



ENHANCEMENT OF AGRICULTURAL STAKEHOLDERS BY USING ANDROID APPLICATION

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Abstract: Agriculture sector plays crucial role in Indian Economy. It contributes about 17% to the total GDP and provides employment to over 60% of the population. Need of Enhancement of all stakeholders related to Agricultural sector. Most of the farmers doesn't have any idea about the rates of crops and their products and they sell their products at any cost Improper accessibility. Android application will resolve the accessibility problem between all the agricultural stakeholders. Many laborers depend on agriculture to get their wages. They can include, grass cutters, tractor drivers, farming apparatus technicians, or anyone who is directly involved in farming activities. That said, agriculture allows manpower to be shifted between the agricultural and non-agricultural sectors. If farmers get an assured minimum support prices for their produces and also if the functioning in trade is made digital or online, or by eliminating middle person who is exchanging goods from farmers to factories or from factories to farmers. Then the financial state of farmers will be improved in agricultural field. These problems arises only because of not having the proper accessibility between each other. Nowadays it's essential to develop of an effective network of all the agricultural stakeholders. With the help of Android application will try to provide better accessibility in terms of all resources (Time, Money and equipment) between farmers to vendors and vice versa, farmer to workers and vice versa, farmer to agriculture consultant as well as seeds and fertilizers suppliers.

Keywords – Agricultural, Android Application, Stakeholders.

I. INTRODUCTION

Agriculture plays a vital role in the Indian economy. According to world's survey our India is one of the top countries in cultivation and farming. In recent years, computer vision-based technology is used to acquire, process, to analyse and understand, so as to extract necessary information from products. It has been more efficiently used in various areas including agricultural field. User friendliness is provided in the application with various controls provided by system rich user interface. If farmers need help with agriculture then the agriculture consultant will help them online. Build a application which will help to communicate and computing stakeholders. Some village farmers want to use this facility and want to sell their products also he can be helped by items according to his needs. Wholesaler from town can also register and buy products as per their needs. Provide website to farmers in their local languages.

Agriculture using android application would make all things easier which makes best solution to all the problem. The farmers also earned profit for the sold products, access to the new agriculture technique through e-learning. Statics tells that Indian agriculture is sector accounting for 18% of India's Gross Domestic Product (GDP) and provide employment to nearly 50% of workers. Indian agriculture has registered impressive growth over last few decades. The food grain production has increased from 51 million tonnes (MT) in 1950-51 to 250MT during 2011-12 highest ever since independence. Creating employment to the masses is also another important role that agriculture plays in any economy. Many laborers depend on agriculture to get their wages. They can include, grass cutters, tractor drivers, farming apparatus technicians, or anyone who is directly involved in farming activities. That said, agriculture allows manpower to be shifted between the agricultural and non-agricultural sectors. India

II. LITERATURE SURVEY

Today's the mobile phone is used worldwide. As the price of smart phone is decreasing, its popularity is increasing day by day. Moreover, android is the mobile operating system used in smart phone, most of its applications are freely available. The use of smart phone is increase in every sector of business, education, etc. So in this research paper Ganesh S. Wedpathak (2015), using the concept of Horticulture and Android introduces a "Farmer Helping Service" system that will provide the detail information of fruits, vegetables and flowers in audio format to the farmers. This system can provide information using android smart phone from anywhere and anytime without using internet and at free of cost. It is very useful to Gujarat Farmer because they will get information in Gujarati Language just by typing number from the mobile keypad. An illiterate person can also easily operate the system.

In this paper, Juthi Kundu et. Al (2016) proposed smart e-agriculture monitoring system for Bangladeshi farmers, mainly says the development of farmers as well as our country. By developing agriculture with empowering country's farmer, this paper provides the facilities of advertisement of the agricultural product, their worldwide marketing systems as well as shows the statistics of products yearly growth, storage, savings, problems with their solutions, the agricultural news and the other information about the agricultural product and the related things through the information and communications technology (ICT) tools. For the development of Bangladesh, it is so much important to provide all the facilities of information about the product to the farmers and agriculture-related person to pace with the modern world.

Gyanappa A. Walikar et. (2018) Al Now day's Farmers Are Using the Internet of Things and Smart Senses to Get Access to Information of Product. The Importance of Mobile Devices Is Increased and Farmers Are Also Included in Digitalization. Android Is New Interesting Mobile Based Language and By Using This Language Apps Will Be Created. It Provides Lots of Inbuilt Functions, Api's For Development Of Mobile Application. It Provides Simple Way for Farmers to Sell Their Product To Their Product By Basis Of Quality Point Of View. In This Paper, We Have Done Rigorous Survey on Mobile Applications Used For Farmers Along With Problem Statement, Methodology Adopted, And Result And Discussion.

T.C. Shwetha Priya (2020) There is a need to solve many problems associated with the agriculture due to which there is an impact on reduction in the crop production. The productivity in the field of agriculture may reduce due to so many factors like changes in weather, environment, moisture, lack of awareness about latest technology. There comes the need for a Wireless Sensor Network (WSN) to monitor the problems related to the crop productivity and agriculture. Wireless Sensor Networks play a major role in the field of Agriculture. So, in the proposed system, a Wireless Sensor Network is used to monitor the changes in weather, environment, water supply to crops, moisture level in the fields and the rate at which pests damage the crop. In this system, different types of sensors, devices and components are used to capture the details about crop fields so as to take preventive actions before damage occurs. The gathered information from these different sensors is recorded and sent to the farmer's smart phone. Based on this the farmer will take appropriate action which helps him in taking appropriate actions and improving the crop productivity.

Suporn Pongnumkul et al. (2015) This article distributed under the Creative Commons Attribution License, which documents unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. Smartphones have become a beneficial tool in agriculture because their flexibility matches the nature of farming, the cost of the device is highly accessible, and their computing power allows a variety of practical applications to be created. Moreover, smartphones are nowadays equipped with various types of physical sensors which make them a promising tool to assist diverse farming tasks.

This paper systematically reviews smartphone applications mentioned in research literature that utilize smartphone built-in sensors to provide agricultural solutions. The initial 1,500 articles identified through database search were screened based on exclusion criteria and then reviewed thoroughly in full text, resulting in 22 articles included in this review. The applications are categorized according to their agricultural functions. Those articles reviewed describe 12 farming applications, 6 farm management applications, 3 information system applications, and 4 extension service applications. GPS and cameras are the most popular sensors used in the reviewed papers. This shows an opportunity for future applications to utilize other sensors such as accelerometer to provide advanced agricultural solutions.

Shankar M.patil et.al (2015) In India, most of the population is dependent on the farming for existence. Many farmers are not aware about the outside world and the technical advancement about the farming. Most of the farmers doesn't have any idea about the rates of the crops and their products and they sell their products at any cost. In today's world, farmers gets news through newspaper and television. farmer does not get the information or news about the nearest market that is present in their region. So because of that they don't get any idea about the current news about the farming schemes. At the end they have to sell their products at very low cost. So we are creating a platform for farmers who are using smartphones where they can get the real time updates about the vegetables, fruit rates of every market in India and they will be able to sell their products at the proper rates. Our application gives feature where all the farming related notices from the government will be added and farmers will get a proper information about different schemes. Depending upon certain market condition we are predicating the Rates of the vegetables and fruits. Also we are adding feature of weather information which will help farmers to plan for next 2-3 days.

Monika Chirmade (2015) Abstract: Android platform is launched by Google which is a new generation of smart mobile phone platform. Android provides the support for mobile map and provides facility to link multiple website links, which is probably a concern of vast numbers of developers. Android is free and open source, providing an easy-to-use development kit containing real time information update and facility to link websites. Agro Supply Chain will be an advisory and information system for the farmers. Agro Supply Chain will be available on mobile phones, which will be designed for farmers to help them stay on track, avoid troubles, manage their expenses in cultivation, receive all the latest and updated information, government schemes and strategies related to the field of agriculture along with suppliers details for sugarcane. The advisory system will enable its users to receive real-time and interactive advices and alerts on crop. Different alerts will be provided for plantation, insects, diseases and nutrition. Farmers will also receive regular pest, disease alerts and market price information to support on-farm decision making.

Rahul Dagar et.al (2018) IoT is a revolutionary technology that represents the future of communication & computing. These days IoT is used in every field like smart homes, smart traffic control smart cities etc. The area of implementation of IoT is vast and can be implemented in every field. This paper is about the implementation of IoT in Agriculture. IoT helps in better crop management , better resource management, cost efficient agriculture, improved quality and quantity , crop monitoring and field monitoring etc. can be done. The IoT sensors used in proposed model are air temperature sensor, soil pH sensor, soil moisture sensor, humidity sensor, water volume sensor etc. In this paper I surveyed typical agriculture methods used by farmers these days and what are the problems they face, I visited poly houses for further more information about new technologies in farming. The proposed model is a simple architecture of IoT sensors that collect information and send it over the Wi-Fi network to the server, there server can take actions depending on the information.

III. PROPOSED SYSTEM

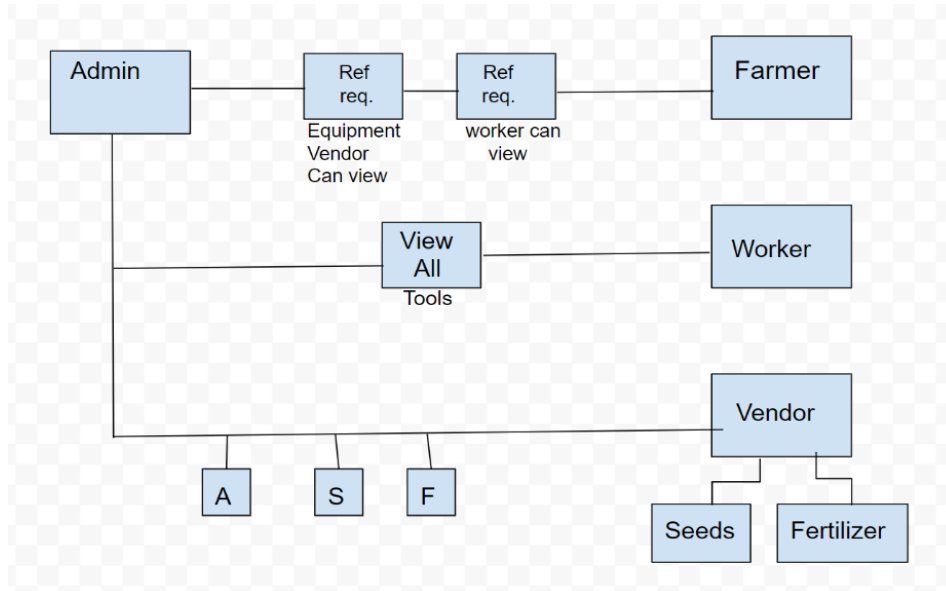


FIGURE 1: Block Diagram

Figure 1 [3] shows the block diagram of the proposed system. The block diagram of stakeholders shows all of the database tables and the relations between farmers, worker, and vendor it used structure data and to define the relationship between groups of system functionality. To provide better accessibility in terms of all resources Time, Money and equipment between farmers to vendors and vice versa, farmer to workers and vice versa, farmer to agriculture consultant as well as seeds and fertilizers suppliers.

IV. CONCLUSION

This android app will provide the better accessibility between all the stakeholders as per their requirement. It will bring effectiveness in resources management, Money management and time management. The farmers also earned profit for the sold products, access to the new agriculture technique through e-learning. To know the requirement and expectation of all stakeholders between themselves with the help of this Android app. It will try to satisfy all the stakeholders in terms all the aspect and finally it brings the prosperity.

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