SURVEY PAPER ON E-MANDI A MARKET EXHANGE BETWEEN FARMERS AND ENDUSER

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Abstract - *In this paper, we have proposed to transform the traditional architectural trading into an electronic exchange between the consumers and farmers in the agricultural supply chain. Mathematical modeling and Preferential evaluation of supplier and buyer satisfaction is done. This preference is then given as an input to the Naïve Bayes algorithm. The app will take up the opportunity and will revolutionize the life for farmers through the mobile application, it is substantially designed for farmers that are resigning in rural areas of India. It is a one-step platform for farmers where the information about shop Agri based products and selling their products all will be presented in one mobile application. This platform can link consuers and farmers within the agricultural value chain, that will ease management and communication about market data. This includes selling its product based on information on current prices. The app also has an NGO based feature as a helping hand for providing the needy ones with food at the same time reducing the wastage It is easy to contact farmers and end-users via the app.*

*Key Words***:** Supply Chain, Electronic Exchange, Naïve Bayes Algorithm, Mobile Application.

1. INTRODUCTION

E-Mandi is an online fruits & vegetable store that is dedicated to providing services to people in making online marketing accessible to them. It is an online store which will allow the people buying Vegetables and Fruits easily and also maintain transparency between the whole seller and retailer. This application helps customers to buy vegetables and fruits at best value. People can easily browse through the various items using the well-defined interfaces that will be provided by the system. The productivity of a region's farms is vital for many reasons. Not just providing more food, it also increases the productivity of farms affects the region's prospects for growth and competitiveness on the agricultural market. The NGO helping feature would provide us a social work for the needy ones by feeding the poor people by the proposed application made.

2. MOTIVATION

The main motivation of this project is to provide a bridge of communication between the farmers and customers. They can get together and do business that is beneficial for both ends. Basically it will be a challenge for most of the farmers since they lack the knowledge about the new technology and trends of this fast developing world. Here we also minimize the wastage from any function conducted by any user so NGO can collect that and help to the small children. The paper discusses about the prevailing agricultural marketing system in India and identify the problems and inefficiencies. We propose that the given wholesale market called the Mandi should be transformed into an electronic marketplace (exchange) for agricultural produce. An important function of the electronic exchange is available to match the supply of the farmers' produce with the demand from the wholesalers and retailers. We present a mixed integer programming model that the electronic exchange needs to solve in an iterative way to optimally match buyers with sellers. We present a stylized case study to illustrate the functioning of such a Mandi exchange. Therfore, such a Mandi exchange will have a translational impact on agricultural trading, particularly in India.

3. CHALLENGES

Technical feasibility :
- Here we check problem during the software installation with compatibility issues.
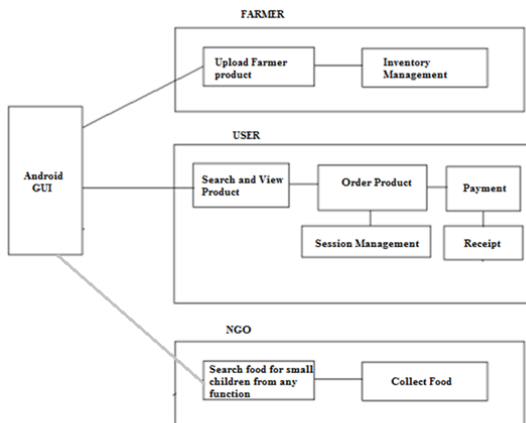
Economic feasibility:
- This system is low cost for development software to get end user and get more profit the farmer.

Performance Feasibility:
- Proposed system performance is better than other for search farmer also foods stored on database server.

4. PROPOSED SYSTEM

Methodology

Fig, Proposed System Architecture

The implementation process is very easy. Firstly, the farmer and trader need to register themselves neatly with their appropriate categories whether registering as a farmer or trader. For both the farmer and trader a unique ID is given to them, this ID is also called as their license to use the portal. Before going to plant the farmer need to make an entry on the portal with the details of what he/she going to plant, which quality, expected quantity and harvest. After that he/she needs to update their status after the harvest in the portal. All the portal entries are visible to all the members of the portal without any restrictions.

After confirming the auction the commodities need to be transported to existing mandi's, where all the Mandi norms are done then the trader get their quoted commodities. Once the commodities reach the trader the payment will be made through online to the respected farmer's account. Through this process, farmers will get their right-backs at their right time without any middle persons or commissioning agents in between them. It also helps the farmers to preserve their valuable time, prevent from wastage of their commodities in storing the mandi's for long time. All the process is carried out through online only.

5. ALGORITHM USED

The System uses Naive Bayes Algorithm for Text Classification and K means For Clustering

K mean Algorithm

Input K : Number of desired Cluster

D : {d1,d2....dn} A dataset containg n objects

Output :

Set of K clusters as specified in input.

Step 1:- Start.

Step 2: User will Search Farmer fruits, vegetable area wise.

Step 3:- Algorithm will check for the farmer vegetable records in database.

Step 4:- If any record is found in database having all or any of the input record match then the entry that record is added to result array.

Step 5:- Again next records are searched from database for an of the match this records are entered in result array set.

Step 6:- Same procedure is followed throughout until complete database is scanned.

Step 7:- The result string now contain the entire Farmers product available, to the end user.

Step 8: Order Farmer vegetable and fruit.

Step 9: User (NGO) also Check the users vegetable and fruit available any location before wastage that to the small children.

Step 10: If available list then collect it form end user.

Step 11; Stop

6. RESULTS AND DISCUSSION

The Mandi Exchange is playing the role of connecting all the stakeholders in the agricultural ecosystem. It is a system designed to favour the farmers and empower them with information and choice. The Mandi Exchange will, over time, can estimate the demand for each commodity that is in the country and advise farmers on how many hectares of cultivation is required. In addition, we hope that the Mandi Exchange will act as an enabler for farmers to become more connected socially and form cooperatives (like Amul, Safal) contribute to efficient post-harvest processing and robust agricultural supply chain networks.

The actions performed by user are
¬ Register into the system
¬ It gets all the information about vegetables, fruits and their prices
¬ Can give the feedback about the items, services and other things which can be improved &any other items should be added if necessary
¬ Can give the complaint if services, items are not up to the mark.

The actions performed by admin are
¬ Admin maintains the page in an appropriate way
¬ Can Manage the customer details
¬ Adds the vegetables and fruits details to the website
¬ Publishes the details in website and to the people
¬ Updates the vegetables and fruits details to the website

7. FUTURE WORK

As a future work, it would be interesting to explore efficient redistribution mechanisms to distribute the surplus of the exchange to the farmers in a fair manner. We are also interested in designing an incentive compatible mechanism for the exchange to do quality checking, i.e., to elicit the true.

8. CONCLUSION

The proposed system in which we took the idea that will make every farmer reach the homes in there nearby locality or cities by the medium of this android application. In this we have used some simple database. Finally, here we achieve the farmer profit to be directly connected to the end user. There are some trends that indicate the transformation of agricultural information systems in India is occurring. This application provides availability of rates in various Mandis help to give good rates to farmers. Transportation losses reduced after e-agriculture marketing. This is important for the transformation of agriculture in India.

9. REFERENCES

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