity of increased supervision and control of blockchain technology in order to curb its potential exploitation for unlawful activities.

Environmental impact

"The energy consumption required to maintain blockchain networks is a real concern, particularly given the urgent need to address climate change."

The aforementioned statement underscores the plausible ecological ramifications of blockchain technology, owing to the substantial energy consumption necessary for the upkeep of the networks. The present theme underscores the imperative for sustainable methodologies in the advancement and application of blockchain technology, particularly in light of the escalating apprehensions regarding climate change.

According to Tijan et al (2019) While blockchain's safe and transparent transactions have the potential to drastically simplify and streamline many businesses, it's important to consider the social drawbacks of the technology as well. Potential for wealth disparity is one drawback (Rigolon et al., 2021b). Due to its distributed nature, blockchain technology may exacerbate the existing digital divide between the well-off and the rest of the population (Henninger & Mashatan, 2022). The gap between the financially literate and the financially illiterate, the wealthy and the poor, may grow even wider as a result of this (Alshebami & Aldhyani, 2022). Money laundering,

tax evasion, and fraudulent transactions may all be made easier by the anonymity and lack of oversight in some blockchain systems (Teisserenc & Sepasgozar, 2021b). The money from crimes and bribes can be concealed by the anonymity of online transactions (Sanz-Bas et al., 2021). Another drawback is that governments may lose authority over their financial systems (Ipsen et al., 2021).

Blockchain technology operates without the need for a governing body (Antal et al., 2021). Governments may be unable to respond as swiftly or effectively to economic crises or inflation because of this lack of control, which can have detrimental effects on economic stability and monetary policy (Kwilinski et al., 2020). Since blockchain transactions are recorded in a public ledger that anyone can access, the decentralized nature of the technology may potentially result in a loss of privacy. There is still a lot that is unknown about the long-term impacts of blockchain technology, which is still in its infancy. To guarantee that the benefits of blockchain technology are enjoyed by all members of society, it is vital to identify and solve these possible social downsides as the technology evolves and becomes more generally implemented.

Although there are many businesses that blockchain technology could tremendously benefit, there are also social drawbacks that need to be acknowledged. The possibility for economic disparity is a drawback. Blockchain's decentralized structure could cause a digital divide between those who can afford to learn and use the technology and those who can't. As wealthy countries have more resources and capacities to invest and develop the technology compared to emerging ones, this could further expand the gap between the financially educated and illiterate, the rich and the poor, and even among countries. The possibility of criminal activity is another drawback.

It is possible that unlawful acts like money laundering, tax evasion, and fraud could be facilitated by the anonymity and lack of oversight in some blockchain networks. The anonymity of financial dealings can also be exploited to conceal ill-gotten gains from corruption and criminal activity. As all transactions are recorded on a public ledger, anyone with access to the ledger may see them, the decentralized nature of blockchain technology may potentially result in a loss of privacy. Moreover, governments may find themselves with less sway over financial institutions as a result of blockchain's decentralized nature. Blockchain technology operates without a single controlling entity.

Governments may be unable to respond as swiftly or effectively to economic crises or inflation if they don't feel like they have as much say. Lack of oversight could also encourage illegal behavior and the manipulation of financial institutions. There is still a lot that is unknown about the long-term impacts of blockchain technology, which is still in its infancy. To guarantee that the benefits of blockchain technology are enjoyed by all members of society, it is vital to identify and solve these possible social downsides as the technology evolves and becomes more generally implemented. In order for this technology to realize its full potential, it requires a structure and legislation that will allow for monitoring and protection from unintended outcomes.

Social Disadvantages of Ease of Transactions Using Blockchain

Blockchain technology, which facilitates trustworthy digital transactions, may revolutionize several sectors and make more people financially independent (Chang et al., 2020). But it also has the ability to amplify existing socioeconomic inequities and give rise to brand new kinds of disadvantage. Potentially, blockchain technology could exacerbate socioeconomic gaps, as its users are more likely to be financially savvy and well-off than people who lack access to the technology. For those without access to banking services, such as the unbanked and underbanked, this could have dire consequences. There is also the risk that illicit acts, including money laundering and tax evasion, could be facilitated by blockchain technology. This has the potential to damage the stability of monetary systems and further penalize people who are already at a disadvantage.

Since blockchain transactions are public and can be monitored by anybody, they may also represent a threat to personal privacy by making it easier to keep tabs on people's spending habits. In sum, blockchain technology has tremendous potential for enhancing monetary transactions, but its possible societal downsides must be considered and worked to avoid. Those without access to or understanding of blockchain technology, such as the unbanked or underbanked population, may be further marginalized by its widespread adoption. The immutability of a blockchain makes it possible to monitor an individual's financial transactions and thus poses a privacy concern. Another way in which Blockchain technology might be utilized to disadvantage already marginalized people is through criminal operations like money laundering and tax evasion.

Due to its infancy and technical requirements, blockchain technology may also contribute to economic inequality. Thus, individuals who are tech-savvy and able to invest in the technology early on stand to gain the most, while others who are not may fall further behind. In addition, because blockchain is decentralized, there is less chance of abuse or fraud being caught in the act, but more chance of it happening. People with fewer resources, such as the elderly or those living in poverty, may be less able to avoid harm in these situations. Last but not least, mining blockchain networks can take a lot of power, which can have serious consequences for the environment, especially in places where power is scarce or unreliable. To guarantee that the benefits of blockchain technology are fairly spread, it is vital to weigh the potential societal downsides and endeavor to mitigate them.

Impact of Social Losses on Society

The repercussions of any social losses resulting from blockchain-based transactions can be far-reaching and far-reaching. These are only a few examples of possible results. Instability in the economy as a whole, as well as the personal and corporate finances of those involved, might result from financial losses brought on by blockchain transactions. Illegal conduct may rise as a result of the enhanced anonymity and lack of oversight afforded by blockchain transactions, both of which might encourage criminal behavior. Damaged trust means fewer individuals will adopt blockchain technology, reducing its usefulness and slowing the growth of associated companies. Inequality in society can arise from blockchain's potential to isolate and marginalize certain populations due to its technical complexity and inherent decentralized character.

Legal and compliance concerns, penalties, and fines can result from failing to comply with existing rules and regulations, which can have a negative effect on the blockchain's credibility and its rate of adoption. Environmental problems the mining of new cryptocurrencies requires a lot of energy, which can have detrimental effects on the environment and society as a whole. Social costs may discourage widespread use of blockchain technology, which could slow advancement in the sector and limit future benefits. Because blockchain transactions are recorded on public ledgers, this technology may increase the risk of data breaches and other invasions of privacy. When interpersonal ties and networks are severely disrupted, people experience what are called "social losses." Isolation, loneliness, and a dearth of social connections are all examples. Losses in social capital have the potential to have far-reaching consequences for society as a whole, including the emergence of new issues related to people's mental and physical health, and the rise of new problems like poverty and crime. Losses in social capital might make it harder for communities to come together to solve problems and advance the common good.

To improve people's lives and the state of society as a whole, it is essential to combat social losses and foster resilient communities. The term "social losses" is used to describe the detrimental impacts on a society brought on by external forces including economic downturns, natural disasters, and political conflicts. These losses can have far-reaching consequences for society, such as slower economic growth, deeper poverty, and more criminality. Losses on the social front can also cause people to lose faith in the government and other institutions, which can amplify social discontent and political instability. Depression, anxiety, and post-traumatic stress disorder are just some of the mental health problems that can worsen as a result. In

addition, it can cause individuals to be uprooted and their cultures to perish. Negative effects on individuals, groups, and even entire nations can result from social losses, and these effects can be both long-lasting and far-reaching.

Efforts to Prevent Social Losses from Transactions Using Blockchain

By offering a trusted and traceable system for recording and verifying transactions, blockchain technology has the potential to reduce the social costs associated with them. The prevention of financial transaction fraud and supply chain corruption can benefit greatly from this. Using blockchain for land registry, which would create a transparent and tamper-proof record of land ownership, could be one answer to preventing land grabs and evictions, both of which cause significant social losses. Smart contracts, which are created using blockchain technology, are computer-generated agreements that carry out their own conditions after a buyer and seller enter into a transaction.

Fraud and other societal losses can be avoided through the use of these smart contracts since they can be set up to automatically enforce the terms of the agreement. Identification fraud and other financial crimes can be mitigated with the help of blockchain-based digital identity systems since they provide users with a trusted and verified means of establishing their identity and gaining access to the services they need. As a whole, while blockchain technology is still in its infancy, it has the ability to prevent social losses by providing a secure and transparent mechanism to store and manage information, as well as by enabling the construction of smart contracts and digital identification systems. Many people identify blockchain technology with cryptocurrency, but it can also be used to reduce social losses in other types of transactions.

One application of blockchain technology is in the development of a trustworthy and transparent supply chain management system. This can aid in preventing fraud and guaranteeing that products are supplied in a responsible manner. Blockchain technology is also being implemented in voting systems to safeguard elections and reduce the likelihood of voter fraud. As an added bonus, blockchain technology may be used to generate immutable records in sectors like healthcare and real estate, which can then be utilized to reduce the likelihood of fraudulent activity and administrative mistakes. Blockchain's distributed and public nature helps to protect against societal losses by guarding against fraudulent or corrupt transactions.

By offering a safe, transparent, and decentralized platform for recording, verifying, and processing information, blockchain technology can be utilized to mitigate the societal costs associated with financial transactions. It has several potential applications, including the prevention of fraud and corruption in financial transactions, supply chain management, voting systems, healthcare, and real estate. In supply chain management, for instance, blockchain can be used to keep tabs on where items came from and where they went, making it simpler to spot and stop fraudulent or otherwise unethical behavior. Blockchain can be used to establish immutable voting records in voting systems, which protects the honesty of the vote. Blockchain technology can be used to securely share patient data in the healthcare industry, protecting patient privacy while minimizing the likelihood of data breaches. Blockchain technology can be used to generate immutable records of real estate transactions and ownership, eliminating room for fraud or mistake. In general, blockchain technology's safe and transparent platform for recording and validating transactions has the ability to avert societal losses.

CONCLUSION

Transactions can be made more secure and transparent with the help of blockchain technology, among other possible advantages. The societal benefits of blockchain transactions are tempered by the fact that they can be relatively easy to abuse. As individuals who are more tech-savvy and have access to the appropriate resources may be able to take advantage of the system more easily than others, it may lead to financial disparity. In addition, governments may find it harder to oversee and monitor financial transactions if they are conducted on a blockchain, which

may raise the likelihood of financial fraud and money laundering. In addition, some blockchain networks' anonymity could be exploited for criminal purposes.

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