



# SBT FINTECH MONTHLY NEWSLETTER

## Editor's Note

BY DR. ABENA PRIMO

Dear Readers,

In the last year, we have watched the price of Bitcoin and other cryptocurrencies drop dramatically. There has also been waning interest in blockchain technology, possibly as a consequence of this. This new article by Dr. Bonyuet aims to update you on the current state of blockchain adoption in industry.

Happy Reading!

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Sincerely,  
Dr. Abena Primo

School of Business and Technology  
Huston-Tillotson University



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# BLOCKCHAIN: CURRENT STATE AND IMPLICATIONS

BY DERRICK BONYUET, PHD, CFA, CFP, CPA

In the past few years, there has been a lot of noise surrounding Blockchain. In fact, International Data Corporation (IDC), a market intelligence firm, had projected companies would invest around \$19 billion in blockchain related technologies by 2024 (Global Spending on Blockchain Solutions, 2021).

However, all that noise and buzz seems to be gone and many wonder whether the blockchain technology is here to stay. On this article, we explore findings from recent research on the current state of blockchain and what implications companies must be aware regarding this technology.

## OVERVIEW

The accounting industry was especially predicted to be impacted by blockchain as this technology can provide a triple entry accounting system where all transactions are immutable, time stamped, recorded in real-time and encrypted (Alarcon & Ng, 2018). Therefore, potential protections against fraud along with improvements in the entire audit process were foreseen. However, there is not much evidence that companies have been able to successfully implement this technology into their operations.



The skepticism is reflected in a survey conducted by Gartner, a research and advisory firm, where just 5% of participants stated blockchain would be a business disruptor (<https://gtnr.it/3oE4ItJ>).

Gartner later issued a press release on blockchain trends expressing its disappointment as this technology was still five to 10 years away from triggering significant business transformation (<https://gtnr.it/3oCCsSF>).

Nickerson (2019) goes further and questioned the possibility that blockchain technology can actually be used by potential fraudsters to commit more sophisticated and harder-to-detect crimes. Brandon (2019) reported the blockchain got hacked resulting in Coinbase losing

over \$1 million by rewriting the apparently immutable ledger of transactions. This incident puts in perspective the supposed level of security behind the blockchain.

In addition, as the value of Bitcoin and other cryptocurrencies are down since 2021, it is not surprising that some companies may have shifted their interests from blockchain as this technology is often associated to cryptocurrencies. Academics and researchers have noticed this phenomenon and have attempted to understand the current state of







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blockchain adoption by analyzing corporate disclosures and how it fits in accordance with the Diffusion of Innovation (DOI) Theory developed by E.M. Rogers in 1962.

### ADOPTION CYCLE

According to Rogers (1995), the adoption of a new technology follows an approximately bell-shaped curve. He classified adopters in five categories: innovators, early adopters, early majority, late majority, and laggards. The ability to identify when a new technology will transition from one group to another one is critical as it indicates when such technology will become mainstream. After all, a technology is disseminated across these five groups based on their level of expectations on potential benefits from this technology. As these expectations cannot be observed, Stratopoulos, Wang and Ye (2022) used corporate disclosures as a proxy to measure such expectations. Sources of corporate disclosures included regulated financial reports and filings, management forecasts, earnings conference calls, and press releases. The authors also highlighted that, by knowing the names of disclosing firms, along their type of business, insights could be extracted

regarding demand-side (e.g., companies that want to adopt blockchain technology) vs supply-side firms (e.g., companies that want to provide blockchain technology).

The analysis of corporate disclosures revealed the current adoption rate is low. The authors also found the number of disclosing firms declining from 2018 to 2019, which indicates a possible transition from innovators to early adopters though no mainstream adoption has yet to be seen.

Moreover, the study showed the focus on the usage of blockchain is mostly on business process improvement rather than financial applications. The authors considered this to be the most important finding as it indicates blockchain is becoming a relatively mature technology.

### BLOCKCHAIN: AN ENABLER OF ESG

The use of blockchain technology to enable process improvements is consistent with some providers of blockchain services such as Cisco where the focus is on supply chain applications. More importantly, a study by Boston Consulting Group (Burchardi, Song & Hartschenko, 2023) positions blockchain

as the enabler of an ESG framework.

- On the environmental side, the study acknowledges this technology drives energy consumption resulting in higher emissions. However, the study highlights the improvements on consensus mechanisms, which are the main driver behind the energy demand, and are expected to reduce energy consumption by 99.95% making it comparable to lighting two 60 W lightbulbs for a full year.
- On the social side, the study also acknowledges blockchain's reputation as a tool used by criminals. However, several successful projects have been rolled out with the United Nations High Commissioner for Refugees (UNHCR) and the WEYU NFT marketplace to help refugees through blockchain education to enable the creation of their own NFTs, resulting in \$500 million in funds raised from cryptocurrency auctions.





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- On the governance side, given the nature of blockchain, this technology has the potential to change how we think about this aspect. Blockchain is based on a framework where rules regulate interactions among the different parties subjected to some form of accountability. Blockchain allows two governance models, one that is purely on-chain where decisions are solely made through codes or rules (e.g., smart contracts), and another one that is hybrid where traditional process, such as off-chain voting, can be implemented.

### CONCLUSION

The blockchain adoption rate was found to be low. However, regardless of this finding, managers must be aware investing in emerging technologies is not only risky but also capital intensive. As a result, the decision to invest must be made carefully by incorporating the adoption stage. This is especially critical as business partners and other stakeholders, such as customers and suppliers, are required to operate under a blockchain platform to fully perceive the benefits.

Blockchain is still a young technology as it is slightly older than a decade. As this technology matures, we will indeed see more use cases especially in the social and governance domains.

The technology just needs to be further refined within a regulatory framework to address any existing inefficiencies.

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