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Farm produce delivery management

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ABSTRACT

Agriculture provides employment to over 60% of the Indian population. It also contributes 17% for the GDP. However, agricultural marketing has not taken its shape in rural India. The farmers are completely dependent upon local traders and middlemen for disposal of their farm produce. This is due to the lack of good marketing facilities. Hence the products are sold at a throwaway price. The aim behind developing this app is to give the farming community a fair and consistent price for their produces and therefore they farmers can overcome the problem of facing the middlemen. By using this application, the farmers can directly connect with the wholesalers, retailers or the end-users and supply the product directly to them. This will ensure that there is an increase in the profit of the farmers.

Keywords— *Farmer, Middlemen, Application, Profit*

1. INTRODUCTION

Agriculture plays an important role in the Indian economy. The dire need for good marketing skills is directly affecting the farmer community due to a lack of good marketing skills and huge middlemen commission. The adoption of new technologies designed to help farmer accelerate economic development. However, output growth determined by how available technologies are. One such technology that a farmer can easily use is Android.

Over the past few years, the number of smartphone users has increased significantly, where the android market comes as an unparalleled leader with about maximum share of total smartphone market share. With the number of smartphone users that the world has witnessed over the years, many online businesses have shifted to the mobile app market, which is the new capable business platform.

The aim behind developing this android application is to provide India's huge farming community with a fair and consistent price for their products by connecting them directly with the buyers. The buyers may be the wholesalers, retailers or the end users. This gives the environment of a virtual market. The only middleman existing between the vendor and the buyer is the delivery agent. Both the vendors and the buyers register to the app. The vendor can post the details of what items are available upfront and categorize the produced goods into grade 1 and grade 2 by following the guidelines mentioned during the updation of the products. The registered buyer can order the product that he requires. The price for each item is fixed by the platform according to market standards.

The platform will locate the nearest vendors automatically and give the buyers an option of choosing one among them. The vendors can track the order, locate and share the transportation details to the delivery agents, who are recognized by the vendors directly. The buyer will receive a notification to accept or reject the delivered products and has an additional feature to rate the vendor depending upon the quality of products that he received, thereby increasing the scope of agro-marketing.

1.1 Significance

The lack of information about various technologies has made middlemen enter at each stage from the producer to the consumer, which not only aggregate the product but also increase the steps into a chain that makes the system less transparent. The proposed android application allows farmers to freely list their products and allows potential buyers to go through the available products thereby successfully removing the supply chain from the agricultural hierarchy. It uses prices fixed by the APMC so that the deal becomes fair and transparent.

The project leads to optimization of resource, adoption of technology to increase the farm income and thereby the national income. In this process, the widening of the market takes place as it is not anymore confined in a few hands. This leads to growth in agro-based industries.

2. PROBLEM STATEMENT

India is wasting around one-third of the produced output due to various reasons. One such reason is having the longest chain of middlemen. The farmers have to confront a number of wholesalers, brokers, commission agents and retailers, who are the of intermediaries in the market and form an unnecessary as well as a long chain of supply. The agricultural products pass through the hands of all these people before they reach the consumer and the price increases as it passes through each individual. So, it is the consumer and the farmer who is finally made to bear the burden of these huge prices. At present, the share of a farmer in the value chain is less than 30%. Thus, the high price paid by the consumer fails to reach the farmer. The profit is pocketed only by the intermediaries in the market. After the great intensity of hard work, when farmers take their produce to the markets, middlemen block price realization as the farmer has little or no control over his produce, thus there is an urgent need to identify the cause of the above problem in order to increase the income for farmers.

3. OBJECTIVES

The project aims at connecting the farmers to the consumers; thereby removing the chains of middlemen, using an Android platform which predicts the prices of the products referring to APMC rates, for a fair deal. The purpose of the project is to make the customer-centric application as it is using optimal route planning and tracking algorithms. The project intends to use the telemetry services provided by Amazon for the customers to know the order status. The project enhances the growth in agro marketing and gives an opportunity to the farmers to be an entrepreneur.

4. PROPOSED SYSTEM

To remove all the disadvantages of conventional methods, a system is proposed which is the farm produce delivery management system. The purpose of this system is to save time, save money, give a fair price to the farmer. Through this app one can save his valuable time, one can watch and select things he wants to buy. We can get different varieties of things online and we can choose which one we want . Through this app, the farmer can plan is products and update it in the app so that the user can order them according to the availability of the products. This project allows viewing the various products available enables registered users to purchase desired products instantly using a payment processor and also can place an order by using Cash on Delivery option.

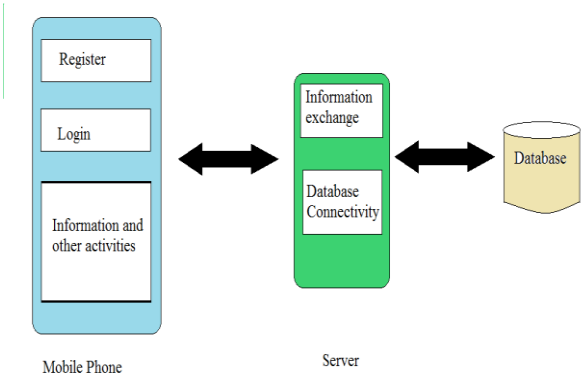

Fig. 1: Architecture of Proposed System

5. METHODOLOGY

The algorithms that are mainly used to develop this application are the farmer selection algorithm and naive Bayes algorithm. The farmer selection algorithm mainly focuses on providing the user search result with the farmers and cost of the products in ascending order. The farmers providing the lower costs for the item will be having the highest preference. If two farmers are providing items for the same cost, then the list is sorted according to the location of the farm. The buyer can choose the farmer of his choice. Naive Bayes is a probabilistic algorithm that takes advantage of probability theory and Bayes' Theorem to classify a text (like a customer review). It is used for the sentimental analysis of the customer review process. The data pre-processing phase starts by classifying the available Training Dataset by converting it to lowercase and punctuations are excluded. Each sentence in the training dataset is split into words and word-count pairs are constructed. Classify the word-count pairs into either positive or negative sentiment by finding out the probability of the given review and then assign it.

6. CONCLUSION

The project aims at increasing the ease of communication between the vendors and the buyers. The effort of our project is to eradicate the indulgence of middlemen in the marketing sector of agricultural commodities. It is an initiative to induce the evolving technologies in the field of agriculture to pay the way for agro-marketing and also give an opportunity to small and medium-sized farmers to set up a business of their own so every farmer can be a distinguished as an entrepreneur.

7. FUTURE SCOPE

The proposed android application is to provide India's huge farming community with a fair and consistent price for their products by connecting them directly with the buyers. The buyers may be the wholesalers, retailers or the end users. Even though the system is successful in eradicating the middleman problem the application still has scope for future enhancements as follows:

- **Multi-linguistic:** The application can be made in multiple languages so that all farmers can understand the usage in their own languages thereby making it possible for them to use mobile applications in the right sense,
- **Transporter:** In the existing system, the farmer himself is acting as the transporter which again can be eradicated by having a dedicated transporter in the system thereby making the order delivery a better process
- **Discount:** Any permanent customer to a specific farmer can be given any discounts or coupons to make the transaction more engaging and attractive for the customer.

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