JETIR.ORG ISSN: 2349-5162 | ESTD Year : 2014 | Monthly Issue
JOURNAL OF EMERGING TECHNOLOGIES AND INNOVATIVE RESEARCH (JETIR)
An International Scholarly Open Access, Peer-reviewed, Refereed Journal

Farmers Market

School of Computer Science and Engineering, Presidency University, Bangalore

Abhiram Chowdary Y, Karthanaparthi Maruthi, Nandallur Shaik Mohammad Afzal, Gorla Anjaneyulu Yadav, Sake Mukesh Varma

Abstract

The horticultural area in India wrestles with difficulties in getting to seeds and manures at fair costs, compounded by challenges in selling ranch produce beneficially. Perceiving the squeezing need for a groundbreaking arrangement, this theoretical proposes the improvement of an e-gateway custom-made for ranchers. All the while, the gateway presents a powerful offering framework, permitting shoppers to offer/request ranch produce, in this manner killing go betweens. This bid-driven commercial center plans to make an immediate connection among ranchers and shoppers, encouraging straightforwardness and fair estimating. The task's definitive objective is to rethink cultivating as a productive occupation by utilizing innovation to resolve basic issues in the horticultural store network, advancing supportability and encouraging a commonly valuable biological system for all partners.

This imaginative e-gateway tries to change conventional rural practices in India by giving a concentrated stage to ranchers to get to fundamental assets and sell their produce straightforwardly to purchasers. By taking out delegates, the entrance means to lay out fair market elements, guaranteeing that ranchers get only pay for their endeavors. The bid/ask system cultivates a participatory methodology, engaging ranchers to participate in a serious market while empowering purchasers to add to cost assurance.

The theoretical highlights the direness of this drive, situating it as a convenient reaction to the diligent difficulties looked by Indian ranchers. The proposed e-gateway addresses a critical stage towards a more straightforward, proficient, and feasible rural biological system, typifying the potential for positive monetary and social effect inside the cultivating local area and then some.

Introduction

The facts confirm that innovation has turned into a fundamental apparatus for internet showcasing these days. Be that as it may, there are various little shops and supermarkets with generally disconnected plan of action in India as of late. With this business model, it will bring a great deal of terrible encounters for the two purchasers and venders. For example, the dealer has the item need to offer yet the purchaser may not know it, or the purchaser may earnestly have to buy something, yet the store is unavailable. Besides, web based shopping assists clients with picking a large number of items, costs and they can contrast them with one another without any problem. Experiencing the deficiencies and the shortcomings of the disconnected plan of action, making a site application for scanning and purchasing things for each shop is extremely essential at the present time. As of late, there have been numerous internet business locales traded, for example, Amazon, Large Container, e-sound or the stores that can sell items by means of online entertainment channels like Facebook, and Instagram. This task is propelled by the squeezing need to furnish private social orders with inaccessible, yet innovatively progressed, method for observing vehicle activities. Traditionally, the organization of refined camera frameworks has been cost-prohibitive, leaving numerous social orders powerless against security breaks. Be that as it may, clients actually find it

challenging to pick the items they need in light of the enormous assortment of items on these locales and not center around unambiguous things. Besides, the merchants need to burn through a high measure of cash on promoting or paying for charges. From that point disservices, carry out an internet based online business web application for little supermarkets assists retailers with canning oversee items on their own frameworks and not rely upon the outsider site. For the clients, they can rapidly look through the items assuming it is accessible and come to store to get it and they can contact straightforwardly to the retailer to get familiar with the items that they are searching for. To create a site that can secure the necessities of the two clients and retailers, MERN (MongoDB, Express.js system, ReactJS library, NodeJS stage) is one of the strong stacks that can assist us with fostering an online business web application.

Literature Review

The writing audit stresses the current obstacles looked by Indian ranchers in the customary
store network, featuring the meaning of fair evaluating and availability to quality data sources. The proposed e-gateway looks to resolve these issues by utilizing innovation to make a straightforward commercial center. Academic conversations encompassing comparative mediations in horticulture recommend that such stages can possibly reform the area, advancing financial manageability for ranchers and guaranteeing a fair market for purchasers.

Concentrates on horticultural web based business stages in different settings give bits of knowledge into the positive effect on country economies, accentuating the requirement for fitted answers for address the particular difficulties looked by Indian ranchers. The writing likewise dives into the possible social and financial repercussions, underlining the significance of local area commitment and easy to use interfaces for effective execution.

All in all, the writing survey upholds the recommendation of an e-gateway for ranchers as a convenient and groundbreaking answer for upgrade the farming store network. It highlights the possible advantages for the two ranchers and customers, repeating the requirement for manageable practices and fair valuing systems in the rural area.

Besides, academic talk on rural innovation reception highlights the job of computerized stages in further developing generally ranch proficiency. The proposed e-gateway lines up with this pattern by tending to obtainment challenges as well as by presenting a powerful offering framework for ranch produce. This development can possibly engage ranchers with market-driven evaluating techniques, encouraging a serious and fair climate.

Research additionally features the financial ramifications of such drives, stressing the possibility to elevate rustic networks by restricting the pay hole and diminishing reliance on conventional mediators. The writing audit demonstrates that fruitful online business models in agribusiness frequently consolidate instructive parts, guaranteeing that ranchers are furnished with the information to explore and expand the advantages of the advanced commercial center.

Proposed Method

Constructing a methodology for implementing an e-portal solution to address the challenges faced by Indian farmers involves several steps. Below is an outline of the methodology:

- Needs Evaluation and Prerequisites Gathering:

- Direct meetings, reviews, or center gatherings with ranchers, farming specialists, and partners to figure out their difficulties and necessities.
- Recognize the particular necessities connected with seed acquirement, manure buy, and selling ranch produce.

- Statistical surveying and Analysis:

- Investigate existing internet business stages, horticultural commercial centers, and comparable entries to figure out their highlights, functionalities, and client encounters.
- Assess effective models carried out in different locales or nations to attract experiences for transformation to the Indian farming setting.

- Advancement of the E-Portal:

- Team up with programming designers, planners, and rural specialists to plan and foster the e-gateway.
- Consolidate easy to understand interfaces for ranchers and customers, guaranteeing simplicity of route and openness.

- Executing a Bid/Ask Framework for Homestead Produce:

- Foster an offering/requesting that framework permitting ranchers list their produce with pertinent subtleties and set costs.
- Empower shoppers to put offers or request amounts, encouraging direct exchanges among ranchers and purchasers.

- Observing and Evaluation:

- Execute a checking framework to follow the gateway's exhibition, client commitment, exchange volumes, and criticism.
- Lead normal assessments to quantify the effect on ranchers' feedback costs, market access, and productivity.

- Consistent Improvement and Expansion:

- Assemble bits of knowledge from progressing use and criticism to make nonstop upgrades to the e-gateway, improving its usefulness and resolving any distinguished issues.
- Investigate potential open doors for scaling the stage, growing its range to additional districts and including a bigger organization of ranchers and buyers.

This system gives an organized way to deal with the turn of events, execution, and improvement of an e-gateway pointed toward tending to the difficulties looked by Indian ranchers in getting inputs and getting to fair market costs for their produce.

Objectives

The Objectives of Empowering Farmers through an E-Portal are:

- To Enhance Accessibility: Foster an e-Agribusiness gateway to work with consistent and helpful access for Indian ranchers to buy seeds and manures through approved channels, guaranteeing accessibility at ideal costs.

- To do Bid/Ask Mechanism: Execute a powerful offering and asking framework inside the entryway, empowering ranchers to draw in with shoppers straightforwardly, cultivating a straightforward commercial center for rural items.

- To Cost Efficiency: Smooth out the acquirement cycle for ranchers by utilizing innovation to lessen exchange costs related with purchasing inputs, adding to inflated cost-effectiveness in agrarian tasks.

- To Empower Rural Communities: Advance provincial improvement by making an easy to understand stage that engages ranchers to settle on informed choices, interface with a more extensive customer base, and add to the financial development of rustic regions.

System Design

The underlying transformative phase is some strategies and speculations intended to portray an instrument completely, a methodology, or a framework to make it genuinely feasible. This should be possible to make any ability or rule that is the objective. Four specialized advances make up the product configuration process after the examination and determination of the product necessities: planning, coding, carrying out, and testing the product. To construct furthermore, approve the program, a few systems are required. Choices that will at last influence how well the program is executed and how promptly it very well may be kept up with are made during these exercises. Long-haul framework trustworthiness and practicality will be altogether affected by these decisions. Just through the plan stage will needs from the client be precisely converted into a completed piece of programming.

Configuration is where virtuoso is supported and where the advancement cycle starts. A programming plan is a technique used to change necessities into a visual portrayal of programming. The term "program configuration" additionally applies to the programming plan. Programming advancement is

separated into two steps. The fundamental plan stage's primary objective is to change particulars into information.

System Specifications

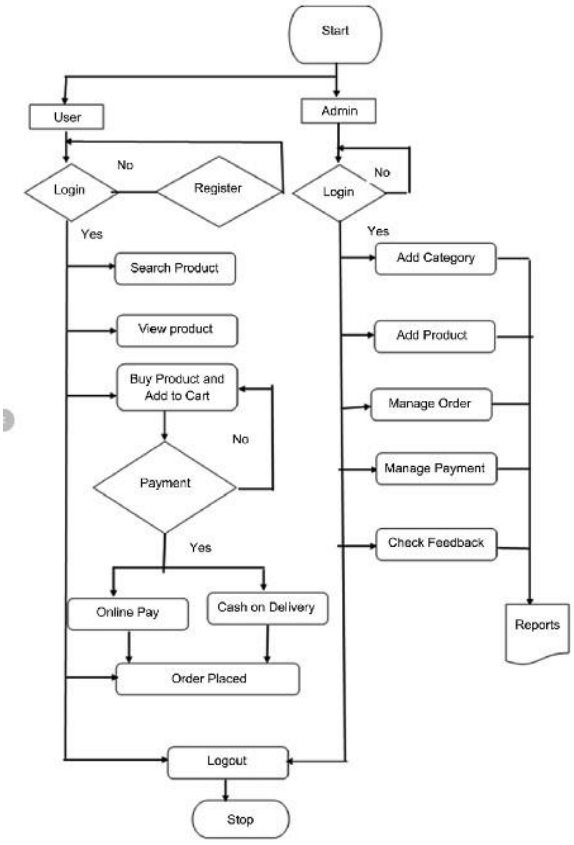
Software Requirements:

- Operating System: Microsoft Windows/Linux
- Browser: Google Chrome
- Client-Side Technologies: HTML, CSS, JavaScript, Bootstrap
- Server-Side Technologies: Node Js
- Database Server: MongoDB
- IDE: VS Code

Hardware Requirements:

- Processor: Intel i3 (or) Higher
- RAM: 64MB (or) Higher
- Hard disk: 80 GB (or) Higher
-

Implementation



Conclusion

The development and implementation of an e-portal tailored for Indian farmers hold tremendous promise in addressing critical challenges in agricultural input procurement and market access. The literature reviewed and the proposed methodology underscore the transformative potential of such a solution.

By facilitating direct access to quality seeds, fertilizers, and fair market prices for farm produce, this e-portal stands to revolutionized the agricultural landscape. It promises enhanced profitability for farmers through cost savings on inputs and equitable pricing for their produce. Furthermore, the platform can empower farmers, providing them with autonomy and control over their transactions while streamlining the agricultural supply chain.

The anticipated outcomes encompass increased transparency, reduced dependency on intermediaries, socio-economic upliftment in rural communities, and the accumulation of valuable data for informed decision-making. However, successful implementation requires meticulous planning, stakeholder collaboration, iterative improvements, and continuous monitoring.

This e-portal serves as a beacon of hope, not only in addressing the immediate challenges faced by Indian farmers but also in fostering a sustainable and equitable agricultural ecosystem. Its success hinges on the dedication of stakeholders, ongoing support, and the agility to adapt to evolving needs. Ultimately, the envisioned e-portal stands poised to transform Indian agriculture, offering a brighter, more prosperous future for farmers and consumers alike.

Future Scope

The overarching goal is to make farming a more profitable occupation by addressing critical issues in the agricultural supply chain. The project targets improved financial outcomes for farmers by ensuring fair pricing for inputs and outputs. Through the integration of a bidding system, the portal aims to provide farmers with a dynamic and competitive market for their produce, allowing them to maximize returns.

Ultimately, the target of this project is to create a digital ecosystem that empowers farmers, enhances their economic sustainability, and establishes a direct, mutually beneficial relationship between producers and consumers. By leveraging technology, the project aspires to revolutionize traditional farming practices, contributing to the overall well-being of the agricultural community in India. Moreover, the project aims to foster inclusivity by catering to a diverse range of farmers, irrespective of their scale of operations or geographical location. By providing a centralized platform for seed and fertilizer procurement, it intends to streamline the purchasing process, ensuring that farmers of all sizes have access to quality inputs at competitive prices.

The project's focus on consumer engagement through a bidding system not only empowers farmers but also encourages active participation from consumers. This bid/ask mechanism creates a fair marketplace where prices are determined collectively, benefiting both farmers and consumers alike. The transparency and efficiency introduced by the e-portal contribute to a more resilient and responsive agricultural ecosystem.

In essence, the target of the project is to bring about a positive paradigm shift in the agricultural landscape, reinforcing the notion that technology-driven solutions can play a pivotal role in enhancing the profitability and sustainability of farming for Indian farmers.

Outcomes

Certainly! The anticipated outcomes of implementing an e-portal for Indian farmers to procure agricultural inputs and sell their produce include:

1. Enhanced Access to Quality Inputs:
- Improved access to genuine seeds and fertilizers through authorized channels at competitive prices, reducing the prevalence of counterfeit products.
- Increased transparency in pricing and availability, enabling farmers to make informed decisions about input purchases.

2. Cost Savings and Increased Profitability:
- Reduction in input costs due to competitive pricing and direct procurement from suppliers, contributing to increased profit margins for farmers.
- Minimised financial burdens resulting from inflated prices or intermediaries' exploitation.

3. Direct Market Access and Fair Pricing:
- Elimination or reduction of intermediaries through direct transactions between farmers and consumers via the bidding/asking system on the e-portal.
- Fair pricing for farm produce, ensuring that farmers receive better returns for their efforts.

4. Empowerment of Farmers:
- Empowerment of farmers through the utilization of technology, enabling them to leverage the e-portal for efficient input procurement and marketing of their produce.
- Increased autonomy and control over their agricultural practices and business transactions.

5. Strengthened Agricultural Supply Chain:
- Streamlined supply chain processes leading to improved efficiency, reduced wastage, and better inventory management for both inputs and farm produce.
- Enhanced traceability and accountability in the agricultural value chain.

6. Increased Adoption and Expansion:
- Higher adoption rates of the e-portal among farmers and consumers, leading to its scalability and potential expansion to reach a wider network of agricultural stakeholders.
- Potential replication of the model in other regions or sectors to enhance agricultural practices and market access.

These outcomes collectively signify the transformational impact an e-portal can have on the agricultural landscape, addressing long-standing challenges and fostering a more sustainable, transparent, and profitable ecosystem for Indian farmers.

References

[1] Marcel Faf champions and Bart Minten "Effect of SMS-Put together Horticultural Data with respect to Indian Ranchers" in Oxford diaries VOL. 26, NO. 3, pp. 383-414, 2012

[2] Jaideep Vaidya and Chris Clifton "Privacy-Preserving Means Clustering Over Vertically Partitioned Data" Department of Computer Sciences CM 1581137370/ 03/0008,2003

[3] Jalaja, V., & Kala, P. (2015, August). Case Study of Tribal Farmers' Agricultural Information Needs and Accessibility in Atrapado Tribal Block, Palakkad. IOSR Journal of Humanities and Social Science (IOSR- JHSS)

[4] Patel, D. (2016, July). Digital India reaching small, marginal & women farmers. International Journal of Research Granth Aalayah: A Knowledge Repository, 4(7), 109-121. doi:10.5281/zenodo.58715

[5] Nidhi Dwivedi "Challenges faced by the Agriculture Sector in Developing Countries with special reference to India" in International Journal of Rural Studies vol. 18 no. 2,2011

[6] Manish Mahant, Abhishek Shukla, Sunil Dixit, Daleshwar Patel, (2012): The application of Information and Communication Technology (ICT) in agriculture is increasingly important.

[7] Darcy Miller, Jaki McCarthy, Audra Zakzaky" A Fresh Approach to Agricultural Statistics: Data Mining and Remote Sensing" in National Agricultural Statistics Service,2009

[8] Peter Nami Siko et al.,2013 "Solar PV Rural Electrification and Energy-Poverty: A Review and Conceptual Framework Concerning Ghana",2009

[9] Geetha Jagannathan, Manish Mahant, Abhishek Shukla, Sunil Dixit, Daleshwar Patel, (2012): The utilization of Data and Correspondence Innovation (ICT) in horticulture is progressively significant.