



e-ISSN:2582-7219



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

Volume 7, Issue 7, July 2024



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 7.521



6381 907 438



6381 907 438



ijmrset@gmail.com



www.ijmrset.com



Bank Record Storage Using Blockchain

Sravanthi Kalal, Rahul M H

Assistant Professor, Department of MCA, AMC Engineering College, Bengaluru, India

Student, Department of MCA, AMC Engineering College, Bengaluru, India

ABSTRACT: Financial service providers find blockchain technology useful to enhance authenticity, security, and risk management. Several institutions are adopting blockchain in trade and finance systems to build smart contracts between participants, improve efficiency and transparency, and open up newer revenue opportunities. Blockchain's unique recording capabilities make the existing clearing and settlement process redundant. Banks and other financial entities are adopting blockchain-enabled IDs to identify people. Better results come from organisations' capacity to foresee emerging trends in financial blockchain applications and develop blockchain functionality. The transfer of asset ownership and addressing the maintenance of a precise financial ledger. Measurement, communication, and analysis of financial information are three significant areas to be focussed on by accounting professionals. Blockchain clarifies asset ownership and the existence of obligations for accountants, and it has the potential to improve productivity. This paper identifies and studies relevant articles related to blockchain for finance. This paper focuses on Blockchain technology and its importance for financial services. Further takes up various tools, strategies, and featured services in Blockchain-based financial services. Finally, the paper identifies and evaluates the significant applications of Blockchain technology in financial services. Credit reports significantly impact the financial lives of customers.

Recent data breaches demonstrate the superior security of blockchain-based credit reporting over conventional server-based reporting. Blockchainbased systems enable the faster, more cost-effective, and more customised issuance of digital securities. With its adoption, the market for investors can be expanded, costs for issuers can be reduced, and counterparty risk can be reduced due to the ability to customise digital financial instruments to the demands of investors. It uses mutualised standards, protocols, and shared procedures to give network users a single common source of truth. Participants in the business network can now more easily collaborate, manage data, and agree with this technology's application.

KEYWORDS: ledger,blockchain

I. INTRODUCTION

Users can update the block chain network using a decentralized approach provided by block chain. Block chain networks are free from financial institutions' intervention. Block chains can be used to store information, and the distributed ledger technology makes it easier to share information. It can be used to have direct communication with network users. Block chain offers a safe network for conducting transactions. Block chain technology appeals to a variety of enterprises due to its strong security system. As a result of the independence of each company's accounting operations, data reconciliation takes time and resources. By enabling the real-time recording of transactional, contractual, and other information in a shared ledger, block chain technology can solve this problem. It alludes to the possibility of improving the customer experience and making data transfers and identities more secure. Wire transfers, which require time, and money, however, cannot be combined. Block chain technology payments eliminate these issues and boost client confidence. Real time cash transfers between financial institutions are made feasible by technology, which reduces friction and speeds up settlement. This technology is excellent for tracking transactions and has the potential for automation. Smart contracts can be used by financial service providers to track customer payments and seller deliveries This article examines block chain technology, including its benefits, uses in banking, and tools and features.

II. LITERATURE REVIEW

"Bank Record Storage Using Blockchain"

This paper examines the integration of blockchain technology in financial archives, emphasizing its role in enhancing data integrity, transparency, and security. It explores various blockchain frameworks and their applicability in archival contexts, highlighting benefits such as immutability and decentralized storage.



"Impact of Blockchain on Financial Data Management and Archives"

This review assesses the impact of blockchain on financial data management and archival practices. It discusses the challenges and opportunities presented by blockchain in ensuring trustworthy records and efficient archival processes.

"Bank Record Storage Using Blockchain: A Systematic Literature Review"

This systematic review analyzes existing literature on blockchain applications in financial archives, categorizing use cases into authentication, audit trails, and archival preservation. It identifies gaps and future research directions for leveraging blockchain in financial record-keeping.

"Security and Trust in Financial Archives: The Role of Blockchain Technology"

Focusing on security and trust issues, this review examines how blockchain technology enhances the security and reliability of financial archives. It discusses cryptographic techniques, consensus mechanisms, and regulatory considerations impacting blockchain adoption.

"Bank Record Storage Using Blockchain: Opportunities and Challenges"

This paper reviews opportunities and challenges associated with implementing blockchain technology in financial archives. It evaluates factors influencing adoption, such as scalability, interoperability, and regulatory compliance, providing insights into its transformative potential in archival practices.

III. EXISTING SYSTEM

Blockchain-based technologies may potentially aid in the development of capital markets. Traditional trade financing techniques have long been a source of annoyance for firms, as the lengthy processes frequently disrupt operations and make liquidity challenging to manage. Blockchain can ease cross-border operations and streamline trade finance transactions. It facilitates business transactions beyond regional or geographic boundaries in a secure manner. Blockchain is particularly suited to tasks like real-time tracking commodities as they move and change hands across the supply chain due to its immutable record. Using a blockchain gives businesses that deliver various items and possibilities. Events in a supply chain, such as allocating arriving items to different shipping containers, can be queued up using entries on a blockchain. A novel and flexible method of organising and utilising tracking data are provided by blockchain technology. The primary research objectives of this paper are as under:

RO1: - to brief about Blockchain technology and its need for financial service;

RO2: - to discuss the tools and strategies in Blockchain for financial services;

RO3: - to study the various featured services of blockchain technology in the financial domain;

RO4: - to identify and study the significant applications of Blockchain technology in finance service.

Disadvantages

- In an existing system, public blockchains depend on a consensus mechanism, usually proof of work, which is inefficient, has slower transaction times and requires high power consumption compared to permissioned blockchains.
- An existing systems that don't preserve the privacy of the Bank Records fail to prevent unfair Storage.

IV. PROPOSED SYSTEM

Blockchain is a digital database that enables simultaneous storage of certain operation records across numerous machines. Digital data on transactions, contracts, and contact databases are stored using this technology as a series of interconnected blocks. The absence of transparent and unambiguous financial system regulations exposes the business to common mistakes and inaccurate information interpretation [27,28]. Blockchain technology addresses the majority of these problems and dramatically lowers financial risk.

System Architecture:

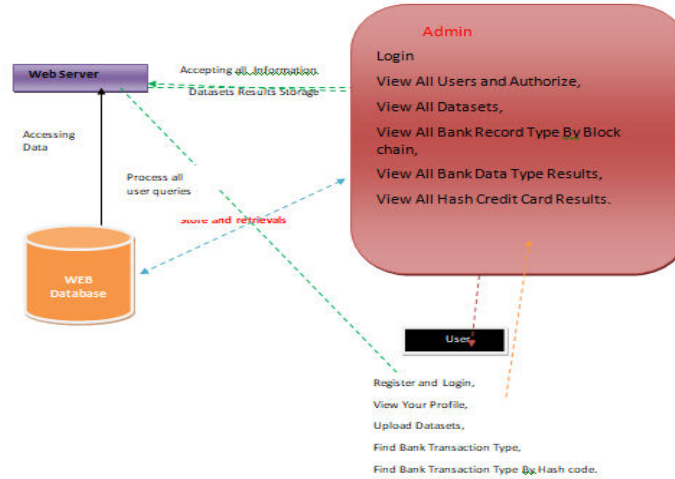


Fig 1 Architecture

The importance of Blockchain technology is becoming more widely known. It is surrounded by a small number of people trying to figure out how to adopt and use this technology’s advantages in their companies. The main goal of founding banks was to unite the population and make it possible for them to engage safely and efficiently through trade and commerce. A creation that makes it easier to complete various activities on a global scale is the blockchain platform.

Advantages

In the proposed system,Blockchain technology can reduce costs for financial services providers and end users while enhancing payment transparency,efficiency, trust, and security. Before the advent of blockchain technology, payments between banks could take up to a week to transfer. Through digital currencies and distributed ledger technologies, payments are quicker, less expensive, and more convenient.

V. MODULE DESCRIPTION

Admin

In this module, the Service Provider has to login by using valid user name and password. After login successful he can do some operations such as Login , View All Users and Authorize, View All Datasets, View All Bank Record Type By Block chain, View All Bank Data Type Results, View All Hash Credit Card Results.



FlowChart:

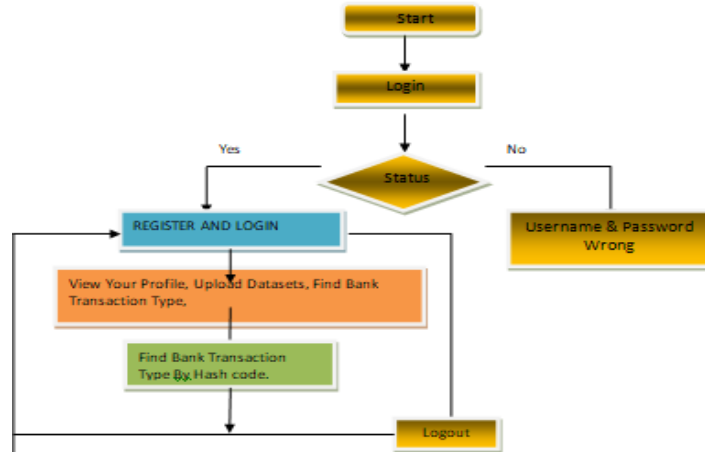


Fig 2 Flow chart

View and Authorize Users

In this module, the admin can view the list of users who all registered. In this, the admin can view the user’s details such as, user name, email, address and admin authorizes the users.

User

In this module, there are n numbers of users are present. User should register before doing any operations. Once user registers, their details will be stored to the database. After registration successful, he has to login by using authorized user name and password. Once Login is successful user will do some operations like Register and Login, View Your Profile, Upload Datasets, Find Bank Transaction Type, Find Bank Transaction Type By Hash code.

VI.RESULT

Block chain technology is being adopted by factories worldwide as they get more and more connected. The future factory will comprise a vast network of equipment, accessories, goods, and value-chain partners, like equipment suppliers and logistics companies. The main goal of this technology is to develop a tamper-proof ledger for digital assets like crypto currencies. Block chain applications maintain data integrity, enabling marketers to target the relevant consumer segments and musicians to obtain fair royalties for their original compositions. This technology is gaining ground in banking payments. People exchange money mainly through their bank accounts; therefore, payments are crucial. Banks have long been at the forefront of the digital revolution, accepting disruptive developments in exchange for reliable payments and printing their digital currencies. Block chain technology allows banks to track every transaction in real-time.

VII. CONCLUSION

This technology will enable banks to settle transactions on a public block chain. Banking executives need to fulfill several requirements to become a widely used technology in the banking sector. Block chain’s ability to share information and temporarily make the property available to someone else would dramatically change our mobility. By utilizing intelligent contracts over the Block chain, it would be feasible to directly pay for and utilize a car while finding solutions to issues like electro mobility. Smart contracts can be used by businesses using Block chain in finance to upload invoices to the Block chain. The Block chain can contain data like payment due dates, amounts, and client information. The smart contract updates the invoice status to paid when the customer pays the bill and notifies the businesses that the payment has been received. Blockchain in financial services can assess a client’s trustworthiness before trading. In the future, blockchain will play an important role and manage various activities in the finance sector.



REFERENCES

- 1] M. Kowalski, Z.W. Lee, T.K. Chan, Blockchain technology and trust relationships in trade finance, Technol. Forecast. Soc. Change 166 (2021) 120641.
- [2] S. Trivedi, K. Mehta, R. Sharma, Systematic literature review on application of blockchain technology in E-finance and financial services, J. Technol. Manag. Innov. 16 (3) (2021) 89–102.
- [3] P. Treleaven, R.G. Brown, D. Yang, Blockchain technology in finance, Computer 50 (9) (2017) 14–17.
- [4] V. Chang, P. Baudier, H. Zhang, Q. Xu, J. Zhang, M. Arami, How Blockchain can impact financial services—The overview, challenges and recommendations from expert interviewees, Technol. Forecast. Soc. Change 158 (2020) 120166.
- [5] M.J. Lahkani, S. Wang, M. Urbański, M. Egorova, Sustainable B2B E-commerce and blockchain-based supply chain finance, Sustainability 12 (10) (2020) 3968.



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com