



A ROLE OF INFORMATION TECHNOLOGY IN AGRICULTURE SECTORS

Dr. Vishwas R. Kadam

Associate Professor & Head, Department of Economics,
Arts, Science & Commerce College, Ambad, Dist. Jalna (MS)



ABSTRACT:

Today's world is an information technology based and use of it in each and every sector is emerged day by day. It is widely used in various sectors such as, education, health, industry, agriculture etc. Information technology has a major role to play in all facets of India agriculture. In addition to facilitate and improving the efficiency of farmers productivity in agriculture and allied activities bringing the potential of it about qualitative improvement in the overall quality of life by providing timely and data inputs for decision making.

KEYWORDS : Information Technology , Agriculture Sectors , modern techniques.

INTRODUCTION:

Today's generation are information and technology generation, Each and every sectors use the modern and improved information in that particular field each sectors wants globally advanced and wants participation in global market that why to use of modern techniques through information technology are increased in present generation.

The term information technology may be defined as the diverse set of technological tools and resources used to communicate, disseminate, store, and manage information. These technology included computers, internet and network , hardware and software, satellite system, broadcasting technologies(radia&television,telephony land line and cellular).As well as the various services and application associated with them such as web portals, email , Sms,video-conferencing etc.In shortly we can say that information technology is helpful to communicate the knowledge.

IMPORTANCE OF INFORMATION TECHNOLOGY:

The IT Sector is emerging sector and use of this sector is immensely very helpful .The IT Sector contributes major role in the following sectors: (1) Science, (2) Healthcare, (3) Education, (4) Government, (5) Banking and (6) Business.

INFORMATION TECHNOLOGY AND AGRICULTURE SECTOR

Agriculture is a vast sector of the Indian economy as its share to gross domestic product (GDP) is almost 17 percent .Over 60 percent of the population adopts agriculture as main occupation.Agriculture sector and information technology are different sectors they seems to be the most distantly placed knowledge sets in the world. Agriculture being the most primitive and most basic jobs and in IT Sector being the advanced and modern jobs.

The generation and application of agricultural knowledge is increasingly important, especially for small and marginal farmers who need relevant information in order to improve sustain and diversity their farm enterprises. Agriculture requires substantial knowledge transfer to farmer and among farmers

including information about successful farming practices, new technology or control of pests and diseases outbreaks and new market. Agriculture practices and advancements differs globally. Since plants have their own differences and the location plays a role on their development as well. But through the exchange of knowledge from different agriculturally involved individuals from all over the world, improvement of techniques can be experienced as well. IT sector become a bridge for people from all over the world.

The effects of IT on Agriculture:

The IT sectors plays a major role in agriculture sector and gives the positive result:

1. Improved decision making
2. Better planning
3. Community involvement
4. Agricultural Breakthroughs
5. Agriculture for every one

Present generation are benefit from agricultural advancement and live sustainable lives by improving the production, harvest method and distribution of agricultural goods. All these effects and more are possible through the successful merge of IT and agriculture.

USE OF TRADITIONAL IT'S IN AGRICULTURE

1. Radio
2. Television
3. Print Media

USE OF MODERN IT'S IN AGRICULTURE

1. Internet
2. Portal
3. Call center
4. Mobile
5. Community Radio
6. Video
7. Digital Photography

ADVANTAGES OF IT IN AGRICULTURE:

E-Agriculture-it plays major role in the increased food production and productivity in India. Weather forecasting-weather forecasting find out the actual weather, climate and water stress in the universe.

- **Digital Mandi:**

A mobile application developed by IT Kanpur and BSNL it aim to provide current rates of crops to farmers so they can choose suitable time and market to sell their crops for maximum profit. M Kristi-TCS mobile agro-industry system-uses mobile phones and sensor technology to let farmers send queries receive information to microclimate, local mandi prices, seek expert's advice and other information relevant to them in their local language supports text, voice, pictures.

- **Kisan call centers:**

Though kisan call centers connectivity of computer terminal are connected all over and it interactive with each other to communicate by video conferencing and voice call to solve the farmer's problems.

- **E-choupal:**

ITC limited has provided computers and internet access in rural areas several agricultural regions of the country, where the farmers can directly negotiate the sale of their produce with ITC limited .Online access enables farmers to obtain information on mandi prices, and good farming practices, and to place orders for agricultural inputs like seeds and fertilizers. This helps farmers to improve the quality of their products, and helps in obtaining a better price.

- **Use of GIS in agriculture:**

Geographical information system or GIS are extensively used in agriculture, especially in precision farming.GIS is used in decision making such as what to plant and where to plant using historical data and sampling.

USE OF GPS IN AGRICULTURE:

In agriculture the use of the global positioning system provides benefits in geo-fencing, map-making, surveying etc.

- **Remote Sensing in Agriculture:**

Remote sensing is directly connected with satellite by the help of this technique find out the monsoon, ozone layer depletion, Smog etc.

- **Use of Drone in Agriculture:**

By the help of drone technology we can mass the data collection, land survey, seed planting, using fertilizers, using pesticides, water irrigation.

CONCLUSION:

ICT based agriculture extension brings incredible opportunities and has the potential of enabling the empowerment of farming communities.ICT based initiative can be taken for propagation of information, transfer of technology, procurement of inputs and selling of outputs in a way so that farmers can be benefited.

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