

Block Chain Technology- Will Disrupt Future Accounting?

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ABSTRACT

Blockchain is a game changer in the field of accounting as it will reduce major costs in accounting. The accounting can be more automated and requirements of the accountants will decline. It will eliminate the need for reconciliations, maintain ledgers and will provide true picture of the accounting statements. It will bring more transparency that will enhance the shareholders faith in the companies and role of corporate governance will automatically strengthen. It could threaten the work of accountants where earlier loopholes were taken advantage. Therefore the focus of the paper is to study the changing role of accountants and accounting with the invention of block chain technology.

1. Introduction

Blockchain technology is a distributed system. The problem of the capital markets is that the transaction between two parties needs a centralized authority to validate the transaction such as banks. There is always the counterparty risk for each party. The intermediary charges the fee from both the parties for credit risks. The transacting parties also rely on to execute transactions accurately and securely. In contrast, blockchain helps the counterparties to reduce the overall risk and parties can transact directly with each other. Hence distributed system helps in eliminating the intermediary and provide risk free system.

Defining blockchain

In simple words, blockchain can be described as chronological recording of the transaction in the form of blocks. Cryptography is used for securing the transaction. Each block is a cluster of transactions which are added to last block by reaching consensus about its authenticity amongst the users. It is a digital and distributed ledger of transactions which is authenticated by the participating users. Every transaction must be cryptographically validated with the consensus before being permanently added as a new "block" at the end of the "chain." There is no central authority or third party to approve the transaction, where as each transaction is shared with

each participant, that means it is a peer-to-peer trustful mechanism which is difficult to hack and corrupt.

2. Review of Literature

(Sachchidanand Singh) In this paper, importance is emphasized as it is a secure platform for exchange of digital currency and he explains that every node gets that copy of transaction and validate the transaction. It also highlighted that it is going to change the future of the banking sector and financial institutions.

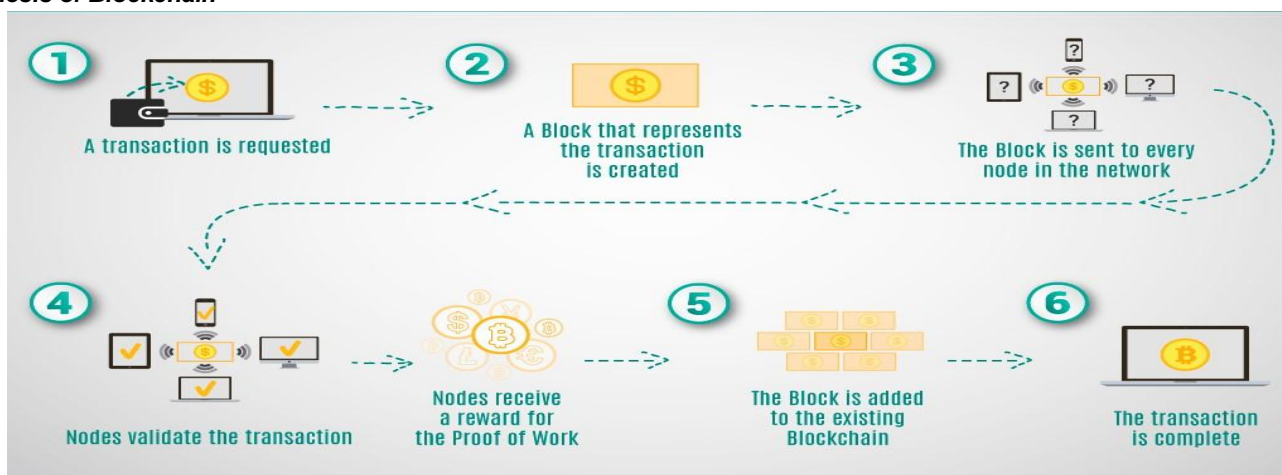
(Anderson, 2016) He explains the potential change that accounting can bring to the financial sector and the revolution in the double entry process and also explains how interlocking transactions can be done in this field.

Liebenau and Elaluf (2016) have discussed variety of application of blockchain with financial services. They had focussed on the innovation and application of core of blockchain.

Watson & Mishler (2017) explored this technology in many areas including stock exchange, they observe that the utility of the blockchain is going to rise with the volume of transaction and it will result on lower transaction cost.

Objective of the study: The objective of the paper are to introduce the conceptual framework of the blockchain and how it is going to impact the future accounting practices.

Genesis of Blockchain



In 2008, Bernard Marr wrote in this article about Mysterious Satoshi Nakamoto who released a paper called Bitcoin – A Peer to Peer Electronic Cash System in 2008 that described bitcoin a purely peer to peer version of electronic cash.

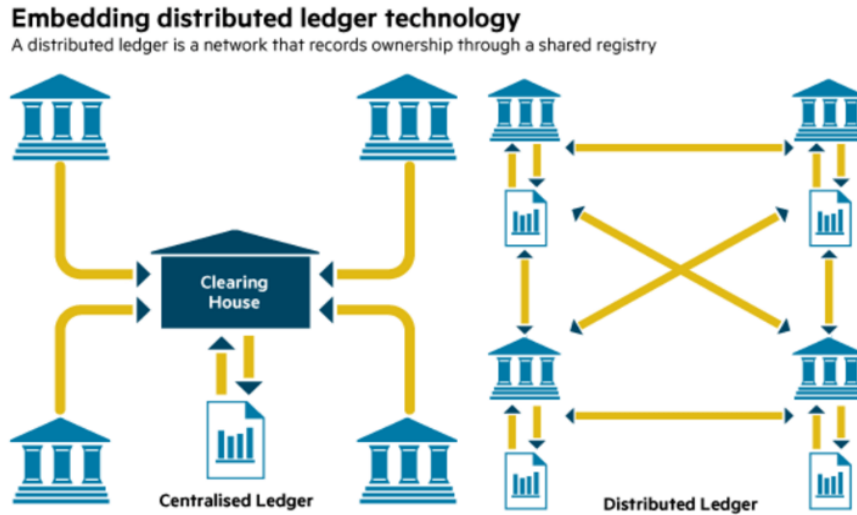
3. How Blockchain works

1. Someone wants to send money or ship a product, or sign a contract.
2. They send notification of the action to everyone in the neighborhood (which can be global) which

represent that a transaction is created.

3. If the transaction is valid, everyone approves it (In the form of block in the network)
4. After approval, all the nodes validate the transaction and receives a reward for PoW (Proof of work)
5. The record is updated (in this case, a block is added to the blockchain)
6. The action happens, and, if it's a payment, the money changes hands

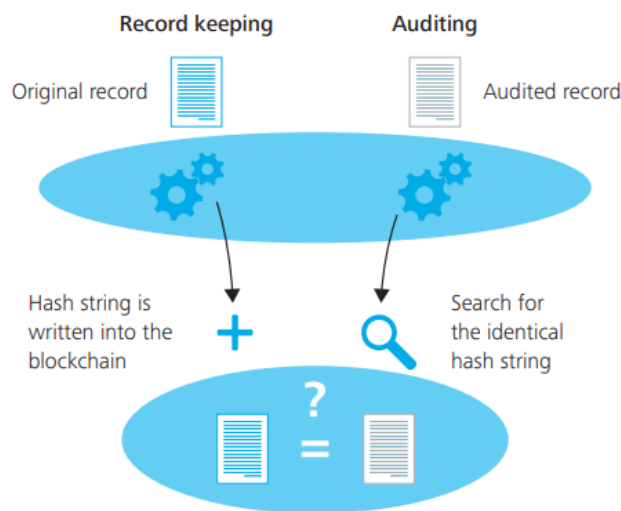
4. Key components of Blockchain technology-



a) **Distributed Ledger:** A distributed ledger also decentralised, in the form of database that is spread across several nodes or computing devices. Each node replicates and saves an identical copy of the ledger. Each participant node of the network updates itself independently, and the system makes it difficult for hacker to corrupt or hack the system.

b) **Anonymity:** Blockchain ensures anonymity as transaction are broadcasted in network in the form of address i.e. one can send money to another address need not to disclose identity.

c) **Transparency and Reliability-** The digital ledger is fully public and can be accessed by countless users for making the blocks of the transactions.



d) **Consensus** - the transaction are updated only after the digital verification by both the parties and each block is linked to a specified participant. The

contracts are immutable as they cant be altered even by the system administrator.

- e) Hashing- Hashing helps ensuring that original data is not revealed to the third party and a hash sting is incorporated in the Blockchain.

5. Blockchain transforming Accounting

Technological advancements may threaten few profession . Blockchain is a digital ledger and secure platform which will improve the efficiency of ethe business units and it will revolutionise the finance, accounting and auditing system. The transactions are stored in a block and with every transaction every new block is updated to the previous block and the blocks are visible to both the parties. The whole network validates the contract and after it, it is updated in the system and hence remains permanent. It has major impact on accounting.

- a) It is going to change the way of the working of the accountants. As the *system will be secure and transparent*. The tracking of data and goods that move physically and digitally can be observed and authentication is automatically provided for a validate transaction.
- b) *Authenticity of the parties in transaction* as verification of the payments and transactions is done and it will reduce the counter party risk.
- c) *Reduction of fraud and speedy decision making*: the transactions are updated realtime and it is closed upon completion. Therefore the scope of any kind of misrepresentation and manipulation is elinated.
- d) *End of traditional accounting system*: the matters like invoicing, documentation, contracts , is on real time therefore the tradition system will be obsolete and accountant will need the expert knowledge for making the process faster and accurate.

6. Blockchain utilization

Broadly, there are three levels of blockchain utilization

Storage of digital records: Blockchain can be used to store digital identities of individuals, organizations, assets, titles, voting rights, and essentially everything that can be represented digitally.

Exchange of digital assets: Blockchain can execute peer-to-peer transactions without trusted third-party intermediaries, reducing clearing and settlement times and related costs.

Recordation and execution of smart contracts:

A Smart contracts is a code generated by the computer code stored on a blockchain. They helps in automation of the tasks that is performed manually through a third-party intermediary. It helps in speeding up business processes,

reduce error. They are monitored and enforced with minimal human intervention.

7. Application of Blockchain in various fields

Blockchain such as decentralization, immutability, and transparency make it appealing for business sectors and domains all across the world. Blockchain was created when first cryptocurrency Bitcoin was introduced to the world by Satoshi Nakamoto in 2008. Blockchain 1.0 is related with cash, such as currency transfers, remittance and digital payments. 2.0 is related with contacts that are economic and financial in nature and 3.0 is related with areas of government, health science, literacy etc.

a) Cryptocurrency: Blockchain came into picture when Bitcoin originated as first cryptocurrency. Today more that 1500 crypto currencies are existing in the market. there are more than 1500 crypto- currencies are existing.

b) Banking and financial Sector-According to a claim by the Harvard Business Review, blockchain can solve a lot of problems because it possesses all the attractive characteristics needed by a reliable technology. It is safe, secure, decentralized, transparent as well as relatively cheaper.

Blockchain provides a very high level of safety and security in terms of exchanging data, information, and money. It is a transparent network with low operational costs which is more reliable, promising.

c)Insurance- Blockchain helps in regulating and lowering the cost of claims by reducing the fraud opportunities. Its helps in eliminating the error and negligence and detect fraud by providing a decentralised digital repository, where verification is done by each individual node and authenticity of customers, policies and claims with a complete audit trail feature.

d)Blockchain based accounting

The Blockchain is trustworthy in field of accounting: securing the integrity of records, easily traceable audit trails.

8. Conclusion

The blockchain technology is going to be the need of the hour for the accountants and it will change the shape of the future accounting. It will automate accounting processes and lessen the requirement od auditing and regulatory requirements.

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