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Abstract: Within financial technology, Blockchain is a topic that is receiving a lot of attention and discussion. There has been a meteoric rise in engagement and recent studies on this technology. The mainframe, personal computers, the Internet, and mobile applications follow the breakthrough in the history of computing. In qualitative research, the investigation was synthesized utilizing the documentary approach, including content analysis for a review article. The results reveal that Blockchain Technology is getting a foothold not only in the financial industries but is also likely to disrupt other areas like healthcare, real estate, the legal industry, security, government, education, rentals and ride-sharing, charities and aid organizations, and politics. Currently, several projects are researching the possibility of implementing the Blockchain as a structure to support them; as a result, we will soon see that it truly becomes the technology of the future. Furthermore, qualitative interviews or focus group discussions could give more insight into details. In addition, a quantitative approach for further research could provide a generalized explanation.

Keywords: Blockchain; Cryptocurrencies; Bitcoin; Fintech, Metaverse

Introduction

Blockchain technology originated in 2008. The narrow blockchain technology is a non- tamper-able and unforgeable decentralization that combines data blocks into specific data structures in chronological order and cryptographically guaranteed. By sharing the general ledger, it is possible to securely store simple, hierarchical data that can be verified within the system. The generalized blockchain technology uses encryption technology to verify and store data, use distributed consensus algorithms to add and update data and use code running on the Blockchain, i.e. smart contracts, to ensure automatic enforcement of business logic. A new multi-centred infrastructure and distributed computing paradigm were implemented (Michael et al., 2018).

The core advantage of blockchain technology is that it no longer needs a traditional centralization mechanism. It only implements peer-to-peer transactions that do not depend on a credit centre in distributed systems through encryption, consensus mechanisms, timestamps, and other technical means. Coordination and collaboration circumvent issues common in centralized organizations, such as data security, synergy efficiency and risk control. Since becoming famous, Bitcoin has been hailed as a revolutionary technology that will change the world's financial landscape. Although the extreme nature of Bitcoin is not as good as that of ATMs and PayPal, its impact on society is undeniable (Pilkington, 2016: 225).

The innovative change in financial technology has been a process for decades, which began in 1970. According to a recent report by Business Insider Intelligence, financial technology innovation is a continuous development process. Its impact can be said to be greater than Automatic Teller Machine (ATM) and PayPal and even more significant than the role of Bitcoin in the financial system. ATMs have changed how people interact with banks, achieving a degree of automated trading, and the emergence of PayPal has reduced people's reliance on banks in savings and transfer transactions. However, holders of PayPal accounts will still be required to deposit funds in their accounts using

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traditional payment methods. In this regard, Bitcoin brings a new level of rule breakthrough. Its characteristics show that banks will be replaced under the general development trend (Yli-Huumo et al., 2016).

At the moment, Bitcoin may not be able to replace the bank completely, but it shows such potential. The financial development of the new era today depends on Bitcoin. More precisely, it depends on its underlying technology, Blockchain, and many startups are now exploring it. A recent report entitled "Financial Technology Ecosystem Report: Measuring the Impact of Technology on the Entire Financial Services Industry" provides a new perspective on the future of financial technology.

It depicts a war between an existing financial powerhouse and a startup that aims to transform decades of traditional machines. Like all other wars, there will always be winners and losers; in the end, it will only wait and see who the winners are. For example, the long-standing war is ongoing – such as the confrontation between traditional banks and online banking systems, the conflict between the conventional and Peer to Peer (P2P) markets, crowdfunding and formal funding or management and competition between robot consultants, etc. (Wright & De Filippi, 2015)

These cases show that new alternatives, including Blockchain, are technology-driven and require minimal human intervention. According to this report, future banking, lending and finance; payments and transfers; wealth and asset management; markets and exchanges; insurance, blockchain trade and other areas will undergo significant changes.

Before Blockchain

For decades, attempts have been made to decentralize money and make the economic system a more fluctuating environment. The first known attempts to integrate the science of cryptography with electronic money resulted in Digi-cash and E-cash, coins that used cryptography to anonymize money transactions; nevertheless, the issuance and settlement were still centralized. These first attempts are attributed to the computer science David Chaum.

The concept of cryptocurrency was born and coined by Wei Dai in 1998 when it was officially proposed to create a new type of decentralized money that would use cryptography to control. However, it was not until 2009 that the first cryptocurrency known and used in the technological world was created: Bitcoin. This first cryptocurrency was created by a developer -or group of developers- under the pseudonym of Satoshi Nakamoto (Mettler, 2016: 1).

If we briefly review history, we will see, as always, that a relevant technological improvement has taken place there has been a revolution in finance. After the appearance of the paper, it was the Chinese who created the paper currency. Understanding what allowed them to trade at a greater distance without carrying gold is essential. The technology that made the credit card or ATM possible also offered new forms of economic exchange. And now, the globalization that underlies the Internet and the development of Blockchain technology opens the door to a new way of making transactions; Disintermediated, immediate, accessible and more reliable (Atzori, 2015).

Blockchain Changing the Market

First, it is difficult to tamper with and is more secure. In the security scheme of traditional information systems, security relies on access control of layers of defense. Through blockchain technology, the database of recorded transactions can be accessed by anyone. Still, due to the clever design and supplemented by cryptography and consensus mechanisms, the data logging of the Blockchain makes it necessary to change all subsequent data records to modify specific data. It is challenging. The practice has proved that such a database can ensure that Bitcoin, with a market value of hundreds of billions of dollars, is stable under the attack of global hackers (Underwood, 2016: 15).

The second is heterogeneous and lively, with high reliability. Each system participant in the Blockchain is a multi-site living node, a natural multi-live system. If a node encounters a network problem, hardware failure, or software error or is controlled by a hacker, it will not affect the design and other participating nodes. The nodes in the Blockchain interact through a peer-to-peer communication protocol. Different nodes can use different programming languages and versions of the total nodes to process transactions when other communication protocols are guaranteed. The

resulting software heterogeneous environment ensures that even if there is a problem with a version of the software, the overall network of the Blockchain will not be affected, which is the cornerstone of its high availability (Lemieux, 2016: 110).

The third is to have a smart contract and execute it automatically. Smart contracts have the advantages of transparency, credibility, automatic execution, and mandatory compliance. Despite this, since the introduction of Nick Saab in 1993, smart contracts have remained at the conceptual level. The critical reason is that no environment has supported trusted code running for long, and automatic enforcement is impossible. For the first time, Blockchain made intelligent contracts a reality.

The fourth is the network direct cooperation mechanism, which is more transparent. The Blockchain provides a different method from the traditional way of connecting participants in a peer-to-peer manner. The participants jointly maintain a system. The responsibilities of the participants are clear, and there is no need to transfer rights to third parties, which is beneficial to all parties. As a trusted machine, the Blockchain is expected to become a new mode of cooperation with low cost and high efficiency, forming a new collaborative mechanism with enormous scope and lower price (Zheng et al., 2017: 557).

Since the launch of Ethereum in 2015, blockchain technology has been undergoing rapid development, and business scholars have begun to link blockchain technology with the idea of a sharing economy. The ethical marketing logic that operates within the blockchain-based sharing economy is essential. This shift outlines the principles of stakeholder capitalism. Therefore, activities and practices that are ethically based in marketing increase collaborative marketing. It innovates value chains and develops sustainable business models in the sharing economy and the Metaverse (Tan & Salo, 2023).

Blockchain is the Disruptive Innovation

The proposed blockchain applications' characteristics are decentralization, network-wide, distributed anti-destruction, intelligent contracts, and evidence-based incentive mechanisms. Researchers said that if the fundamental innovation of the Blockchain is the evolution of bookkeeping technology, then the Blockchain can be called disruptive innovation in the accounting sense for 500 years (Sun et al., 2016: 26).

The importance of distributed ledgers lies in the ability to deliver value and construct a credible technology (transfer value and further evolution). The distributed ledger must judge the application scenario under the current technology bearer. The business affairs and supervision department business is a suitable application, mainly in sharing, de-media, de-intermediation, business association and input-output. At the same time, it is proposed that although the Blockchain is at an early stage, its potential for the next generation of distributed networks and applications is already evident; in the use of Blockchain to enhance trust and avoid fraud, it is necessary to follow legal rules (Sikorski et al., 2017: 234).

Based on the combination of Blockchain and artificial intelligence, it should share answers, not data. Artificial Intelligence (A.I.) makes it possible to avoid sharing raw data, so blockchain technology is still developing. Trust and privacy issues can be better solved in the future, especially when algorithms and data are separated. Finally, it has been pointed out that artificial intelligence enhances productivity, blockchain restructuring of production relations, cloud computing, and big data are the future production materials and targets (Ølnes, 2016: 253).

It is one of the main advantages of using and applying the Blockchain. In a system such as health, in particular, the application of this model would prevent, for example, the use and implementation of inadequate treatments while increasing monitoring, control and safety throughout the process of care for each patient; This would reduce the costs for health providers at the same time due to factors as diverse as the provision of medicines, insurance management and the use of information from people.

The medical scenario is one of those that could benefit most from using and applying Blockchain. In the United States, for example, more than 250,000 deaths per year are caused by doctors' mistakes.

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Monitoring tools would allow even greater control over medical records and the same use of work equipment in laboratories, surgery rooms, etc., dramatically reducing patient risks (Raval, 2016).

Notably, in the United States, deaths due to errors of this type are equivalent to the second cause of death after heart disease. Putting this in context, Colombia could take advantage of new models such as Blockchain in the medical sector and others, innovating in the application and use of new technologies.

It will be started by trying to explain what Blockchain technology consists of. Blockchain technology is becoming fashionable and allows us to validate the veracity of transactions (Malinova & Park, 2017).

When a transaction exists, it must be approved (consensually) by the participants. These participants are previously named by an "administrator" and respond to the "technical" name of "miners". If all participants approve the transaction (this occurs in seconds), it is integrated into an accounting book, guaranteeing that it will never be modifiable. The novelty of this process is that no central authority is necessary since they are the participants themselves (miners, to be more exact) who give validity to the system (Sikorski et al., 2017: 234).

Blockchain: Success or Failure?

Blockchain technology is often referred to as the "next internet." The current Blockchain is to the Internet in the 1990s and is still in the initial stage of development. Still, the emergence of this kind of technological means will undoubtedly bring about earth-shaking changes in social life. In the future, more complex smart contracts will solve the problem of trust between people, people and machines, machines and machines, extend the application of Blockchain to all areas of social life, improve the overall efficiency of society, and promote social collaboration (Yli-Huumo et al., 2016).

For example, Blockchain can help the Internet of Things achieve decentralized control. The critical issue affecting the development of the Internet of Things (IoT) is data management: in the centralized network mode, with the increase in access devices, huge maintenance investment will be generated, and user privacy protection also has hidden dangers. Blockchain technology can establish a low-cost direct communication bridge between these devices and improve the security and privacy of the system through a decentralized consensus mechanism. Home dishwashers can issue a "smart contract" to give orders, require detergent suppliers to supply, and, after receiving shipment information from the retailer, notify them by phone ringtone, reminding the host (Wright & De Filippi, 2015).

Blockchain technology is expected to change the way the real estate market operates. Buying a house is a significant event in life, and the procedures and procedures are very complicated. Consumers often have to pay high agency fees to ensure transaction security. Blockchain technology can be applied to real estate purchases, custody, and ownership transfer. Establishing a secure and shared ownership database for the real estate industry simplifies the transaction process, enhances transaction security, reduces real estate transaction disputes, and reduces transaction costs (Underwood, 2016: 15).

Blockchain can be combined with artificial intelligence. On the one hand, the artificial intelligence network based on Blockchain can set consistent and effective device registration, authorization and perfect lifecycle management mechanism, which is beneficial to improve the user experience and security of artificial intelligence devices; on the other hand, artificial intelligence is also able to realize the management of the Blockchain, discover the natural evolution of the parameter model and the transaction model, integrate the application service, and optimize the service rules (Zheng et al., 2017: 557).

The Blockchain can also build a mutual trust mechanism for insurance so that future insurance returns to the mutual aid model. People with a shared risk protection need can join a mutual help community managed by a smart contract, acting as an insured when they are at risk and acting as an insurer when others in the community are at risk. Once someone in the community has met the terms of the contract, the contract will automatically implement the prescribed deduction process to protect the rights of the participants (Sikorski et al., 2017: 234).

While optimistic about the prospects of the Blockchain, we must also see the challenges blockchain technology faces in practical applications, including regulatory approaches, technology gaps, security, privacy protection, and flexibility. In this critical opportunity period of the development and application of Blockchain, we need the joint efforts of all sectors of society to strengthen investment in policies and regulations, economic investment and scientific research innovation and be prepared to wait patiently for the disruptive changes brought by the Blockchain (Ølnes, 2016: 253).

Blockchain Technology is gaining footholds not only in the banking industries, and it is likely to disrupt other industries such as the Healthcare, Real Estate, Legal Industry, Security, Government, Education, Rentals and Ride Sharing, Charities and Aid Organizations and Politics. Many projects are being investigated to implement the Blockchain as a structure to become a valuable technology for now and in the future.

Blockchains are distributed in tamper-evident and tamper-resistant digital ledgers. Blockchains allow a community of users to record transactions in a shared register that cannot be modified under standard blockchain network functioning. Modern cryptocurrencies, cryptographically secured electronic cash, were created in 2008 by combining Blockchain with numerous other technology and computer principles. Blockchain-based Bitcoin was the first. Electronic money is linked to a Bitcoin blockchain address. Bitcoin users can digitally sign and transfer rights to that information to another user, which the Bitcoin blockchain records publicly, allowing all network participants to authenticate the transactions independently. Distributed participants administer the Bitcoin blockchain. Combined with cryptographic techniques, this protects the Blockchain from later changes to blocks or transactions (Yaga et al., 2019)

Literature Review

Blockchain Technology

The global supply networks include many suppliers who are to one another. The fact that many of these suppliers cannot be accurately predicted and lie outside the company's immediate sphere of influence makes it challenging to manage sustainability. Blockchains have the potential to improve the visibility of suppliers. The managers will have enhanced transparency and traceability of their worldwide supply networks, eventually curb opportunistic behaviours and lessen the current knowledge gap between them and their customers. In addition, the connectivity aspects of Blockchain and the speedy and sustainable information-sharing capabilities of Blockchain boost the predictability of the providers and construct robust and sustainable supply networks. Even though the technology may make certain benefits more accessible, several essential difficulties may make it difficult to use the technology across multi-tier supply networks (Najjar et al., 2023).

The spread of the COVID-19 pandemic has substantially impacted the development of businesses. Following the pandemic, blockchain technology has emerged as one of the crucial technologies that may assist firms in rapidly increasing their market competitiveness. The significant financial commitment stakeholders in supply chains need to make to implement blockchain technology has been a barrier to the technology's widespread adoption and utilization. It is vital to implement blockchain technology in a supply chain that includes a core organization and a small or medium-sized enterprise through an efficient supply chain contract. The performance of a revenue-sharing contract, a cost-sharing contract, and a new hybrid contract for improved performance is critical. It can potentially reward both parties more effectively, bringing them closer to the highest level of blockchain technology adoption and bringing about supply chain coordination (Liu et al., 2023).

Blockchain technology has rendered traditional marketing methods obsolete, leading to new modern marketing frameworks. These frameworks use the Blockchain's distinctive decentralization, security, and transparency qualities. In marketing, blockchain technology has piqued the interest of academics and practitioners, who are researching the underlying processes and opportunities presented by implementing blockchain technology. Even though there is growing consideration in

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investigating the use of Blockchain in marketing, there is an occasional gap in the holistic overview of the current trends and future bounds. This gap persists even though there is increasing deliberation in researching the use of Blockchain. Blockchain technology has undergone significant development as time has passed. However, many lines of research indicate that a marketing framework built on blockchain technology is still in its infant stage (Wasiq et al., 2023).

The effect of Blockchain is more noticeable than in situations where the chief executive officer (CEO) controls a small number of shares or where the trade credit climate in the region where the company is located is unfavourable. Blockchain cannot improve investment efficiency for businesses that offer blockchain products or services to customers; Blockchain can only improve investment efficiency for businesses that promote blockchain use in their operations and management. In the long run, Blockchain can potentially increase the value of organizations by reducing wasteful investment, the microeconomic evidence for integrating digital technology and the real economy. The implications are to promote digital technology to generate high-quality firm development. Blockchain improves corporate investment efficiency (Du et al., 2023).

Disruptive Innovation

Because developing digital technologies have been utilized for disruptive innovation and business models, determining the function that disruptive technologies and innovation play in firms are vital for researchers and practitioners in the hospitality industry. Disruptive innovation identifies disruptive technologies applicable to the hospitality industry. Technology that threatens the status quo and innovative ideas are two of the most essential parts of business strategy for modern hospitality companies. Academics and practitioners in the hotel industry should take advantage of disruptive technology to achieve incredible business performance (Lee et al., 2023).

Researchers from disciplines ranging from economics and management to engineering and the humanities increasingly focus on technology and digitalization. Digital innovations, such as the Internet of Things, big data, cloud computing, artificial intelligence, and various digital technology-based platforms, influence business ventures and alter how culture, politics, and society are influenced beyond entrepreneurship and innovation practices. Digital communications and social media platforms have even restructured social relationships. However, the profound connection between technology, entrepreneurship/innovation, and social change has not been thoroughly investigated. Emerging are new business models, their antecedents, and their economic and social effects (Si et al., 2023)

Cryptocurrencies, Bitcoins and Fintech

Cryptocurrencies involve a fundamental digital artefact and depict a complex phenomenon built on the intertwining of technological artefacts and social settings. Cryptocurrencies are also known as virtual currencies. It has been stated that cryptocurrencies are an alternative payment mechanism. The gaps in knowledge still need to be filled, such as the development of new business models founded on cryptocurrencies, or the impact culture has had on cryptocurrencies and Bitcoin (Morisse, 2015).

The expansion of the digital economy can be observed. Numerous nations' economic systems are significantly impacted by the digital economy's opportunities and difficulties. The growth of cryptocurrency was substantial, and it possesses distinctive characteristics. Cryptocurrencies' underlying blockchain technology is a transparent, decentralized ledger that documents transactions. It eliminates the need for a third party and the issue of double expenditure. Decentralization enables blockchain technology to scale, enhance security, and settle transactions quicker. These traits are conspicuous on the list of conventional financial system flaws. Cryptocurrency has both positive and negative outcomes. Incorporating cryptocurrency has many advantages, such as irreversible transactions, low transfer fees, complete isolation from inflation, etc. Adverse effects include the inability to monitor remittances and the system's vulnerability, which promotes illegal activities such as money laundering, capital flight, and terrorism. Another disadvantage of cryptocurrencies is that they are subject to supply and demand laws. Therefore, cryptocurrencies play a crucial position in

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the digital economy. Giving close attention to cryptocurrencies in the digital economy is essential to strengthen and expand economic systems (Sitthipon et al., 2023).

There are presently over 2,000 distinct cryptocurrencies available in business and FinTech applications. Cryptocurrency is a digital payment system that does not rely on banks to authenticate financial transactions and allows anyone, regardless of location, to send and receive payments. The extraction of cryptocurrencies attracts investors and rewards them with cryptocurrency. However, hackers can utilize the computing capacity without the user's explicit permission by launching a crypto-jacking attack and then employing it for cryptocurrency mining. Detection and protection against crypto-jacking assaults are essential; consequently, miners are constantly searching for novel solutions to this problem. It may assist researchers and practitioners in overcoming the obstacles identified while implementing a mitigation strategy against crypto-jacking malware attacks (Ullah et al., 2023).

Fintech changes the nature of almost all financial activities, from banking to payment to wealth management. Currently, there is no real winner in this war. Whether it is a traditional financial institution or a startup in a new era, they are trying to overcome their challenges and seek to find a solution that will win. Both parties are now in a state of survival (Tian, 2016: 1).

FinTech firms negatively impact bank performance. Islamic banks perform poorly compared to traditional banks. However, when FinTech startups interact with Islamic banks, a more significant proportion of FinTech startups positively impact the performance of Islamic banks, particularly in the peer-to-peer lending category. In addition, FinTech startups improve Islamic banks' performance during regular and crisis periods (Yudaruddin, 2023).

Therefore, it has played an essential role in transforming financial markets and is a segment of the financial services industry growing swiftly. Changing financial markets may aid business owners, managers, marketers, and employees in the financial industry or any other sector in achieving and enhancing high business performance by implementing appropriate strategies to satisfy the needs and expectations of firms and clients using fintech (Limna & Kraiwanit, 2022).

Metaverse

A hyper-connected digital universe referred to as the Metaverse has the potential to profoundly alter how consumers, brands, and businesses will transact and interact in a virtual reality space that is seamlessly interconnected. The increasing trend of (i) consumers engaging and transacting in virtual spaces and (ii) companies investing millions of dollars in developing metaverse-related technologies is accelerating the potential of the Metaverse. Due to the rapid evolution, however, there needs to be more clarity regarding the current scope of the Metaverse and the resulting implications for marketing practice and research. This study proposes a definition and organizational framework for the emerging Metaverse by integrating the results of a comprehensive literature review across multiple disciplines and the expert opinions of industry executives. Consequently, metaverse-induced changes have novel ramifications for marketing practices and initiatives (Barrera & Shah, 2023).

Metaverse is the next disruptive technology that will significantly impact society over the next few decades, as it enables immersive experiences in both virtual and physical environments. The still-conceptual Metaverse merges the physical and digital universes, enabling users to navigate between them seamlessly. Digital immersion enables time travel, allowing users to virtually experience ancient encounters, space explorations, and hazardous natural phenomena, such as volcanic eruptions. Users can investigate immersive environments for working, learning, conducting business, pursuing interests, and socializing. It is already apparent in gaming ecosystems, where players interact effectively with the Metaverse (Buhalis et al., 2023).

The security of the digital content and data of the Metaverse's consumers is a genuine concern, despite the Metaverse's popularity and benefits. In this regard, Blockchain is a promising solution due to its decentralized, immutable, and transparent characteristics. To better comprehend the function of Blockchain in the Metaverse, blockchain-based methods for the Metaverse include data

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acquisition, data storage, data exchange, data interoperability, and data privacy protection (Huynh-The, 2023).

Methodology

A narrative synthesis was included in this extensive evaluation of the relevant literature. The outcomes of synthesis are recapped and clarified through the use of academic writing in the process of narrative synthesis, which is its objective (Kok, 2023; Kok & Siripipatthanakul, 2023, a). The qualitative research approach consists of four steps: Developing a research plan, collecting data, analyzing data, and creating reports. A qualitative method known as content analysis uses verbal, visual, or written data to systematically and objectively describe a given phenomenon (Jaipong et al., 2023). As a result, the content analysis makes it easier to arrive at reliable findings. In addition, it is a flexible method of data analysis that may be applied to systematic qualitative reviews (Kok & Siripipatthanakul, 2023, b & c). To locate knowledge and theory, those doing systematic qualitative reviews must change or adapt content analysis methods to be compatible with highly organized and contextualized information. In conclusion, this inquiry made use of qualitative content analysis. (Limna et al., 2022; Jaipong et al., 2022; Viphanphong et al., 2023). This review article's keywords were Blockchain, Cryptocurrencies, Bitcoin, Fintech, and Metaverse.

Discussions

The findings support Treiblmaier (2023) that many academics and industry professionals have been caught off guard by the swift ascent in the significance of blockchain technology. Its advent has given rise to many novel use cases and business models, most of which are still in the testing phase but have the potential to alter the competitive landscape of marketing significantly. Blockchain, the underlying technology combined with tokenization, can radically disrupt marketing communication by changing how businesses and their clients communicate. While academic research continues to ponder how blockchain technology might be most effectively integrated into existing research streams, the industry continues to put various concepts through trial and error. Because they comprise a broad array of complicated and fast-changing technological building blocks, blockchains are notoriously difficult to comprehend and incorporate into pre-existing marketing frameworks, models, and theories. On the other hand, understanding and categorizing are made more accessible by concentrating specifically on tokens.

The findings also support Liu et al. (2023) that the proliferation of the COVID-19 pandemic has significantly impacted business development. As a result of the pandemic, blockchain technology has emerged as one of the critical technologies that can help businesses increase their market competitiveness swiftly. The substantial financial investment stakeholders in supply chains must make to implement blockchain technology has impeded widespread adoption and utilization. Implementing blockchain technology in a supply chain encompassing a core organization and a small or medium-sized enterprise via an efficient supply chain contract is essential. For enhanced performance, the performance of a revenue-sharing contract, a cost-sharing contract, and a new hybrid contract is crucial. It may reward both parties more efficiently, bringing them closer to the utmost level of blockchain technology adoption and facilitating supply chain coordination.

The findings support Zheng et al. (2017) that Blockchain and artificial intelligence can be combined. On the one hand, the artificial intelligence network based on Blockchain can establish a consistent and effective device registration, authorization, and perfect lifecycle management mechanism, which is advantageous for improving the user experience and security of artificial intelligence devices; on the other hand, artificial intelligence is also beneficial in enhancing the user experience and security of human-made devices. It can implement Blockchain administration, determine the natural evolution of the parameter and transaction models, integrate the application service, and optimize the service rules.

The results support Morisse (2015) that Cryptocurrencies entail a fundamental digital artefact and represent a complex phenomenon based on the interplay between technological artefacts and

social contexts. Virtual currencies are another name for cryptocurrencies. It has been stated that cryptocurrencies are a payment alternative. The development of new business models based on cryptocurrencies or the impact of culture on cryptocurrencies and Bitcoin is crucial.

According to Yudaruddin (2023), FinTech companies could harm the bank's performance. The performance of Islamic banks is inferior to that of conventional banks. However, when FinTech startups interact with Islamic banks, a more significant proportion of FinTech startups have a positive effect on the performance of Islamic banks, particularly in the peer-to-peer lending category. In addition, this study demonstrates that FinTech startups enhance the performance of Islamic banks during regular and crisis periods.

Conclusions

Undoubtedly, it has spent most of the previous few years listening to much discourse about blockchain technology, most likely regarding cryptocurrencies like Bitcoin. It seems as though the Blockchain is a model for something that is only speculative. Discussing the technology being used, how it functions, and how it is becoming increasingly important in the digital age is critical. The responsibility of teaching this growing technology is to prepare for the future, mainly as Blockchain spreads and becomes more user-friendly. It is crucial as the future approaches. The Blockchain is a distributed ledger that maintains information in a way that makes it difficult or impossible to alter, hack, or otherwise influence the system in any other way. A distributed ledger that duplicates and disperses transactions throughout the network of computers that are part of a blockchain. Every single transaction that takes place in this ledger requires the owner's unique digital signature. The two purposes are: first, it validates the transaction's legitimacy, and second, it prevents the transaction from being modified. As a direct consequence, the information in the digital ledger is shielded from prying eyes to an unprecedented degree. An excellent way to think of the digital catalogue is like a Google spreadsheet accessible from several computers connected to the same network. The spreadsheet serves as a repository for the transactional records created in response to the purchases performed. The fact that anyone can examine the data without being able to make any changes to it in any way is a fascinating feature. The Blockchain is a distributed ledger that keeps information in a way that makes it exceedingly difficult, if not impossible, for the system to be updated, hacked, or manipulated. This level of security is achieved by using cryptography to ensure that no information can be altered. A blockchain is essentially an electronic version of a distributed ledger. The ledger makes copies of transactions and distributes them throughout the network of computers that are part of the Blockchain.

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