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BLOCKCHAIN TECHNOLOGY IN LENDING

Report

Blockchain Technology in Lending

Abstract

Blockchain technology is a revolutionary technology that can potentially transform several industries, especially finance, and lending. This technology is built on a decentralized nature that enables creating of a transparent, secure, and cost-effective lending system. It can effectively enhance financial lending services between the borrower and customers. It is a trusted approach to transferring and storing data, facilitating data-driven technologies, and making lending more digitalized and intelligent; it also enhances payments in time among all involved parties and improves transparency in its transactional data. This paper focuses on blockchain technology and its benefits in the lending industry. Further, it evaluates the significant application of blockchain technology in the lending industry. This technology applies to Peer-to-Peer lending, trade finance, supply chain financing, fraud prevention, credit score, tokenization, store financing transactions, international payments, identity verification, and digital currencies and transactions. Lastly, the paper identifies and evaluates blockchain technology's limitations in the lending industry. These limitations include a lack of governance, costs, non-scalability, and regulatory compliance risks. Participants in the lending business network may now cooperate, handle data, and accept blockchain technology applications more simply.

Keywords: Blockchain technology, Smart contract, Peer-to-Peer lending, Cryptocurrencies, Tokenization, Digital currencies

Introduction

Blockchain technology is a decentralized database that stores a registry of assets and transactions across a peer-to-peer network. The blockchain has the potential to transform the economy radically. It has been a revolutionary innovation that can transform numerous industries, especially finance and lending. Blockchain technology permits a collective group of certain people to share data. With the aid of blockchain cloud services, various financial services can efficiently and effectively be performed. These financial services include collecting transactional data from numerous sources and integrating and sharing them. All members maintain an encrypted record of every transaction within a decentralized, resilient, and high-scalability recording mechanism that

cannot be repudiated. Blockchain is an infancy technology but has gained popularity in the lending industry since its inception. It has been one of the most hyped technologies in lending services due to its potential to eliminate pain points across the industry.

Blockchain technology is the most hyped technology in financial services because the traditional lending processes are creaking under the pressure of rapid technology dynamics and constantly changing consumer expectations. According to Siemionek-Ruskań and Fanea-Ivanovici (2021), over the past decade, most of the loans have come from banks, credit unions, and financial institutions, despite the inception of peer-to-peer lenders. Legacy technology and slow bureaucratic processes have increased conditions for digital money rendering. Blockchain technology has the potential to positively impact several financial services, such as money transfers, financial exchanges, insurance, logistics, and lending. It is reshaping the lending ecosystem by eliminating all intermediaries in the industry. It allows lenders and borrowers to develop a straight deal via decentralized financing. Through smart contracts and other platforms, blockchain technology makes lending data transparent and highly secured. Smart contracts are self-executing electric codes that aim to eliminate third parties and come with data rules, such as interest rate, loan amount, and contract's expiry date. Many lending companies are introducing blockchain technology to reduce labor and other costs.

Since the inception of blockchain technology, financial management has been transformed into bankless with digital wallets, lending, and payments. Blockchain technology has supported and made digital wallets entirely secure as they are unified with private keys. These private keys have a unique public address that makes all financial transactions efficient. These technologies have eliminated intermediaries who were involved in traditional lending scenarios. Over the decade, lending has changed dramatically, and technological interference within the lending industry has seen a facelift. With the traditional lending system, banks, credit unions, and other financial institutions are responsible for securing money; however, under blockchain technology, digital wallet holders with private keys fully own the money and manage, control, and secure their assets (Uriawan, 2020). In addition, blockchain technology enhances the security of individual money. Financial institutions are prone to cyberattacks as they save their data in a central database. This is achieved because blockchain is a decentralized ledger that permits real-time fraud scrutiny and deterrence. The system is foolproof from cybercrime because each block comes with a timestamp,

securing blocks of separate transactions. Therefore, fully implementing blockchain technology in the lending industry would enhance security, efficiency, and transparency.

Blockchain technology is time-saving, secure, and cost-effective in the lending industry. Before introducing these technologies, many people have long waited for financial lenders to approve loans and transactions. Ali et al. (2019) stated that emails take seconds to move around the globe, but money takes weeks to move within the United States. Banks and other United States financial institutions take a long time to approve and scrutinize any business transaction. Also, these financial institutions charge huge fees and involve ultimate authority to favor or reject transactions between a sender and a receiver. Blockchain technology has effectively solved these problems. First, it has removed the role of intermediaries in any lending transaction, thus, reducing the time to approve. Also, it has reduced dependency on physical documentation that can easily invite fraudulent activities, while smart contracts cut service and administration costs. Lending companies need to innovate and upgrade the centralized system and pay the way for blockchain technology, which is secure, reliable, transparent, and efficient. Therefore, this paper discusses the benefits of using blockchain technology in lending, its applications, and its limitations.

Blockchain Technology Benefits in Lending

Enhanced Security

Blockchain technology in the financial services sector brings a high level of security. It provides a tamper-proof and decentralized ledger that records all loan-related transactions. The decentralized ledger records all transaction data securely and transparently. This ensures transaction data of leans cannot is secure and cannot be changed after the fact. Smart contracts that are involved in blockchain technology and the one that is self-executing ensures it automatically executes conditions. This enhances that collateral is transferred securely and transparently (Martino, 2019). In addition, blockchain technology ensures that financial transactions are completed quickly, reducing the risk of somebody capturing transaction data or diverting payments. Also, the private and public security keys used for each ensure the transaction is unalterable once it has been verified.

Cost Management

Blockchain technology in the lending industry has led to cost reduction. Traditional lending systems involve high transaction costs due to intermediaries and bureaucratic manual processes. Blockchain technology eliminates the need for intermediaries, thus, reducing the cost for both the institutions and their customers. Several transactions in traditional banks and financial institutions cost a significant amount, keeping customers off the business transaction (Hoque, 2022). Cryptocurrencies threaten banks and other financial institutions because it allows the same operations for lower costs. Using blockchain technologies, financial institutions can reduce internal spending for different software and processes and simultaneously reduce customer fees.

Improved Transaction Data Speed and Quality

The use of blockchain technology in lending can establish a conventional transaction speed that can ensure financial operations are effective. The presence of third parties and intermediaries in traditional lending imposes delays and prolongs the lending process. Blockchain technology is considerably faster than conventional ones. For instance, in a traditional bank, a person must wait several business days for the money to be transferred within the United States, even for weeks if it's overseas (Hughes et al., 2019). In addition, smart contracts play a significant role in enhancing the quality of stored data. They automatically verify and enforce contracts. This transaction data is moved into shared ledgers and inherits the benefits of blockchain.

Enhanced Transparency and Accountability

Transparency is another benefit of blockchain technology in lending. Traditional lending systems are often opaque, with limited access to information. However, blockchain technology solves this problem by providing a transparent and immutable record of all data, making it easy for lenders and borrowers to access information. This technology makes it transparent for all the activities in the lending industry, whereby all the parties involved in the lending process can view the transaction history, such as loan application, approval, and repayments. With a high level of transparency, the level of fraud and misuse of company assets is reduced. Financial institutions have significantly reduced all errors made in their transactions due to digitally generated transactions (Hugo Hoffmann, 2021). Therefore, blockchain technology has made all data easy to check and verify, which has ensured financial lending companies process transactions more consistently.

International Transaction Facilitation

Blockchain technology in lending help surpasses geographical barriers. Many financial institutions and customers suffer from long lending processes when sending and receiving payments to accounts in different countries. Blockchain technology does not consider where the money comes from and where they are sent to. This network operates fully on the Internet; therefore, it does not rely on physical borders (Truby & Ismailov, 2022). Customers worldwide can benefit from this technology in cheaper transactions, and financial institutions improve their services by speeding up time.

Application of Blockchain Technology in Lending

Peer-to-Peer Lending

Peer-to-Peer lending is lending and borrowing between strangers through a for-profit online platform. This is done without visiting any traditional financial institution, but they may participate as lenders in some scenarios. This lending service started in the United Kingdom in 2005, then spread to the United States, where it quickly took the lead in loan volume. This financial system allows people to lend money to others directly without the involvement of traditional financial intermediaries, such as banks. Peer-to-Peer lending provides a convenient and cost-effective way for borrowers to access loans and for lenders to earn attractive returns on their investments. Blockchain technology is applied to this peer-to-peer lending to enhance transparency, reduce transaction costs and reduce fraud. Blockchain technology provides a decentralized, transparent, and secure platform for Peer-to-Peer lending. Blockchain technology involves a distributed ledger that permits numerous parties to maintain a shared database without requiring a central authority. This technology verifies all the transactions that are involved in the money exchange. It contains blocks, each with a timestamp and a cryptographic hash that verifies the P2P lending transactions. Once blocks have been added to the chain, they cannot be changed, a characteristic that provides security and transparency of all recorded transactions on the network (Gonzalez, 2020). Therefore, blockchain technology makes peer-to-peer lending transparent, secure, and accountable.

Blockchain technology has numerous benefits for Peer-to-Peer lending. Applying blockchain technology in lending involves transparency, increasing the trust of all parties to P2P lending. Using a public blockchain, all parties involved in the transaction can view the borrower's history and gain essential financial information, such as credit score, income, and borrowing and repayment history. This allows lenders to make lending decisions informed by various characteristics to determine lending money and the interest rate. It provides borrowers with transparency and accountability information, where they can see precisely how their loan is being used and how much interest they must pay. In addition, Peer-to-Peer lending uses blockchain technology to enhance the security of their operations (Yan & Zhou, 2023). This led to a decentralized network in P2P lending, significantly reducing the risk of fraud and hacking. Cryptography introduced by use of blockchain technology ensures all transaction data cannot be changed or tempered because of the use of private and public keys and blocks in every transaction. Smart contracts are used in Peer-to-Peer lending to automate the lending process. Here blockchain technology is applied to ensure funds are only released once certain conditions are fulfilled, such as the borrower meeting their repayment schedule. Also, blockchain technology is used in P2P lending to reduce transaction costs. It helps eliminate the need for intermediaries and automates everything in the lending process. This ensures lenders earn higher returns on their investments and borrowers access loans at lower interest rates. However, applying blockchain technology in Peer-to-Peer lending involves some challenges, such as scalability. Due to the limitation of this technology of, the number of transactions it can process within one second makes it challenging to meet the demands of customers and company lenders when the lending market is large and busy (Manda & Yamijala, 2019). This problem can be addressed by developing new blockchain protocols and using off-chain solutions. Therefore, blockchain technology applies to Peer-to-Peer lending to solve challenges facing the lending market. It provides a transparent, secure, and cost-effective platform for lending. It is also a revolutionary way to evaluate, access, and invest in the lending business by determining the credit score of all borrowers before transactions.

Trade Finance

In the traditional business process, the trade finance business mainly adopts semi-manual operations. This business operation is not transparent, authentic, and verifiable. These business transactions are not authentic since the background information of the trade subject is challenging

to verify. Applying blockchain technology in trade finance improves information transmission, identity authentication, and data security. Financial institutions use this blockchain technology to develop an inter-bank message interaction network in alliance chains. Trade finance is a complex and costly process that involves multiple parties, such as importers, banks, exporters, and insurers. The traditional business trade finance process has been slow, inefficient, and prone to errors and fraud (Khadka, 2020). Therefore, blockchain technology would be applicable in trade finance to transform the traditional business process to provide a secure, transparent, and automated platform for trade transactions.

Various challenges are involved in trade finance as several paper documents account for a significant portion of the information shared between trade partners. Most trade finance services involve a substantial amount of physical paperwork being scuffled among all the parties involved in the business process. Also, the cost and time are highly required to make all these various business transactions. Applying blockchain technology in the trade finance sector has been vital as it has changed business methods by redefining value chain interactions. It has reduced operational complexity and reduced transaction costs. These new technologies involve a distributed database that separately upholds a continuously growing list of transactions as they are recorded in secure blocks (Rijanto, 2021). The idea of blockchain technology in trade finance has been used to decentralize data storage so that it cannot be manipulated. This involves links of blocks to ensure point-to-point connection, consensus mechanism, and encryption algorithms.

Applying blockchain technology to this industry facilitates trade finance using its distributed network. This distributed network upholds transparent records of essential transactions between trading stakeholders. It effectively enhances transaction transparency and supply chain traceability. According to McDaniel et al. (2019), using blockchain technology in trade finance would make trade paperless, benefiting the supply chain hugely. It would benefit the supply chain by reducing costs, eliminating document errors, and fostering faster transfer of documents to customers. Adoption of blockchain technology would increase revenue generation for financial service businesses, such as banks or credit unions. Customers from across borders will be attracted to shift from open accounts to documentary credit transactions selectively. Many customers will shit because of the benefits implementation of blockchain technology will bring to the trade finance industry. Customers would perform their transactions in less time compared to the traditional trade finance process. Therefore, blockchain technology is applicable to trade finance

to handle the weaknesses of the traditional paper-based trade finance system and make it secure, cost-effective, transparent, and accessible.

Supply Chain Financing

Blockchain technology can significantly solve various challenges in traditional supply chain financing. Supply chain financing is a process by which suppliers can finance their working capital needs by leveraging their receivables. Suppliers receive payments for goods and services as buyers extend their payment terms. Blockchain technology has a significant impact on the supply chain financing industry. It helps suppliers' cash flows, as they can receive their payments on time and use it for other activities, such as settling expensive bank loans (Gozman et al. 2020). Therefore, blockchain technology can revolutionize the supply chain by making the process more efficient, secure, and transparent. When applied in practice, blockchain technology can benefit supply chain financing significantly.

Blockchain technology can apply to supply chain financing to increase efficiency and reduce fraud. It reduces the time to settle a transaction, eliminating various processes. In traditional supply chain financing, suppliers have to wait for their invoices to be approved by buyers, which can take several days to complete. Blockchain technology simplifies this process by making all involved parties in the transaction access the same ledger, thus, making it track the transaction's progress and reducing the time it takes to settle any disputes or discords that may have arisen. Also, blockchain technology has helped to detect fraudulent invoices (Li et al., 2020). Companies are paying suppliers for goods and services that were never delivered. Blockchain technology applications in these companies can effectively handle the fraud problem as transactions are recorded on a secure ledger, making it impossible for fraudsters to manipulate the system.

In the context of supply chain financing, smart contracts can streamline the process and automate the payment channel. Traditional supply chain financing has a process where the buyer must wait for days to approve the goods and services delivered before giving out the payment. Blockchain technology in this industry would create payment channels between buyers and suppliers. It will reduce the time required to verify each transaction between all the involved parties. With the implementation of blockchain technology, the last payment closes the channel, and the final transaction verifies by the blockchain network. This ensures an automated payment process (Du et al., 2020). For instance, a supplier and a buyer can establish a smart contract that specifies the

payment conditions for a specific transaction. The smart contract automatically executes and begins payment to the supplier after the customer has received and evaluated the products or services. This removes the need for intermediaries, shortens the settlement period, and increases transaction efficiency.

Fraud Prevention

Traditional fraud protection methods that need numerous parties to validate transactions may be evaded by blockchain technology. The lending industry relies intensely on contracts, processes, and transaction data. Adopting blockchain technology may significantly improve the competence of this vast volume of moving documents. Due to its decentralized nature, blockchain creates difficulty. Blockchain technology's essential contributions to the financial industry include decreasing fraud, offering speed and secure transactions, and eventually supporting risk management inside the networked worldwide lending system. Fraudsters often target financial lending institutions. When processing transactions, financial organizations may find it less dangerous to use this cryptography (McDaniel et al., 2019). Contracts take up much time for businesses since they are essential to financing. Self-executing contracts might significantly improve the efficacy of this process.

Calculate Credit Score

Blockchain technology makes it possible to create new lending products and services, such as the availability of financial services, lower prices, and the establishment of more secure business networks. During audits, financial service providers' accountants and compliance officers might offer thorough information. It encourages dishonesty, uneven compliance, unethical behavior, and extended auditing periods. Blockchain can speed up the auditing process for financial services. Auditors can use blockchain data to assess if compliance standards are being met and what is going on within a specific due to its immutability. Blockchain may also enable businesses to compute credit ratings based on unconventional standards. The management of credit ratings on a blockchain might be used to increase system transparency.

Lenders can utilize unchangeable blockchain technology to record financial data to evaluate each borrower's creditworthiness. Smart contracts ensure that no applicant's private data is ever disclosed or made publicly available. Thanks to blockchain technology, financial service providers

can preserve the user's legal, private, and public data (Wang et al., 2020). The fund investment businesses may instantaneously track users, as well as the function and identity of data users, using an immutable smart contract. Thus, using blockchain technology in lending services can improve fund investing's transparency.

Tokenization

Tokenization, the creation of tokens on a blockchain technology that represents physical assets, is a process that heavily relies on blockchain technology. With the introduction of Central Bank Digital Currencies, blockchain's use in banking is expanding. Additionally, financial service providers are looking at blockchain technology to simplify fund management. If blockchain technology is used to fund administration, financial service organizations may find it simpler to manage cost management demands. Blockchain technology enables the creation of decentralized apps. Interoperability is possible, even among banks and various exterior services like blockchains. All of these features share the security and reliability of the blockchain. The most sensitive aspects of blockchain and AI technology may be combined to create products that benefit from both. A simple token system may increase a platform's usability and appeal to banking services. Customers' requests are primarily stored on the blockchain, which is also utilized to generate AI-based decisions. The payments sector has increasingly embraced blockchain technology, which has altered the nature of transactions (Tian et al., 2020). It revolutionized the financial services industry by eliminating incorruptibility and promoting efficiency and simplicity by adopting new financial procedures and infrastructure.

Store Financial Transactions

Financial transactions may also be safely and permanently stored with this blockchain technology technique. It may be combined with any other data to produce a principled distributed record that is more secure than traditional databases. This application has a variety of applications. It can accumulate a patient's medical history in clinics and hospitals. Additionally, it may be used to protect intellectual property and creative digital things like e-books, music, and photographs. It may also be used to register vehicles and real properties. In general, individuals are upbeat about implementing blockchain in the financial industry. Many business executives believe blockchain

technology can revolutionize business and financial services, much like the Internet did for offline trade.

The foundation of blockchain technology is a distributed database that separately upholds an endlessly developing list of transactions that are recorded in units called blocks and are impermeable to alteration and tampering. The majority of blockchain networks aim to provide a database system where decentralized institutions or agents may cooperate to store information without any one organization continually exercising market power or control. Blockchain technology is based on decentralizing data storage so that a single entity cannot own, possess, or change it.

International Payments

Everything may alter because of international payments; several multinational banks have encompassed blockchain technology, which saves time and money. This technology's money transfers eliminate the need to go to a money transfer center, stand in line, and pay transaction fees by enabling customers to send and receive money online through their mobile phones. Most money transfers occur through financial organizations like banks or companies that accept credit cards. Blockchain technology is undergoing revolutions on a global scale. Every industry has blockchain applications, no matter what we look at. Many businesses in the supply chain, healthcare, logistics, banking, and other sectors are expanding thanks to blockchain technology (Khadka, 2020).

The main goal of blockchain applications is to increase the efficiency and transparency of corporate processes. Companies are beginning to comprehend how blockchain technology may assist them and their operations in growing. As companies experiment with multiple platforms by developing blockchain apps, the requirement for new blockchain platforms is rapidly increasing. Blockchain technology is well-known due to its decentralization and transparency. On these blockchain networks, several companies are considering creating cutting-edge financial applications. Blockchain-based financial applications do not have problems with immutability, security, or centralization. Therefore, numerous businesses are concentrating their efforts on blockchain technology because of its many benefits to international payments.

Identity Verification

Identity verification is an essential process in many industries, especially lending. It is applicable to ensure that the borrower is a real person with a valid identity. Identity verification involves using blockchain technology to decrease the risk of fraud and enhance the security of lending transactions. Blockchain technology ensures secure and decentralized identity verification, simplifying lenders' processes to identify borrowers. A blockchain-based identity verification system is used in cryptography, which enhances users' security and protects them from unauthorized access. The development of digital identities on the blockchain is one method of doing this. An exclusive identification produced and kept on the blockchain is a digital identity. It may be used to securely and decentralized verify a person's identification. The identity information may be kept secure and private by using blockchain-based identity verification systems to ensure that only the person can access it.

Using self-sovereign identification (SSI) systems is another method for blockchain-based identity verification. Users of SSI systems can manage their identified information and only share it with third parties as required. Verifiable credentials and digital documents with verified user information, including name, address, and date of birth, may be made using SSI systems. These credentials can be kept on the blockchain and used to securely and decentralized confirm the user's identity (Malhotra et al., 2022). Therefore, blockchain-based identity verification offers a secure, efficient, and cost-effective way to verify borrowers, thus, helping lending companies to decrease fraud and enhance the security of all lending transaction data.

Digital Currencies and Transactions

Digital currencies represent the newest generation of blockchain-based assets. Companies that use blockchain technology are decreasing the entrance obstacle and providing a smooth exchange of the most well-known cryptocurrencies as a banking alternative, even though digital money is already in use. Even though several laws and regulations govern banking, many financial organizations are beginning to see the potential of blockchain technology and cryptocurrencies. Blockchain might expand the scope of accounting to consider additional aspects that are now seen as being too challenging or untrustworthy to assess, such as the value of a company's data, by abolishing resolutions and giving confidence over transaction history.

Financial organizations may use blockchain technology to preserve records and books while complying with regulatory standards since it provides distributed, immutable transaction records.

The speedier transaction settlement times provided by finance blockchain applications can improve existing financial services. Lenders will be able to finance loans more rapidly, suppliers will get paid more quickly, and stock exchanges will be able to settle buying and selling of securities more quickly, for example. Applications for the property blockchain do away with the necessity for one-on-one, paper-based communication, reducing costs and human error while speeding up the process (Khadka, 2020). Since it allows them to offer competing prices and cut personnel expenses, removing intermediaries, benefits both borrowers and financial institutions.
Digital currency transactions like Bitcoin transfers are the most common ones that use blockchain; the likelihood of currency inflation or devaluation is reduced by its independence from a country or organization. Blockchain for financial transactions eliminates a centralized authority's need for transaction verification. Blockchain presents a wide range of opportunities and challenges. Blockchain applications are now available to complete financial data and clear the interchange of several diverse financial properties. The transaction was completed in a short amount of time. An equivalent transaction, meanwhile, may take a week to execute using a paper-based approach. By improving security, speed, and operational effectiveness, blockchain's distributed-ledger design can benefit banks in several business areas, such as payments, asset management, loyalty, and lending. Blockchain technology may dramatically impact these problems, which helps regulators, financial lenders, and the public in numerous ways (Li et al., 2020). The two core characteristics of blockchain technology, decentralization, and immutability, are crucial. Blockchain technology can improve private policy compliance and assist regulators by increasing the transparency of the financial services industry. By acquiring a complete viewpoint and a sole foundation of truth for their properties and transactions, financial organizations may simplify and reduce the cost of the auditing process.

Limitations

Since its inception, blockchain technology has disrupted various lending companies with changing degrees of success. Its key features, like decentralization and immutability, significantly impact the lending industry and make it an appealing sector in the economy. On paper, blockchain technology is seen as a faultless solution to address common pain points in the lending industry, but blockchain imposes various challenges in real applications. Although blockchain technology can transform the lending industry, it still has several drawbacks on its way. Its decentralized

nature imposes some limitations on many lending companies that look to adopt the technology. The four main blockchain technology limitations for the lending industry include lack of governance, costs, non-scalability, and regulatory compliance risks.

Governance-Related Limitations

The decentralized structure of blockchain technology is measured as a benefit, but it can possess various limitations for the lending industry. This technology makes the industry lack a central decision-maker, where companies contributing to a blockchain-powered lending transaction can have skewed motives. With time these motives can become a serious bottleneck. According to Hughes et al. (2019), the inception of blockchain technology in the lending financial services sector in 2016 eliminated the need for governance by developing an automated decision-making system. The developed system was referred to as DAO Hack. This technology involved the creation of smart contracts that separately run the organization. Because of the DAO vulnerability, the system was hacked, stealing around fifty million dollars' worth of cryptocurrencies. Therefore, decentralizing the nature of blockchain raises several red flags where controlling all activities in the decentralized system may be difficult, thus, vulnerable to hackers.

Costs Management

Adopting blockchain technology is expensive and time-consuming, mainly because qualified blockchain developers are scarce. Small and medium-sized lending businesses may not afford to develop and switch their operations to blockchain technology. This technology involves high costs of developing and maintaining the networks, as training staff and implementing new processes involves millions of dollars. In addition, setting up the blockchain technology infrastructure requires significant investment in hardware and software. There is a need to invest in software development to create blockchain technology applications, such as purchasing servers, storage devices, and networking equipment to support the network (Martino, 2019). Integrating the blockchain technology with existing systems is a complex and time-consuming process. Lenders should ensure the existing systems can effectively communicate and transfer data to the new blockchain technology without malfunctioning. Therefore, due to their limited resources, developing and implementing blockchain technology in lending can be prohibitive for some lenders, especially small and medium-sized businesses.

Scalability Issues

Blockchain technology is an infancy technology with a network that can only process a limited number of transactions per second. This limits the lending institutions' processing of a high volume of transactions. For instance, a Bitcoin network can process only seven transactions per second, while the Ethereum network has an enhanced capacity to process fifteen transactions per second. This is lower than a traditional financial system could process in one second. A traditional financial system can process thousands of transactions per second. In addition, a blockchain technology network can involve network congestion, slowing the transaction process and increasing the time required to complete particular transactions (Hughes et al., 2019). This imposes a problem on the lending industry because it should process data transactions quickly and efficiently to avoid fraud risks. Therefore, scalability issues can significantly limit blockchain technology in lending.

Policies and Regulations

Blockchain technology is a new network in the economy; thus, many policies and regulations challenge still need to be addressed, especially in the lending industry. Financial lending institutions lack clarity around regulations (Martino, 2019). For instance, no regulation governs the transfer of cryptocurrencies and smart contracts. Therefore, with the current regulatory framework, financial lending institutions will continue facing challenges until a proper regulatory framework is established.

Conclusion

Blockchain technology is being adopted by many financial lending institutions globally as they require it to be more connected. In the lending industry, blockchain technology’s primary objective is to provide a tamper-proof ledger for virtual currency like cryptocurrencies. Applications based on blockchain retain the integrity of the data, allowing lenders to target the right clients who need financial aid. The use of this technology for financial payments is growing. Payments are significant since most individuals trade money via their bank accounts. Since the beginning of the digital revolution, banks have been at the vanguard, adopting disruptive innovations in interchange for secure payments and creating their digital currencies. Adopting blockchain technology in the lending industry has various benefits, allowing lenders and customers to follow every transaction in real time. Due to blockchain technology, financial lenders can settle data transactions on a

general blockchain. For blockchain technology to become an extensively utilized technology in the lending sector, it must satisfy several conditions. Blockchain technology's capacity to exchange data and temporarily make property available to another party would significantly alter our mobility.

Blockchain technology is an effective technology that can potentially revolutionize the lending industry. It has various benefits in the industry, such as creating a transparent, secure, and cost-effective lending system. This technology has benefits such as enhanced security, cost management, enhanced transaction data speed and quality, transparency, and accountability, and facilitating international lending. The inception of blockchain technology has been effective in various applications such as Peer-to-Peer lending, trade finance, supply chain financing, fraud prevention, credit score, tokenization, store financing transactions, international payments, identity verification, and digital currencies and transactions. However, blockchain technology involves various limitations, such as a lack of governance, costs, non-scalability, and regulatory compliance risks.

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