



e-ISSN:2582-7219



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

Volume 5, Issue 12, December 2022



INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA

Impact Factor: 7.54



6381 907 438



6381 907 438



ijmrset@gmail.com



www.ijmrset.com



Survey on - Agriculture Based E-commerce Website

G. Beula Rani¹, N. Reshwanth Sekhar², N. Phani Kumar³, N. Vamsi Madhav⁴, K. Jagadeesh⁵

Associate Professor, Dept. of CSE, KKR & KSR Institute of Technology and Sciences, Guntur, A.P, India¹

B. Tech Final Year, Dept. of CSE, KKR & KSR Institute of Technology and Sciences, Guntur, A.P, India^{2, 3, 4, 5}

Abstract: The e-marketplace has come to a very efficient state for transactions in e-commerce industry. We should design and implement a system that can be trusted by both the parties for seller and buyer. Our project is an online marketplace for consumer-to-consumer sales, particularly targeting users who are emerging with the market, with a view to providing a safe, reliable and efficient way for consumers to buy and sell goods.

The agricultural application provides its users with information about the nearby available products like plants, seeds, pesticides, agricultural machinery. Sometimes, these products get in more amounts due to farmer requirement and they get wasted. The wastage can be eliminated by using this application. So, Farmer can sell his goods in this website. Other farmer who is willing to buy them will respond to the seller and purchase them. This way there will be no wastage of goods and there will be profit in agriculture sector. The main features of this application includes information retrieval facilities and marketing from anywhere in the form of obtaining statistical information about fertilizers, pesticides, seeds, and plants.

Agriculture is the strength of Indian economy and 70% of India's total population is primarily dependent on agriculture for their employment. Agriculture is still an underdeveloped sector when it comes to technologies being inculcated. With the growing technology and internet services the information related to the different government agricultural schemes are now available on the internet in the form of websites and mobile apps. But because of digital illiteracy in the rural areas, farmers are not conscious about the different agricultural information & Schemes. This mobile app will provide the Indian farmers with different government schemes for which they are eligible.

This service will be available in local languages English, Marathi & can be further added as per the requirement. The schemes will be made available to the farmers in the form of text, audio and video.

This easy-to-use website takes care of all marketing of agricultural products. In this web application, farmers can upload their agricultural products through operators. The operator foresees the addition and removal of goods. This web application, in turn, will be viewed by buyers who will buy the goods providing a market to farmers.

KEYWORDS: Ecommerce website, farming, agriculture, Front-end, Back-end, seeds, fertilizers, pesticides, machinery, Online Shopping.

I.INTRODUCTION

Agriculture is the practice of cultivating plants and livestock in order to provide facilities the human beings. In the rise of the sedentary human lifestyle agriculture was the key development. The cultivation of plant and food grains began years ago in order to provide food to the city population. Agriculture is the main need for the people to live in the society. Agriculture is the main source of livelihood, it provides a source for the people to earn. Most of the population in the rural areas is dependent on agriculture as their main source of income.

Agriculture contributes significantly to a country's GDP that is the Gross Domestic Production of a country. By the passing of time, there are a number of revolutions that take place in order to improve agriculture throughout the world or a country. If we talk about agriculture, India has witnessed a number of revolutions, that is, the green revolution, yellow revolution, blue revolution, agriculture.



Surplus purchase of agricultural products leads to wastage sometimes it gives loss to the farmers. Which is a very common problem we are seeing in our neighborhood. Our application will help the farmers to solve this problem, By selling their excess products to other people who have stipulation of the same product. The application will have both seller and buyer interfaces where a single person can sell his products at same time he can buy the products if he wants to.

A website that allows people to buy and sell physical goods, services, and digital products over the internet rather than at a brick-and-mortar location. Through an e-commerce website, a business can process orders, accept payments, manage shipping and logistics, and provide customer service.

An e-commerce website is one that allows people to buy and sell physical goods, services, and digital products over the internet rather than at a brick-and-mortar location. Through an e-commerce website, a business can process orders, accept payments, manage shipping and logistics, and provide customer service.

Farmers will be able to sell their products across the country from their homes by just uploading their products to the website through operators. Farmers will be guided in every way by the agents. The Ecommerce website will assist farmers in developing successful agro-marketing strategies that would improve the farmer's quality of life. In addition, farmers will be able to see their obtained amount through sales and related information in their accounts thanks to the Marketing Centre. Farmers will be able to sell their products through e-commerce only with an authorized agency. Through an assessment of business activity, the Central Market Committee will have authority over the Agents. The SMS centre will offer the necessary market information in rural places where the internet is unavailable. Farmers will also have access to government programs.

II.LITERATURE REVIEW

1. Manish Mahant, Abhishek Shukla, Sunil Dixit, Dileshwer Patel, (2012),

The application of Information and Communication Technology (ICT) in agriculture is increasingly important. E-Agriculture involves the conceptualization, design, development, evaluation and application of innovative ways to use information and communication technologies (ICT) in rural domain, with a primary focus on agriculture. Information and Communication Technology (ICT) can play a significant role in maintaining properties of information as it consists of three main technologies. These technologies are applied for processing, exchanging and managing data, information and knowledge.

2. Ugwuishiwu C.H., Udanor C.N., Ugwuishiwu B.O., (2012),

This paper proposes an Agro-Information System that enables a farmer to have relevant information about a crop, such as the varieties and other requirements like soil type, temperature, type and quantity of fertilizer, time of planting, time of maturity, planting distance, diseases, pest, pest and Disease control measures, rainfall, sunshine, etc. of that crop. The level of application of this information determines the volume and efficiency of the crop yield. AIS software is designed and implemented which helps the farmer achieve the afore-mentioned objectives.

3. HavliCek, J. Vanek, V. Lohr, E. Cervenkova, (2010),

The rapid advancement in Information and Communications Technologies (ICTs) has given rise to new applications that were impossible just few years ago. Agriculture is an important sector with the majority of the rural population in developing countries depending on it. The sector faces major challenges of enhancing production in a situation of dwindling natural resources necessary for production. ICT plays an important role in challenging and uplifting the livelihoods of the rural populace using an agro computer-based information system. This paper proposes an Agro-Information System that enables a farmer to have relevant information about a crop, such as the varieties and other requirements like soil type, temperature, type and quantity of fertilizer, time of planting, time of maturity, planting distance, diseases, pest, pest and Disease control measures, rainfall, sunshine, etc. of that crop. The level of application of this information determines the volume and efficiency of the crop yield. AIS software is designed and implemented which helps the farmer achieve the afore-mentioned objectives.

4. Sanjeev S Sannakki, Vijay S Rajpurohit, V B Nargund, Arun Kumar R, Prema S Yallur, (2011),

Present paper introduces an innovative approach to automatically grade the disease on plant leaves. The system effectively inculcates Information and Communication Technology (ICT) in agriculture and hence contributes to Precision Agriculture.



Presently, plant pathologists mainly rely on naked eye prediction and a disease scoring scale to grade the disease. This manual grading is not only time consuming but also not feasible. Hence the paper proposes an image processing based approach to automatically grade the disease spread on plant leaves by employing Fuzzy Logic. The results are proved to be accurate and satisfactory in contrast with manual grading. 14036

5. Robert Szilagyi, (2012),

The new ICT technologies are not only fast developed but, in addition, are giving birth to newer systems and tools. The Internet network have become essential communication tools in business processes recently. Using the Internet by means of mobile appliances increases the possibilities. The agriculture has some speciality in information technology. The ICT adoption in the agriculture and main drivers has been examined. For the successful application the key lessons have to understand. To get a draft overview of Hungarian position there is part about it. In this part there are data about household communication devices the individuals ICT usage by age. The region differences in information technologies can be seen also. The final part of the paper there are some technology and application examples. The new devices like tablets and new services like Cloud Computing have great potential in agriculture. Cloud Computing provides better resource management and effective cost control. However, the business assessment of these technologies must not be done only on the basis of the technology and taken out of its environment randomly since the whole area is very complex.

6. Omotesho, K. F., Ogunlade, I. O., Muhammad Lawal, (2012),

The study examined the factors associated with the level of access of Agricultural Extension officers in Kwara State to Information and Communication Technology (ICT). It also identified the constraints to the usage of ICT for the purpose of sourcing agricultural information. Data for the study were collected from the Subject Matter Specialists (SMSs) and Extension Agents (EAs) of the Kwara State Agricultural Development Project (KWADP) through the use of a structured questionnaire. The numbers of years on the job and the age of the respondents had negative but significant relationship with access. Apart from the general constraints to the use of ICT such as, high cost of personal computer, inadequate electricity supply and poor internet access, poor training and technological knowhow were also identified as specific constraints faced by the EAs. The study therefore recommended the need for easier access by all agricultural extension officers to ICT. Besides, training workshops should be organized for Extension officers in the area of ICT and computer appreciation.

7. Koen C. Mertens, Jürgen Vangeyte, Stephanie Van Weyenberg, Christiane Von Haselberg, Martin Holpp, Renate L. Doerfler, Iver Thysen, (2012),

Ample research is conducted on ICT, automation and robotics in agriculture and related environmental issues. ICT and Robotics innovations are rapidly emerging and have the ability to revolutionize future farming through their major impacts on productivity and profitability. Unfortunately human and financial resources and efforts are fragmented and limited. This led to the creation of the ICT-AGRI ERA- NET that provides a central structured framework. Its main objective is to strengthen and coordinate European research regarding ICT and robotics in agriculture. Besides the creation of the Meta Knowledge Base (MKB), a common European research agenda will be developed and common research calls are launched. The Meta Knowledge Base (<http://db-ictagri.eu>) is attempting to map all 14036 relevant research and development within the selected research area. To organize the postings, a three-dimensional task-technology oriented framework was designed. The results indicated that the three axes: task, technology and scope seemed insufficient to describe the whole research area. Therefore, an improved framework was developed. By extending the task-technology oriented framework with a process-control-information system, a useful framework was designed.

8. SHANMUGAPRIYA M, DR.TAMILARASI A, (2013),

Mobile Devices are pervasive in nature and supports ubiquitous learning environment. In this article the designing and developing a mobile courseware for ICT students using problem-based learning approach is discussed. The courseware is designed to evaluate the feasibility of adopting the problem-based learning pedagogies in a mobile learning environment for ICT students. A case study is built for Java Programming and the courseware is implemented on the M-learning framework designed. The machine learning framework is developed using service-oriented architecture. The design and delivery of learning objects for the mobile learning is being depicted in the PBL environment.

9. Fladys Kibera, (2013),

Acknowledging people who will directly or indirectly benefit from a project is significant for its success. Projects whether small or large must place more weight on participation of stakeholders to build awareness, set realistic expectations, raise support, minimize resistance and ensure successful implementation and user adoption. The change and a completely new way of operations of software systems like Customer Relationship Management (CRM), has been an uphill task because of factors like failure to involve the stakeholders and improper change management. The study categorized stakeholders into



three; managers, administrators and technical staff. It adopted quantitative and qualitative research approach. We found out that managers are the key decision makers who facilitate the procurement of systems; administrators are the end users while the technical team provides support and maintenance of the systems. We propose that right from problem identification, to system specification all the way to installation of software (implementation) stakeholders must be brought on board.

10. Monica. N. Agu, (2013),

Agriculture is the mainstay of most third world economies and occupies a pivotal position in the development of these countries. Despite the importance of agriculture, improvements in this sector have been uneven and, on the whole, disappointing. In any farming system, it is important to recognize the various roles of women. Many women experience a life that is a complex web of multi roles and multi-tasks which requires the average woman to conduct different things in a bid to fulfill her family needs. Women in rural communities are extensively involved in arduous farm operations and 14037 agricultural activities, from planting to harvesting and other post harvesting operations. So the Nigerian women are in an important position to contribute to food supply. This sector faces major challenges for enhancing production in a situation of dwindling natural resources necessary for production. ICT plays an important role in addressing these challenges. The paper analyses the problems facing women in the agricultural sector-and suggests ways to solve these problems. Further more the paper surveys the information needs of rural women and how ICT can be used to meet their information needs.

III. REVIEW FINDINGS

1. Providing awareness to the farmers so that no one get loss. Preventing products that being damaged by selling them right away. Website should be able to use the application from any web browser.
2. Users new to the site should be able to register themselves. User must be able to modify the quantities of items in (or) delete items from cart. Large number of users must be able to use the application.
3. Administrator should be able to manage e-commerce applications using web browsers. Administrators should be able to view all user transactions.

IV. PROPOSED WORK WITH METHODOLOGY

Our proposed system is to develop an application using which the above entire flow can be automated so that the farmers can sell or buy the surplus products .Users get to know the information about the nearby available products like plants, seeds, pesticides, agricultural machinery purchase. Collaterally, there are some people who may require the same quantity of products. The main features of this application includes information retrieval facilities and marketing from anywhere in the form of obtaining statistical information about fertilizers, pesticides, seeds, and plants.

This easy-to-use website takes care of all marketing of agricultural products. In this web application, farmers can upload their agricultural products through operators. The operator foresees the addition and removal of goods. This web application, in turn, will be viewed by buyers who will buy the goods providing a market to farmers.

Farmer can sell his goods in this website. Other farmer who is willing to buy them will respond to the seller and purchase them. This way there will be no wastage of goods and there will be profit in agriculture sector. The main features of this application includes information retrieval facilities and marketing from anywhere in the form of obtaining statistical information about fertilizers, pesticides, seeds, and plants.

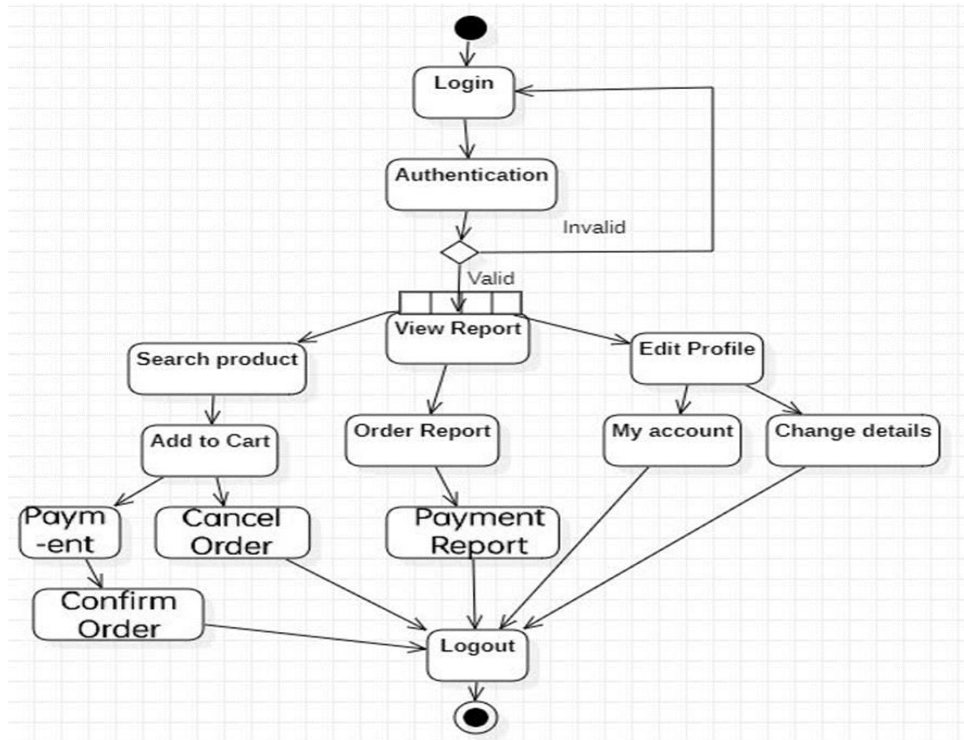


Fig. Architecture of Agriculture Based E-commerce Website

We can emphasize the vital aspects necessary for a good farmers’ e-commerce mobile app development services after seeing some of the most popular organic products online store marketplaces for farmers, buyers, and customers.

The farmers have to go to the nearest market to hand over his product to a particular agent where agent sells the product to another agent or a dealer. After a specific time, the agent gives the collected cash out of the sold products to the respected farmer but every Agent tries to cut his commission out of the earned amount. The whole process is not transparent as there is no way for farmer to know about the deal and the exact amount at which their product was sold & there is no provision for the farmers to know the product rates at different markets where they can sell their products for achieving high profits. This motivated us to design & develop a system which is useful for farmers & end users.

The website builds a platform for farmers to ensure greater profitability through end user communication. The website will act as a unique and secure way to perform agro-marketing. E-farming will serve as a way for the farmers to sell their products across the country just with some basic knowledge about how to use the website.

V. COMPARISON WITH EXISTING SYSTEM

1. Agri App is an Android based mobile application. It provides complete information on Crop Production, Crop Protection, smart farming with agriculture and allied services. In addition to being an information portal, Agri App is also an online marketplace for bringing in farmers, Agri input, retailers & fulfilment services on a common digital platform.
2. Tractor junction app is to spread all this information to every part of India. To achieve that, we have made sure you can access Tractor Junction in Hindi, English, Tamil, Telugu, and Marathi. Our mission is to bring joy and delight to tractor buying and ownership. To achieve this goal, we aim to empower Indian farmers to make informed tractor buying and ownership decisions with exhaustive and unbiased information on tractors through



expert reviews, owner reviews, detailed specifications and comparisons. We understand that a tractor is one of the essential assets in a farmer's life.

3. With the help of our application, We can reduce the wastage of the product and can sell that to the required person. Connects local people to buy, sell or exchange used goods and services enabling people to post a listing through their mobile phone or on the web.
4. Customers can now create and interact with the easy reports on various key business metrics. The maps integration feature within the app makes it possible to present the location of the address.

VI.CONCLUSION AND FUTURE WORK

The present study gives a clear idea on how to sell or buy the unused products in agriculture.in this application we mainly focus on two points one is reselling the agriculture products and the other is to buy the products.in order to sell the product user gives necessary information of the product like price, quantity, item name etc., and post the product into the website likewise if a user wants to buy the product he searches for the product and buys it.

A working application is to be implemented useful for both Farmer and Buyer. The system automatically allots the order to farmers. On the customer panel crop details are alleged to be present. Transportation aspect is handled by the system because it uses the shortest path algorithm on the customer panel guiding the individual towards the closest farmer.

REFERENCES

- [1] P. S. Anwasha Borthakur, "AGRICULTURAL RESEARCH IN INDIA: AN EXPLORATORY STUDY," International Journal of Social Science & Interdisciplinary Research, vol. 1, no. 9, pp. 59- 74.
- [2] N. H. V. E. H. Panneerselvam Peramaiyan, "Indian farmer's experience with and perceptions of organic farming," Renewable Agriculture and Food Systems, pp. 1-14.
- [3] M. N. Parveen Kumar, "Agriculture in India: A SWOT analysis," Indian Journal of Applied Research, vol. 3, no. 7, pp. 4-6.
- [4] A. T. Gopi Krishna Suvanam, "Imbalances Created because of Structured Products in Indian Equity markets," pp. 1-.3.
- [5] S. Yadav, "STOCK MARKET VOLATILITY - A STUDY OF INDIAN STOCK MARKET," | IC Value 80.2, vol. 4, no. 6, pp. 629-632.
- [6] D. Bhowmik, "STOCK MARKET VOLATILITY: AN EVALUATION," International Journal of Scientific and Research Publications, vol. 3, no. 10, pp. 3-13.
- [7] D. R. G. A. Ms Nidhi Rajendra Bisen, "A STUDY ON EXISTING LITERATURE OF COMMODITY MARKET," International Journal of Management Studies, vol. 3, no. 1, pp. 106-111.
- [8] P. Klemperer, "Auction Theory," Journal of Economic Surveys, vol. 13, no. 3, pp. 227- 286.



INNO SPACE
SJIF Scientific Journal Impact Factor
Impact Factor
7.54

ISSN

INTERNATIONAL
STANDARD
SERIAL
NUMBER
INDIA



INTERNATIONAL JOURNAL OF MULTIDISCIPLINARY RESEARCH IN SCIENCE, ENGINEERING AND TECHNOLOGY

| Mobile No: +91-6381907438 | Whatsapp: +91-6381907438 | ijmrset@gmail.com |

www.ijmrset.com