International Journal of Future Generation Communication and Networking
Vol. 13, No. 3s, (2020), pp. 1510–1514

"Interface For Farmers And Customers By Avoiding Mediators Using Location-Based Distribution"

Rushikesh B Chidrawar[1], Prasad M Bichkule[2], Sukrut S Revalkar[3],Omkar S Gosavi[4],Nilam K Kadale[5].

Student, Computer Department, NBN SSOE, Pune, India 1

Student, Computer Department, NBN SSOE, Pune, India 2

Student, Computer Department, NBN SSOE, Pune, India 3

Student, Computer Department, NBN SSOE, Pune, India 4

Guide, Computer Department, NBN SSOE, Pune, India 5

Abstract

Our aim is to develop an interface for farmers/sellers and customer/buyers by avoiding mediators using location based distribution system for agricultural products connecting farmers and customers on a common digital platform. The website allows any account holder to behave as seller(farmers) or buyer. The seller can list the products they want to sell, and the buyer can directly buy from the seller. This establishes direct connection facilitating both to get a better deal on farm products. It also provides easy access of information from local to national markets. User can easily access market prices for any product according to the location. We are also providing a system by which farmer can enter soil related details on the basis of which our system will suggest which crop can produce high yield.

Keywords: *Crop Yield Prediction, Soil Classification, Artificial Intelligence, Machine Learning, Data Mining*

• INTRODUCTION

In this system we are developing a web interface that allows farmers to connect, interact directly with the customer by avoiding the mediators. The mediators we are talking about are generally the people or organisation which came in between direct delivery of farm products from farm to customers. Farmer can also set minimum quantity limit for the purchase of product so that farmer can gain maximum profit by avoiding situation of any loss. Farmers are the ones who passionately and with utmost hard work carry out the agricultural activities, but due to loopholes in the existing system they don't get the value they deserve for their products. Farmers go through lots of pain and sweat to sow, cultivate and harvest the crops or agricultural products. The vision of this system is to ensure equitable pricing for agricultural products for customers and on equal levels benefits for the farmers too. This system assures greater profitability to farmers through direct communication with the customers. It will prove to be a alluring platform for the farmers to enhance their business and which will eventually encourage them to yield more farm products. This creative system ensures effective development of agriculture activities. This system provides following functionalities: 1) Separate areas for the farmers and the customers. 2) Notification facilities for the farmers to get updated about latest trends in agriculture field. 3) Location based services for the farmers and customers to avoid communication ambiguities.

ISSN: 2233-7857 IJFGCN

Scope & Objectives: An interface for farmer and customer by avoiding mediators using location-based distribution of agricultural products connecting farmers, wholesalers, retailers & customers on a common digital platform. The seller can list the fruits they want to sell, and the buyer can directly buy from the seller. This establishes direct connection facilitating both to get a better deal on farm products.

Motivation: We can maintain information sharing Model. We can use this web application for communication purpose efficiently without any interruption. This technology helps in modernization[10 11]. All data can be analyzed efficiently with the help of this model. At present we are developing website only for selling and buying fruits. but we can further implement it with additional features. We have ensured that the project is legally and technically feasible.

- **LITERATURE SURVEY**

[1] Author: Yogesh Gandge, Sandhya

During the study which we have carried out it is observed that the algorithm which is used by most of the authors does not uses a unified approach where in all the factors affecting the crop yield can be utilized simultaneously for predicting the crop yield.

[2] Author: P. S. Vijayabaskar, Sreemathi.R, Keertanaa.E

Our application is mainly developed for the farmers. As farmers is the backbone of our nation. Using our application farmers can share their information about their business using our farmer chat.

[3] Author: Shivam Bang, Akshay Kumar Dixit, Indu Chawla, Rajat Bishnoi,

According to the results, temperature is best predicted by the SARIMA model and the accuracy of predictions made for rainfall by ARMA model is better than ARMAX model.

[4] Author: Ali Masjedi, Jieqiong Zhao, Addie M. Thompson, Kai-Wei Yang, John E. Flatt, Melba M. Crawford, David S. Ebert, Mitchell R. Tuinstra, Graeme Hammer, and Scott Chapman

In this paper, two methods for biomass prediction were explored. The MLP regression model predicted the end of the season biomass with relatively high accuracy.

[5] Author: Mr A Suresh, Dr. P. Ganesh Kumar, Dr.M.Ramalatha

The Analysis has been performed on three types of algorithms fuzzy, KNN and Modified KNN out of which Modified KNN has proved to be the best of all the three algorithms

[6] Author: Anıl Suat Terliksiz, D. Turgay Altılar

World population is constantly increasing and it is necessary to have sufficient crop production. Monitoring crop growth and yield estimation are very important for the economic development of a nation.

[7]Author: Subit Chakrabarti1, Rob Braswell, Nick Malizia, Damien Sulla-Menashe, Tina Cormier & Mark Friedl

In this study a CNN was trained to produce crop types from optical imagery, microwave imagery and a prior built using a HSB model.

ISSN: 2233-7857 IJFGCN

[8] Author: Mr. Bhanawase Vishal Vishnu, Dr. Chalasani .Srinivas

Crop classification is important for planning and management of precision agriculture. Performance of proposed method is analyzed by means of two measures

- **EXISTING SYSTEM APPROACH**

In Existing System, there are no such applications which helps the formers to directly communicate with consumers and sell their product. Farmers are not getting paid for what they actually deserve. Mediators are eating up all the money. Even consumers are paying more for the product.

Disadvantages:

- It could not accurate.
- Less stability provide.

- **PROPOSED SYSTEM APPROACH**

This System is used to establish platform for the farmers and the customers to communicate with each other with help of a web application. It helps them to buy and sell agricultural goods by removing the middle platforms that are responsible for the increase in prices of agricultural goods. The proposed system uses firebase and a cloud-based platform for data storage and data authentication.

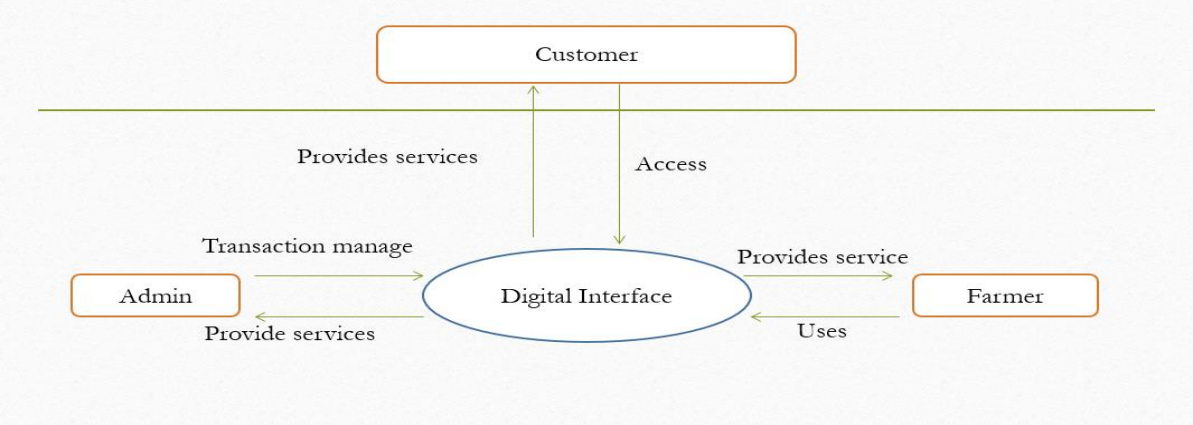

Fig: 1.0 (System Architecture

Advantages:

- The system is user friendly.
- Farmer and Customer get satisfied using this system.
- Accuracy for crop prediction is effective.

- **CONCLUSION**

Our system provides the solution to remove mediators and improve the communication system between farmers and buyers. This establishes direct connection facilitating both to get a better deal. This web application involves easy registration process. This web application helps consumers to get fresh fruits

ISSN: 2233-7857 IJFGCN

and there will be no loss for the farmers as well since the fruits will sold at proper price and at proper time as per the consumers need.

- **RESULTS**

Sr. No.	Crop Prediction Accuracy
1	**0.92545684**

Table 1.0

In above table the crop prediction accuracy will generates in the matrix array. The crop prediction result depends upon the soil data classification along with it's types it also takes the arguments like soil classes, neural networks module in between the accuracy will find.

REFERENCES

[1] Abishek A.G, Bharathwaj M, Bhagyalakshmi L. "Agriculture marketing using web and mobile based technologies", in 2016 IEEE International Conference on Technological Innovations in ICT for Agriculture and Rural Development.

[2] Kalyani Khodaskar. "Virtual fruits market-application for farmer", in 2015 Fifth International Conference on Communication systems and Network Technologies.In the proposed system by the authors they have suggested a virtual fruits market application for farmers.

[3] Justin J. Henriques and Beaudry E. Kock. "Empowering small holders and local food markets with smart phones and social networks", in 2012 IEEE Global Humanitarian Technology Conference

[4] N. Kussul, M. Lavreniuk, S. Skakun and A. Shelestov, "Deep Learning Classification of Land Cover and Crop Types Using Remote Sensing Data," IEEE Geoscience and Remote Sensing Letters, vol. 14, no. 5, pp. 778-782, May 2017

[5] Damian Bargiel, "A new method for crop classification combining time series of radar images and crop phenology information", Remote Sensing of Environment, vol.198, pp. 369–383, 2017.

[6] Tracy Whelen and Paul Siqueira, "Use of time-series L-band UAVSAR data for the classification of agricultural fields in the San Joaquin Valley", Remote Sensing of Environment, vol.193, pp.216–224, 2017.

[7] Mrs.K.R.Sri Preethaa M.E., S.Nishanthini, D.Santhiya, K.Vani Shree," crop yield prediction " International Journal On Engineering Technology and Sciences–IJETS,March-2016.

[8] D Ramesh , B Vishnu Vardhan," crop yield prediction using weight based clustering technique " International Journal of Computer Engineering and Applications, Volume IX, Issue IV, April 15

[9] X. Jin, L. Kumar, Z. Li, H. Feng, X. Xu, G. Yang, and J. Wang, A review of data assimilation of remote sensing and crop models, 2018.

[10] Dhumane, A., & Prasad, R. (2015). Routing challenges in internet of things. CSI Communications.

ISSN: 2233-7857 IJFGCN

[11] Dhumane, A. V., Prasad, R. S., & Prasad, J. R. (2017). An optimal routing algorithm for internet of things enabling technologies. International Journal of Rough Sets and Data Analysis, 4(3), 1–16.

ISSN: 2233-7857 IJFGCN