To Study and Analyze Impact of Block Chain Technology in Banking & Finance Sector

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Abstract— The 21st century has seen a drastic change in the technology. With the increased need in technology in our day-to-day lives, Customer or people stared adapting to the new change in the technologies. From using a remote for controlling digital devices to using voice notes for giving commands; modern technology has made space in our regular lives. Technologies like augmented reality and Internet of Technology that have gained pace in the past decade and now there's a new addition to the pack i.e. Blockchain Technology. A blockchain is a chain of blocks that contain information or data. Despite being discovered earlier, the first successful and popular application of the Blockchain technology came in the year 2009 by Satoshi Nakamoto. Satoshi Nakamoto is created the first digital cryptocurrency called Bitcoin through the use of Blockchain technology. Each block in a blockchain network stores some information or data along with the hash of its previous block. A hash is a unique mathematical code which belongs to a specific block of information or data. If the information or data inside the block is modified, the hash of the block will be subject to modification too. The connection of blocks through unique hash keys is what makes blockchain safer and secure.

Keywords: Block Chain Technology, Banking & Finance Sector

I. INTRODUCTION

Blockchain technology is one of the fastest growing technologies which has archived the attention of the world has also grabbed India's financial system. Blockchain technology initially came into existence for financial transactions, but later, it has been found to be applicable in various businesses like Healthcare, Banks, hotels, but my primary focus would be revolving around the use of blockchain by the Indian banking system and Financial Institutions. We are all know that tracking the financial transactions is the most important concern for businesses.

The Indian banking system is also not behind, many of the popular Indian banks have shown their inclination towards the use of blockchain technology and have come up with a pilot project that will help them streamline their processes.

Blockchain technology is growing as an innovative force capable of transforming the financial services industry by making transactions faster, cheaper, more secure and transparent

Although blockchain technology is stated as an open system for transaction processing across the financial system, banks are looking inward, experimenting with the distributed ledger approach to create efficiencies and a single version of digital truth. The goal of blockchain technology is to automate processes, reduce data storage costs, minimize data duplication and enhance data security.

II. IMPORTANCE OF BLOCKCHAIN

Everyone needs security and safety in today's scenario. Block chain provides a very high level of security and safety when it comes to exchanging money, information and data. Blockchain also allows users to take advantage of the transparent network infrastructure along with low operational costs with the aid of decentralization. These are some characteristics make blockchain reliable, promising and in-demand solution for the banking and finance industry, since it is a secured, easy transfer money and requires a storage of the data.

III. NEED OF THE STUDY

The Indian banking system is also updated within the latest technology, many of the popular Indian banks have shown their inclination towards the use of blockchain and have come up with a pilot project that will help them streamline their processes. The main objective of this paper is to create a more transparent system that will be safe and secure and easy to track.

1) Most banking systems in the world, built on a centralized database, are more vulnerable to cyber-attack because once hackers attack the one system they get full access.
2) KYC regulations are meant to help reduce money laundering and terrorism activities by having requirements for businesses to verify and identify their clients.
3) In banks and financial institutions, Trade finance is most important need such as bills of lading or letters of credit, being sent by fax or post around the world. Many think that blockchain technology is the solution especially as numerous parties need access to the same information or data.
4) Blockchain Technology allow banks and financial institutions higher security and safety with minimal lower costs to process payment between organizations and their clients and even between banks themselves.

IV. STATEMENT OF THE PROBLEM

This study will describe the important elements that will affect the bank and financial institution to use the blockchain technology. Bank and financial institute should understand the needs of the customers. So that Ledger of transactions are more secured and customer feels satisfied for the transactions that take place.

V. OBJECTIVES OF THE STUDY

1) The main and primary objective of this paper is to study and analyze impacts of blockchain technology in banking sector and financial sector.

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2) To highlight the theoretical background and current scenario of blockchain technology services in Indian context.

VI. LITERATURE REVIEW

1) This research paper examine the Blockchain technology had been the interesting and most demanding topic of research.Satoshi Nakamoto (2008) in his white paper proposed "a peer-to-peer version of electronic cash which would allow online and digital payments to be sent directly from one party to another without going through a financial institution or third party". This shown as a foundation for the most popular blockchain application i.e. bitcoin.
2) This study explains that the "blockchain technology is a decentralized public ledger that can be used for the registration, inventory, and the transfer of all assets in finances, property as well as in intangible assets such as customer information votes data, software information, health data, and idea". Melanie Swan considered the theoretical, philosophical, and societal impact of cryptocurrencies and blockchain technologies Melanie Swan (2015).
3) This research paper define the "potential use of the blockchain technology to enable governments to utilize the secure, open, distributed and inexpensive database technology". Blockchain technology was emphasized that Bitcoin could be a promising technology for validating many types of persistent documents in the public sector, Svein Olnes (2015).

VII. SCOPE

Though the recent use of blockchain technology is seen in Bitcoin (mostly), however, there are many banks who are willing to experiment with this new technology. Following are some of the ways in which blockchain technology has flourished its scope in the financial industry as:

A. Fraud Reduction

The blockchain technology is the new technology in the market, the blockchain has the potential to reduce the fraud in the financial sector which is gaining more attention in this economic environment. There are most of the private banks and nationalize banks which are prone to cyber-attacks since they are built on a centralized database.

B. KYC

On the upkeep of KYC (know your customer), the financial institutions have spent a huge amount. The KYC intends to reduce the money laundering and many other criminals and fraudulent activities by giving the banks to identify their customers.

C. Trading Stock Exchange Platform

The Blockchain technology can definitely help their customers to reduce the risk of fraud and operational errors. The ASE & NASDAQ are already looking at the blockchain technology based solutions to improve the efficiency and to reduce the cost.

D. Insurance Sector

The insurance sector is the offering contract between two parties that involves a number of steps such as premium payment, filling claim, etc. This blockchain technology may change the way of insurance business runs by replacing the legal contract.

VIII. BENEFITS OF BLOCKCHAIN IN FINANCE INDUSTRY

There are many advantages and benefits of using Blockchain technology, that's why it is making a very strong place in finance industry swiftly. But, its applications do not only ends with Bitcoin or any other crypto currency.

To lead with financial institutions and banks are quite enthusiastic about what blockchain technology can actually do for them. Below are some of the benefits of Blockchain technology in the financial industries and banks are described in detail as:

A. Cheaper Banking

The cost reduction is the main benefit of blockchain technology, the banks are also quite optimistic. The key areas of banking sectors will be the distributed database that will save the money on its international payments.

Both the parties can reach to an agreement on the transactions' validity time period, without any requirement of beauracy authority with the help of blockchain technology.

B. Instant Settlements

The recent methods of blockchain technology for spot trading are not an instantaneous process. Even though the idea behind the spot trading is just for the instant delivery of the traded instrument, but actually it requires 2 to 3 days to settle the majority of transactions.

C. Improves Capital Optimization

One of the most promising features of blockchain technology is that it removes the need for immediate trust and make the peer to peer transaction possible for the customers. When this blockchain technology is applied in financial industry, it could render the useless fee charging intermediary such as custodian banks or clearers.

D. Improved Contractual performance

When the use blockchain technology with smart contracts is being done in banks and financial institutions, then it will automatically improve the contractual term performance as smart contracts will execute automatically once certain pre-set conditions have been met.

E. Increased Financial Solutions

Due to digital currencies or digital tokens, there is an increase in the number of options for financial solutions. One token has a value of US $1 (69.39 INR) loss and each token could be seen as an IOU. After the initial drop in the price of about US $0.30 (34.69 INR) not it trades around US $0.80 (55.51 INR) and Bitfinex is back to operating as it was doing before.

IX. LIMITATIONS

1) This research study is based on the secondary data.
2) Data is restricted to Banks and Financial sectors and other sectors may exclude.

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3) The study is limited to India.

X. RESEARCH METHODOLOGY

- The two main goals of this paper are the systematic and theory based identification of structural and managerial changes that are triggered by the introduction of the blockchain into Banking and Financial Sector.
- To address those issues, we first needed to identify theories that have proven useful in raising questions related to structural and managerial aspects, followed by a systematic way to generate research questions.
- We identify the theories suggested by Halld_orsson et al. (2007) as the most suitable for the aforementioned research goals, as they not only combine structural and managerial issues in a single comprehensive framework but also have been previously validated in various replication studies (Halld_orsson et al., 2015).
- The theoretical framework proposed here was generated by applying the various characteristics of the respective theories to blockchain based Banking and Financial Sector.

XI. CONCLUSION

- The Blockchain technology is a growing technology-driven service which proxies to change the way financial transactions have been conducted for the customers. It can reduce the risks and frauds which will spike its demand in future thus to make it as the new buzz in the financial sector and to bring more security in day to day transactions.
- The blockchain technology is going to bring a major transformation in the financial institution and banking sector. The blockchain technology has the potential to disrupt the traditional business models and make the existing systems obsolete. A secured, distributed database of client information or data should be developed and shared by different banks and financial institutions which will help in reducing time, effort and cost in interbank transactions.
- The demand to develop towards the cashless society, this is an appropriate time for initiating suitable efforts towards digitizing the Indian Rupee through blockchain technology.

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