AN EFFECTIVE AGRICULTURE MARKETING BY USING ANDROID BASED APPLICATION

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Abstract— Agriculture serves the most basic task of providing adequate food supplies for mankind. In order to accomplish this task the economy of the farmer has to be met. Agriculture marketing is one of the best solutions to fulfill the task. It involves the purchasing of agricultural products from farmers. Some farmers are unaware about the commodity prices and sell their products at low prices to the third party vendors each result in huge loss for the farmers. To overcome this kind of situation, an android application for agricultural marketing that provides better knowledge about the commodity prices of current marketing strategies at different places. It helps to find the buyers and appropriate sellers. It also helps the farmers to choose the best location of the market to sell the products.

Keywords— Agriculture, Farmers, Product, Buyers, Sellers.

I. INTRODUCTION

Agriculture is an essential livelihood for 2/3rd population in India. Farmers do this agriculture not only for their survival but also to serve their country. Majority of the farmers are economically backward due to several reasons. One among them is being misleading by fraud agents by buying agricultural products at lower rates and letting them to be in loss.

Considering this scenario, agricultural marketing is being linked with technology. So this would be an asset for the farmers to avoid their income loss. Hence to overcome these kinds of situations, we developed an application for the farmers to sell their products. This app will helps them to provide the present scenario of product prices in market through internet. This app constitutes features that display price details of commodities at different price details of different places in Hyderabad. It not only displays the details but also provides an opportunity for the farmers to sell their products directly. The existing system that is present in agricultural marketing is totally a big loss for the farmers as there are third party agents who are making fraud prices to cheat farmers. This leads to huge loss without any intimation given to the farmer. So in order to avoid third party vendors we have proposed this new system in the form of android app[4].

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The problems existing in the current marketing system are as follows:

• No updated markets information to the farmers about daily prices of the products.
• More involvement of third-party vendor in deciding price of the products.
• No proper supervision of the government on agriculture products.
• No right marketing facilities for the farmers.

The new strategies for the new marketing android application system are described as:

More user’s Friendly: The app which we developed is user friendly because the retrieval and storing of data about the product prices and best marketing places data is maintained efficiently. Moreover, the graphical user interface is provided in the proposed system, which provides user to deal with the system very easily.

Reports are easily generated: The reports can be easily generated in the proposed system. So; user can generate the report as per the requirement (monthly) or in the middle of the session. This helps to both buyers and sellers.

Very easy to access the data: The farmers can access all the data which is placed in the mobile app about best market places where they can sell their goods immediately and pricing information reports can be generated through computers.

Mobile based Control: The mobile based control is maintained an agricultural market executive who updates and control the entire marketing system. So, there is no scope for errors. Moreover, storing and
retrieving of information is easy. So, work can be done speedily and in time.

In this paper we explained the related work in subsection II. The subsection III and IV will be describing the design and development of agriculture app and its architecture. The final subsection concludes the paper.

II. RELATED WORK

The Vision of this paper is to ensure fair price to the farming community by devising new techniques and by making use of online marketing system. An application, that serves as a platform for movement of agricultural products from the farmers directly to the consumers or retailers. This mobile and web application provides privilege for both farmers and consumers or retailers to buy and sell the required farm products without the involvement of a middleman at its right profitable price. The agriculture experts shall analyze the product that comes into this platform, approve it and provide ratings based on quality. This makes all the available farm products easily accessible. Hence it provides freedom of pricing and freedom of access. Through this we can ensure farmers to make selling decisions most advantageously [1]. In low income countries or backward countries, majority of the population depends on smallholder farming for their livelihoods and well being. So it is such that small holders face significant challenges, often due to lack of access to information about the markets and its prices due to lack of transportation or knowledge about buyers.

Agricultural products are often inaccessible and also they have the limited information about the current selling price of goods. Hence selling the products at national markets, local markets are always failed. Hence this paper addresses these challenges through the Android-based Mobile Application[5]. Using this approach one can directly. Communicate with traders, retailers and consumers. Hence using this one can increase profitability by providing sufficient information on price and demand and also enables cooperation among the farmers [2].

Information and communication Technology (ICT) in agriculture is an emerging field focusing on the enhancement of agricultural and rural development in India. Using innovation is a key measure in the rural domain. The advancement of ICT can be utilized for providing accurate and timely relevant information and services to the farmers, thereby facilitating an environment for remunerative agriculture[6]. This paper describes a mobile based application for farmers which would exhaustively help them in their farming activities. We propose an android based mobile application—‘MahaFarm’ which would include agro-based crop information, weather updates, daily market prices and news/loan informational updates [3].

III. DESIGN AND DEVELOPMENT OF AGRICULTURE APPLICATION

The mobile application is constraint to particular markets within the mobile phone. Since there are multiple markets the prices may vary for particular product. As the number of farmers who sell the product are also different. Their price and quantity constraints differ from others. Mobile application will be constrain by the capacity of the data base, it may be forced to queue incoming requests which increases the time to fetch the data.

We developed a data flow diagram for developing mobile app which is a graphical tool used to describe and analyze movement of data through a system. These are the central tools and the basis from which the other components are developed. The transformation of data from input to output, through processed, may be described logically and independently of physical components associated with the system. These are known as the logical data flow diagrams. The physical data flow diagrams show the actual implementation and movement of data between people, departments and workstations. A full description of a system actually consists of a set of data flow diagrams. Each component in a DFD is labeled with a descriptive name. Process is further identified with a number that will be used for identification purpose. The development of DFD’S is done in several levels. Each process in lower level diagrams can be broken down into a more detailed DFD in the next level. The top-level diagram is often called Context Diagram. It consists a single process bit, which plays vital role in studying the current system. The process in the context Level diagram is exploded into other process at the first level DFD.

• A Data Flow has only one direction of flow between symbols. It may flow in both directions between a process and a data store to show a read before an update. The later is usually indicated however by two separate arrows since these happen at different type.

• A join in DFD means that exactly the same data comes from any of two or more different processes data store or sink to a common location.

• A data flow cannot go directly back to the same process it leads. There must be another process that handles the data flow to produce some other dataflow that returns the original data to the beginning process.
A Data flow to a data store means update (delete or change). An Android App on Agricultural Marketing.

A data Flow from a data store means retrieve or use. Price details request details display details provide details.

The purpose of this android application is to ensure that updated information about current market prices is available to the farmers. In order to avoid economic loss due to misguidance by retailers the application provides all the information about the market prices and details to the low income farmers. It requires and mobile application for implementing this procedure.

The application provides the communication between buyer and seller in order to avoid losses. As it needs to have the information about all the market details and all the necessary information it requires huge database. As it is a data centric product. The system database is must and should present. This mobile application communicates with the database regarding the details mainly over the internet. Hence, as all the mobile applications have restrictions about memory we can avoid this by using operating system with only 20 megabytes.

IV. ARCHITECTURE OF AGRICULTURE APP

The Main functionality of this application is to display in various markets of Hyderabad and. the prices of the every agriculture product. It provides a best interface for the farmers to sell their products through android mobile phone application. It contains different components such as Buyer, Seller, and Agricultural Marketing Executive, Administrator and Product price, quantity details. This app functions can be described in the below lines.

Sellers: The sellers are the farmers who are producing the variety of food grains for mankind. Produced items can be selling through mobile phone which gives complete information about the market place and their product cost.

Buyers: The buyers are the customer who wants to purchase food grains from farmers. Buyers can contact these farmers using the details provided in mobile app. They can access farmer’s details by clicking the buy option seller’s details.
Market Executive: The Market Executive is a government employee who decides pricing of every agricultural product. He updates time to the rates of products on daily basis and made available to the farmers. He also gives price list the administrator to provide these details on the online portal.

Administrator: The role of administrator is to add the buyers and sellers, and provides the price list to both buyers and sellers. He controls and monitors the system.

The app provides the options for language selection like Telugu, Hindi and English for registering the product and buying the product. It also provides the list of item available in the market and their price list. It can intimate to buyers and sellers about the stock details at various market Places in Hyderabad.

This application is constraint to particular markets within the mobile phone. Since there are multiple markets the prices may vary for particular product. As the number of farmers who sell the product are also different. Their price and quantity constraints differ from others. Mobile application will be constrained by the capacity of the data base, it may be forced to queue incoming requests which increases the time to fetch the data.

V. CONCLUSIONS AND DISCUSSION

This android based application on agricultural marketing is a very effective way for farmers to sell and buyers to buy their products. This application is portable and can be easily installed and used on any mobile phones supporting Android OS. The use of this application can result in a reduction of fraud agents who try to get the products from farmers without proper intimation. It also provides an interface between the farmers and buyers where the communication is done directly. This is the easiest way of agricultural marketing.

This application can be further enhanced and several other functionaries can be added. The system can be made login independent. The present system logs in using Internet all the times. We can enhance the system by implementing offline also.

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