Blockchain Technology in the Auditing Profession

Your Name (First M. Last)

School or Institution Name (University at Place or Town, State)

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**Introduction**

The awareness and comprehension of the potential impact of technological advancement is critical to the success and growth of the auditing profession. The essence of the blockchain technology lies at the very heart of constructing a digital mechanism to engage in secure transactions with a comprehensive trust in the integrity of assets being exchanged. Blockchain technology is equipped with the potential to bring exquisite opportunities and profound challenges to the audit and assurance profession. The approach of the auditor may change while the traditional services may remain imperative. As the auditing profession is advancing in the contemporary age, data analytics and artificial intelligence and audit progression in automation, the blockchain technology can have potential impacts on the manner auditors execute the engagement of their operations (“Blockchain might remake accounting. The opportunities are huge.” 2017). However, its existence of the master ledger comprises several grave challenges. The cost and efficiency challenges are the primary threats that arise while implementing the blockchain technology by the organizations. It requires an integrated team under the supervision of major stakeholders to implement the blockchain systematically.

**Challenges Faced While Implementing Blockchain Technology**

Scalability is a major impediment for the current blockchain implementation which makes it challenging for the application of technology to critical applications as payments. For instance, the transactions processed per second by VISA exceed 1,667. The colossal amount of energy and electricity required to implement blockchain can only be afforded by large scale organizations. To enable next-generation technologies like artificial intelligence and blockchain, organizations are advancing to explore innovative techniques to establish processors which deliver efficient performance and operate profoundly. Architecture innovation proves productive to address architectural innovations and enhanced management of power and resources (“Ia Online Home,” n.d.). Several experts of digital technology have asserted that relying on blockchain technology heavily these days is an irrational approach. A critical appraisal of the dependency of organizations on blockchain technology reflects these are the early days and organizations can witness a paradigm shift with the passage of time. The economic ventures across the organizations can be revolutionized by balancing the playing field irrespective of the economic status of the participants.

Furthermore, data privacy is the other fundamental challenge. It is, meanwhile, the greatest competitive advantage harnessed by the blockchain technologies after the decentralization of the operations management. If an organization proceeds to partner with another organization by joining a blockchain based solution, the intricacies involved in the matter can manifest detrimental consequences for both the organization. Both competitors can have access to data through distributed ledger. The leverage can be either processed or lost by both the organizations under such critical circumstances. Thus, it remains a contentious debate about whether organizations should collaborate on such platforms or not. Mainstreaming the technological framework urges the corporations to explore a potential solution to the complexities involved in data sharing and manipulation.

**Fundamental Stakeholders**

Likewise, there exist several critical stakeholders in the organization and smooth implementation of the blockchain networks. A comprehensive analysis of the stakeholders that execute the ecosystem will not only offer a critical apprehension of the nature of blockchain operations but also permit the organizations to assess their potential for sustainable growth. First, the architect of the blockchain plays an instrumental role. The architect assumes the onus to design and be responsible for the architecture. In large organizations and business operations, regulating the processes is a crucial factor. The blockchain regulator advances to attain the broader access of the content of the ledgers and is endowed with the entire authority of the network. Besides, the user of the business interacts with the blockchain through an application. It is essential to highlight the role of the blockchain developers the major stakeholders involved in the process. Their primary aspirations are the smart contracts and applications and supervising the manner of the interaction among ledger and several integrated components (“Blockchain Preparation Audit Program,” n.d.). The blockchain operator monitors the network of the blockchain. Every business in the network comprises a network operator. The essential interests of the administrator are the operations management and deployment of the blockchain.

These stakeholders and several minor stakeholders constituting the paradigm of the strategic blockchain implementation are persistently changing with the emergence of new stakeholders. However, it is evident the technology causes the business industry to witness critical changes. For instance, it triggers organizational disruption and societal decentralization. Blockchain has introduced a potential platform to establish innovative markets that never existed before. This is an explicit illustration of the robust technological advancement where technology is harnessed to secure data and operate processes as smart contracts in a secure and decentralized cryptographical environment. The advent of the blockchain technology was vested in the cryptocurrencies. After assessing the true potential of the blockchain network, organizations strived to explore worthy means to incorporate and integrate it into their operations and network systems.

**Conclusion**

The manifestations of artificial intelligence have contributed to offer flexibility and sustainability towards the professions of auditing. However, the paradigm shift has been triggered by the blockchain technologies. The decentralization of data causes the organization to face grave challenges and intricate impediments while implementing the blockchain technology in an integrated manner. The stakeholders of the blockchain technology are the crucial players involved in administering the network of the blockchain. The bottom line is that it is significantly aiding the operations of business pertinent to data sharing, security, advancement and transactions.

References

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