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Blockchain Technology in the Development of Traditional Contract

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ABSTRACT

Earlier drafting of contract required professionals who would prepare contract draft according to the needs of the client. Technology advancement has simpler the way of working. The development in technology and interrelating it with drafting work has made it easier to prepare the document. A smart contract on the Blockchain allows parties to self-execute the contract with the terms of the agreement between buyer and seller without the engagement of third parties. It is automatically executed once the terms of the agreement are met. The benefit of a Smart Contract is that it takes less time as once the terms of the agreement is met, it executes automatically without any paperwork, and also Blockchain records are encrypted so it is safe and can not be altered.

In this paper, I will discuss how blockchain technology came and how it changed the shape of Traditional Contracts into Smart contracts.

Keywords: Smart Contract, Blockchain Technology, Traditional Contract.

I. BLOCKCHAIN DEFINITION

Blockchain technology is an emerging method of storing valuable information. It has a chain of a block, and each block contains saved information within the distributed ledger, making it impossible to change the record once saved. This technology was developed in 1991 but was used by Satoshi Nakamoto in the year of 2009.

II. BLOCKCHAIN SECURITY

Blockchain has two prominent security features;

1. Hashing and;

2. Proof of Work

Each block has a specific hash number that creates a chain of the block as a distributed ledger; each block connects to the previous block, which makes it more complex to temper because It shows information from the origin of the block or the first block. So, when one block is created,

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every further block creates a chain connecting the previous block that helps keep records from the origin; because of this feature, it creates a chain of information. The first block or the new initial block is term as Genesis Block.

(A) What if someone somehow changes the value of all connected hash or previous hash by tempering every block?

As computers are fast and can calculate thousand and millions of hash per second effectively, which shall make any computer rewrite the hash without delay, to prevent from doing so, Blockchain has something called Proof of Work. It is a mechanism that slowdowns the making of the new block. In the case of Bitcoin, it takes 10 minutes to create a new block to the chain; this makes it hard to temper because if any of the blocks is tempered, it shall be required to Re-calculate the rest of the falling block. Moreover, using a hash is not enough to prevent falling blocks to get tampered with. If someone tries to Change in any Hash of the Block by tempering, it shall make all falling blocks invalid, or they need to wait for every change to continue. So, by the working mechanism of hashing and proof, blockchain obtains its security.

There is another method of preventing the tempering of Blockchain. Blockchain does not have a centralized network; it uses a P2P network. Peer to peer is a network where everyone is allowed to join, so if one joins the network, they get a complete copy of the Blockchain. So if someone makes a new block, then it is sent to everyone on the network; the node verifies each block to see any fabrication in the block; if found any fabrication, it is rejected. So to successfully achieve tampering with the Blockchain, one will need to tamper with all blocks on the chain and be required to rewrite every block hash number, then only the tempted block shall be accepted by everyone on the network. Also, this is almost impossible to do.

There can be much use of Blockchain technology; this led us to the second topic of the smart contract. Blockchain is a comprehensive technology under which smart contract is one of the branches.

III. SMART CONTRACT

Blockchains also enable the creation of 'smart contracts', defined as self-executing contracts with the terms of the agreement between the buyer and seller directly written into lines of code. The code and the agreements exist across a distributed, decentralized blockchain network. The code controls the execution, and transactions are trackable and irreversible.[2]

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[2] Blockchains also enable the creation of smart contracts .... https://www.coursehero.com/file/p4mp37gh/Block chains-also-enable-the-creation-of-smart-contracts-defined-as-self/

This technology can also track records in different work as intellectual property rights, film, and music, collecting tax, recording cash transactions, or keeping medical records. Smart contracts are simple contract as it is in the real world; the only difference is that they are digital contract and are distributed to everyone on the network. Nick Szabo first created a smart contract in 1997. His objective was to create a distributed ledger to create a smart contract and store it in Blockchain.

Generally, if a contract is created, it has a middle man or third party between the Parties, who holds the investors' money. The project team creator creates a project, and the middle man funds the team; if the project does not convince the investor's goal, then the money is refunded to the investor. There has to have trust in the 3rd party, whether the money is paid to the project creator or not; if not, then whether it has returned to the investor or supporter. This sort of impediment is mostly there in the simple contract.

However, in the smart contract, there is no 3rd party; the contract is programmed differently:

1. It is programmed with a specific goal.

2. It holds the money until the goal is completed.

3. If the project is created according to the goal of the contract, then the money is automatically transferred to the creators and,

4. If the creation fails and does not meet the goal of the contract, then the money is refunded to the supporter.

Furthermore, because the smart contract is stored in Blockchain with distributed leaser, it is distributed to everyone on the network, so no one in any way holds power over the control of money.

IV. WHY DOES ONE TRUST A SMART CONTRACT

Trust smart contract because it stored on Blockchain, they inherit some vital property:

1. It is immutable and;

2. Distributed

The immutable property of a smart contract makes the contract impossible to change by going back. So the tempering of the smart contract becomes more or less impossible to do and, The distributed feature of the smart contract makes the contract distributed to everyone on the network.

Smart contracts can be used in different sectors like law, Real estate transfer records, household

registration, banking, or any documentary work. In this paper, I will discuss how, interestingly, this smart contract underlying technology of Blockchain can be brought into the field of legal dominion and how it shall become a grateful use to solve long-standing problems in the Indian legal system.

V. VALIDITY OF SMART CONTRACT IN INDIA

Indian Jurisdiction now allows its financial institution to undertake bitcoin transactions as such smart contract need bitcoin transaction technology as it demonstrates peer-to-peer transactional network, Indian Jurisdiction does not have a regulatory framework. However, now it is legal to use.

Before discussing the validity of a Smart Contract in the Indian scenario, one must understand that Blockchain as a form of technology and smart contracts as one of its uses are two different things.

One country that accepts and has a positive attitude toward Blockchain Technology does not mean that such a country can also accept the smart contract. Considering India as a developing country, few institutions accept Blockchain technology.

However, under the Indian contract act, 1872, section 10 of the act states- "All agreements are contracts if they are made by the free consent of parties competent to contract, for a lawful consideration and with a lawful object, and are not hereby expressly declared to be void."

A Contract is said to be a valid contract only when it is has been made with valid and lawful consideration. Likewise, if you are coming into contact with another party, you will expect to have a valid consideration in return for the services. The perks of having a smart contract are that it helps make payments across the globe in the form of cryptocurrency. A cryptocurrency is a form of Virtual Currency. Parties exchange their currency into cryptocurrency and then deposit it into the accounts of escrow. Upon completing the service rendered, the payment automatically gets sanctioned from that escrow account into the payee's account.

Therefore, under the law, two individuals can get into a contract without any additional party involvement. So, if we go by the definition of Section 10 of the Act, it is clear that it allows Smart Contract.

Several acts hold quality to consider the smart contract as a valid contract in the Indian context:

1. Section 5 and 10 of Indian Information Technology Act, 2000

This act recognizes digital signatures, and it considers any contract made through electronic means as valid and enforceable.

2. Section 65B of Indian Evidence Act, 1872

It validates digitally signed contracts valid in the court of law so that the government can resolve the dispute between the parties.

VI. CONCLUSION

The growth of smart contracts is a process that will never be restricted even one country implements it or not. If any country implements its use, its implementation will cut the overhead costs that are involved in making a traditional contract.

Changing is the rule of nature; change is necessary for development and growth. Our legal system has evolved insignificantly with time, so this smart contract will make its place in the Indian legal system.

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