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RESEARCH ARTICLE

A COMPREHENSIVE REVIEW OF SURVEY OPINION ON BLOCKCHAIN ACCOUNTING DATA: INSIGHTS AND IMPLICATIONS

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Abstract

Block chain technology gained significant attention in recent years due to its benefits in terms of integrity, audit ability, transparency and automation. This research paper presents the results of questionnaire analysis through opinion survey conducted to explore the perception and experiences of accounting professionals and non professionals regarding integration of block chain technology in accounting practices. This research is both quantitative and descriptive in nature and mainly uses primary data obtained from surveys of 60 respondents. Convenience sampling was used due to limited time and cost. Secondary sources used include academic journals, research papers and websites to compile study data. Further, for analysis of data 5 point Likert Scale of measurement statistical technique is used. Tabular analysis of TAS and BCA is also analyzed in present paper. Overall, through comprehensive analysis of opinion survey report, it was concluded that respondents showed positive attitude towards the potential benefits of block chain technology in accounting practices. But, the application of block chain technology still in its early stage and has many challenges and risk to make it more reliable. Training and education on block chain technology are essentials for accounting professionals to leverage its benefits effectively.

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Introduction:-

“Block chain technology shape accounting from double entry to triple entry system.”

The emergence of block chain technology can be traced back to the release of whitepaper titled “bit coin” in 2008. This white paper introduced the concept of a decentralized digital currency, Bit coin and underlying technology that made it possible, is known as “Block chain”. Block chain technology is a distributed ledger that records transactions across a network of computers. Each transaction is grouped into a block, which is cryptographically linked to the previous block, forming a chain of blocks. A distributed ledger is decentralized that spread ownership of ledger across multiple parties instead of being held centrally. This creates a secure and transparent record of transactions and enhances the overall security and trustworthiness of the system. Block chain technology has wide range of application across various industries. Despite its numerous benefits, block chain technology also faces several challenges and limitation. Scalability remains a major area of concern .Security is another issue as hackers continue to exploit vulnerabilities in block chain systems. Additionally, regulatory concern also poses challenges for widespread adoption of block chain technology.

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Tabular Analysis of TAS and BCA

System	BCA operates decentralized ledger system.	TAS operates centralized system
Transparency	BCA ensures high transparency.	TAS ensures limited transparency.
Immutability	BCA data is immutable	TAS data is mutable
Smart contracts	BCA can utilize smart contracts.	TAS do not utilize smart contracts.
Real time updates	BCA provide real time updates	TAS involve batch processing and delayed updates.

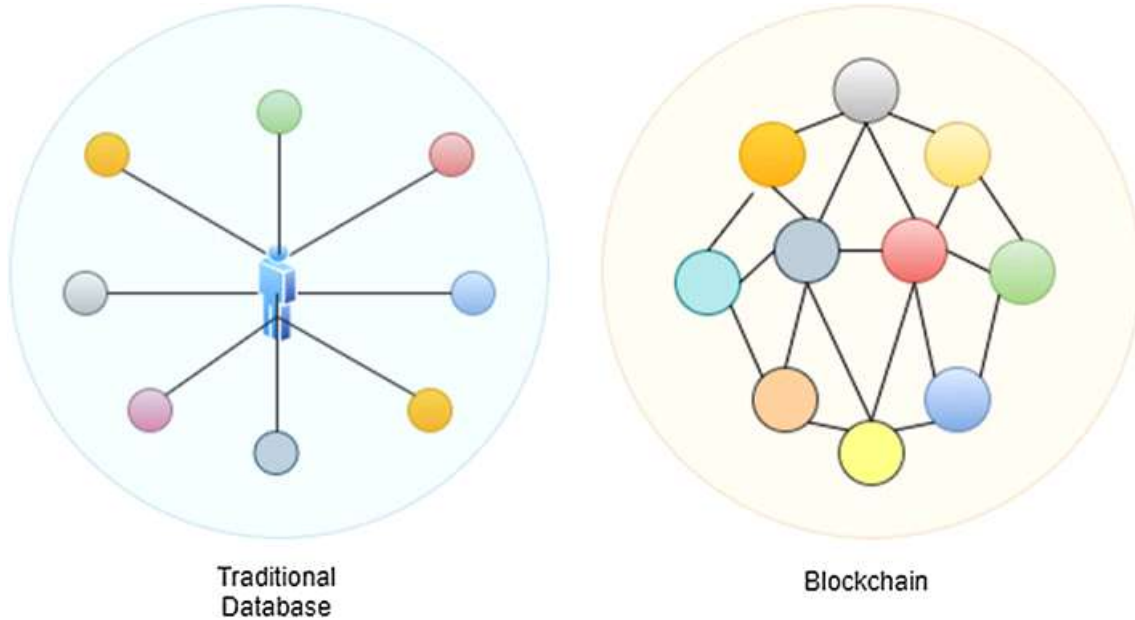


Figure 1:-

Review of Literature:-

A review of literature on block chain technology reveals a wide range of research studies, articles and publication that explores various aspects of this innovative technology.

Shobhwani K., Lodha S. (2023) focus on block chain technology including its adoption, impact and challenges in banking industry. The background and operational procedure are addressed by authors.

Vardia S., Singh H. (2022) identified the benefits and challenges of using block chain technology adoption in accounting and auditing. The result of study discovered better transparency between internal and external users of accounting.

Sharma A.(2023) focus on efficiency of block chain technology from accounting perspective is adequate or 4-dimensional customized entry and reporting system is required. Opinion survey results of present study expressed that block chain accounting is far better and improve efficiency, reduces time, error and fraud but still risk is expressed high by respondents .

Vardia S., Bhanawat Shurveer S.(2022) focus on potential risk and challenges on implementation of block chain technology in accounting through opinion survey and discovered no significant difference among opinions of various professionals about potential risk on implementation of block chain based accounting.

Manjhi K.(2022) analyze the potentiality of block chain in accounting auditing and corporate governance and also examined further the current issues and challenges of block chain technology in respect to recent developments.

Sebahattin Demirkan, Irem & Andrew (2021) attempted their study on “Blockchain technology in the future of business cyber security and accounting”. The study concluded that blockchain technology has appealing uses not only for a security system in the future with challenging threats to cyber security.

Rodrigo O, Senaratne and Perera(2020) suggested that private blockchain network provide reliable software solution to construction industry with sensitive data.

Al-Jaroodi and Mohammed (2019) theoretically concluded block chain technology is decentralized ledger and has no central control, it has great potential benefits for many industries.

Orcutt (2018) stated that block chain introduced to world in 2008 and this software technology ensures better transparency, security and immutability.

Piscine (2017) propounded in his study that there could be two main types of block chain accounting across globe including public block chains where every person has access to the network.

Zheng Zibin (2017) analyses a comprehensive overview on block chain technology and compare some typical consensus algorithms used in different block chain. Furthermore, technical challenges and recent advances were listed briefly and also highlighted possible future trends for block chain.

Research Methodology:-

This research is quantitative in nature. For questionnaire analysis 5Point Likert scale of measurement is used whose mapping is described below:

Strongly agree-5, Agree-4, Neutral-3, disagree-2, strongly disagree-1. Out of 60 questionnaires 50 were finalized for data analysis procedure.10 was left due to incompleteness. Total 12 questions were framed in which 5 question were about general mechanism of blockchain accounting awareness and 7 specific statement questions about block chain technology challenges, training , implementations and education were framed .

Source of Data:

Both primary obtained from survey which is conducted through online and offline mode by giving a questionnaire and secondary data from reseach papers,websites and academic journals.

Nature of study:

Descriptive

Survey tool:

Open and Close ended questionnaire.

Measurement Scale:

Likert 5 Point scale.

Population:

CA/CS/CMA/ICWA, academicians , research scholars and IT experts.

Survey Area:

India.

Statistical Techniques Used:

Tabular and Graphical presentation ,Mean score ,Percentage Standard deviation and variance were used.

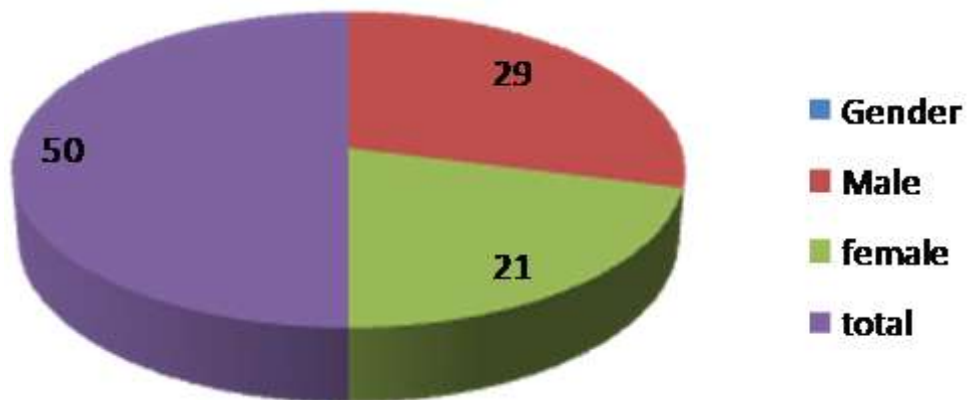
Method of Sampling:

Non Probability and Judgmental sampling technique.

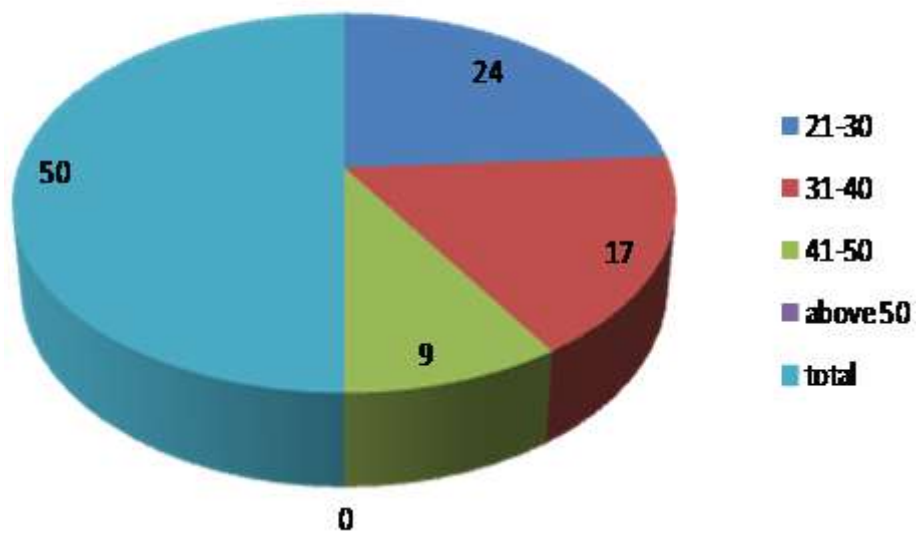
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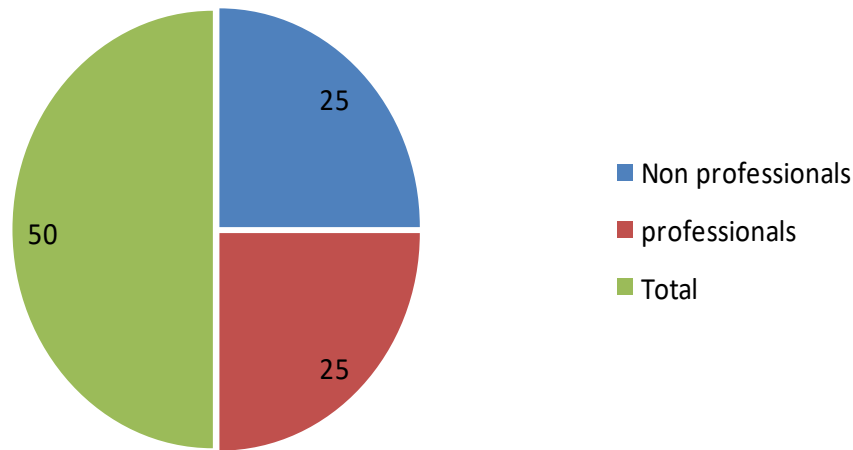
Variable	Demographic descriptive	Percentage(%)
Gender	Frequency	
Male	29	58
Female	21	42
=Total	50	100
AGE		
21-30	24	48
31-40	17	34
41-50	9	18
Above50	0	0
=Total	50	100
Variable		
Professionals	25	50
Non-professional	25	50
=Total	50	50



Age



Education



Objectives:-

1. To understand application of block chain technology mechanism in accounting.
2. To examine the current issues and challenges in block chain technology in respect to recent developments.
3. To analyze comparison between block chain accounting is improvement over traditional accounting system.
4. To examine respondents views on various aspects of blockchain accounting between professionals and non-professionals by survey opinion method.

Hypotheses:

1. Is there any significant difference in opinions between nonprofessionals and professionals regarding block chain accounting?
2. Research gaps:
3. Very less work has been done on block chain technology based accounting.
4. Absence of regulatory body under block chain technology is serious issue.
5. Excessive use of block chain technology may lead to liquidity risk.
6. Recording a transaction in block chain may be lacking with inappropriate audit evidence related to nature of transaction.

Analysis and Discussion:-

Table 1.1:- Respondents views regarding the statement about awareness of the concept of block chain technology (BCA).

Response	Non -Professionals		Professionals	
	No.	%	No.	%
Yes	19	76	22	88
No	6	24	3	12
Total	25	100.00	25	100.00

Table 1.2:- Respondents views regarding implementation of block chain technology in accounting process.

Response	Non -Professionals		Professionals	
	No.	%	No.	%

	No.	%	No.	%
Yes	7	28	9	36
No	18	72	16	64
Total	25	100.00	25	100.00

Table 1.3:- Respondents views regarding the statement that BCA is an improvement over TAS.

Response	Non -Professionals		Professionals	
	No.	%	No.	%
Yes	17	68	21	84
No	8	32	4	16
Total	25	100.00	25	100.00

Table 1.4:- Respondents views regarding statement that blockchain reduces fraud and errors in accounting.

Response	Non -Professionals		Professionals	
	No.	%	No.	%
Agree	18	72	20	80
Disagree	7	28	5	20
Total	25	100.00	25	100.00

Table 1.5:- Respondents views regarding the statement block chain technology is less time consuming and prevent double spending.

Response	Non -Professionals		Professionals	
	No.	%	No.	%
Agree	13	52	22	88
Disagree	12	48	3	12
Total	25	100.00	25	100.00

Table 1.6:- Respondents views regarding following statements related to block chain accounting data.

Particulars	Non Professionals		Professionals		mm
	Mean Score	Rank	Mean Score	Rank	

6	“Blockchain technology improve transparency and accuracy in financial transaction.”	4.36	1	4.57	1
7	“Implementing blockchain technology in accounting Process can enhance data security and reduce risk”	3.48	7	4.53	2
8	“Blockchain has the potential to stream line auditing Procedure.”	3.86	5	4.41	4
9	“There are significant challenges and barriers in adopting BCA in accounting practices.”	3.96	4	4.23	5
10	“Training and education on blockchain technology are essentials for accounting professionals .”	3.67	6	4.45	3
11	“BCA reduces employee requirement”	4.02	3	4.06	6
12	“Block chain technology reduces cost of maintaining financial accounting books.”	4.23	2	3.73	7

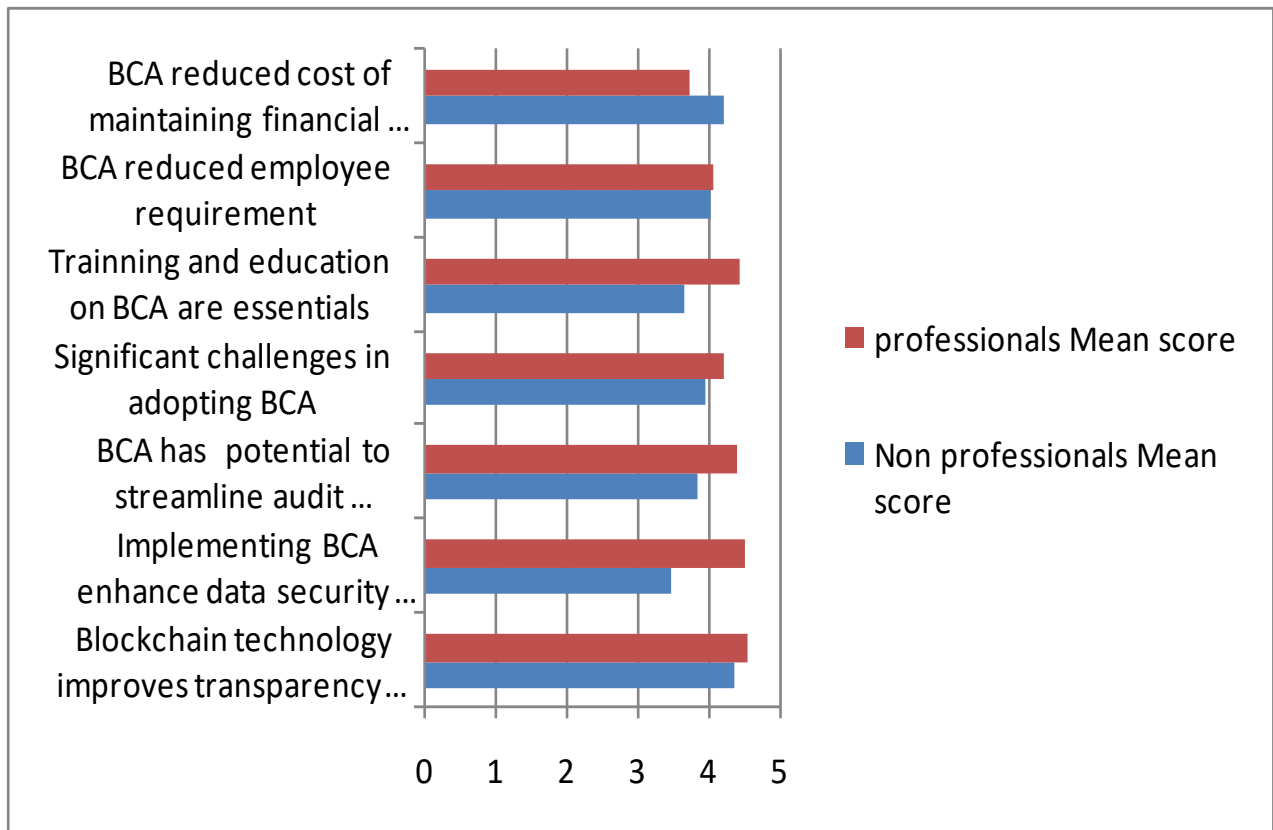


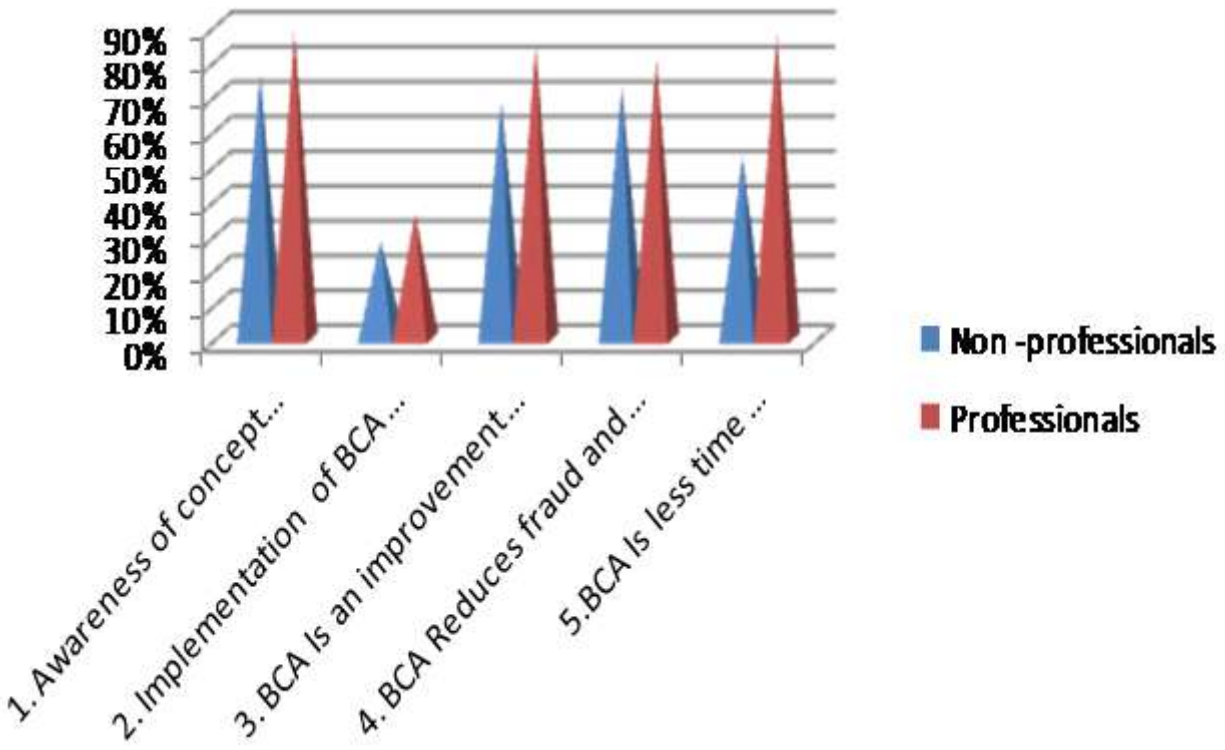
Table 1.7:- Analysis of respondents views on below specific statements by standard deviation and covariance statistical tool.

Particulars	Non -Professionals		Professionals	
	STDEV	C.V	STDEV	C.v
	6 . “Blockchain technology improve transparency and accuracy in financial transaction.	0.67	15.36%	0.84
7 . “Implementing blockchain technology in accounting Process can enhance data security and reduce risk”	1.20	34.48%	0.68	15.01%
8. “Blockchain has the potential to stream line auditing Procedure.”	1.08	27.97%	0.80	18.14%
9 . “There are significant challenges and barriers in adopting BCA in accounting practices.”	0.93	23.48%	0.81	19.15%
10. “Training and education on blockchain technology are essentials for accounting professionals .”	1.15	31.33%	0.74	16.62%
11. “BCA reduces employee requirement”	1.02	25.37%	0.71	17.48%
12. “Block chain technology reduces cost of maintaining financial accounting books.”	0.81	19.41%	1.06	28.41%

Table1.8:- Overall Percentage Analysis of Respondents view on general awareness statements below about blockchain mechanism.

Particulars	Non Professionals		Professionals	
	%	RANK	%	Rank
	1. Awareness of Concept of BCA	76	1	88
2. Implementing blockchain technology in accounting	28	5	36	5
3.. BCA Is an improvement over TAS	68	3	84	3

4. . BCA reduces frauds and errors in accounting	72	2	80	4				
5. BCA is less time consuming and prevent double spending.	52	4	87	2				



From table 1.6 it was analyzed that both non professionals(4.36) and professionals (4.57)depicit highest mean score regarding statement that "Blockchain technology can improve transparency and accuracy of financial transactions".From table 1.7 depict highest co variance among non professionals i.e 34.48% regarding statement implementation of BCA in accounting enhance data security and reduce risk while lowest c.v 15.36 is found regarding statement BCA improve transparency and accuracy in financial sttements. Further highest C.v among professionals is 28.41% is regarding statement that BCA technology reduce cost of maintaining financial accounting books and lowest C.V is 15.01% regarding implementation of BCA enhance data security and risk.From table 1.8 it was found that 88% of professionals were aware about the concept of BCA while it was76% in case of non professional respondents. BCA is an improvement over traditional accounting system 84% of professional respondents were agree while it was 68%in case of non professionals. 28% of non-professional respondents agree with statement of implementation of BCA in accounting process. Further 87% of professionals agree with statement that BCA is less time consuming and prevents double spending. So, present analysis provides valuable insights into the impact of blockchain technology on accounting practices and help in making informed decision about its adoption in practice.

Conclusions:-

The analyses of questionnaire responses among all respondents concluded that BCA highlights significant potential of blockchain technology in transforming accounting data. There is significant difference between opinions of non professionals and professionals regarding concept of blockchain technology through co -variance analyses and BCA is an improvement over traditional accounting system. While there are clear benefits such as improved security,integrity and transparency but challenges are still associated such as regulatory compliance and scalability issue and interoperability issues for large scale implementation of BCA. Further , training and education on blockchain technology are essentials for accounting professional to leverage its benefits effectively which can help to foster greater acceptance and adoption of blockchain technology in future. Overall,the opinion survey report highlights need for ongoing dialogue and education to promote acceptance of blockchain technology among broader audience.

References:-

1. Alessio and Narcisa (2019) Accounting and block chain Technology: From Double entry to triple entry ,The Business Management Review ,Volume10, No.2,108-116.
2. Brender , N. , Gauthier , M. (2019) The potential impact of block chain technology and audit practice , Journal of Strategic Innovation and Sustainability ,14(2),35-39.
3. Dunga ,N.V.(2019) Blockchain Technology and Future of Accounting in Business, International Conference on Finance Accounting and auditing(ICFAA).
4. Manjhi K. R. (2022) Potentiality of block chain Technology in Accounting , Auditing and Corporate Governance, The Chartered Accountant ,Volume70,No.10,45-52.
5. Narayanan A.,Bonneau J. & Goldfeder,S.(2016) Bit coin and crypto currency Technologies : A Comprehensive Introduction ,Princeton University Press.
6. Shobhwani, K. , Lodha , S. (2023) Blockchain Technology : Adoption ,Impact and Challenges in Banking sector ,Indian Journal of Accounting ,Volume55, No.1 ,9-23.
7. Sharma , A.(2023) Is the efficiency of Blockchain Technology from an accounting perspective Adequate or 4-Dimensional Customized entry and reporting system is required, The Chartered Accountant ,May 2023,99-105.
8. Vardia ,S., Singh, H.(2022) Adoption of block chain technology in accounting and auditing : Benefits and challenges , pacific business review (International),Volume 14,Issue8, February 2022,95-104.
9. Vardia ,S., Bhanawat S.(2022) Block chain Accounting Need of hour : A World wide opinion Survey analysis ,Indian Journal of Accounting ,Volume 54,No.2,December 2022,1-20.
10. Vardia ,S., Bhanawat S.(2023) Exploring the viability and Acceptance of Blockchain Accounting : A global Survey of Professionals, The Chartered Accountant ,October 2023,107-114.
11. Vardia ,S., Bhanawat S.(2022) Potential Risk and Challenges on Implementation of Blockchain Technology in Accounting, The Chartered Accountant ,October2022,49-58.
12. www.researchgate.net
13. www.blockchain.com
14. www.ssrn.com
15. www.ijrar.com
16. www.icai.org
17. www.indianaccounting.org
18. www.journal.iaarf.in
19. www.icaew.com
20. www.journalofaccountancy.com
21. www.doi.org
22. www.researchrabbit.com
23. www.scispace.com
24. www.emerald.com
25. www.iopscience.iop.org.