J. Adv. Res. in Computer Graphics and Multimedia Technology
Volume 2, Issue 2- 2020, Pg. No. 4-6
Peer Reviewed Journal

Article

A Study of the use of ICT in Agriculture

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How to cite this article:
Phondekar V. A Study of the use of ICT in Agriculture. *J Adv Res Comp Graph Multim Tech* 2020; 2(2): 4-6.

Date of Submission: 2020-09-30
Date of Acceptance: 2020-10-14

A B S T R A C T

Agribusiness is the main area in India. The conventional ways to deal with farming have different difficulties as far as creation, arranging, upkeep, and so on These conventional difficulties are tended to altogether by utilizing Information and Communication Technologies (ICT) that assume a significant part in boosting the jobs of little landholder ranchers. ICT is an extensional term for Information Technology (IT) and that can reform the Indian cultivating area and can profit all ranchers including little landholders. ICT encourages ranchers to arrive at improved agrarian advancements, creation techniques, banking administrations, and so on This paper portrays the utilization of ICT in the horticulture area and different uses of ICT that are utilized by ranchers.

Keywords: Agribusiness, Information Technology, Horticulture

Introduction

Data and Communication Technologies (ICTs) are generally advancements utilized for the inescapable exchange and sharing of data. Data and Communication Technology in horticulture, otherwise called e-farming, centers around the improvement of rural and rustic advancement through intensified data and correspondence measure. All the more explicitly, e-horticulture includes the conceptualization, plan, advancement, assessment and utilization of inventive approaches to utilize data and correspondence advances (ICTs) inside the rustic area, with an essential specialization in farming. ICT incorporates gadgets, organizations, mobiles, administrations and applications; these reach from imaginative Internet-period advancements and sensors to other previous guides like fixed phones, TVs, radios and satellites. Arrangements of guidelines, standards, strategies and instruments as the improvement of individual and institutional limits and strategy uphold are generally key segments of e-farming.[1]

Numerous ICT in farming or e-agribusiness intercessions are created and tried around the globe to help agriculturists to improve their occupations through expanded horticultural efficiency and pay, or by streamlining chances. Some valuable assets for finding out about e-agriculture in rehearsal are the planet Bank's e-sourcebook ICT in horticulture – interfacing smallholder ranchers to information, organizations and establishments (2011), ICT utilizes for comprehensive worth chains (2013), ICT utilizes for comprehensive worth chains (2013) and Success stories on data and correspondence advances for agribusiness and country improvement have reported numerous instances of utilization of ICT in farming.

Data and correspondence are consistently essential for agribusiness. Since individuals have begun developing harvests, raising domesticated animals and getting the fish, they need chased data from one another. ICTs are frequently understood extensively as "utilizing electronic methods for handling and scattering data and subsequently encouraging correspondence rapidly and without any problem".

ICT causes ranchers to prevail in improved rural innovations, creation procedures, banking administrations and so on This paper depicts the use of ICT inside the agribusiness area and different utilizations of ICT that are utilized by ranchers.

The Need for ICT in Agriculture

Ranchers need refreshed data to enable themselves in taking examination to land, access showcase and arrange costs. This basic data may expand rancher's efficiency,

pay just as ensure their food security and vocations. Utilizing Information and Communication Technology (ICT) through ICT-empowered administrations helps in circulating convenient data on horticultural warnings, monetary administrations and, rural promoting and danger move to the rancher to improve their ability and moderate dangers. A rancher needs numerous kinds of data to take further choices with respect to edit and different components. This data incorporates climate gauge, nature of seeds, soil and a few pieces of exhortation with respect to edit cycle. ICT helps in catching ongoing climate data and furthermore expectations of climate following 2-3 months. Also, ICT helps in discovering the quality of soil through the use of sensors and can deliver audio/ videos of agro-specialists about enhancing the quality of soil and several other topics.

Smartphone Mobile Apps in Agriculture

The utilization of portable advances in farming is getting progressively mainstream. Cell phone entrance improves the multi-dimensional positive effect on supportable neediness decrease and distinguishes availability as the principle challenge in bridling the maximum capacity in farming space. The scope of the cell phone in country regions expanded the ICT administrations past straightforward voice or instant messages. A few cell phone applications are accessible for agribusiness, agriculture, animal cultivation and ranch machinery.[2]

Cell phones have climate anticipating highlights so that as indicated by climate conjecture ranchers can design their corp manor and further arranging. There are numerous versatile applications present on the lookout. A portion of these applications are grown particularly for horticulture and gather information about the homestead, crop and, different variables through satellite and robots.

Use of Sensors in Agriculture

These days, the utilization of sensors in horticulture is developing quick and cultivating is presently known as keen cultivating and these sensors are called agrarian sensors. These sensors give information that help ranchers to screen and upgrade crops by adjusting to changes in the ecological conditions. These sensors are introduced on climate stations, robots and, robots utilized in the agribusiness business. They can be controlled utilizing versatile applications uniquely created for the reason. In light of remote availability it is possible that they can be controlled straightforwardly utilizing wifi or through cell towers with cell frequencies with the assistance of a cell phone application. Some sensors are equipped in devices and controlled by mobile apps. These apps can work offline also i.e. without the internet.

There are various types of agricultural sensors. Here are several kinds:

Location Sensors

These sensors used to ascertain latitude, longitude and, an altitude of any situation inside a particular area.

Optical Sensors

These sensors utilize light to quantify the properties of light. These sensors used to decide the natural matter, dampness substance of the dirt.

Airflow Sensors

These sensors used to quantify air porousness.

pH meter sensor

These sensors used to decide the pH estimation of soil.

E-Commerce in Agriculture

Web based business (electronic trade) is the movement of electronically purchasing or selling items on online administrations or over the Internet.[3] Agri internet business permits to sell and purchase natural items straightforwardly to/ from clients/ providers. Some online business sites and applications are extraordinarily for ranchers so they can sell their items straightforwardly to clients. Agri web based business sites and applications are presently moving and ranchers are additionally making a stride towards these applications to sell their items since they can sell their items at the correct expense without the impedance of retail merchants. Presently web association is accessible in practically all provincial towns so rustic rancher is likewise ready to utilize this chance.There are now many apps that are developing and becoming popular. Some of the popular names are the “Zee Marathi Kisan Abhiman” app and website, “Kisan Suvidha” app. Other apps are also becoming popular.

Applications of ICT in Agriculture

- E-Sagu: Developed by IIT Hyderabad
- Kisan Sanchar Nigam Limited : Developed by IIFCO

Focal Points of ICT in Farming

- Increasing proficiency, profitability and, the manageability of limited scope ranches.
- The continuous market data on costs for sources of info and purchaser patterns.
- 24 hours Kisan Call focus, ranchers can call any an ideal opportunity for their questions.
- Enhanced efficiency.

Conclusion

Horticulture is a urgent area in India. The apparatus of ICT in agribusiness is turning into a pivotal mainstay of horticulture expansion that has practical experience in the upgrade of agrarian and country advancement through improved data and correspondence measures. ICT causes

ranchers to attempt to cultivate adroitly. ICT is the need of creating India.

References

1. Saidu A, Clarkson AM. Application of ict in agriculture: opportunities and challenges in developing countries.
2. Lokeswari K. A study of the use of ict among rural farmers.
3. Meera SN, Jhamtani A, Rao DUM. Information and communication technology in agricultural development: a comparative analysis of three projects from india.
4. Adhiguru P, Devi SV. ICT in indian agriculture: learnings and way ahead. *Int J of ext Edu* 2012; 8: 1-4.
5. Ansari MA, Pandey N. Assessing the potential and use of mobile phones by the farmers in uttarakhand (india): a special project report. G.B. Pant university of agriculture and technology, pantnagar, india. 2011.
6. Ansari A, Pandey N. Assessing the potential and use of mobile phones in agriculture. *Karnataka journal of agricultural sciences* 2013; 26(3): 388-392.
7. Bahl S. For rural india and inclusive growth: ICT in agricultural marketing. 2008 (http://www.Nistads.Res.In).
8. Chandrashekara P. Private extension: indian way, private extension: indian experience. National institute of agriculture extension management, hyderabad. 2001; 25.
9. Chhachhar AR, Querestic B, Khushk GM et al. Impact of icts in agriculture development. *J of bas App Sci Res* 2014; 4(1): 281-288.
10. Jabir A. Use of quality information for decision -making among livestock farmers: role of ICT. *Liv Res For r Dev* 2011; 23(3).
11. Manzar O. Adversity to success the world's best e-content and creativity experience. The country paper india, global ict summit. 2004; Digital empowerment foundation, hong kong.
12. Meera, Shaik N, Jhamtani A, Rao DUM. Information and communication technology in agricultural development: a comparative analysis of three projects from india, agricultural research and extension network. Network paper. 2004; 135.
13. National policy for farmers. Department of agriculture and cooperation, ministry of agriculture, government of india. 2007; 15.
14. Jamaluddin N. Adoption of e-commerce practices among the indian farmers. A survey of trichy district in the state of tamilnadu, india, procedia economics and finance. 2013; 7: 140-149.