

Krishi Bharati An Interface for Indian Farmers

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Abstract: Application of IT is associated with markets in the developed countries where capital intensive method of agricultural production is followed. However, in a country like India where rural base is wide, its relevance cannot be overlooked. In addition to facilitating farmers in improving the efficiency and productivity of agriculture and allied activities, the potential of IT lies in bringing about an overall qualitative improvement in life by providing timely and quality information inputs for decision making; IT can also be effectively used to strengthen the supply chain for agro based companies for leading to better price realization by farmers. Rapid growth in the field of ICT helps in basic aspects of mankind like-agriculture, education, health care etc. However, the moderate technical growth of ICT applications is confined to the community of a limited number of people, who live in digital pockets.

Keywords: Information and communication technology, human computer interaction, Internet, information retrieval, farming, Agriculture information system, iconic interface. Information and communication technology, human computer interaction, Internet, information retrieval, farming, Agriculture information system, iconic interface

I. INTRODUCTION

The availability and accessibility of information are crucial factors in making optimal decisions at the right time. Nowadays, advancements in information and communication technology (ICT) have made it possible to retrieve almost any information from the global repository. However, farmers often face challenges in accessing required information related to various aspects of farming such as the farming life cycle, seed selection, pesticides, market prices, etc., from the internet. This lack of access hampers their ability to make optimal decisions at different stages of the farming life cycle, which significantly impacts their revenue.

To address this issue, we have developed an interface tailored for the Indian farming community to access agricultural information from the global internet repository and store it locally. Each module of our developed IT solution for agriculture is described in detail. The identified challenges and observations have motivated us to conduct in-depth research aimed at improving the proficiency of Indian farmers. As part of our proposal, we introduce an intuitive interface integrated with text-to-speech functionality.

II. PURPOSE

There are no such system which could inform farmers about the weather prediction. In this system there is additional feature of weather forecasting which will help all the farmers to work according to weather prediction and get fruitful results. With respect to this farmer got an amazing option of predicting the future lines of production based on previous data and history populated in the system. So system will gain knowledge about the process and in outs, once farmer feeds in their previous experience. In previous systems the farmer does not get information related to market rate, weather and government schema. Therefore in this system all this features are added.

III. OBJECTIVE OF SYSTEM

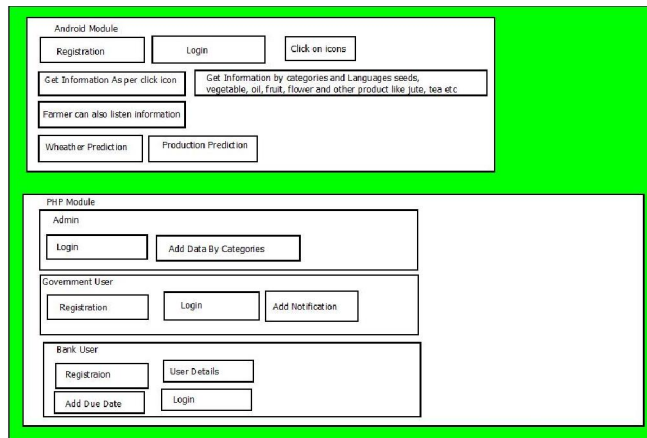
- **Enhanced Access:** Provide Indian farmers with easy access to comprehensive agricultural information and resources.

- **Decision Support:** Assist farmers in making informed decisions related to crop management, weather conditions, market trends, and agricultural practices.
- **Technology Integration:** Integrate technological solutions such as data analytics, machine learning, and mobile applications to optimize farming processes.
- **Knowledge Empowerment:** Empower farmers with up-to-date knowledge and expertise in various aspects of agriculture, including crop selection, pest management, and soil health.
- **Resource Efficiency:** Promote the efficient use of resources such as water, fertilizers, and pesticides through tailored recommendations and best practices.

IV. PROPOSED SYSTEM

There are no such system which could inform farmers about the weather prediction. In this system there is additional feature of weather forecasting which will help all the farmers to work according to weather prediction and get fruitful results. With respect to this farmer got an amazing option of predicting the future lines of production based on previous data and history populated in the system. So system will gain knowledge about the process and in outs, once farmer feeds in their previous experience. In previous systems the farmer does not get information related to market rate, weather and government schema. Therefore in this system all these features are added.

SYSTEM ARCHITECTURE



- **Login:** Bank User can login by user name and password.
- **Open Account:** Bank User can Open Account of farmer.
- **View Account:** Bank User can check Farmer bank account details.

Farmer Module:

- **Register:** Farmer has to register first in App.
- **Login:** Farmer has to Login by User name and password.
- **View Icon:** After login successfully farmer has get dashboard on Dashboard user get different type of icon of Agriculture categories.
- **Click on Icon:** Farmer can click on icon for getting information related categories.
- **Weather Module:** Farmer can Weather information on our mobile app.
- **Production Prediction:** Farmer can get information regarding Production

V. CONCLUSION

An interface (IT Role in Agriculture) to accessing the agricultural information from the global repository of internet and the local repository has been proposed in this paper. The proposed interface is able to overcome the digital and

language confinement of the Indian farmers by employing the multiple modes of interaction techniques. The empirical evaluation through large diversified users reveals that the IT role in agriculture interface adequately caters the need of the user. The proposed interface is able to overcome the digital and language confinement of the Indian farmers by employing the multiple modes of interaction techniques. The empirical evaluation through large diversified users reveals that the Krishi-Bharati interface adequately caters the need of the user.

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REFERENCES

- [1] L. N. De Silva, J. S. Goonetillake, G. N. Wikramanayake, and A. Ginige, "Towards using ICT to enhance flow of information to aid farmer sustainability in Sri Lanka," in ACIS 2012: Location, location, location: Proceedings of the 23rd Australasian Conference on Information Systems, pp. 1-10. ACIS, 2012.
- [2] D. Samanta, S. Ghosh, S. Dey, S. Sarcar, M. K. Sharma, P. K. Saha, and S. Maiti, (2012, December). "Development of multimodal user interfaces to Internet for common people," in Intelligent Human Computer Interaction (IHCI), 2012 4th International Conference, pp. 1-8. IEEE, 2012.
- [3] P. Madelaine, and M. Prabaker, "Tamil market: a spoken dialog system for rural india," In CHI'06 extended abstracts on Human factors in computing systems, pp. 1619-1624. ACM, 2006.
- [4] Lobo, S., Doke, P., & Kimbahun, S. (2010, October). GappaGoshti a social networking platform for information dissemination in the rural world. In *Proceedings of the 6th Nordic Conference on Human-Computer Interaction: Extending Boundaries* (pp. 727-730). ACM.
- [5] Ramamritham, Krithi, Anil Bahuman, Ruchi Kumar, Aditya Chand, Subhasri Duttagupta, GV Raja Kumar, and Chaitra Rao. "aAQUA-A Multilingual, Multimedia Forum for the community." In *IEEE International Conference on Multimedia and Expo*, vol. 3. 2004.