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A STUDY OF EFFECTIVE MANAGEMENT USING BLOCKCHAIN TECHNOLOGYBASEDAPPROACH

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ABSTRACT

Managing a business requires considerable amount of effort, consistency and betterment in its progress to stay in the level field and improve business efficiency. The technology so far makes this management easier a sit grows, but at the same time it also seems untrust worthy in many casesas the customers had to leave their traces all over the web. This may lead to over exposed information about the clients as well as the businesses. By interviewing managerial level employees from the financial and information technology sectors along with the detailed document analysis, this study helps to find out how management could be made simple and trust worthy using the block chain technology. The paper also focuses on how block chain could be used effectively incase of management in India and addressing the gray areas faced by the technology itself.

KEYWORDS: Block chain, Management,Technology,Finance,HumanResource,SupplyChain,Compliance.

INTRODUCTION

The ledger which is distributed among the network members is termed as blockchain. Thefirst block is called as Genesis block and the following blocks form a chain. every block containsaseriesofinformationnamelythelistoftransactions,Merkleroothash,Nonce,Timestamp,hashof the previous block and block header (Michael Casey, Jonah Crane, Gary Gensler, SimonJohnson and Neha Narula, 2018). The Hash function is one of the special Characteristics of theblockchain technology (Anish Dev.J, 2014) which helps to link each and every block. Such atechnologyhelpstomaintaindetailedledgerforeverytransactionenteredintheblocks(Dewaal.Gand Dempsey, 2015). Since there is a real time data transformation for every transaction, themanipulationof data seems to behighly impossible as per various study.

BLOCKCHAIN AND MANAGEMENT

Thefeaturesoftheblockchaintechnologyseemstobehelpfultomanagevariousprocessinalmost every business sector indicating a Revolutionary capacity.Real-time data entered in theledger reduces compliance during andafter the completionof project or delivery of goods(White.G.R, 2017). Non-delay in transferring the data transactions will streamline and help tomanage manufacturing operation, finance, supply chain, human resource and compliance relatedtoownership and customers (Tozanli.O, Kongar.E&Gupta.S.M., 2020).

REVIEW OF LITERATURE

BLOCK CHAIN AND MANUFACTURE MANAGEMENT

The process of manufacturing is indeed the action stage of the ideas put together for aproduct-basedbusiness(AhinavPal,ChandanKumarTiwari&NiveditaHaldar,2021).Convertingassetsorresourcesintoafinishedproductrequiresconcentratedmanagementasgoodsaresubjecttoabduction(Olsen&Tomlin,2020).AccordingtoSchneidertheplanning,budgeting,supply chain, human capital and marketing management are highly required for the businessesinvolvedinmanufacturing.Theblockchaincouldbeusedasaproductivetooltomanageallottheabove (Abhinav Pal, et al. 2021). Since all the data relating to every process could be stored realtimeintheblockchainitcanbemadeusefulforrealtimeverificationofalltheclosingstockeveryday(Lohmer.J&Lasch.R , 2020).

BLOCK CHAIN AND FINANCIAL MANAGEMENT

The blockchain came to the spotlight only after the bitcoin made its way through thistechnology(Khan.A,2015).Thetechnologybasicallymeansthatthefinancialmanagementcouldbe made simple (Michael Casey, Jonah Crane, et al., 2018). Efficient use of the blockchaintechnologywillreducecostinvariousaspects.Thebankscouldsaveupto27billiondollarsasperthemarketintelligencefromJuniperresearchiftheblockchaintechnologywasused(Fisch,2019).Adoption of this technology would also help to overcome cyber-attacks and financial frauds as itprovides security against all these due to its tamper-proof nature

(Varma, 2019). Adding smart contracts to the block chain leads to the automation of contracts and implementation of the samewillleadtosavinganenormousamountof timeinprocessingfinancialtransactions(Li&Wang,2017).

BLOCK CHAIN AND SUPPLY CHAIN MANAGEMENT

The maximum utilization of the blockchain technology after financial sector seems to beadvantageousforsupplychainrelatedbusiness(Kim&Lakowski,2018). Already severalindustries have started implementing the technology to manage their logistics and supply chain(Casino.F, Dasaklis.T.K&Patsakis.C, 2019) . "One foundation" from China uses the blockchaintechnologytosend requiredaidstotheunreached. Thustheblockchainenablessecurity andtrustin maintaining the ledgers (Saberi.S, KouhizAdeh.M, Sarkis.J and Shen.M, 2018) by eliminatingmiddlemenin thenetwork of supply chain.

BLOCK CHAIN AND HUMAN RESOURCE MANAGEMENT

When the HR departments use data driven approach for decision making, the data analysisplaysavitalrole(YuliNurhasan.H,DitaPrameswari&OliviaFachrunnisa,2021).Theblockchaintechnology has the potential to overcome dependent recruitment process to an independent andtransparent recruitment system as per the proposed algorithms for blockchain based recruitmentmanagement system and blockchain based human resource management system (Md MehediHassan Onik, Mahdi H.Miraz&Chul-Soo Kim, 2018). The technology could be used to recordand connect the skills identifying a suitable employee for the required projects (O.Fachrunnisa,A.Adhiatma&H.K.Jhahjono 2018).

BLOCK CHAIN AND COMPLIANCE MANAGEMENT

The real time data entry in the system has to be updated every second to avoid anydiscrepancies in post-delivery of product or service (G.Fridgen, N.Urbach&B.Sablowsky, 2017,Won-YongHwang&Hyo-Kwan.Kim,2020).Theauditingismadeeasierthroughthistechnologyandcompliancecouldbereduceddrasticallyasaresultofblockchainbaseddatacollection(ZainaKawasomi, Evans Akwasi Gyasi &DeneiseDadd, 2020). Hence any legal compliance could becleared soon compared to the current system and reduce legal charges and saves time (MichaelCasey,Jonah Crane, et al., 2018).

RESEARCH OBJECTIVE

The objectives of this study are:

1. Could the management be made effective using blockchain Technology.
2. Couldthis emergingTechnology beapartofindustrial revolution4.0

RESEARCH METHODOLOGY

The study uses ethnographic research methodology and the fly on the wall approach tocollect a qualitative data. The primary data was collected from 122 participants working infinancial sector and private, public and foreign banks in Chennai city, India. Along with theprimary data the study includes a quality document analysis from various research papers, whitepapers of blockchain Companies, websites, certification courses and magazines. Out of 122participants, 23 were financial analysts, 34 managerial level employees from private and foreignbanks, 30 clerical staffs, 22managers, 11 senior managers, 1 Deputy General Manager and 1generalmanager from publicbanks.

SCOPE OF THE STUDY

Thestudywasdonetoknowiftheblockchaintechnologycouldbeusedforaneffectivemanagementandhelpasatoolfor Industrial Revolution4.0.Thisstudywasconductedin Chennaicity, India. It took nearly a year and half to collect the primary data and analyze the documents.Theparticipantswerechosenaccordingtotheirawarenessandpriorknowledgeabouttheblockchain technology. This study was done using ethnographic approach a qualitative researchmethod.

LIMITATIONSOFTHESTUDY

The study is limited to the perspective of financial analyst, private, public and foreign bankemployeesinChennaiCity,India.Sincenewinnovationsaredoneusingtheblockchaintechnologythestudyislimitedtothecurrenttrend.Timespentbytheparticipantswerelimitedinmanycasesduetotheirschedule.Theawarenessabouttheblockchaintechnologyhastobespreadenormously In India to let the population know that there is a technology which seems to havevarioususecases to comeup with most valuable research outcome.

FINDINGS

Through the study it was found that the blockchain technology can be used for datacollection in a secured manner without the help of any middleman. Since the technology istransferring data in real time just like texting our friends this can be used as an effective tool formanagementofmanufacturing,finance,supplychain,humanresourceandcompliancesrelatedtoownership and customers. The technology is also subject to various regulatory frameworks andway of handling the same. The technology seems to manage the trust protocol effectively andhence this could be used as a tool for Industrial Revolution 4.0.Using the technology formanagementwilldefinitelyreducecost,increaseprivacy,improverecruitmentefficiencyandmeetcomplianceeffectively.

SUGGESTIONS AND CONCLUSION

Thepapersuggeststhattheblockchaintechnologycanbeusedforeffectivemanagementinmanufacturing, finance, supply chain, human resource and compliance related issues. These aresubject regulatory frameworks and the type of blockchain used. Since the technology is still notbeen tested to its highest efficiency the further study can be done in relation to the productivemanagement. We can reach the wider perspective if the study is extended to other localities andsectors.Thetechnologyisrevolutionary andthedataanalystsshouldbeknowledgeableinhandling the blockchain productively. In order to contribute right strategy, the managers are to becreative and efficient in the subject matter. Further study amongst small business group may helptoknow how blockchainTechnology could bemadeuseful for theirpotential growth.

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