



The Implementation and Impact of Blockchain Technology in the Finance and Trade Sector of Economy of the Developing World

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

Blockchain technology is a diverse technology and one of the most advanced in the field of finance and trade sector and with each passing day it is showing magnanimous outcomes in developed countries, while we in our article have focused more on its implementation and impact in the developing part of the world and on the basis of evaluation via online format we concluded our findings.

Keywords: Blockchain technology; trade sector; finance; economy; developing countries; Pakistan.

1. INTRODUCTION

Satoshi Nakamoto in 2008 – was the first ever person who had an idea of this unique and productive invention of blockchain technology.

Blockchain is a virtual ledger which records transactions between distinct parties; the transactions can be pecuniary or of any other sort. In other words, a blockchain technology is defined as; decentralized, distributed, and

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mostly public, digital ledger consisting of records called *blocks* to record transactions through several computers such that without altering all subsequent blocks. (1) This particularly enables the users to independently and relatively verify all audit transactions. The blockchain removes a numb by storing Information through its peer-to – peer network. In today's era of technology majorly the cryptocurrencies use blockchain technology to record transactions. (2,3) Some of which includes, the bitcoin network and Ethereum network are both based on blockchain. Our research focuses on the the impacts and implementation of blockchain technology in the field of finance and trade sector, that it is in the initial phase of changing many industries, with the likelihood that they will change them significantly in the next five to ten years. Businesses increasingly discover the power of this technology to exploit the benefits of the Fourth Technological Revolution.

1.1 Goals and Objectives

The goal and needs of our study are as following:

- Evaluate the exponential growth of cryptocurrency in the field of finance and trade
- Emphasize the future utilization of blockchain technology and its outcome on economy
- Implement blockchain technology in Pakistan; typically in the field of trade and finance
- Analyze the impact of blockchain technology in the field on of trade and finance

2. METHODS AND MATERIALS

The study was conducted via online questionnaire made on google forms, the total sample size was 100, the

Dependent variables:

Adoption of block chain technology.

Independent variables:

1. Perceived Usefulness
2. Perceived ease of use
3. Competitive Environment
4. Perceived risk
5. Information transparency

Mediating variable:

1. Government Support

The study included people from Pakistan and other countries as well.

The data analysis and interpretation were carried out on SPSS version 21.

The time period for data collection and result interpretation was two months

3. RESULTS

We emphasised on the problematic statements such as;

A) The blockchain technology works on the principles of decentralized network architecture while Pakistan has not well-developed decentralized network.

B) The blockchain technology will reduce the fear of massive duplication of information but for that an effective implementation is equally required in the field of finance and trade.

C) Blockchain technology if implemented in major part of the developing world will help fix the torn economies for it's a safe medium for online transmission of assets.

D) "Will blockchain technology leave a strong impact and help the economy to reach exponential growth in the field of finance and trade if deployed in Pakistan or does a misconception or a misinterpretation of crypto terrorism over-rule the ideology?"

We conducted an online survey. The time period was 2 months, some of the forms were directly sent to individuals while others were posted on public forums for easy accessibility, the individuality kept anonymous with no ethical considerations. The data analysis and interpretation were carried out on SPSS version 21.

The total sample size was 100 out of which 20 percentage of people were aware of the term blockchain technology however were not much concerned about its impacts and implementation in Pakistan.

29.7% of people were in favour of blockchain technology and had faith in its bright future if rightly and timely implemented. 30 % of the people were unaware of blockchain technology. 10 percent of the people were afraid of such investments for they believe its crypto-terrorism.

However; the remaining 11% of the people had mixed reviews.

4. DISCUSSION

Research background and domain of research field with references Satoshi Nakamoto in 2008 – was the first ever person who had an idea of this unique and productive invention of blockchain technology. Blockchain is a virtual ledger which records transactions between distinct parties; the transactions can be pecuniary or of any other sort [1,2,4]. In other words, a blockchain technology is defined as; decentralized, distributed, and mostly public, digital ledger consisting of records called *blocks* to record transactions through several computers such that without altering all subsequent blocks [5,6]. This particularly enables the users to independently and relatively verify all audit transactions. The blockchain removes a numb bystoring Information through its peer to peer network. In today's era of technology majorly the cryptocurrencies use blockchain technology to record transactions. Some of which includes, the bitcoin network and Ethereum network are both based on blockchain [3].

Our research focuses on the the impacts and implementation of blockchain technology in the field of finance and trade sector, that it is in the initial phase of changing many industries, with the likelihood that they will change them significantly in the next five to ten years. Businesses increasingly discover the power of this technology to exploit the benefits of the Fourth Technological Revolution.

The domain of our research is engineering and physical sciences – subdomain: Information and communications technology.

Bruce weber in one of his article quoted; any financial activity with low transparency and minimal traceability is vulnerable to blockchain applications being disrupted (7,8).

Blockchain technology radically is being implemented in various industries; For instance, in agriculture supply management and food retail, understanding the provenance of each input along the supply chain allows firms to identify sources of contamination more quickly. Walmart is using blockchain to maintain an easily accessible record of food provenance [8].

Will blockchain technology leave a strong impact and help the economy to reach exponential growth in the field of finance and trade if

deployed in Pakistan or does a misconceptions of cryptoterrorism over-rule the ideology?.

4.1 Bitcoin's Role

Posting their original whitepaper in 2008 and dispatching the underlying code in 2009, Nakamoto made bitcoin to be a type of money that could be sent distributed without the requirement for a national bank or other position to work and keep up the record, much as how physical money can be. While it wasn't the primary online cash to be proposed, the bitcoin proposition tackled a few issues in the field and has been by a wide margin the best form. [9,10].

The motor that runs the bitcoin record that Nakamoto planned is known as the blockchain; the first and biggest blockchain is the one that actually arranges bitcoin exchanges today [10].

In our very research our zone of emphasis is dependent on two sectors trade and finance and the impact of blockchain technology in the following field and how in Pakistan the blockchain technology will give an exponential rise to our economy. In order to second our hypothesis we have conducted a survey (an online questionnaire) amongst people of Pakistan and other countries.

4.2 Research Gap

Larger part of research data that we have is focusing on uncovering and improving impediments of blockchain from privacy and security perspectives, but numerous of the proposed solutions lack concrete evaluation on their adequacy. Typically speaking of our research one such gap is that blockchain technology in Pakistan has recently been deployed for the first time ever in banking sector, and not much of the statistical data is there to see its effectiveness in multidisciplinary system. However, if we see the progress of blockchain technology globally on that basis we can definitely see an exponential growth even in the developing countries.

5. CONCLUSION

The blockchain technology works on the principles of decentralized network architecture while Pakistan has not well-developed decentralized network.

Blockchain technology if implemented in major part of the developing world will help fix the torn

economies for it's a safe medium for online transmission of assets.

5.1 Issue Gap

with respect to our research; issue gap is well noticed and can be well justified; as not much is reported or covered with regard to adequacy of block chain technology in the field of trade or finance. Sceptically, in Pakistan blockchain technology has not completely evolved and thus a lot is unrevealed or unexplored.

5.2 Limitations

Our sample size was limited as not much of the data has been reported regarding the role of blockchain technology in Pakistan. We have had individuals from all developing parts of the world thus the feedback from different aspects were different with respect to their understanding of blockchain technology

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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