

BUILD UP BLOCKCHAIN TECHNOLOGY IN FINTECH: MERITS, DEMERITS, FUTURE IN FINANCIAL SECTOR.

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Abstract :

Over the year privacy issue is there in traditional banking system and yes, the traditional banking system is improving very slowly. Financial stability is the biggest issue for everyone who wants to secure money for the future. Even in recent years also transactions take time if anyone does through traditional banking system sometimes days also for one transaction which is solved by fintech. And another issue is keeping record of all transactions chronologically in order and giving privacy for that data which at some extent is solved by blockchain technology.

It overcomes the problem of third party involvement between their saving and their future to fill the gap between one person's transaction to another person. Blockchain seems to be a good solution for fintech.

This paper is to analyze how much blockchain is effective and what are the merits and demerits of blockchain in fintech, and how blockchain helps fintech to handle financial services for users using cryptocurrency form. This paper is also focused on the future of blockchain in fintech. The researcher is doing doctoral research in this paper.

Keywords: Traditional banking system, Fintech, Blockchain, Cryptocurrency, privacy of Transaction.

Introduction

1. Blockchain Technology :

Blockchain technology is one of the best technologies where all people are interested in. The word (Blockchain) consists of two parts, the blocks: means the digital data and the chain: which means all the digital data are interconnected like a chain. In other simple words, it is the digitalized record-keeping technology which uses a public database to keep that record.[1]

Concept of Blockchain :

In the above diagram it shows whenever one transaction of data is wanted to be done by one machine it creates a block for that transaction and it is sent to every node and every node validates that transaction and creates POW and attaches that block to the existing block and then that transaction is complete. Here in this you can see that data privacy is required to avoid attack by an attacker so they use the data mining concept while transferring one transaction to another machine.

Types of Blockchain

Public blockchain: When any transaction is wanted to be done by one person to another person without the intermediate of a third party becomes a decentralized system and that is followed by blockchain which can be utilized by anybody with ability. The reason behind public blockchain is any transaction should happen in a distributed manner.

Private Blockchain : Private blockchain is not fully decentralized and is constrained by the delegate. Every exchange is controlled by someone before any transaction. Private blockchain is faster and less cost in contrast with public blockchain. It is generally reasonable for corporate business and administration models. [4]

Hybrid blockchain: Hybrid blockchain is a combination of private and public blockchains. It gives a decentralized climate in a private organization. It offers incredible adaptability and authority over the information. It is generally appropriate for exceptionally directed organizations. XinFin is an illustration

of half and half blockchain worked by joining Ethereum(public) and Quorum(private). It gives answer for worldwide exchange, account, and inventory network[4].

2.FinTech:

If you ever transfer money to anyone through online using any app is called Fintech .Fintech is stand for financial technology which recent trends for people to do transaction of Money.

Fintech is include huge range of product,technologies and business models that are changing financial service industry.It refer to cashless payment, crowdfunding platform ,robo advisor to virtual currency or Cryptocurencey

2.1 Benefits of FinTech in Banking sector

There are many opportunities related to FinTech for Banking sector of any business

2.1.1 Flexibility of banking services: services which offer by any customer is make flexible by fintech banking

2.1.2 less amount of loan permission - fintech provide credit to used to get small amount of loan which bank doesn't able to provide user.

2.1.3 fast payment method - transaction makes less cost to user and fast payment method provided by fintech

2.2 Threats of FinTech for Banking sector :

2.2.1. Cyber risks- cloud computing, AI and other technologies facilitated to increase interconnectivity potentially make more vulnerable to cyber-attacks [5].

2.2.2.Tampered Data :Data privacy is not provided since its technology comes in picture there is possibility of data manipulation is result to tampered original data.

To overcome above problem fintech focus on virtual currency/cryptocurrency app which used block chain technology .when it comes to money transaction,privacy of Transaction detail etc.

application where blockchain in fintech proof:

Block chain technology is first comes in fintech solution as “Bitcoin” in the year 2008 for the user

Crypto currency/Bitcoin:Crypto currency is digital format of currency which doesn't have physical existence.every transaction of digital money is completely based on online in network computers.It follow decentralized structure which is one of property of block chain where no control of third party involve in any transaction of digital money.its help to to do peer to peer transaction directly. In cryptocurrency every transaction is peer to peer network so all transaction record is maintained by block chain technology which is used to make money in digital formate.“If a digital currency becomes universally accepted as a medium of exchange of value, then it has the potential to replace fiat currencies,” thinks Seen Meng.

How Bitcoin process using Block Chain Technology :

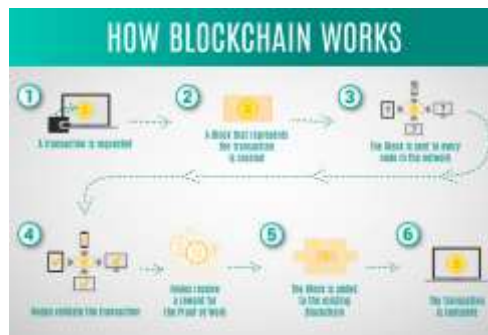


Figure 1.[2]

Example :

Let take example of bitcoin application : Let assume 3 friends names Tim, John, Kim they decided to go out for dinner once they finish dinner only Tim has paid full money. Next day John and Kim try to send their share to Tim by online transaction of money. John successfully paid his share to Tim but Kim not able to transfer because of some site issue of online banking. That when John come to know transaction failed because of account hacked, technical issue, daily transfer limit exceeded to solve this problem Cryptocurrency come into picture

Now, in Bitcoin example where Tim, John and Kim have Bitcoin as their contribution to previous dinner its easy to understand why Kim is not able to transfer money since all transaction record is maintained in distributed ledger which is property of block chain technology follow in Bitcoin as cryptocurrency.

Merits blockchain is build up in fintech.

1. computerized ledger :

Generally ledger book is used by accountant to keep transaction record in exactly same way the way user is doing transaction of their money. So that record is maintained for as proof for user to see where and how and when money is used and transfer to anybody. This process exactly follow in digital ledger without control of accountant. Which follow in block chain technology.

Because of this process entire life cycle of money is recorded in chronologically ordered for the user. In the absence of accountant. "It creates a never-ending chain that continues on and on as long as there are active people using it," says Benjamin Xie, also a lecturer in cryptocurrencies and related topics at EU Business School. This important for any user to keep transaction of money record for their knowledge for money flow of their own. Recording transaction automatically shows block chain help to reducing the amount of time needed to record ledgers, and the costs of recording them manually.

2. prevention from fraud:

A blockchain is also decentralized, meaning no one has control of the chain. It can't be altered in any way. Using distributed ledger technology each transaction, or block, is recorded via a node which can be any smartphone, computer, or larger server, and there is nothing linking the nodes.

Unchangeable financial record of every transaction offering huge protection from fraud.

Since Bitcoin was established in 2008 as the world's first crypto currency and blockchain, the chain has never been hacked, because of its decentralized structure.

3. Reduced Third party involvement :

In traditional transaction system require multiple parties to validate transactions of money.

In 2020, multinational investment bank and financial service provider, Citigroup, mistakenly made a [\\$900](#) million payment due to failures in their validation process. [9]

Whereas block chain are update transaction automatically as they are sent to all nodes in the network for authentication. This will reduced involvement of third party for any transaction validation.

4. Demonetization problem solved

The most high-profile use of blockchain in fintech has been cryptocurrencies, which allow you to hold your money without a bank [8] which solved demonetization problem which people faced in 2016. While blockchain impacts the financial industry in a number of ways, challenging the traditional idea of the banking establishment is where it could bring about the greatest changes. [8]

5. Payments across the world using fintech platform :

Block chain is help to flow money in minimum charge for single transaction where traditional bank take 10 times more than what block chain is charged to transfer money Also, since you don't require a third party to transfer funds, you can use P2P transfer to do so. Through this, banks can compete with fintech startups and provide their own fintech related services.[9]

6. Effortless Auditing :

For most organizations, data integrity is the biggest factor for auditing. block chain help to do auditing easily because transaction is follow blockchain technology to keep record of transaction in order.

7. Error-Free transaction :

with blockchain fintech apps, the process of sending money regardless of how much is significantly faster and it further ensures a smooth, transparent, and error-free transaction.

Demerits of block chain build up in Fintech :

1. Power consumption more :

Keeping a real-time ledger is one of the reasons for this consumption because every time it creates a new node, it communicates with each and every other node at the same time.[11]

2. More Cost

As per the studies as an average cost of the Bitcoin transaction is \$75-\$160 and most of this cost cover by the energy consumption[11]. The advancement in technology and storage issue need higher configuration for netowk computer required to invest more cost

3. Uncertain regulatory status

In each and every part of world modern money has been created and controlled by the central government. It becomes a hurdle for Bitcoin which based on block chain technology to get accepted by the preexisting financial institutions.[11]

4. payment is irreversible

Since transfers with crypto are untraceable, there is always a possibility for missued cryptocurrency for selling drugs like illegal activites is possible to happen. Also, there is a fear that some terrorist groups are gaining their finance with this technology.[12]

5. Some People Have a Problem to Use New Technologies

The old generation is not comfortable to digital things that affect on new technologies uses. On the other side, many people choose to use the exchanges for storing their cryptocurencies, which is risky, since there are some cases where hackers managed to steal a lot of money from exchanges.[12]

The Future of Blockchain Technology in fintech :

1. Blockchain in fintech May Reach New Heights

Cryptocurrencies are unavoidably the most popularly known application of blockchain. As we enter 2022 and embrace the new normal, social distancing and cashless transactions may additionally make way for cryptographic forms of money. However, with the constant fluctuations in the crypto space, anything could be normal.[13]

2. Smart Contracts:

Smart contract is program to hold all the recived funds until a certain goal is reached by project.. supporter of project can now transfer their money to smart contract. if the project gets funded then contract automatically passes the money to the creator of the project and if it failes to meet the goal that money goes automatically goes back to the supporter .and smart contact is stored in block chain which is completely distributed network. This technology is very helfull for invester and project creation because here no one control on money. like traditional banking system.

3. Corporates Need to Accelerate their Digital Transformation:

corporates to quicken their digital transformation process to arise more stronger than previously. Blockchain innovation is probably going to make the most extraordinary and sensational changes in the business's functions, during the coming years. Numerous businesses are in this way seriously taking a gander at blockchain as a supportive apparatus to turn out to be even more digital.[13]

4. The Banking and Financial Sector will Further Dominate the Market:

Due the COVID-19 pandemic, the financial sector is one area that has been hit Most in this era. Falling profits and fixing edges have constrained banks to adjust and progressively meet their clients' needs in a growing digital world. The adoption of fintech and blockchain innovation, empowers them to smooth out their tasks and modernize their activities. [13]

Conclusion:

Of course, to integrate blockchain into the systems, banks and fintech have to make changes to their existing infrastructure. But rest assured, these changes will have significant returns. There are ample opportunities to grow existing solutions into new use cases, leading to an even better customer experience.[9]

Many people interested to invest in fintech which used block chain technology just for secure transaction and faster growth in financial sector.

Due to fintech all banking service is easy to access by any user but along with block chain concept its really help to user also to maintained record of transaction.in recent years their cost reduction is happen in banking sector as follow

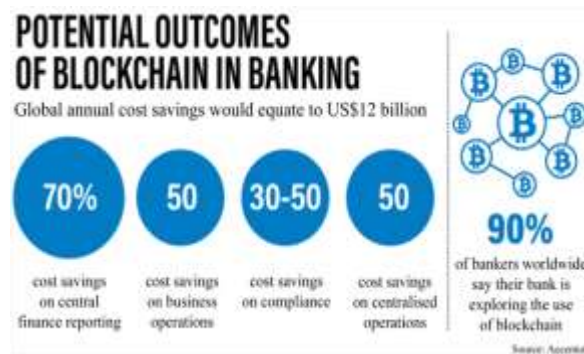


Fig 2. Cost reduction by using Blockchain in the banking sector [14].

By the above fig[4].All banking sector in near coming years their planning to convert all banking services in their own fintech solution which used block chain technology.which reduced cost of building and dependencies on employee for keeping transaction records up to date in bank is reduced .

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