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Block Chain – The Favorable Technology Application For Competence Augmentation

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ABSTRACT

Advancement of digital technologies are in peak point in today's world. So today's world can be said as "Digital World." Technologies like block chain, artificial intelligence emerge as driving forces of the human lives. In this article authors try to make understand what Block chain technology is, how it works and how it is useful in accounting and other linked fields

1. INTRODUCTION

Today's corporates dealing with finance are fully reliant on technologies. Technology embracement and updating becomes the basic requirements of the corporates in general and society in particular. As per Shi, X., Yao, S., & Luo, S. (2023), The development of digital technology and e-commerce saw the explosion of platform operations. Platform operations use cloud as means of working place During the process of platform operations, controversial issues and challenges will emerge. These questions and encounters are solved by block chain features. Clark, K. (2024) emphasized the conjunction of technologies like robotics, energy, artificial intelligence areas are going to create numerous revenue opportunities in this decade. Technology becomes an attached factor for businesses to provide services and customers in today's context to lead better life standards. The internet has transformed the business landscape by providing new opportunities, enabling global connectivity, enhancing efficiency, and driving innovation. As technology continues to advance, businesses that adapt to these changes are more likely to thrive in the evolving digital economy. K., G.-M., N., M., & M., T. (2023) discussed the stake holders' (Investors, Customers, Regulators, Technology developers and Risk Managers) attitude towards the fintech sector. Authors also disclosed concerned about the security and privacy issues of the customers in using the technologies. The convergence of technological advancements, changing consumer expectations, and regulatory support has fueled the rapid adoption of fintech, reshaping the financial services industry and fostering a more digitized and innovative landscape. Pentury,

F. (2023) assessed the impact and penetration knowledge about fintech among fishermen and marine farmers in Indonesia. Author has found the direct, optimistic and noteworthy effect on the overall management performance of fishermen and marine farmers. Creation of digital infrastructure and employees' positive perception are the two challenges faced by the companies and organizations which intended to implement digital transformation strategies. Kherbachi, S. (2023) explores the digital economy in the context of health care sector's initiatives commanded and funded by world bank in Africa and identified the two key reasons for successful delivery of digital health services namely dimensions of sustainability and evaluation of digital technology service providers.

Objectives

This paper is of descriptive in nature and focuses on providing a detailed and vivid description of fintech services such as digital, and block chain technologies which have potential to carry a notable transformation in the financial service industry. Authors intention to create a clear picture for the reader and plan to deliver insights into the characteristics of fintech services such as digital, and blockchain related fields, to provide a foundation for further research, and informing decision- making in various fields related to finance.

Mutualism between Fintech / Digi tech and blockchain

Fintech and digital technology are closely intertwined, and blockchain operations represent a significant intersection of these two spheres. Blockchain is a dispersed ledger knowhow that empowers safe, translucent, and antitamper record-keeping. the integration of fintech and blockchain operations harnesses the power of digital technology to revolutionize traditional financial processes, making them more secure, efficient, and inclusive. The integration of fintech and blockchain operations harness the power of digital technology to revolutionize the traditional financial process. The blend of these technologies has the likely to reshape the financial industry by introducing innovative solutions and improving the world's overall financial ecosystem. Chatterjee R, Srivastava T, Kaur N (2023). Were abridged the first element of interconnection of the sustainable development goals with sound global financial system and second element of integration and innovation of emerging technologies and finance has developed the new branch of fintech. Fintech combines financial services and technology to provide financial inclusion to stakeholders thru several products such as metaverse and AI which effects the performance of financial institutions like banks and manufacturing firms like SMEs. Aloulou Et al (2023) studies the UAE banking industry sector and finds the positive correlation between fintech adoption and competitiveness and performance of UAE's banking industry during covid 19 period. Rehman SU et al (2023) concluded that, the adoption of fintech variables such as blockchain, bigdata, and mobile banking positively influenced the bank credit supplies to small and medium enterprises in Pakistan.

Blockchain Technology – Historical background

Blockchain operations are controversial due to its non-regulated nature and exponential increase in the value and volume of the transactions around world, bitcoin is the most widespread example, but, the said block chain technology is non-controversial and functioned flawlessly over years and its being realistic to finance and non-finance fields. Conventional financial transactions were authorized by third parties which invites frauds, but, in blockchain technology cryptographic proofs are used to prevent frauds in financial as well as non-financial transactions through online over internet. Blockchain is the most greeted technology which is introduced just one and half decade back. In 2008 Satoshi Nakomoto has published one research paper titled "Bitcoin: A peer- to-peer Electronic Cash System" where he gave the idea of Block Chain". He explains the concept of cryptographic proof of sender instead of trust on third party. In turn it generates the idea of peer- to-peer version of electronic transfer without the intervention of financial institutions. Confidentiality, safety and security of accounting data is an important task of every business house under conventional method of book keeping. Leakage of data through ethical or unethical hacking are quite common, to overcome the same block chain technology grown and popularized.

What is Blockchain?

To put it simply, a block chain is a ledger that keeps track of transactions. All that blockchain is is a distributed ledger technology (DLT). It is an amalgam of the terms "block" and "chain." The blocks store the data entered into the ledger, and the blocks are connected in a cryptographical way. Blockchain technology is a virtual platform that records the transactions in chronological order and route assets through different dispersed ledgers (i.e., mutual ledger) in a network. After hearing the word ledger the laymen may misconnect it as the block chain will be applicable to finance sectors like banks and financial institutions, but in reality same technology can be adapted to military services, Health services, e commerce services, and education services Grover, B., & Kushwaha, D. K. (2023) proved the fact of enhanced protection of patients' personal data of the health with block chain technology. Same technology be adapted to military services, Health services, e commerce services, and education services for efficiency enhancement.

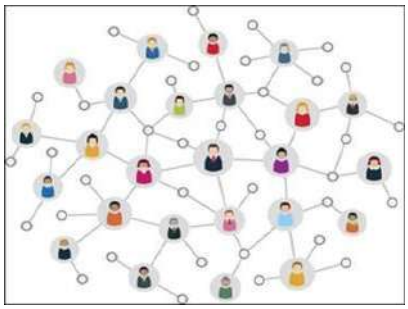
The third party distribution model is fully based on believing individuals of the dealings. This concern is eliminated by the use of block chain technology as the central authority is not mandatory to control or legalize dealings in blockchain platforms. Instead, the technology is dispersed and dealings are implemented and approved by the members in a blockchain dais via cryptographic signatures and the duplicate copies of the dealings are circulated to network members.

How Blockchain Works?

In DLT, data is stored in a public or distributed ledger that is secured by public and private keys (Validation of Entries). In a secure way, the concerned parties can access the information in DLT. Clients, auditors, regulators, and others may have access to it (Safe Guard of Entries). The largest benefit of the blockchain is its incorruptibility. To preserve historical records, the material is time-stamped and encrypted. Therefore, the data owners will be aware of any modifications made to the data. This type of data is called a "bock chain" because it is stored in a sequence of blocks that make up a chain.

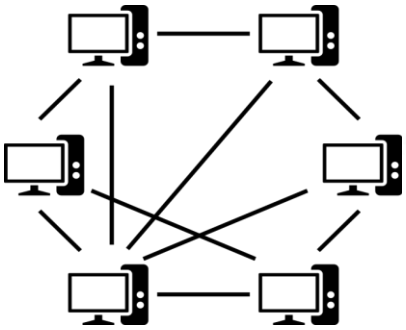
The blockchain protocol possesses three elementary features:

1. Decentralization
2. A peer-to-peer network and
3. Distributed storage of data



DECENTALIZED

- The network fixes itself even if one node malfunctions or is corrupted; power and control are shared by several participants rather than held by a single entity.



PEER-TO-PEER

Direct peer-to-peer data or financial transactions: The decentralized structure of blockchain technology fosters trust in the process by allowing two unidentified people to communicate and do business directly.

DISTRIBUTED

Data is dispersed among the nodes, which are computers and hard drives. Even if one node is compromised, the data remains unaffected.

How blockchain can impact Accounting?

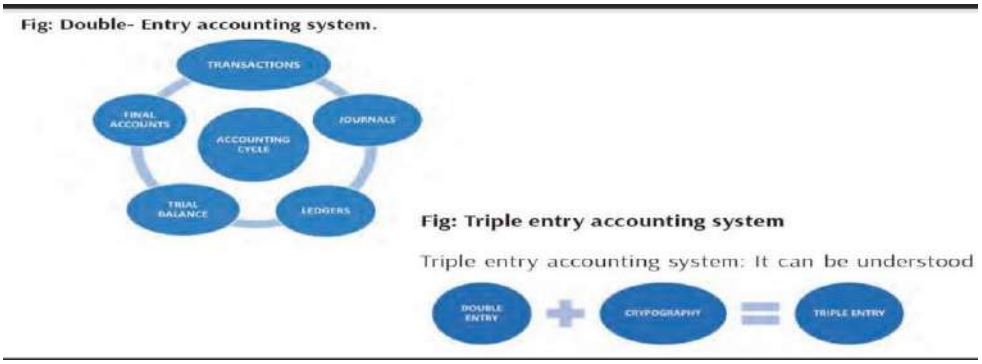
The main purpose of blockchain technology was to support the design of Bitcoins. However, it can be used in a number of other sectors. Global banks are attempting to use blockchain technology to improve the security of their transactions. This technology is being tried at different points in time, despite the fact that it has not been widely accepted in any industry.

Accounting is designed to keep track of specific transactions between two businesses and document the outcomes on the profit and loss account and balance sheet. Accounting keeps track of user data and presents it in an organized manner.

Right now, different types of accounting practices adopted by the companies to maintain their books of accounts and the accounting records are deposited in a centralized ledger in a database like; QuickBooks, FreshBook, Wave accounting, Xero, and Sage or SAP, and they could be warehoused in Excel. In blockchain, which uses dispersed ledger technology (DLT), records would be deposited in a shared ledger and then can be distributed to concerned parties involved namely, accountants, auditors or regulators and other stakeholders.

The cryptographic, self-sealing, and trust-free secured structure of block chain technology allows digitizing the currencies, developing dispersed establishments, generating smart deals, and much more. Many organizations including Government and corporate entities have already started to expand block chain platforms to assess and potentially assimilate the technology into conventional use.

One of the protruding consequences of blockchain technology perceived in accounting is, it converts Duble entry system into Triple entry system and it has the impending to make pecuniary transactions much more protected, and make it cost-effective, and time efficient.



Benefits of Blockchain Technology in Accounting

Block chain will be used in accounting with the following advantages:

1. Transactions are chronicled in a protected network which is tough or difficult to manipulate.

2. It is translucent and access would be limited to only a few approved persons.

3. Easy Tracking of recorded transaction.

4. It will make hassle free course of inspecting the books of accounts.

5. Settlement of accounts will be easier with enhanced effectiveness and less happening of deceptions.

There are others who think that implementing blockchain technology in accounting on a wide scale will either affect or replace current accountant workers. However, that is only a fallacious assumption. Because the new technology will provide new work opportunities and just alter the nature of those ones. The same experts will still be examining the financial statements, and the same people are still needed to document the same transactions.

The accounting industry will grow as a result of blockchain technology. No scalable system has been shown up to this point. Emerging in the industry is an exciting new technology that has the potential to revolutionize accounting. If the changes do occur, we should be prepared to embrace them.

Encounters in implementing Block chain Technology

Blockchain technology can face some challenges which can be overcome easily.

1. Technical Risk

2. Talents Demand

3. Huge cost of establishing a new system

4. Social and regulatory challenges.

Conclusion

Misconception among many people about block chain technology, it associates with the crypto- currency, but block chain is the underlying technology for not only Bitcoin. Its applications are being employed in other foremost service sectors across the world. Parkhurst, K. (2019).study reveals the wrong approach of business men towards the block chain technology, debates are happening due to people tried to understand technology and its mechanism mistakenly instead of uses of technology. Even though block chain is no more a fancy word for today, there is an agreement that block chain will benefit for accountants and the accounting industry as a whole irrespective of size of the firm. An accounting professional should welcome the blockchain with open arms to utilize potential uses of technology to bring revolutionary change in the accounting industry. Block chain reduces the amount of trust needed between the parties by making it trust- free network. This trustless environment not only reduces the requirement for a central authority but also disallows the need for an intermediary. Alkan, B. S. (2021) discussed the four basic advantages of block chain accounting are trust and transparency, disinterment, clever contracts and constant assessment.

Smart contracts—which automatically carry out and enforce the terms of an agreement when predetermined criteria are satisfied, such as in legal and insurance contracts—are only one of the many applications of blockchain technology that span numerous industries. Management of the supply chain, Health care, Commercial services, energy trading etc. due to its dispersed, secure, and translucent nature. The potential applications of block chain technology continue to evolve as the technology matures, and businesses and industries find new ways to leverage its capabilities.

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