Auditors and The Blockchain Disruption

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Technology disrupts Accounting and Audit by adding digitization of transactions using the Blockchain processes. The accounting audit profession is in the nascent stages to resolve new audit procedures as it relates to Blockchain transactions. The audit problem relates to the transaction format presented to the auditor’s, whereby such data is not conducive to accounting information systems for a correct audit (Sean, 2018). This paper examines the current state of auditing Blockchain transactions, what auditors must consider while developing an audit for Blockchain transactions, and the skills needed by the auditor to perform the Blockchain audit.

Problem Statement

Blockchain transactions creates a problem in the accounting and audit profession because auditors do not have an existing framework in conducting Blockchain transactions audits (Lee et al., 2018). As of this writing, there is no standard audit framework for Blockchain transactions (Rozario & Thomas, 2019). The qualitative problem to be addressed in this essay is auditors creating formal, specific audit framework for Blockchain transactions. The supporting research notes gaining an understanding Blockchain transactions is the first step in establishing an audit system (Sean, 2018).

Researchers have administered studies about Blockchain transactions audit systems and the challenges for auditors (Risius & Spohrer, 2017), but the gap is found regarding Blockchain audit transactions as a homogenous transaction, whereby a set of standard rules can be applied (Brender et al., 2019). Advocates Blockchain transactions requested more research studies to establish a framework for Blockchain transactions (Risius & Spohrer, 2017). Blockchain on audit professions is under-researched. Blockchain technology requires more research to understand the impact on the audit process.

Theoretical/Conceptual Framework

This essay relies on conceptual framework. Recent scholarly studies on blockchain research focus on improvements of the audit process and how it can be applied. Conceptually, blockchain can be used in any transaction where an agreement exists between two parties and it enforces transparency and validates the transaction among all parties (Risius & Spohrer, 2017). For example, blockchain can be used in supply chain relationships where the delivery of goods is certain and agreed without encumbrances of price exploits. Absent is the central authority to issue payment it is agreed upon in the smart contract and executed automatically.

The digital economy with crypto currencies is another application of blockchain transactions. The person agrees to some service such as bookkeeping in the United States and pays for the service using crypto currencies. A blockchain transaction has occurred with this agreement (Ertz & Boily, 2019). Research suggests blockchain transactions are being used but researchers do not address the audit process for such transactions.

**Literature Review**

Blockchain technology stands as digital ledger where the transaction is verified through algorithms without disclosure of the parties (Brender et al., 2019). The history of digital currency was established by the European Parliament by providing the accepted definitions which is use by central banking authorities. At the simplest level it is a medium of exchange which functions like money (Ertz & Boily, 2019). It is the blockchain technology that keeps track or creates the ledger for the crypto currency space. As explained by Glaser (2017) blockchain transactions are decentralized and secure. The decentralization of the transactions makes it a new kind of transaction where accounting systems cannot speak to language of audit in the presence of a digital ledger system.

This confusion is compounded by skill levels of the auditors. Lee (2018) explains that auditors must still learn about how blockchain works to understand the audit process. Once a clear understanding of blockchain transaction is understood an audit system can be developed.

The impact on business because of developing a blockchain transaction audit system leans towards irrevocable transactions and therefore increases trustworthiness of records (Brender et al., 2019). Blockchain offers an opportunity to examine a particular transaction and create a set of audit rules for that particular transaction which means that those transactions can be verified automatically. The point is that businesses create and run applications conducting transaction without a trusted third party like a payment processor (Brender et al., 2019).

Transparency of transactions are expected to fundamentally change the audit process on an agreed upon consensus of the transaction in question (Silverberg et al., 2015). The existing accounting systems cannot interface with digital architecture in the blockchain universe, therefore, a change in the current business model and practices to better provide audit results is inevitable (Brender et al., 2019). This means business can conduct autonomous transactions and have assurance of accuracy without third party verification or in fact an audit review.

Spoke (2015) discussed the fundamental break down of how transactions from a double entry system to a matching post in the blockchain, the transaction is time stamped, irrevocable and agreed by both parties and verification is provided by the network. This fundamental change removes the need for a traditional audit. In this simple explanation the audit is not needed to verify the transaction because all the audit criteria have been met.

This accounting compiles a triple entry accounting system which was introduced by Professor Yuji Ijiri. The origins of his triple entry accounting explanation are applicable blockchain transactions. Granted, Professor Yuri Ijiri formally introduced his triple net accounting theory in his book published in 1989 before blockchain was invented. In addition, Spoke (2015) discusses the evolution of Bitcoin is the most common use of blockchain which has proven transparent, secure for public exchange.

Blockchain evolved from the sharing economy that has a need for trust and blockchain facilitates the exchange of value without intermediaries (Hawlitschek et al., 2018). A good example is UBER plays the role as intermediator where people trust UBER platform to use for their needs. UBER is the intermediaries, and therefore not blockchain technology.

UBER is the centralized location and takes care of all transactions including payment on a peer to peer network. Blockchain decentralizes and is absent from a central point and reduces the complexity need of intermediaries. However, it is based on trust and the good intentions of human relations to have a successful transaction.

The underlying technology for cryptocurrencies is blockchain (Lee et al., 2018). For example, financial organizations act as middleman for the transactions, however blockchain technology can create those transactions eliminating transaction fees and processing delays. Think of visiting a car mechanic he charges a fee to fix the car. The mechanic is subject to transaction fees for accepting payment through a third party. Now, he can eliminate the fees by accepting a cryptocurrency through a blockchain transaction.

Lee (2018) article points to the blockchain audit with six points as a framework for blockchain audit. Test the availability of the blockchain data from different nodes in the network. Ensure the accuracy and completeness of the data elements. Verify the identity of the data coming from the nodes. Test access controls. Add new blocks to the blockchain for testing. Verify immutability of the blockchain so modifications cannot be done.

The blockchain audit evolution is coming to fruition. The need for auditors to exam blockchain transaction will not go away. The audit process for blockchain transactions will be reinvented.

**Methods**

The research methodology is qualitative. The essay studies the problem by discovering specific case studies of blockchain transaction subject to audit processes. Case studies give an account of the trends and generate ideas. The qualitative method seeks to investigate the full picture of certain kinds of transactions and apply a valid set of rules to test the theory and outcome of the audit framework. For example, to study how the big audit firms are approaching blockchain transaction audits while deciphering the common audit tasks. Once the audit tasks have been identified, auditors focus on the data and best way to perform audits for similar outcomes.

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