

Harvesthub: E-Commerce and Knowledge Sharing For Farmers

^[1] Jyothi.M , ^[2] S.Janakiraman

^[1] Student: Department Of Mca, Er Perumal Manimekalai College Of Engineering(Autonomous) ,Hosur, Tamil Nadu, India

^[2] Assistant Professor, Department Of Mca, Er Perumal Manimekalai College Of Engineering(Autonomous),Hosur, Tamil Nadu, India

Abstract: The agricultural sector, particularly in countries like India, faces pressing challenges such as low productivity, limited market access, and poor price realization for farmers. Small and marginal farmers, who represent a significant portion of the agricultural community, often face difficulties securing fair returns due to a reliance on intermediaries in a fragmented, unorganized market. These intermediaries commonly pay below-market prices to farmers while imposing high commissions on buyers, diminishing farmers' earnings and limiting growth. This project, HarvestHub, aims to address these challenges by offering an integrated e-commerce platform that connects farmers directly with consumers. Through HarvestHub, farmers can set up profiles, showcase their produce with detailed descriptions, images, and pricing, and reach a wider range of potential buyers. Consumers can browse available products, make selections, and securely complete transactions through an embedded payment system

I. INTRODUCTION

Agricultural marketing is a method that includes gathering, storage, preparation, shipping, and delivery of different farming materials across the country. In agriculture marketing, the selling of an agriculture product depends on various components like the demand for the product at that time, availability of storage, etc. Before Independence, farmers while selling their products to traders experienced massive incorrect weighing and manipulation of accounts. The farmers did not have required information about the prices and were forced to sell at low prices with no proper storage facility. Sometimes, the product could be sold at a weekly village market in the farmer's village or in a neighbouring village. If these shops are not available, then the product is sold at irregular markets in a nearby village or town, or in the mandi. So, the government took various measures to control the activities of the traders.

- **SOFTWARE ANALYSIS**
 - PHP 5
 - MySQL
 - WAMP Server 2.0
 - Macromedia Dreamviewer 8 IDE

PHP5

The full form of PHP is **Hypertext Preprocessor**. It was abbreviated previously as **Personal Home Page**. It is a programming language widely used to build web applications or websites. It is the server-side scripting language encoded with HTML to develop Dynamic website, Static website or Web applications.

MYSQL

MySQL is a database management system. A database is a structured collection of data. It may be anything from a simple shopping list to a picture gallery or the vast amounts of information in a corporate network. To add, access, and process data stored in a computer database, you need a database management system such as MySQL Server.

WAMP SERVER 2.0

WAMP Server is a reliable web development software program that lets you create web apps with MySQL database and PHP Apache2. With an intuitive interface, the application features numerous functionalities and makes it the preferred choice of developers from around the world.

II. MACROMEDIA DREAMVIEWER 8 IDE

Macromedia Dreamweaver 8 from Adobe is the industry-leading web development tool that lets you efficiently design, develop and maintain standards-based websites and applications. Dreamweaver 8 provides a powerful combination of visual layout tools, application development features, and code editing support.

III. EXISTING SYSTEM

There are several existing systems for agriculture e-commerce that farmers and customers can use to buy and sell agricultural products online.

- Local Market like ulavar Santhai.
- Farmigo: Farmigo is a US-based e-commerce platform that connects farmers with consumers who want to buy locally grown food.
- Alibaba: Alibaba is a Chinese e-commerce platform that has a dedicated section for agricultural products.
- Big Basket: Only in Madhya Pradesh India.

PROPOSED SYSTEM

- the opportunities to enhance their self-efficacy beliefs and further, to improve their learning ultimately. The proposed system is design and development of an agriculture e-commerce website called F2H should be approached in a systematic way to ensure that the final product meets the needs of farmers and buyers. .
- Verification System
- Integrate F2F Forum

IV. MODULES

1. F2H Web Dashboard
 - 1.1. User Authentication and Authorization
2. End User Interface
 - 3.1. Seller UI
 - 3.2 Buyer
 - 3.3. Admin
3. Product Catalogue
4. Shopping cart
5. Payment Gateway
6. Order Management
7. Shipping and Delivery
8. Notification
9. Reviews and Ratings
10. Analytics and Reporting
11. F2F Forum

V. RESULT

Platforms like HarvestHub enable farmers to access broader markets by allowing them to sell their produce online. This reduces dependency on intermediaries and increases their income potential by offering fair pricing and direct market access. HarvestHub often provides tools for farmers to exchange agricultural knowledge, such as best practices, weather forecasts, pest control methods, and crop management advice. This helps to improve productivity and sustainability. E-commerce platforms like HarvestHub can have a transformative impact on rural economies by enabling farmers to reach larger consumer bases and improving their access to information that can boost yields and reduce waste. Many journals will look at case studies or results of specific platforms to assess the actual impacts on farmers, such as increases in income, better crop management, and enhanced sustainability practices.

VI. CONCLUSION

The "Agriculture: An E-Commerce Portal for Farmers Selling Produce and Farmers Forum" project has been successfully developed, tested, and demonstrated its effectiveness in meeting the needs of various user roles, including Web Admin,

Farmers, and Buyers. The system provides a user-friendly interface and a wide range of features and functionalities to facilitate the buying and selling of agricultural products. The Web Admin module allows for secure login, management of user registrations, verification of farmers using their Farmers Card and Aadhar details, approval of farmers as sellers, user management, maintenance of product categories, system maintenance tasks, viewing of reviews, customization of notifications, and generation of reports. This module empowers the admin to effectively manage the entire system. The Farmers module enables farmers to register with their Farmers Card and Aadhar details, receive registration approval, login to their accounts, add and manage their products, view orders, receive payments, process and deliver orders, track order and delivery status, view transaction history, post queries in the farmer's forum, receive replies and notifications, and generate reports. This module provides farmers with a platform to showcase and sell their produce efficiently. The Buyers module allows buyers to register, login to their accounts, search for products, choose desired products, add them to the cart, make payments, place orders, track their orders, receive products, request bulk orders, post reviews, view transaction history, and manage their profiles.

REFERENCE

- L. Q. Hu, A. Yadav, H. Liu, S. Azam, A. Karim, B. Shanmugam, et al., "Analysis of Lemon Company's cross-border E-Commerce Logistics Distribution Mode selection", LISS 2020, pp. 601-615, 2021.
- F. M. J. M. Shamrat, M. Asaduzzaman, P. Ghosh, M. D. Sultan and Z. Tasnim, "A web based application for agriculture:" Smart Farming System", International Journal of Emerging Trends in Engineering Research, vol. 8, no. 06, 2020.
- C.C. Liao and C.C. Chen, "Innovative Service Management Model for Rural E-Commerce", Basic & Clinical Pharmacology & Toxicology, vol. 125, no. S2, pp. 141, 2019.
- Y Wei, C Wang, S Zhu, H Xue and F. Chen, "Online purchase intention of fruits: Antecedents in an integrated model based on technology acceptance model and perceived risk theory", *Frontiers in psychology*, vol. 9, pp. 1521, 2018.