

USE OF BLOCK CHAIN IN SAFE FINANCIAL TRANSACTIONS

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ABSTRACT

Block chain has become popular due to the rise of Bit coin. However, this technology is not limited to the financial area. A Block chain originally means blocks of crypto currencies linked by chains. This new concept has received significant attention in Fin-Tech. This study mainly focuses on understanding the perception of investors towards Block chain based transactions. This study is conducted to know the current awareness of people regarding block chain transactions. It also signifies their readiness to accept payment based on block chain (Crypto). It also throws light whether they are ready to accept it as valid payment method if someday in future it get legalizes.

Key words: Block chain, Crypto currencies

INTRODUCTION

About Block chain:

The first Block chain was conceptualized by Satoshi Nakamoto in 2008, who used a Hash cash-like method to add blocks to the chain without a trusted third party. Block chain, a rapidly evolving financial technology, revolutionizes the way people are dealing with businesses.

Block chain attracts attention as an underlying technology for bit coin and other crypto currencies since it is seen as a new foundation for transactions in the world. A Block chain is a continuous account database, which is complete, distributed and unalterable. The most excellent value of Block chain is a decentralized system, whose security chain is very long. The essential advancement is the distributed trust offered by Block chain technology – (1) removing the trusted third party to facilitate transactions and (2) decreasing the cost of trading and (3) reducing the time.

Block chain Classifications

1. Bit coin Block chain
2. Ethereum Block chain
3. Terra Block chain

LITERATURE REVIEW

Yoo, in victor change 2017 had stated that Block chain attracts attention as an underlying technology for bit-coin and other crypto currencies since it is seen as a new foundation for transactions in the world (Staples et al., 2017). A Block chain is a continuous account database, which is complete, distributed and unalterable.

According to Iansiti & Lakhani, Block chain is a foundational Technology having the potential to dramatically reduce the cost of transactions and reshape the economy. Harvard Business Review stated that Block chain Technology will do to financial institutions what the internet did to media.

Tapscott and Tapscott (2017) point out the five main principles of the Block chain: (1) Computational Logic, (2) Peer-to-Peer Transmission, (3) Irreversibility of Records, (4) Distributed Database, (5) Transparency with Pseudonym.

Dong Wang has stated that research and apply block chain technologies for e-commerce, finance and energy. The block chain system includes block chain technology components, block chain application programming interfaces, and applications. The block chain-based applications cover supply chain finance, e-commerce transactions,

product traceability, user credits, financial services, trust systems, new energy, etc. Based on block chain technology, it builds a creative and security trading system, payment system and trust system for e-commerce, financial services and new energy business.

Xhing tong, paper has reviews 756 articles related to block chain on the Web of Science Core Collection. It shows that the most common subject area is Computer Science, followed by Engineering, Telecommunications, and Business and Economics. In the research of Business and Economics, several key nodes are identified in the literature, such as the top-cited articles, most productive countries, and most common keywords. After a cluster analysis of the keywords, we identified the five most popular research themes: “economic benefit,” “block chain technology,” “initial coin offerings,” “fintech revolution,” and “sharing economy.”

Businesses can benefit considerably from block chain technology. Therefore, we suggest that the application of block chain be taken into consideration when businesses have the following requirements: accounting settlement and crowd funding, data storage and sharing, supply chain management, and smart trading.

Tapscott & Tapscott, University of Ioannina reported that In closing, financial institutions have realized the potential of Block chain Technology comparing to the existing infrastructure and legacy systems. Block chain will resolve a lot of problems for the financial industry and boost their business performance dramatically such as Trade Finance, Smart Assets, Payments, and Smart Contracts.

Victor chang described that The most excellent value of Block chain is a decentralized system, whose security chain is very long. The essential advancement is the distributed trust offered by Block chain technology – (1) removing the trusted third party to facilitate transactions and (2) decreasing the cost of trading and (3) reducing the time (Staples et al., 2017). Thus, Block chain is expected to set off the industrial and commercial revolution and promote economic reform worldwide (Underwood, 2016). Fig. 1 shows a view of how Block chain supports the transaction between the two parties. Firstly, Block chain Uses encryption to produce a digital security code. Then the users can validate the transaction without private information. Because the record in the Block chain is immutable, the transaction will be completed automatically and distributed.

Wajde (2021) mentioned that When Nakamoto introduced the bit coin, block chain started as a peer-to-peer electronic cash System. The bit coin payment system succeeded and gained increasing interest as an effective method of making cross-border transfers and paying remittances at a lower transaction cost than that of the traditional financial system, with a much faster settlement speed.

It is not expected that crypto currencies can completely replace fiat currencies in the near future. Still, regarding payments, over the last few years, there has been a rising increase in Crypto currencies' transaction volume, mainly Bit coins and Ethereum (How Block chain Could Disrupt Banking, 2018). Moreover, banks and financial organizations have started to embrace and experiment with block chain

Objectives:

- ❖ To check how safe is financial transactions through block chain.
- ❖ Use of block chain as future payment systems.
- ❖ Current awareness of people regarding Block chain.

RESEARCH METHODOLOGY

➤ Sample Area:

The geographical area from where the sample unit is undertaken is called sample area. We undertook the research in Pan India.

➤ Sampling Method & Size:

We will circulate the questionnaire and it will get the responses of around 200 and our sampling method is specially targeted to those people who possess a little knowledge of crypto so to make our project outcome somewhat

fruitful.

➤ **Research Instruments:**

For the purpose of research, questionnaire was used to interview the respondents. The questionnaire was developed so as to obtain responses relevant to objects of the research. While designing the questionnaires every attempt was made to make it precise so that the purpose of filling up the responses does not consume time. Questionnaire was created to find the different perceptions and beliefs of the consumers, what they think about the shopping criteria and which platform they mostly prefer for buying the electronic products or goods.

➤ **Hypothesis of the study**

There is a significant awareness about block chain transactions and crypto as a whole in the western countries and they are continuously getting aligned towards block chain and crypto market.

They show positive attitude towards transactions through crypto like bit coin which are based on block chain.

They show greater awareness on P2P transactions which are based on block chain.

➤ **Data Collection Method:** Basically there are two methods for collecting the data;

Primary data: In this questionnaire will be circulated among the people with specific questions which are related to the research, and then they fill questions and with that we can find the relevant information regarding the project.

Secondary data: It will be collected to add the value to the primary data. This may be used to collect necessary data and records by different websites, magazines, annual reports, journals, reference books, and newspapers etc.

➤ **Limitations of the Survey:**

The questionnaire that was being used for conducting the survey has certain limitations. Limitations like, people generally in India has little to no knowledge regarding block chain transactions, people still are hesitant to dive in crypto market and making payment through crypto is a whole different thing which is quite a distant dream from the current scenario.

DEMOGRAPHIC DATA

Demographic variable	Category	Frequency	Percent	Valid Percent	Cumulative Percent
Gender	Male	132	58.9	58.9	58.9
	Female	90	40.2	40.2	99.1
	Other	2	.9	.9	100.0
	Total	224	100.0	100.0	
Age	Below 20	52	23.2	23.2	23.2
	20-29	154	68.8	68.8	92.0
	30-39	14	6.3	6.3	98.2
	40-49	4	1.8	1.8	100.0
	Total	224	100.0	100.0	
Educational Qualification	High school	40	17.9	17.9	17.9
	Graduation	118	52.7	52.7	70.5
	Post-Graduation	54	24.1	24.1	94.6
	Doctorate	12	5.4	5.4	100.0
	Total	224	100.0	100.0	
Occupation	Student	172	76.8	76.8	76.8
	Self-employed	26	11.6	11.6	88.4
	Salaried	26	11.6	11.6	100.0
	Total	224	100.0	100.0	

Interpretation: As you can see Demographic Data that, In **Gender** wise Males are more than females with 58.9% in sample survey. And females are 40.2%, others or may be prefer not to say members are 0.9%. **Age** wise we can

see that almost age between 20-29 are of 68.8% out of 100%. It means majority of youths are aware about this field, because it's new for Indians and youths are taking interest in this field. Majority of audience are students (76.8%) as they are targeted. Rest of all information you can see on given table about sample details.

Reliability Test

Case Processing Summary

		N	%
Cases	Valid	224	100.0
	Excluded ^a	0	.0
	Total	224	100.0

a. Listwise deletion based on all variables in the procedure.

Cronbach Alpha is administered to evaluate the internal consistency of the data. If the Cronbach Alpha value is greater than or equal to 0.7, it is considered acceptable for the data to be reliable (Hair et al., 2006). Since the Cronbach's Alpha values of all the dimensions are above the limit, the service quality dimensions factors have internal consistency.

Reliability Statistics

Cronbach's Alpha	N of Items
.711	12

Here as you can see that Cronbach's Alpha of our reliability test is 0.711, it means it is reliable (more than 0.7 is reliable).

Chi Square Test

ARE YOU AWARE ABOUT BLOCK CHAIN BASED TRANSACTIONS (CRYPTO, NFT)?

	Observed N	Expected N	Residual
Aware	122	74.7	47.3
Partially Aware	76	74.7	1.3
Unaware	26	74.7	-48.7
Total	224		

A chi-square statistic is one way to show a relationship between two categorical variables. In statistics, there are two types of variables: numerical (countable) variables and non-numerical (categorical) variables. The chi-squared statistic is a single number that tells you how much difference exists between your observed counts and the counts you would expect if there were no relationship at all in the population.

Test Statistics

	AGE	ARE YOU AWARE ABOUT BLOCK CHAIN BASED TRANSACTIONS (CRYPTO, NFT)?
Chi-Square	251.571 ^a	61.750 ^b
df	3	2
Asymp. Sig.	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 56.0.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 74.7.

Interpretation: As per above table it concluded that P value is more than alpha value and that mean output would not be statistically significant. There isn't significant association between drive experience and car to smart watch integration.

ARE YOU CURRENTLY READY TO RECEIVE PPAYMENT THROUGH BLOCK CHAIN TRANSACTIONS?

	Observed N	Expected N	Residual
Yes	130	74.7	55.3
No	40	74.7	-34.7
Maybe	54	74.7	-20.7
Total	224		

Do you believe that block chain based transaction are safe and secure and can be used as future payment method?
Are you currently ready to receive payment through block chain transactions?

Chi-Square	134.036a	62.821b
df	4	2
Asymp. Sig.	.000	.000

a. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 44.8.

b. 0 cells (.0%) have expected frequencies less than 5. The minimum expected cell frequency is 74.7.

Interpretation: As per the above table, P value is more than alpha value and that mean our result would be statistically not significant. We would accept our alternate hypothesis which says that there is not significant association between drive and smart headlights.

FINDINGS

- From this research work we are able to find that there are number of people who have awareness regarding block chain based transactions.
- The average number of surveyed people which are around 55% have idea about block chain transactions, while 33% were partially aware rest others were unaware about block chain based transactions.
- The another finding was regarding scamming happening while performing an online transaction where 55% of people told they haven't been scammed before while a staggering 45% said they have been scammed before.
- Scammed amount have different ranges while about 57% of people were scammed of amount <10000 , 23% agreed they have been scammed of amount ranging from 10000-20000 and 20% of people were scammed for >50000.
- Another Finding was based on security or perception of security in people mind of block chain based transactions where 63% people were agreeing on its security and the rest were neutral or not agreed.
- Readiness of people to receive payment through crypto was also an important aspect of study where about 59% people were agreed to use it as payment system , about 23% were confused and opted for maybe and 18% were un agreeing.
- Finding also suggested people behaviour if it gets legalizes in our country (India) will they accept it as payment method where 83% supported it and rest denied it bluntly.

CONCLUSION

The aim of this research study is to identify the awareness of people related to block chain based transactions. The researcher's collected the data by the help of questionnaire method. The researcher's used 4 factors for analysing the satisfaction of the customers. The 4 factors are Awareness, Reliability, Perception, Security. Every Factor measured and analyzed individually. The study was done in Pan India, but results are relevant for other locations, where there is potential. Future result can include a comparison of our result with similar studies conducted in other area. Conclusions Based on the result of the descriptive analysis study it can be concluded that the majority of current Block chain based users are youth between the age of 20 up to 29, gender wise the males are the dominant users, occupationally students are the majority users , educational level graduation and post-graduation students are the majority users. The study also establishes the fact that just more about half the data sample people were aware about the block chain based transactions. It also takes into account about the online fraud happening with traditional bank transfer e-banking methods where majority of people haven't been scammed before. While a staggering amount of have also agreed upon on being scammed this shows the loopholes in the current e transaction systems. The research also cemented the fact that the people surveyed are ready or somewhat ready to take payment in crypto(block chain) for their day to day transactions. This particular fact takes us to belief of people

towards the future of block chain where people are strongly agreeing on bright future. The Last conclusion drawn out is their acceptance after crypto gets legalizes in our country where people surveyed where ready enough to accept it once it gets legalizes.

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