



e-ISSN: 2319-8753 | p-ISSN: 2347-6710

IJIRSET

International Journal of Innovative Research in
SCIENCE | ENGINEERING | TECHNOLOGY

INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

Volume 12, Issue 5, May 2023

ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 8.423

9940 572 462

6381 907 438

ijirset@gmail.com

www.ijirset.com

Rent based Agri Equipment

¹Prof. B.Y.Patil, ²Akshay P.Darade, ³Pratiksha B.Gosavi, ⁴Chirag B.Shah, ⁵Jayashri Y.Rajkor

¹Professor, Department of Computer, Loknete Gopinathji Munde Institute of Engineering and Research Center,
Nashik, India

²⁻⁵ Student, Department of Computer, Loknete Gopinathji Munde Institute of Engineering and Research Center,
Nashik, India

ABSTRACT: Farmers are facing lot of problems, They will cultivate crops and other agricultural equipments (Tractor, Threshing Machine, Disc Harrow, Rotavator, Sprayer, Trailer, Seed Drill, Cultivator),They want to rent their equipments according to the market price but lack of knowledge they will rent their huge amount of equipment for small amount of money to the brokers available in the local and customers will directly approach to the brokers because of this formers are losing lot of money, Farmers know that they are selling equipment to broker for small amount of money, but lack of knowledge to the farmer we thought of doing an application that can help farmers can directly sell their own equipment to customer with no brokers. Customers can directly contact to farmers , Farmers can rent their own equipment retail or wholesale according to their quantity of production in the farming to the customer directly, To get aware of all these problems and to get knowledge to the farmers this application is needed .This paper provides market information to a farmer using its easy interface on the mobile application. The mobile application is intended to be used for fast and updated information delivering system for farmers.

KEYWORDS: Agri Equipment, Sustainable, Agribusiness, Agrarian,Agriculture

I. INTRODUCTION

In today's rapidly advancing world, the backbone of India lies in its farmers. As we embrace the modern era of technology, there are numerous engineering applications that can bring significant improvements to our society. The widespread use of smartphones has revolutionized how people manage their daily tasks, Buying product and rent equipment. The objective of this project is to integrate these technological advancements into people's lives, enabling them to buy product directly from farms and ensure that the profits go directly to the farmers.

In India, we currently rely on a complex supply chain for farm products, which often leaves farmers with limited benefits while intermediaries reap significant profits. By leveraging this application, we can establish a direct connection between farmers and customers, streamlining the selling process. Direct interaction between farmers and customers will also lead to affordable prices for customers, allowing them to save money while ensuring that farmers receive the deserved profits they often miss out on.

Agriculture is the primary occupation for a significant portion of the Indian population, with 60-70% depending on this sector for their livelihoods. Farmers face numerous challenges, such as accessing and managing vast amounts of data related to crop cycles, seed selection, crop processes, weather conditions, pesticides, and fertilizers. While information on farming is available from various sources like newspapers, printed media, audio and visual aids, mobile apps, TV, and the internet, the data structures and formats vary, making it difficult for farmers to obtain accurate and diverse information from these disparate sources. Manual steps are often required to translate data from one format to another, adding complexity to the process.

To uplift the lives of farmers and modernize their practices, it is crucial to provide them with the best technological solutions. Mobile apps have emerged as a promising option to boost agricultural production in the country. However, many farmers lack knowledge about the sources of valuable information, preventing them from benefiting from new technological advancements. Therefore, there is a need to develop a user-friendly system that provides farmers with accessible and essential information.

Mobile applications in the field of agriculture offer new opportunities for farmers, providing them with facilities that were previously inaccessible. However, the existing landscape of mobile apps for farmers lacks a unified solution. Therefore, it is essential to design and develop an integrated app that offers diverse services to farmers, helping them make informed decisions and improve their productivity.

The introduction of mobile apps has brought significant changes to various industries, including agriculture. These apps have become increasingly significant in supporting businesses and, in this case, assisting the farming community. With India's ambitious digital initiatives like Digital India and smart agriculture systems, there is fierce competition in the industry to introduce advanced mobile apps catered specifically to farmers' needs.

One of the key challenges faced by farmers is accessing accurate weather reports, which greatly impact their farming decisions. Our new mobile app will provide reliable weather information, addressing this issue. Given India's population of over 1.35 billion, the app has the potential to reach a wide user base. It will offer services that cater to the needs of farmers and empower them. Additionally, it will eliminate the need for farmers to pay commissions when selling their products, boosting their confidence and profitability.

Often, farmers who live near cities can directly bring their produce to wholesale markets and sell them to retailers and end customers. However, farmers in remote areas face challenges in accessing markets frequently and selling their products at their desired prices. Consequently, they are compelled to rely on wholesale vendors to sell their products. Our app will provide a platform for farmers to easily sell their produce at better rates, facilitate pooling or sharing of transport for market trips, and provide valuable crop precautionary measures based on weather forecasts.

II. MOTIVATION OF THE PROJECT

Agricultural marketing still continues to be in a bad shape in rural India. In the absence of sound marketing facilities, the farmers have to depend upon local traders and middlemen for the disposal of their farm produce which is sold at throw-away price. The status of farmers in India is such that they buy everything in retail and sell their produce in wholesale. With different Agricultural Product Market Committee (APMC) acts in different states, lack of clarity on the prices set by these agencies, high lobbying capacity of the middlemen has resulted in exploitation of farmers and crops not fetching the right price. Due to short shelf life of fruits and vegetables and other products, there is a high requirement of cold storages and warehouses to have a stable price and quantity across the year. With very few and poorly managed warehouses, the government lacks the main tool for controlling inflation and also giving a fair price to the harvest. Such uncertainties discourage farming. In current competitive scenario every business establishment needs quality processes to increase their efficiency as well as improve their productivity. It is of vital importance that manual, time consuming & monotonous operations are automated so as to streamline the working of an organization. Since, the existing system takes more time and manpower for processing. It is keeping in mind this business philosophy that we propose a Farmer's E-Market. Considering the above scenario faced by farmers we have designed this web portal so that farmers will be able to market their product without the involvement of middlemen or any third party. Our system will deal with all aspects of farmer's products.

III. ARCHITECTURE OF SYSTEMS

The proposed system is a Android based system which can be accessed by users from anywhere around the world. System is providing platform such as android or web app wherein farmer can sell his crop products at different layer of marketing chain (market, merchant or end user) with multiple option. This platform will help farmers to find out nearest markets, its current stock details and its demand for particular product within less time & with less effort. This analysis will thereby help to determine which market will be more profitable for his crop/product. Farmers can use this facility and can learn how it is possible and how they can use e-farming to sell their products. This application will act as unique and secure way to perform agro-marketing. The system allows farmers to sell their stock directly as a direct supplier throughout the country without any middlemen so that, farmer earns optimum rates for his stock and also the customer gets it at lowered costs. This will also eliminate the food grains mafia that stores these products in own warehouses in order to increase demand and thus rates of the products, so that it can later be sold at higher profits. This application converts whole offline manual system to online. The main objective of this project is building a mobile application which will help farmers from Indian villages to sell their products to different city markets. It is a computerized approach for better and clear marketing. Farmers will get unique interface where they can avail

everything right from learning to the market information they can perform marketing, get the current rates of market, This mobile application will act as a unique way to sell their products. Our application is based on direct interaction between the people and the farmer. The farmer will set a price for his own produce which will improve the profit problem for the farmer. The application has a weather module which shows the weather forecast for today and the next days. When the farmer will know about the weather, he can start preventing the crops for getting destroyed early.

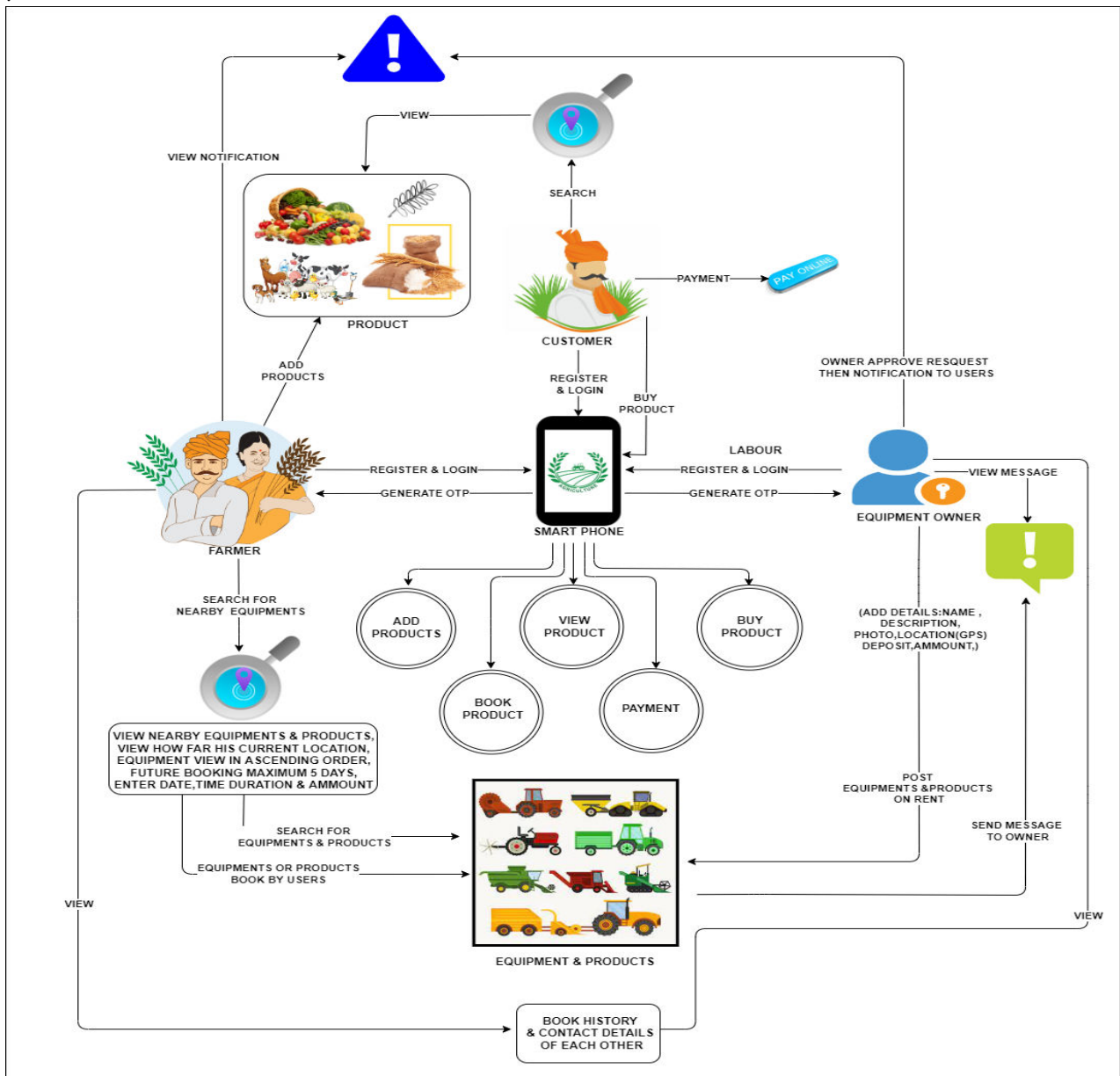


Fig 1 - System Architecture



IV. METHODOLOGY

- This application comprises mainly of two parts:
- Front End: This part is responsible for interacting or conveying among the students and faculty of the same department.
- Back End: This part is mainly responsible for the storage purpose. Firebase database is used for uploading or downloading data into or from back end using queries from front end respectively.

```
90 <category android:name="android.intent.category.LAUNCHER" />
91 </intent-filter>
92 </activity>
93 <activity android:name=".Activity.OTPVerificationActivity" />
94 <activity android:name=".Activity.RegisterActivity" />
95 <activity android:name=".Activity.LoginActivity" />
96 <activity android:name=".Activity.EquipmentRegisterActivity" />
97 <activity android:name=".Activity.AboutUs" />
98 <activity
99     android:name=".Activity.MainActivity"
100    android:label="FARM CLICK"
101    android:theme="@style/AppTheme.NoActionBar" />
102
103 <service
104     android:name=".service.MyFirebaseMessagingService"
105     android:permission="com.google.android.c2dm.permission.SEND">
106     <intent-filter>
107         <action android:name="com.google.firebase.MESSAGING_EVENT" />
108         <action android:name="com.google.firebase.INSTANCE_ID_EVENT" />
109         <action android:name="com.google.android.c2dm.intent.RECEIVE" />
110     </intent-filter>
111 </service>
```

Fig. Backend code

- Detailed overview of Front End



Enter your phone number

Continue

[Click here to Register](#)



FARM CLICK

USER REGISTRATION

Enter name

Enter mobile number

Enter address

Enter City

Enter taluka

Select User Type

SIGNUP

Fig. Registration Page

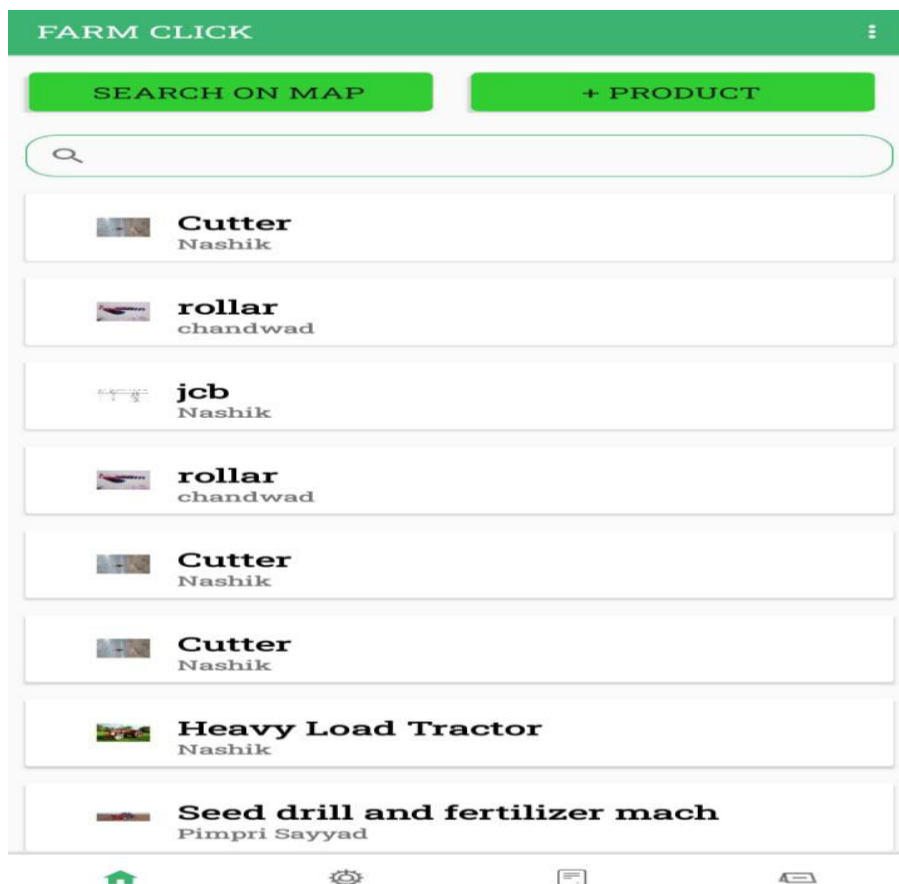


Fig. Home Page

- The front end is based on XML platform where farmers can book the required machinery can be booked for a certain period of time.



V. FUTURE SCOPE

Future scope of this project will include deployment of this application on a larger scale, by making it compatible with other applications and various other platforms. This project is first deployed on sub area of in a city. Then for future scope, it can be deployed in various other areas depending upon the demographics and agriculture requirement of that area. Various other features can also be provided to the users depending on requirement and work area of project. Also apart from farmers, the owner of tractor can also register and make changes in their profile. In the future there will be more regional languages will be included.

VI. CONCLUSION

We have designed a mobile application ,Our application is user-friendly, open source and is Free to use. It positively impacts the environmental situation by using fewer products more number of times. Concentrating on customer satisfaction and the four dimensions, “Reliability”, “Responsiveness”, “Tangibles” and “Quality” helps us to serve the users in a better manner and thus give us a competitive edge over the others.By implementing the project, we conclude that the problem statement is totally being eliminated through the deployment of this project. And the objective is achieved through the android application.The part of our system has been developed with much care that it is free of errors and at the same time it is efficient and less time consuming. The important thing is that the system is robust. We have tried our level best to make the site as dynamic as possible. Also provision is provided for future developments in the system. The entire system is secured. The main motive for the project was to provide dynamic online farmers’s management system to help farmers in every possible way and provide them a stable platform where they can perform every transaction with ease.This system will help farmers and user to get the better return. It protects the interest of both consumers and producers.

REFERENCES

- [1]Gauravjeet Dagar, "Study of Agriculture Marketing Information System Models and Their Implications", ,AIMA Journal of Management & Research, , Volume 9 Issue 2/4, May 2015.
- [2]Shakeel-Ul-Rehman, M Selvaraj,M.Syed Ibrahim , "Indian Agriculture Marketing-A Review", Asian Journal of Agriculture and Rural Development, Vol. 2, No.1, pp. 69-75 (2012) .
- [3]Abdul Razaque Chhachhar, Md Salleh Hassan , “The Use of Mobile Phone Among the Farmers for Agriculture Development” , International Journal of Scientific Research (IJSR), Volume: 2, pp 95-98 June 2013.
- [4]Surabhi Mittal, Gaurav Tripathi, “Role of Mobile Phone Technology in Improving Small Farm Productivity”, Agricultural Economics Research Review, Vol. 22 pp 451- 459.



INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor: 8.423



ISSN INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF INNOVATIVE RESEARCH

IN SCIENCE | ENGINEERING | TECHNOLOGY

9940 572 462 **6381 907 438** **ijirset@gmail.com**



www.ijirset.com

Scan to save the contact details