



# Producer To Product Buyer Online Shopping Products Traceability On Blockchain For Communities

M. Sumithra<sup>a</sup>, B. Buvanewari<sup>b</sup>, Pavithra R<sup>c</sup>, Grace Nesam R<sup>d</sup>, Joyce Jonafarc L<sup>e</sup>

<sup>a</sup>Associate professor, Department of Information Technology, Panimalar Engineering College, Chennai.

<sup>b</sup>Professor, Department of Information Technology, Panimalar Engineering College, Chennai.

<sup>c,d,e</sup>Department of Information Technology, Panimalar Engineering College, Chennai.

<sup>a</sup>sumithram.id@gmail.com, <sup>b</sup>buvanrajan16@gmail.com, <sup>c</sup>pavithra257pkt@gmail.com, <sup>d</sup>gracenesam01@gmail.com, <sup>e</sup>joycejonafarc@gmail.com

**ABSTRACT:** Traceability has emerged as a prime requirement for a multi-tier and multi-site production. Online shopping includes a vast delivery list items such as clothes, veggies and fruits, household products, electronic equipment and some glass related products. The difficulty is that the consumer cannot be assured that the product is safe or not. Glass products may require more concentration for delivering. This paper proposes a design of a blockchain based online shopping traceability system for the communities to trace and know their product details from the scratch to getting it by hand. It includes the tracking and shipment of each product in a safer manner without any disturbance caused by nature or self-made, industry side, manufacturer side. If the product is damaged or it is not the correct product, this project finds it and rectifies the mistake by replacing, sending a apology message to the customer(customer knows every move of their product)and allocating the delivery time after two days and ensures whether it is reached correctly at the right time and gets the feedback of the customer.

**Keywords:** Blockchain, graph, GPRS, ID

## 1. INTRODUCTION

A blockchain is a dispensed database shared among nodes in a pc network. As a database the blockchain shops facts electronically in virtual formats. Blockchain is satisfactory regarded for its key role in crypto currency structures like Bitcoin. Modern deliver chain contributors want a unified view of data, at the same time as nonetheless being capable of independently and privately confirm transactions along with manufacturing and delivery updates. The evolution of monitoring is any such lengthy system that took a long term to meet the desires of the customers. Firstly the maps aren't nicely defining and now no longer nicely versed developed. Then monitoring had loads of draw backs. This project highlights the defects and tries to rectify the drawbacks of it.

## 2. PROBLEM DEFINITION

Step 2: Scheduling	
Start Date	06/30/2018 3:00 AM PDT
End Date	06/30/2018 11:59 PM PDT
Internal Description	CC Day 6 6/30/18 for 81% off - \$15.95 to \$3.03 - Saturday
Tracking ID	hch-coupons-81off-63018
Promotion ID	A163WA6N9R7Q2G

Figure 1: Scheduling

This is the real starting level of tracking. Early days it doesn't help numerous pointers of the customers. There are a lot trends in this traceability manner which includes updating and up gradation of the details. Our project focuses on assurance of quality, security, safety, time and money.

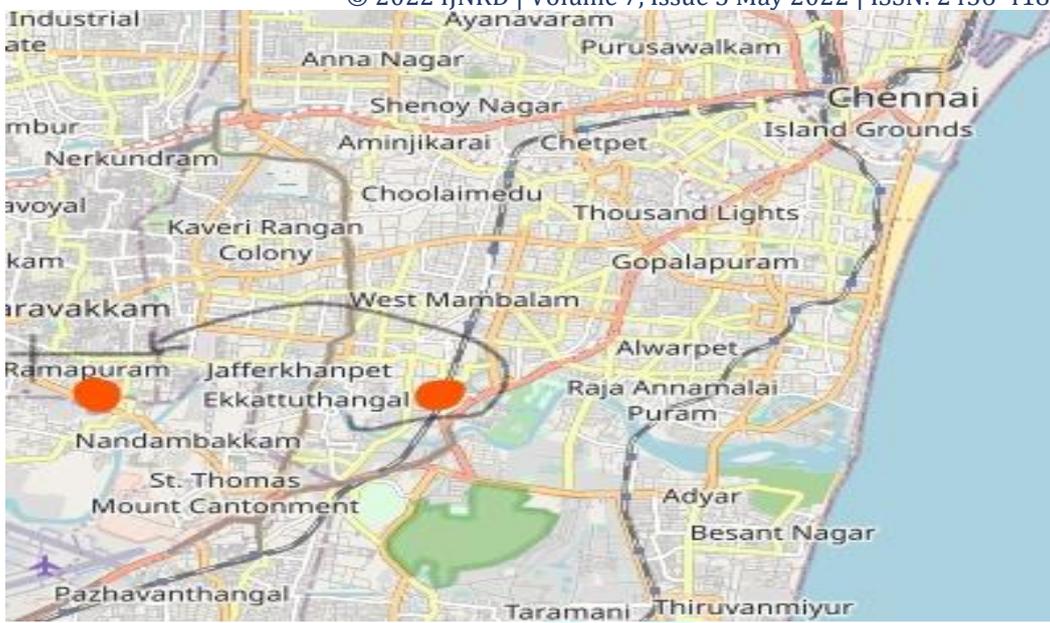


Figure 2: lottrends in this traceability manner

This is a actual time instance for fixing the problem statement. My customer’s vicinity is close by vicinity how ever she/he can’t realize that his/her product is effectively determined, checked with the aid of using a official packaged, out for shipping then acquired in accurate time and the quantity is acquired in a accurate manner. These are the drawbacks that we're going to kind out the use of this project.

### 3.LITERATURE SURVEY

S.No	AUTHOR	YEAR	METHODS	ADVANTAGE
1	Vasileios Tsoukas, Anargyros Gkogkidis, Aikateritikampa, Georgios Spathoulas, Athanasios Kakarountas	2021	Blockchain technology has been used vastly for the traceability nowadays.This paper demonstrates the possibility of traceability by increasing the traceability and transparency and to gain customer's trust.	This summarizes the efforts and ends with the findings,it has challenges.This focuses on the transparency and gives the exact dimension of the output.
2	MeylianaMeyliana, Erick Fernando, Surjandy, Henry Antonious Eka Widjaja, cadelinacasandra, Arifa Tan	2021	This paper is based on the applications of blockchain technology for the vehicle industry that improve the CRM and SCM	It provides perspective and topics on blockchain to acquire knowledge about CRM and SCM
3	BessemZaabar, Omar cheikhrouhou, Meryem Ammi, Ali Ismail Awad, Mohammad Abid	2021	This paper proposes the online medical services and allows delivering healthcare remotely using the blockchain	It has proved the robustness and superiority of the system in terms of teh RPM services.

4. PROPOSED METHOD

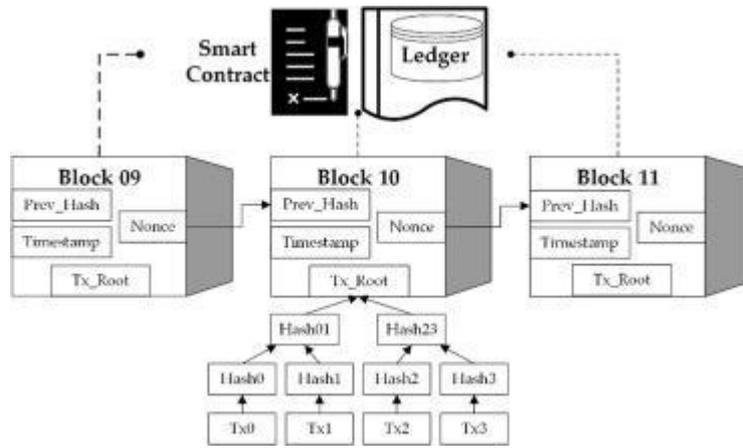


Figure 3: A typical blockchain representation.

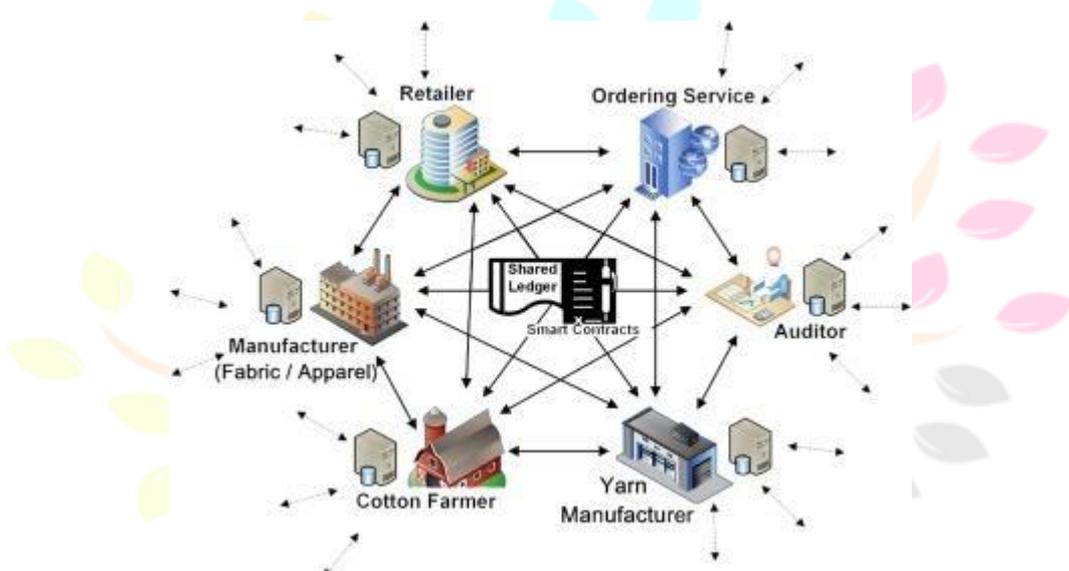


Figure 4: Blockchain-based decentralized network for information sharing.

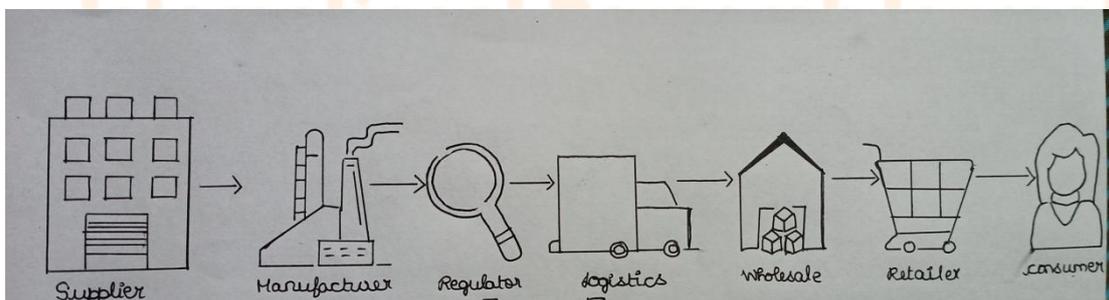


Figure 5: Actual tracking pattern

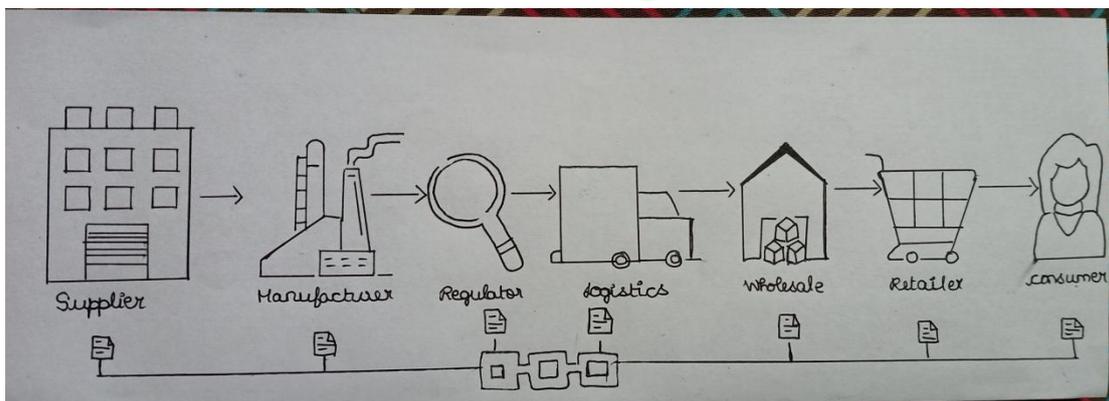


Figure 6: Blockchain Tracking Pattern

#### 4.1. Challenges of Using Blockchain Technology

These are the patterns of the tracking systems.

- > Supplier - Ethical Sourcing uncertain
- > Manufacturer - Environmental impacts unknown. Fragmented data systems and data loss
- > Regulator- Infrequent third party quality control
- > Logistics- Manual transport updates not in realTime
- > Wholesaler- Overstock and stock outs due to inaccurate supply and demand data

#### 4.2. Benefits of Using Blockchain Technology

- > Supplier - Ethical sourcing ensured.
- > Manufacturer - Measure and reduce environmental impacts. Complete data visibility on single shared ledger
- > Regulator - Reduced need for regulators. Smart contracts ensure quality control throughout the supply chain.
- > Logistics - Automated real-time transport updates
- > Wholesaler - Manage stock with real time data
- > Retailer - Certainty of product provenance and Authenticity
- > Consumer - Supply chain insight empowers informed decision making.

#### 4.3 Flow of Proposed System

By using *Blockchain technology*, we are trying to directly interact with the customer and satisfy their needs accordingly without being so judgemental about their particular needs.

- > The customer and the manufacturer has a direct conversation using a intermediary known as me.
- > The manufacturer determines their products.
- > This is delivered by the manual means.
- > Before delivering it is verified by my officials.
- > Map is generated to that particular location.
- > Monitored till it reaches the destination
- > Payment is depending upon the customers
- > Getting feedback
- > Asking them to use again our website.

### 5.CONCLUSION

The purpose of this project was to develop an application for the shopping products and traceability of them. This project helped us gaining practical knowledge in development areas

### 6.FUTURE ENHANCEMENT

There is a scope for further development in our project to a great extend. A number of features can be added to this system in future like providing moderator more control over products so that each moderator can maintain their own products. Another feature we wished to implement was providing classes for customers so that different offers can be given to each class. System may keep track of history of purchases of each customer and provide suggestions based on their history. These features could have implemented unless the time did not limited us.

### REFERENCES

- [1] T.K. Agrawal, R. Kalaiarasan, M. WiktorssonBlockchain-based secured collaborative model for supply chain resource sharing and visibility B. Lalic, V. Majstorovic, U. Marjanovic, G. von Cieminski, D. Romero (Eds.), *Advances in production management systems. The path to digital transformation and innovation of production management systems*, Springer International Publishing (2020), pp. 259-266, 10.1007/978-3-030- 57993-7\_30 Agrawal and Pal, 2019
- [2] T.K. Agrawal, R. Pal Traceability in textile and clothing supply chains: Classifying implementation factors and information sets via Delphi study *Sustainability*, 11 (6) (2019), p. 1698, 10.3390/su11061698 Algayerova, 2017
- [3] M. Sumithra and Dr. S. Malathi, " Modified Global Flower Pollination Algorithm-based image fusion for medical diagnosis using computed tomography and magnetic resonance imaging", *International Journal of Imaging Systems and Technology*, Vol. 31, Issue No.1, pp. 223-235, 2021
- [4] B.Buvanswari and T.Kalpalatha Reddy, "A Review of EEG Based Human Facial Expression Recognition Systems in Cognitive Sciences" *International Conference on Eenergy, Communication,Data analytics and SoftComputing(ICECDS)*,CFP17M55-PRJ:978-1-5386-1886-8",August 2017.
- [5] M. Sumithra and Dr. S. Malathi, "3D Densealex NET Model with Back Propagation for Brain Tumor Segmentation", *International Journal OfCurent Research and Review*, Vol. 13, Issue 12, 2021.
- [6] K. Sridharan , and Dr. M. Chitra "SBPE: A paradigm Approach for proficient Information Retrieval , *Jokull Journal* " , Vol 63, No. 7;Jul 2013
- [7] M. Sumithra and Dr. S. Malathi, "Segmentation Of Different Modalities Using Fuzzy K-Means And Wavelet ROI", *International Journal Of Scientific & Technology Research*, Vol. 8, Issue 11, pp. 996-1002, November 2019.
- [8] B.Buvaneswari and Dr.T. Kalpalatha Reddy,"EEG signal classification using soft computing techniques for brain disease diagnosis",*Journal of International Pharmaceutical Research*, ISSN : 1674-0440,Vol.46,No.1,Pp.525-528,2019.
- [9] M. Sumithra and S. Malathi, " A Survey of Brain Tumor Segmentation Methods with Different Image Modalities", *International Journal of Computer Science Trends and Technology (IJCTST) – Vol. 5 Issue 2, Mar – Apr 2017*
- [10] B.Buvaneswari andDr.T. Kalpalatha Reddy, "High Performance Hybrid Cognitive Framework for Bio-Facial Signal Fusion Processing for the Disease Diagnosis", *Measurement*,ISSN: 0263-2241, Vol. 140, Pp.89-99,2019.
- [11] M. Sumithra and Dr. S. Malathi, "A Brief Survey on Multi Modalities Fusion", *Lecture Notes on Data Engineering and Communications Technologies*, Springer, 35, pp. 1031-1041,2020.
- [12] K. Sridharan , and Dr. M. Chitra "Web Based Agent And Assertion Passive Grading For Information Retervial", *ARPN Journal of*

- [13] M. Sumithra and S. Malathi, "A survey on Medical Image Segmentation Methods with Different Modalities", International Journal of Engineering Research and Technology (IJERT) – Vol. 6 Issue 2, Mar 2018.
- [14] B.Buveneswari and Dr.T. KalpalathaReddy,"ELSA- A Novel Technique to Predict Parkinson's Disease in Bio-Facial",International Journal of Advanced Trends in Computer Science and Engineering, ISSN 2278-3091,Vol.8,No.1,Pp. 12-17,2019
- [15] K. Sridharan , and Dr. M. Chitra , Proficient Information Retrieval Using Trust Based Search On Expert And Knowledge Users Query Formulation System, Australian Journal of Basic and Applied Sciences, 9(23) July 2015, Pages: 755-765.
- [16] B.Buveneswari and Dr.T. Kalpalatha Reddy, "ACPT- An Intelligent Methodology for Disease Diagnosis",Journal of Advanced Research in Dynamical and Control Systems,ISSN : 0974-5572,Vol.11,No.4,Pp.2187-2194,2019.
- [17] Sumithra, M., Shruthi, S., Ram, S., Swathi, S., Deepika, T., "MRI image classification of brain tumor using deep neural network and deployment using web framework", Advances in Parallel Computing, 2021, 38, pp. 614–617.
- [18] K. Sridharan , and Dr. M. Chitra "RSSE: A Paradigm for Proficient Information Retrieval using Semantic Web" , Life Science Journal 2013;10(7s), pp: 418-425.
- [19] M. Sumithra and Dr. S. Malathi, "3D Densealex NET Model with Back Propagation for Brain Tumor Segmentation", International Journal OfCurrent Research and Review, Vol. 13, Issue 12, 2021.
- [20] Kharrat Ahmed, BenamraneNacera, Messaoud Mohamed Ben, Abid Mohamed, "Detection of brain tumor in medical images", Signals, Circuits and Systems (SCS), 2009 3rd International Conference on. IEEE, 2009.

