Original Research Paper

Smart Agriculture and Food Industry with Blockchain and Artificial Intelligence

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Abstract: Horticulture is one of the most major human exercises everywhere. Brilliant horticulture incorporates a bunch of advances, gadgets, conventions and computational ideal models to improve farming cycles. Blockchain, Big information, man-made consciousness, cloud and edge processing give capacities and answers for keeping, storing and investigating the huge information created by parts. The entry of a yield from the maker to the purchaser is followed by a cultivating store network. A reasonable stage that grants association individuals to the ranch together is a blockchain-based cultivating store network. This technique dispenses with the necessity for a unified confided in power, go-betweens and business narratives, developing creation and security through supporting outrageous trustworthiness, obligation and wellbeing. In, Industry 4.0 is one of the smart manufacturing methods in various industrial fields. It's one to create the opportunity nowadays in mass production of the many industry fields. Such as Agricultural Industry, Food Industry, Automotive Industry, Textile Industry, Logistics, etc., In this 4.0 version, we have utilized the human workers more. even though such good technologies like Big Data, Cloud Computing, IoT, etc., To reduce the Human Work Efforts and Save their lives to enhance the technology, that is to turn Supply Chain Management 4.0 into Supply Chain Management 5.0. To, Testing and Creating the Driverless Vehicle for Transporting Using Distributed Ledger Technology. In, The Smart Contract we have to Implement the Face Recognition of Those who send the Agricultural Goods. When Consumer to Read the Smart Contract to satisfy the Face Recognition from the appropriate Producer. This one increases the trustworthiness of Relation between Producer and Consumer. Supply Chain Management 5.0 to Integrate the Emerging technologies in this study such as blockchain and Artificial Intelligence. In, this version to Collaborate the Human and Robot Working. Eventually, it create a Smart Manufacturing Technology in the agricultural food supply chain industry.

Keywords: Agriculture, Yield, Horticulture, Industry 4.0, Industry 5.0, Blockchain, Artificial Intelligence, Distributed Ledger, IoT, Cloud Computing, Big Data

Introduction

The (agricultural food supply chain) method involved with adjusting change and improving is vital in any field and in cultivating too as in contemporary agribusiness and to the "food preparing industry". It has its issues and difficulties like decrease of cost and expansion in the value which prompts more benefits or reverse is a misfortune as the expense just relies upon transportation, accomplishing supplies and work cost as these components show sway on value a client inclinations changes dependent on cost and quality which must be settled in Agri cultivating successfully. Tyagi *et al.* (2021) mentioned to involved with computerizing the significant parts of "Brilliant Farming" as it is based on the usage of innovation for expanding the development and to build return on venture via computerizing the harvest life cycle by giving robots or robots or custom hardware needed to address issues of a ranch or development by which a rancher needs to work keenly and not hard. The vast majority of the advances are a work in progress stage or are as yet in the testing state.
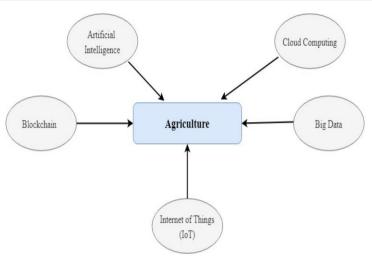
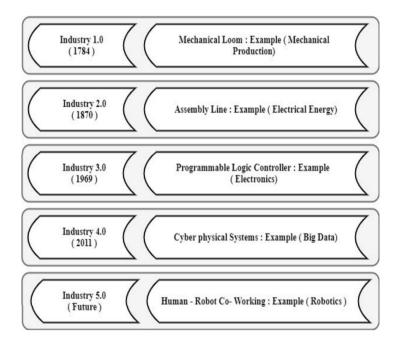**Fig. 1:** Innovations introduced in horticulture

Fig. 2: Phases of industry era

As per this, some food preparing organizations follow the standard, worn out, or conventional procedures that need to take on to the advanced advances Fig. 1. The following figure speaks to integrating the new technologies into the agricultural industry Mirabelli and Solina (2020).

The food-inventory network has drawn in a few significant and trend-setting innovations in the execution of cycles like man-made consciousness and progressed investigation. Web of Thing (IoT), independent portable reboots and independent vehicles, Presently, Industry has advanced for quite a long time, merchandise including food, attire, houses and weaponry was fabricated by hand or with the assistance of work creatures. By the start of the nineteenth century, however, fabricating started from Industry 1.0 to Industry 4.0 Mushtaq and Haq (2019). The investigation of present-day and promising innovations has been resolved that are essential for the association of the computerized industry at endeavors. Presently the business to move from the idea of Industry 4.0 to the new idea of Industry 5.0 Industry 4.0 Lim *et al.* (2021) has not scaled up to cover a critical level of assembling arrangements, its vision of close absolute robotization – and the guarantee of coming about expense reserve funds - has caught the business' creative mind. Because of the great necessities of end-clients to the individualization of the bought item industry 5.0 Salgues (2018) is getting the

progressively famous idea, which infers the infiltration of man-made brainpower into human existence to expand the degree of human capacities. The article talks about the state and prospects of improvement of advances that add return on venture via to the interaction of the change from industry 4.0 to industry 5.0 Fig. 2.

Supply Chain Management

Supply Chain Management is the administration of the progression of products from the purpose of beginning to the purpose of utilization. Its a succession of capacities and exercises engaged with conveying an item to the appropriate consumer Fig. 3.

The Supply Chain Process we classified in two parts listed in the below Fig. 4:

- Upstream Supply Chain. (Inbound Logistics)
- Downstream Supply Chain. (Outbound Logistics)

Upstream Supply Chain

From Resource to Manufacturer (Procurement and Inbound Logistics)

Downstream Supply Chain

From Manufacturer to Consumer (Outbound Logistics).

There are different types of supply chains available, from Raw Materials to Reach the End Consumers. In this study, we take the Agriculture Food Supply de Araujo Zanella *et al.* (2020; ChainCasino *et al*., 2019). The food production network is an unpredictable framework that includes a large number of "partners" like ranchers, creation manufacturing plants, merchants, retailers and shoppers. Compare to other supply chains, where the food supply chain is very important to day-to-day life. Because We take raw material and eventually reach the food products to the consumers. We, have to ensure the food products reach the consumer in a safe manner that means without any food contamination. Even though many places this food contamination happens in the food supply chain. This food contamination is the impact of food-borne illness.

The below Fig. 5 represents the traditional food supply chain from suppliers to reach the end consumer.

The above traditional food supply chain describes how the food (raw material) take from a supplier and reaches the end consumer. In, this traditional method we do not give assurance whether the food is without counterfeit. So, eventually, we are the cause of food-borne illness spread in our healthy society. We, mentioned in this study there are plenty of supply chains available in our society. Especially the food supply chain is important Thome (2021). Because customer trusts our food. In this time, we provide the food contamination means drastically reduced the economy of a particular manufacturing company as well as customer trust. Customer trustworthiness is important in this food supply chain. This is the root cause of bringing the good name for manufacturing company as many dimensions.
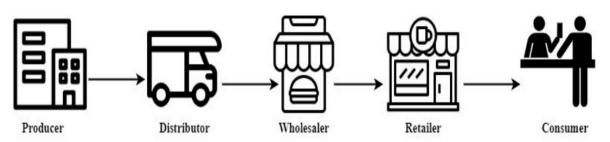
The above Fig. 6 explains how food tampering happens while in the supply chain and then finally reaches the counterfeit food to the consumer. In this fastest world, none of the consumers noticed to their purchasing the food is healthy or not. This is the root cause of the counterfeit markets that are growing in our society. Consumers daily take the tampering food. This, tampering food has created foodborne illness in our day-to-day life. The above figure tells clearly how the tampering food reaches the consumer in the traditional food supply chain. These are the demerits of the food supply chain in today's world. So, Sahni *et al.* (2021) mentioned to overcome the above challenges in the new technology world (Blockchain and Artificial Intelligence)?
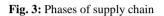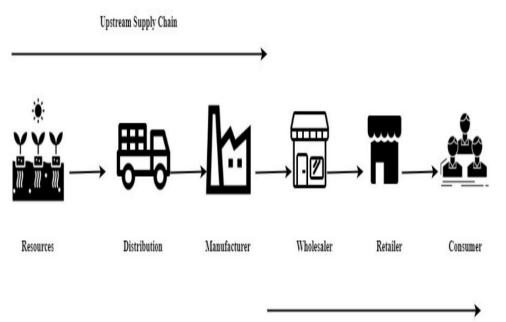
Blockchain

Blockchain innovation Berdik *et al.* (2021) has commanded worldwide notice with the thriving of Bitcoin, which was initially proposed by Satoshi Nakamoto in 2008. It is another application worldview of numerous PC advances including topsy-turvy encryption, disseminated network, shared transmission, brilliant agreement and agreement component and so on to make perpetual, permanent, approved and time-stepped records of exchanges, which empowers it to set up a shared trust at low costs in an untrusted serious climate with no outsiders. Even though Blockchain was planned as the fundamental innovation of digital money initially, the application capability of Blockchain is effectively a long way past money. Experts of numerous fields are investigating the application situations of Blockchain in different areas and numerous Blockchain application situations have been contemplated and investigated such as money, inventory network, medical services, energy-producing and brilliant city. Additionally, numerous nations and districts have led explores and assessment on Blockchain Wüst (2018).

Blockchain Technology has gotten a great deal of consideration from both industry Li *et al.* (2021) and the scholarly world because of its decentralized, persistency, obscurity and auditability properties. Blockchain gives a decentralized computerized information base of exchanges, otherwise called a dispersed record, which is kept up and refreshed by an organization of PCs that check an exchange previously it is affirmed and added to the record. It permits executing gatherings to trade responsibility for addressed resources in an ongoing and permanent shared framework without the utilization of intermediaries. This study intends to investigate the current status, likely applications and future headings of blockchain innovation in inventory network executives.

Fig. 3: Phases of supply chain

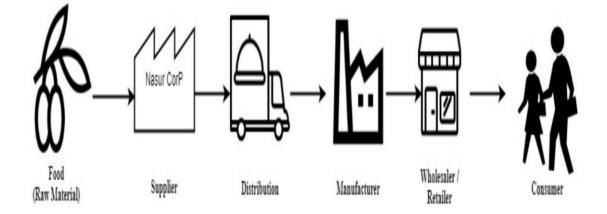**Fig. 4:** Up and down stream supply chain

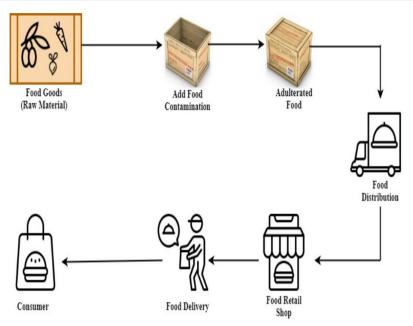
Fig. 5: Traditional supply chain

Fig. 6: Tampering food supply chain

Foundation of Blockchain

Blockchain is the development behind Bitcoin. It is a public coursed data base which holds the mixed record. Blockchain is development in an overall informational collection that anyone, wherever, with a web affiliation, can use. As opposed to a regular data base, which is moved by central social occasions like banks and legislatures, a Blockchain doesn't have a spot with anyone. With an entire association dealing with it, cheating the system by faking reports, trades and different information become near extraordinary. Blockchain stores information forever across an association among centers. This isn't simply decentralizing the information anyway appropriates it too. Each center in the association can store the close by a copy of the Blockchain system which is discontinuously invigorated to have consistency among all center points. A Blockchain is a flowed estimation and information sharing stage that enables various center points that don't trust each other can take dynamic association (Singhal *et al.*, 2018).

Blockchain Utilized in Numerous Enterprises

- Banking
- Prediction markets
- Insurance
- Healthcare
- Law enforcement
- Energy management
- Real estate
- Digital Identity
- Governance
- Supply Chain Management
- Car Leasing

- Education

In the above few enterprises. Now we talk about supply chain management integrated the blockchain technology Ronaghi (2021; Wang, 2019) and proposed from industry 4.0 to industry 5.0.

Structure of Blockchain

The Blockchain blesses a disseminated public record containing exchanges that are held and represented by explicit conventions through the agreement of the hubs partaking in its organization. The Blockchain record is not housed on a solitary having extraordinary right worker. All things considered, it is a shared information structure in which each hub on the organization has the indistinguishable duplicate of any remaining hubs and can peruse any exchange in the record Fig. 7.

A Blockchain is an almost straight arrangement of squares utilized to store exchanges. Each square contains at least one related exchange, just as that the squares are requested in expanding time succession. Thus, each square represents a bunch of occasions that have happened over a given period that is ensuing to the previous square in the chain and before the accompanying square in the chain and clients with application admittance to the chain can peruse any exchange in the succession and can add another square at the end of the succession:

- Block: It Tells about the Number of blocks
- Nonce: What number of cycles did we experience before we found a substantial Block?
- Data: What data is put away on the Block?

- Previous Hash: Is the past block legitimate?
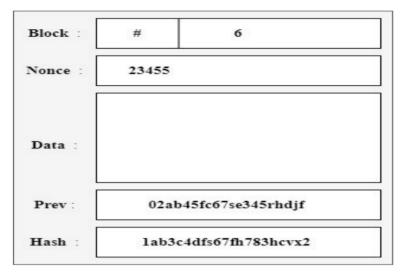- Hash: Whether this Block is valid?

Fig. 7: Basic Blockchain Structure

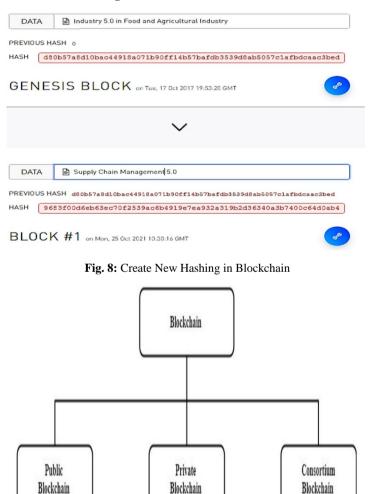**Fig. 8:** Create New Hashing in Blockchain

Fig. 9: Types of blockchain

The above Fig. 8 describes, in our, all messages are encrypted. so, all messages are safe and secured.

- **Public Blockchain:** Everyone can actually take a look at the trade and affirm it and can moreover check out the way toward getting the understanding. Bitcoin and Ethereum are both Public Blockchain
- **Private Blockchain:** Center point will be restricted, just one out of each odd center can share this

blockchain, which has demanded force the board on data access

- **Consortium Blockchain:** It infers the center point that had authority can be picked early
- conventionally has associations like business to business, the data in blockchain can be open or private, can be seen as Partly Decentralized
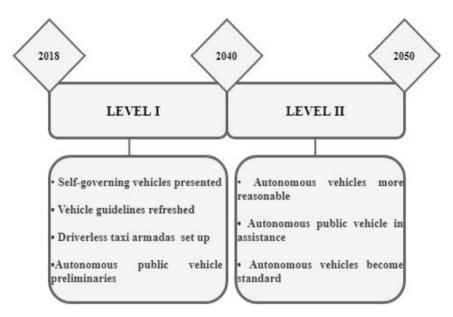

Fig. 10: Levels of self ruling driving
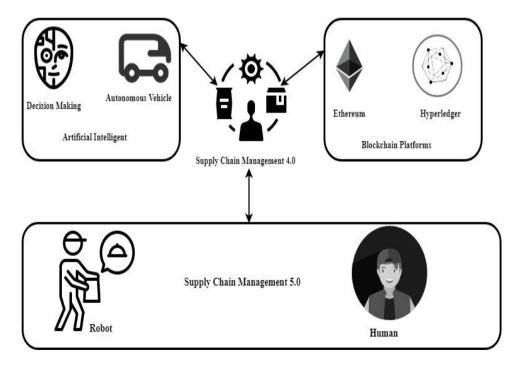

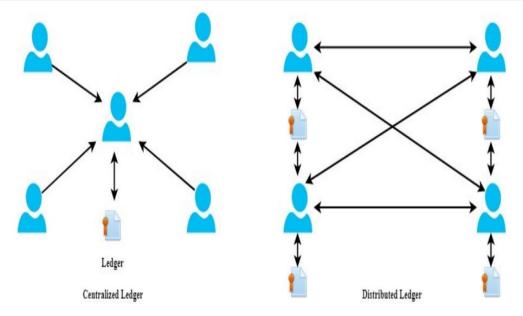**Fig. 11:** Supply chain 5.0 integrating in blockchain and artificial intelligence

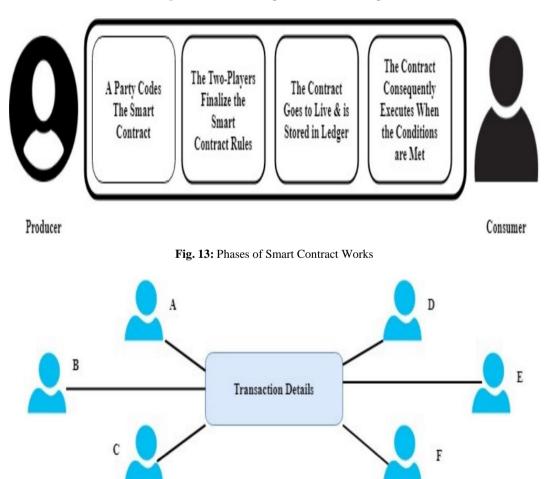**Fig. 12:** Centralized ledger Vs distributed ledger

Fig. 13: Phases of Smart Contract Works
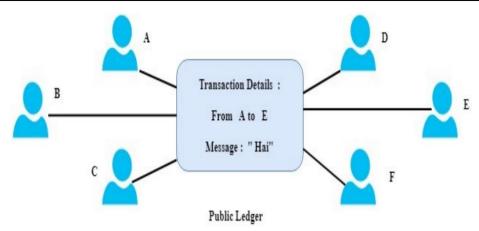

Fig. 14: Basics of public ledger

Fig. 15: Recording transaction in public ledger

Artificial Intelligence

The field of Artificial Intelligence research characterizes itself as the investigation of "shrewd specialists," i.e., any gadget that sees its current circumstance, what's more, makes moves that augment its opportunity of accomplishment at some objective. Most AI frameworks being developed today are ordinarily particular master frameworks that utilization an information base of information to decide. In any case, numerous scientists are attempting to fabricate AI frameworks that can apply genuinely savvy dynamic cycles to a limited arrangement of issues, some of which may emphatically affect our day-by-day lives. The learning calculations stay at the core of AI applications to empower mechanization and information disclosure measures. Learning calculations differ as far as administered, solo, semi-regulated, group, support.

Particularly Autonomous Vehicles Pedrosa and Pau. (2018). Scarcely any Countries begin to get self-ruling driving highlights. With the assistance of self-ruling driving, Toorajipour *et al*. (2021) describe to lessen human exertion and we move to advance the future.

Benefits of Self Ruling Driving:

- Expanding availability for individuals who can't drive themselves
- Lessening the expense of taxicabs and conveyance administrations
- Decreasing the interest for off-road stopping
- Expanding street wellbeing and limit

Many Countries are trying to start autonomous cars for a taxi. To, start the driverless vehicle at initial level in future it's going to be around the countries. The below Fig. 10 represents the Assumption for Future Self Ruling Driving up to 2050.

As independent innovation is demonstrated to be protected and dependable, public transport organizations will likewise look to self-governing vehicles to give their administrations in the future. An outline of Blockchain and AI Technologies executed in Supply fasten the board 4.0 and to turn Supply Chain Management 5.0. In, both highlights we begin to carry out the Supply Chain Management Hu *et al*. (2021).

The above Fig. 11 represents how supply chain management 4.0 turns 5.0 with the help of Blockchain and Artificial Intelligence. Here, we use some blockchain features and Autonomous vehicles to deliver the food Galvez *et al*. (2018) from supplier to consumer. That Means supply chain management 5.0.

Background

In this segment, we talked about some significant ideas in Supply Chain Management 5.0 Integrated in Blockchain Technology, such as DLT (Distributed Ledger Technologies) and Smart Contracts Aggarwal and Kumar (2021) and Consensus Algorithms.

DLT - Distributed Ledger Technology

Circulated Ledger Technologies Benčić *et al*. (2019) as the name recommends, are appropriated record frameworks. That is, the data isn't across the board place, yet dispersed by all framework members as demonstrated in Fig. 12.

In contrast to conventional information bases, appropriated records have no focal information stockpiling or organization usefulness. In a DLT (Distributed Ledger Technology), Pearson *et al*. (2019) every hub measures and confirms everything, along these lines creating a record of each thing and making an agreement on the veracity of each thing. This engineering addresses huge unrest in record continuing, to change how data is gathered and conveyed.

Smart Contract

Keen Contract Almasoud *et al*. (2018) goes about as the scaffold which associates Blockchain to this present

9

reality and has a more prominent part in the Supply Chain. It's a mind-boggling set of programming codes which parts intended to computerize execution and settlement, is the application layer that makes a big deal about the advantages of blockchain innovation.

A brilliant Contract Hasan *et al.* (2019) is a set of advanced codes that are utilized to trade resources including shares money, or property without the requirement for any intermediates to work.

The Smart Contract Benefits is listed as follows:

- Secure
- Self-governing
- Interference Free
- Trustless
- Savvy
- Quick Performance

A savvy Contract Qu *et al.* (2019) is carefully arranged between the purchaser and the vendor. Along these lines, The Use Cases of Smart Contract has recorded as followings:

- Government Voting
- Record Storing
- Supply Chain Management (SCM)
- Real Estate Market
- Mortgage System
- Insurance Claim

Here, we talk about how a shrewd agreement functions between the purchaser and the vendor Fig. 13.

Shrewd agreements are electronic exchange conventions made for executing and upholding hidden lawful agreements by utilizing blockchain innovations for appropriated information bases. They are intended to satisfy self-implementing authoritative conditions like installments and lawful commitments without the

requirement for a current confided-in an outsider. Consequently, brilliant agreements focus to lessen exchange and implementation costs by acknowledging identifiable and irreversible exchanges. The exploration uncovers that the capability of brilliant agreements goes a long way past cost decreases by encouraging the innovative coordinated effort of cross-hierarchical business measures that are a trademark for shrewd stockpile chains. Shrewd agreement applications connected to savvy inventory network the board.

The Information Object Contract is utilized to store data about data objects (e.g., shipments, items and so on) Since all open information put away on the blockchain is duplicated across each hub in the network, the savvy contract was intended to store as meager information as conceivable. The agreement was likewise intended to be as conventional as conceivable in request to satisfy the prerequisite, since it may not be known which occasions exist for explicit data objects or what information is required. Moreover, putting away less information in the savvy contract gives better execution, since exchanges require less information. Each Data Object contract stores a rundown of occasions concerning the data object.

Consensus Algorithm

It helps the clients on the stage to agree to approve exchanges. There are different types of consensus available in this method. Agreement conventions are likewise a major piece of blockchain innovation. [A decent agreement convention can ensure the adaptation to internal failure and security of the blockchain frameworks. Here, we listed a few as follows:

- Proof-of-Work (PoW).
- Proof-of-Stake (PoS).
- Delegated Proof-of-Stake (DPoS).
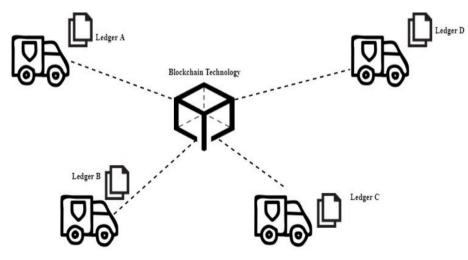- Proof of Elapsed Time (PoET).

Fig. 16: Preparing autonomous car using ledger

Fig. 17: Ledger A is Updates

Fig. 18: All ledger update in automatically

Fig. 19: Smart contract benefits

Fig. 20: Ethereum smart contract overview of smart supply chain management

Fig. 21: Sequential diagram of ethereum smart contract

Fig. 22: Smart contract with face recognition

Fig. 23: Smart contract with face recognition-not verified
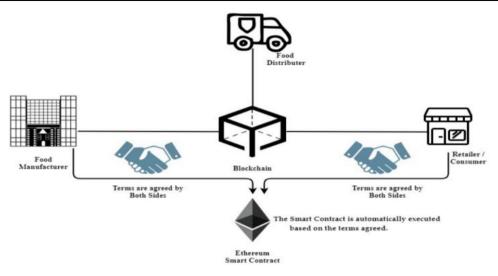
Fundamentally, the innovation permits clients to cooperate on a shared premise and without a focal power. Outstandingly, exchanges are finished when there is agreement all through the organization. Specifically, the agreement calculation is the thing that sets distinctive blockchain networks separated. For example, the Bitcoin network varies from the Ethereum network dependent on the agreement calculation.

While there are a few agreement algorithms, M. T. de Oliveira *et al*. (2020) mentioned just hardly any agreement calculations:

- Proof-of-Work (PoW): At the point when a client starts an exchange excavators or supercomputers attempt to take care of an issue or puzzle to confirm it
- Proof-of-Stake (PoS): A client is urged to spend more until he/she turns into a validator to make a square
- Delegated Proof-of-Stake (DPoS): SSame as PoS yet clients with more coins will cast a ballot and choose observer
- Proof of Elapsed Time (PoET): Like PoW, however, the thing that matters is that it centers around more utilization

Industry 5.0 in Food and Agriculture Industry

The proposed framework discusses a joining of Computerized reasoning and Blockchain innovation for this reason. Blockchain innovation gives an idea of a public record where every one of the exercises occurring inside the hubs of a blockchain network is recorded as log sections. Every one of the sections made by any of the hubs on the blockchain network is obvious to any remaining hubs. This idea of having a common public record can address the issue examined previously. The proposed framework focuses on preparing countless vehicles just through setting one up the single vehicle and sharing that vehicle's experience to any remaining vehicles on that network through blockchain innovation Wamba and Queiroz (2020).

A decentralized also conveyed computerized record that is utilized to record exchanges across numerous PCs so the record can't be changed retroactively without the modification of all ensuing squares and the agreement of the organization." The shared advanced record tracks every one of the trades happening between the centers of a blockchain network. It resembles a register or a logbook. These records can be an astounding resource for data sharing Fig. 14.

The idea of public record is where the log of every exchange gets recorded. Every hub has an indistinguishable duplicate of this record. Any change made by any of the hubs right away gets pondered the records of all the hubs in the blockchain network.

Hub A communicates something specific "Hai" to hub record quickly. Every one of the duplicates of this record likewise gets refreshed with similar subtleties. The Fig. 15 shows delineate the interaction of refreshing the data concerning the exchange diagrammatically for reference. In this way, any exchange made in the organization is noticeable to every one of the ensuing hubs of that blockchain regardless of whether a specific hub is engaged with that exchange or not. This decentralized nature of blockchains can be put to use to give data which thus is the key of our proposed framework.

Autonomous Vehicle Using DLT (Distributed Ledger Technology)

The proposed framework recommends making a blockchain of various self-sufficient vans and afterward train any of these vans utilizing support learning and other man-made brainpower calculations. For example, accept the undertaking of preparing ten vans to apply the brake when it arrives excessively near a divider to maintain a strategic distance from mishaps.

13

All the ten vans are placed into a blockchain organization and afterward, any of them is prepared. The prepared van Fig. 16-18 out how to stop when it comes to excessively near a divider through its experience. This van at that point refreshes this experience on the public record expressing "stop if Nearness≤ 10 m else you'll reach the stopping point". Since every van in the organization has a duplicate of this public record, every one of the vehicles associated with this blockchain network discovers that "they need to stop if Nearness ≤ 10 m else they'll reach the stopping point". Along these lines, ten vans can gain from the experience of one single van portraying the blockchain organization of vehicles.

Every vehicle has one duplicate of the public record as appeared is shown that vehicle an updates its involvement with its record expressing "If distance ≤ 10 m STOP else Crash" shows that when any of the records gets refreshed, similar changes are reflected on the whole different records consequently adhering to the decentralized, direct and dispersed nature of blockchains.

Every one of the vehicles in the organization has this experience put away in their memory. Hence, they all were getting prepared at the same time when vehicle A was being prepared. Subsequently, the number of times the preparation cycle must be completed is simply once. Quite a few vehicles can be prepared by this strategy via completing the preparation interaction just once. we want to train the autonomous car using blockchain technology. So, we want to add this training driverless Gandhi (2019) car to the ledger.

Algorithm 1 Driverless Car Function
1: Procedure AUTO CAR(Send, Receive, Index, Msg)
2:     Define New Auto Car
3:     Send the Request
4:     Required [AutoCar]. Send ← Msg.Send
5:     Required [AutoCar]. Recieve ← Msg. Receive
6:     Train a New Auto Car
7:     Index [AutoCar]. Send ← Send
8:     Index [AutoCar]. Receive ← Receive
9:     AutoCar is Trained
10:    Index [AutoCar]. Msg ← Msg
11:    Response Receive from Trained Auto Car
12: end procedure

Smart Contract with Face Recognition

This study proposed to develop a new smart contract for smart food supply chain management. In the related work, to mentioned the smart contract designed for the food supply chain management Harshitha *et al.* (2021) for the application layer. Between the buyer and seller for the digital agreement is an immutable ledger in this legal contract no one can damage and this distributed. So, whoever in this block is visible to this legal agreement. So it is very useful between the buyers and sellers. No need for brokers

between the producer and consumer. So, Wang *et al.* (2019) describes to save time and increase efficiency and ensure the consumer is trustworthy about the food.

The smart contract is awesome technology used in this Especially in the food supply blockchain technology. chain management Lioutas and Charatsari (2020) its give help as many ways to illustrate the following Fig. 19.

Keen Contract goes about as the extension which interfaces Blockchain to this present reality and has a more prominent job in the Supply Chain. The figure represents the ethereum in the service layer, how to establish the ethereum smart contract in supply chain management in blockchain technology. Ethereum Smart Contract is a computerized arrangement that utilizes advanced blockchain hubs to determine the states of the agreement, check the resources of the two players, implement the execution, or end the understanding.

The Following Fig. 21 talks about the sequence diagram of ethereum smart contract work from producer to consumer. which means both parties make gently come forward and to make agreed on the condition. its satisfying means start to work contract execution via ethereum. It works automatically on both sides based on the terms and conditions in the agreement. Eventually, the final settlement of payment and other settlements happen between them. The all above agreements are digitally made.so, it can tamper with anyone. This is the best advantage of blockchain technology. Due to supply chain management, the smart contract has shown to us many advantages:

- No Brokers
- Safety. Speed
- Confidentiality
- Cost-Effectiveness

Supply Chain Management is one of the applications where used in the smart contract. Between the parties to verify the food products furtherly execution or termination of the contract. But it's digitally certified. So, no brokers need in this deal.

The above Fig. 20 talks about the ethereum smart contract overview of smart supply chain management. In, this supply chain management from producer to consumer is connected in the blockchain. So all entities connected in distributed. Moreover, all data are immutable.

The above ethereum smart contract sequence diagram represents the way of flow from producer to consumer. Here we have to implement face recognition. with the help of face recognition, we have to ensure the food products come to form trustworthy producers. This face recognition is used in Supply chain management is turns industry 4.0 into industry 5.0. When the producer starts the goods and implements the smart contract using etheruem Augusto *et al.* (2019). To send the face recognition in the smart contract. Because it is distributed

to whoever participated in this Supply chain using blockchain technology. Its visible and make ensure the trustworthiness of supply chain management. In the below Face Recognition to take a picture in When the face showed is correct way is detect authorized. otherwise, it's not captured (Un Authorized).

In the below few images person covers the nose mask it does not detect the camera (unauthorized). Similarly you turn your face in camera is not detectable consider it as you are unauthorized.

The above Fig. 22 represents we create the smart contract with face recognition. When we develop the smart-contract between seller and buyer. With the help of this face recognition, we increase the trustworthiness of the seller and buyer. Because, when creating the Smart Contract the face should show identically. When your face is not verified then the smart contract is automatically terminated. When you see the (Fig. 22) the face is shown perfectly so successfully verify your identity. Otherwise, from (Fig. 23) The Face is not shown properly, which means not verified your identity. So, again we can show the face until to verify the identity eventually our smart contract is created successfully

Conclusion

In this study, we discussed how the industry turns 4.0 to 5.0. The Supply Chain Management 4.0 is a Smart Manufacturing in various industry fields especially food and agriculture industries. With, the help of some emerging technologies. Such as the Internet of Things, Cloud Computing and Big Data, etc., Indisputably, blockchain information can help produce a solid, self-coordinated, uncovered and ecological savvy cultivating association that includes all environment players, regardless of whether they conviction another. Blockchain mastery to create clear, issue lenient, never-ending and auditable data for claims in agri-food discernibility. The overall way impacts Ethereum blockchain and keen agreements to follow, track and perform feasible dealings transversely the cultivating stream restriction, taking out arbiters and focal handling habitats. Future Scope is to recuperate the discernibility conspire in the blockchain established Farming Stream chain. we remember man-made consciousness for this study to stay away from the extortion to identify face acknowledgment during savvy contract composing. But, when we go to mass production in any industry in the future. We, Turn the Supply Chain Management 4.0 to Supply Chain Management 5.0. In, this one we reduce the human effort in the risky field and we can elevate the Human-Robot Co-Working. We are attempting to construct an innovation that takes after people from numerous angles. Some will track down this imaginative and energizing. Some will think that it's absurd, disappointing, even a danger to humankind. In this

examination, we talked about the potential issues that may emerge from human-robot cooperating.

TTo, Integrate the Blockchain and Artificial Intelligence Technology in Supply Chain Management 5.0. So, it can give the trustworthiness of Both Producer and Consumer.

Author's Contribution

Nasurudeen Ahamed: I contribute to writing the Entire Manuscript.
R. Vignesh: Evaluation of the Manuscript

Ethics

This article is unique and contains unpublished material. The comparing creator affirms that all of different writers have perused and endorsed the composition what's more no moral issues included.

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