Marketing Commodities Between the Producer and the Consumer

V.Prasanna Srinivasan, S.Madhumitha, R.Nithisha, J.Vaisali, S.Yogalakshmi

Abstract: ***Agriculture serves the major role in economic development of a country. It plays a major task in providing adequate food supplies for mankind. In order to provide this task the economy of the farmers has to be increased. Agriculture marketing is one of the best ways to accomplish the task. It involves the purchasing of agricultural products directly from farmers. Some farmers are unaware about the commodity prices and sell their products at low prices to the third party, resulting in huge loss for the farmers. To overcome this situation, an android application and website for agricultural marketing that provides better knowledge about the commodity prices and booking of vehicles for transportation, government schemes available in current days to farmers. It provides the path to find the buyers and the sellers. It also helps the farmers to choose the best location to buy and sell the products.***

Keywords - Agriculture, Farmers, Product, Buyers, Sellers, E-marketing, Agricultural products, Internet and Technology.

I. INTRODUCTION

Agriculture is the backbone of India. Most of Indian workers are involved in agriculture. The source of many people is agriculture. Approximately 70% of people are relying on agriculture as a means of living. Agriculture is the main reason for the rise of human civilization where farming helps the humans to own their lives. Farmers do this agriculture not only for their own survival but also to serve their country. Majority of the farmers are economically backward due to an improper market.One among them is being misleading by agents by buying agricultural products at lower rates and letting them be in loss. By having these criteria in mind, we are connecting agricultural marketing with the trending technology.

So this would lead the farmers to avoid their income loss.Hence to overcome these kinds of situations, we developed an application and website for the farmers to sell their products.

This app will help them to provide the present scenario of product prices and available buyers in nearby locations through the internet.This app constitutes features that display price and details and location of product. It not only displays the details but also provides an opportunity for the farmers to sell their products directly to consumers or organizations. The existing system is totally a flaw where the sellers might get misguided due to the third party involved which leads to fake prices. This leads to huge loss to the farmer. So in order to avoid third party vendors we have proposed this new system in the form of an android app and also a website. The problems in the current marketing system are:

1. No proper updated market information to the farmers about the daily price of the product.
2. More involvement of third-party vendors leads to loss in income of farmers.
3. No proper update about the current government scheme applicable to farmers.

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

A. User Friendly:

The app which developed is user friendly because the retrieval and storing of data about the product prices ,best marketing places ,transportation booking details and current scheme data is maintained efficiently. The graphical user interface is provided in the proposed system, which provides users to deal with the system easily. The reports can be easily generated in the proposed system. So, users can generate the report as per the requirement. This helps both buyers and sellers. The farmers can access all the data which is placed in the mobile app about best market places, daily prices and latest news about agricultural development information reports can be generated through computers.

B. Application Control Management:

The mobile based control is maintained by representatives, volunteers, administration who updates and controls the entire marketing system.

So, there is no scope for errors. Moreover, storing and retrieving information is easy.

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

II. LITERATURE SURVEY

The Vision of this paper is selling the product directly from farmers to consumers by making use of an online marketing system. An application that serves as a bridge for agricultural products. This application provides them daily prices details about the products and better farming techniques. This mobile and web application provides the advantage for both farmers and consumers or retailers to buy and sell the required farm products without middlemen involvement. The volunteers shall analyze the product, approve it and provide ratings based on quality and reviews provided by consumers. This makes all the available farm products accessible easily. Hence it makes the buying and selling process in an easier manner. Through this we can ensure farmers make selling decisions. In low income countries, the majority of the population depends on smallholder farming for their wellbeing. So it is such that smallholders face significant challenges, often due to lack of access to information about the markets and its prices due to lack of knowledge about buyers. Agricultural products are often inaccessible and also they have limited information about the current selling price of goods. Hence this paper addresses these challenges through the Android-based Mobile Application and website. Using this one can communicate with traders, retailers and consumers. Hence using this one can increase profit by providing information about price and improves cooperation among the farmers. Information and communication Technology (ICT) in agriculture is an emerging field focusing on the development of Agricultural resources welfare. Innovation is the best medicine to be used in the rural domain. This advancement improves the economy of the farmers.

This paper describes a mobile based application for farmers which help the farmers in their farming activities. We hereby propose an android based mobile application and website – 'Farmco' which includes agro-based crop information, weather updates, daily market prices and news/loan informational updates.

III. METHODOLOGY

For a particular product prices may vary since there are multiple markets available. The quantity and price conditions are also different from each other as the number of farmers selling products is increasing nowadays. In mobile applications, the database will queue the incoming requests which increases the time to get the data from the database. We have developed a graphical tool based data flow diagram to analyze and describe the movement of data in the system. From this central tool the other components will be developed. The transformation of data from input to output, their processing will be described independently and logically with the physical components associated with the system. These are known as logical data flow diagrams. The actual implementation and movement of data between people, departments and workstation will be shown in this Physical data flow diagram. The full description of the system comprises a set of data flow diagrams. Each component is labeled with a descriptive name. The DFD's will be developed in several levels. Each process in low level diagrams will be further drilled down into more detailed DFD in the next level. The top level diagram is called a context diagram, and it consists of a single process bit. In first level DFD, the process in this diagram is exploded into another process. Data flow will move in only one direction between the symbols. Before an update it may flow in both the directions between a data store and a process In DFD, If the same data comes from two or more different processes the data will be pooled or sink in a common location known as join.

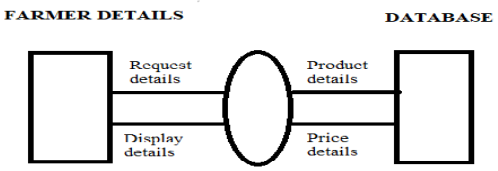

Fig: Level 0 DFD

In order to avoid losses, this application provides the communication between buyer and seller. It requires a huge database, as it stores huge volumes of data about all the market details and all the necessary information needed. This mobile application communicates with the database regarding the details over the internet. All mobile applications may have some restrictions regarding memory storage, but we can avoid this situation by using Amazon S3 bucket web service.

A . Algorithm Behind website (Application):

In real time, Amazon uses item-to-item collaborative filtering, which increases to massive data sets and provides high-quality recommendations. This type of filtering matches each of the user's purchased products to similar products then combines those items and stacks it into a recommendation list for the user. Hence, this is useful for consumers to select their products easily by the recommendations. By using this cloud service recommendation the data are fetched easily. And also provides better recommendation to buyers.

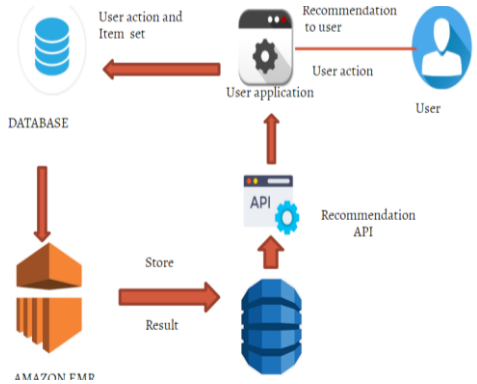

Fig: Algorithm working

IV. EXISTING SYSTEM

Some apps like Mandi Trades, Kisaan Market serve as an online platform providing places for farmers to sell their products. But these apps don't provide much transportation facilities, which increase the supply chain process.These applications do not provide any information about government schemes.

A barrier of language is additionally the explanation for drawback as half the applications presently out there for farmers area unit in English language, and solely many farmers area unit ready to perceive the language utterly.In existing application proper updates are not provided to the farmers about the accuate crop rate.

V. RESULT AND DISCUSSION

Fig: Front page of website and application

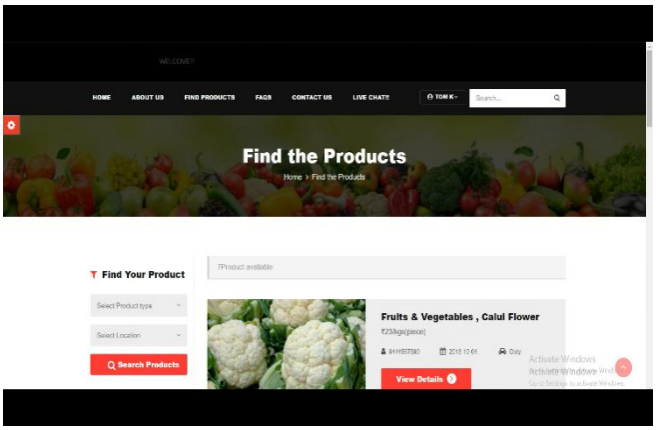

Fig: Products Details included filter based on location

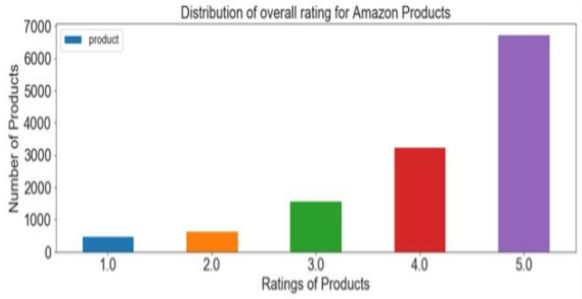

Fig:Distribution of rating of amazon s3 instances

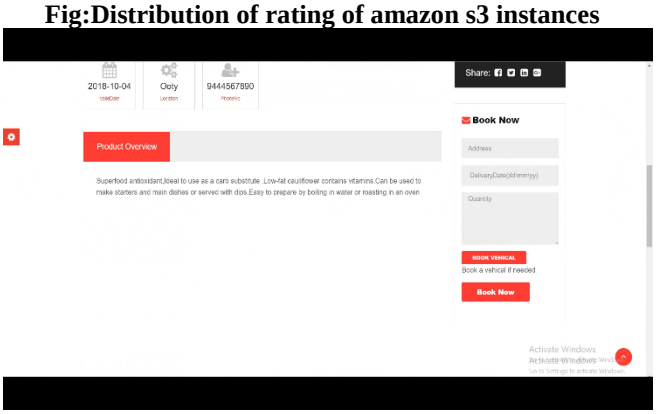

Fig:Booking of Products

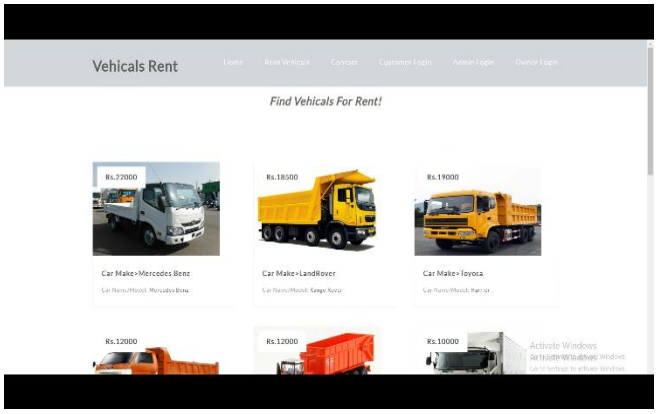

Fig:Booking of vehicles

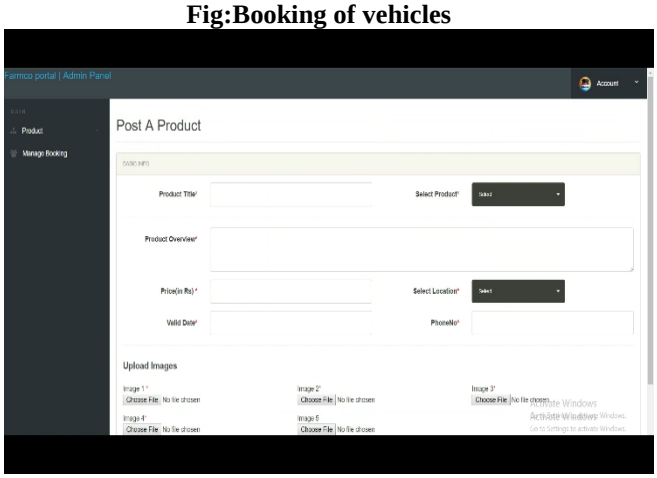

Fig:Products upload(Farmers page)

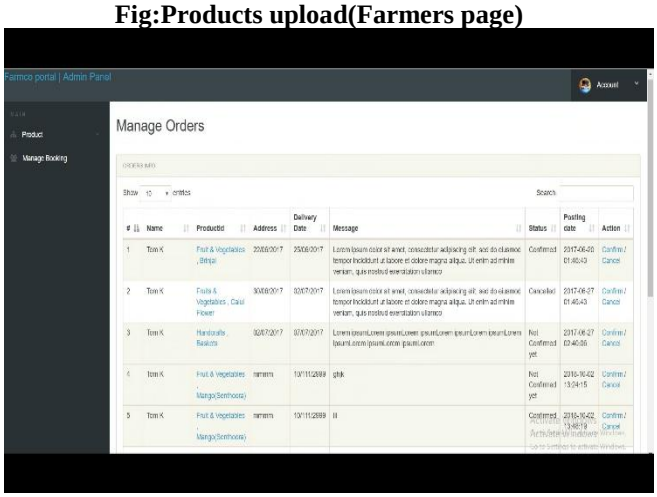

Fig:Manage Products(farmers page)

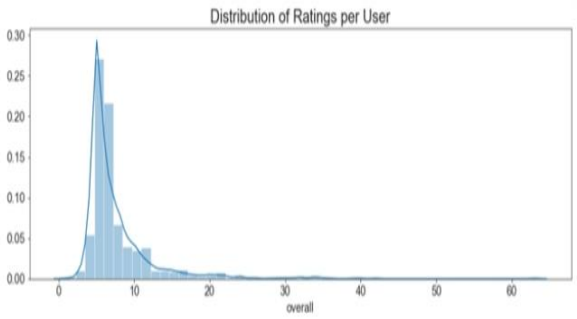

Fig:Distribution of rating per user

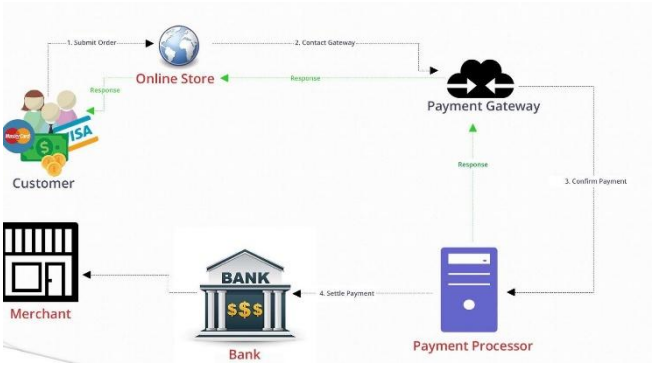

Fig:Payment Gateway

VI. PROPOSED SYSTEM

Direct contact between the villagers and retail dealers or wholesalers can reduce the number of middlemen involved in the marketing chain. A mobile based Application and website that can facilitate the direct contact between producer and buyer may reduce this wide price gap or a real time interactive system for communication between producer and consumer. In this application and website provides the vehicle booking option for consumers. Hence the main goal is to increase the economy of rural areas.

VII. FUTURE ENHANCEMENT

This application can be further developed and several other functionalities can be added. The system can be made login independent. The present system can survive online only. We can improve the system by implementing it offline also.

VIII. ARCHITECTURE OF APPLICATION

The Main functionality of this application is to display in various markets and the prices of every agriculture product. It provides a platform for the farmers to sell their products through mobile phone applications. The app provides the options for language selection like Tamil, Telugu, Hindi and English for registering the product and buying the product. It also provides the list of item available in the market and vehicles for transportation.

Fig: Architecture of Application

IX. CONCLUSION

Agricultural marketing suffers from many drawbacks. In this process every citizen of the country should support the farmers. Development of the nation is in the hands of development of farmers because farmers are the backbone of the country. By giving online education to farmers, they will get marketing opportunities for their products that will contribute a lot to the development of the nation.

Smartphones will play an important role in transmission information to farmers. several mobile applications area unit being developed by keeping the farmers in mind. All the applications overviewed within the paper area unit developed by keeping in mind some specific purpose and supply the functionalities for an equivalent. The functions area unit various ranging from cropping info, market rates, online shopping for farmers to prognosis, and daily agriculture news. Yet, solely few were ready to capture all the needs of a farmer in its totality- some applications were solely in their testing part, whereas some weren't dynamic. A barrier of language is additionally the explanation for drawback as half the applications presently out there for farmers area unit in English language, and solely many farmers area unit ready to perceive the language utterly. we have a tendency to conclude that the functionalities listed within the totally different applications ought to be out there during a unified one, one which is able to be straightforward to access and within the language easier to grasp.

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