



## **Information Technology Penetration in Agriculture in Agra (Uttar Pradesh)**

**Deepika Tiwari<sup>1</sup> Jagadish Aditya Dinakar<sup>2</sup>**  
Institute of Agribusiness Management, Bikaner

### **Abstract**

*Information and agriculture were considered to be different with each other in previous years but now the scenario has changed. Today information is required in every area of agriculture. In the area of agriculture, the potential of information technology (IT) can be identified broadly under two heads: (a) it contributes directly to agricultural productivity and (b) and indirectly to empower farmers so that they can take information and make decisions based on the information. This will help farmers to face market situations; It acts like decision support system for farmers. In developed countries, the agricultural productivity is very high because of uses of IT information in precision farming. Agriculture output is increasing in developed countries with the use of remote sensing, various kinds of satellite technologies, agronomic practices etc. The farmers having large area of land are using this kind of approach. Farmers are also take up this kind of activity as an corporate approach. Today, in India the benefits of IT in agriculture are exploited and farmers are not using because of awareness. Farmers are still using traditional practices, that is why their production is very less. The Indian farmer urgently requires timely and reliable sources of information inputs for taking decisions. To remain successful in market, farmers should incorporate these IT related practices in agriculture. This paper examines the extent of usage of smart phone by farming community, their socio-economic group and also examines what kind of information are disseminated by companies to farmers.*

**Keywords:** IT Penetration, Smart Phones

Received 23.12.2018

Revised 01.01.2019

Accepted 09.01.2019

### **INTRODUCTION**

In India, The Information Technology industry is the hub of technology centres. The Indian technological industry accounts for approximately 67% of the US\$124– 130 billion markets in the world level. (ICT) framework has been evolved in India, and it penetrates the farmers sector and opens the scope for technology incorporation. It increases the farmer's income and strengthens the farmer's agricultural growth. The awareness level of people has been increased and in other sectors also, like healthcare, the technology is extensively used [1-5]. If we talk about the pre- dependence era, the India was facing the problem of food, but now the scenario has changed, there is a new challenge. The challenge is sustainable agriculture. Today, the land holdings are less due to construction of buildings and factories, the population is growing day by day, the demand of food is increasing, the degradation of natural resources, etc. People want quality food rather than cheap food. It has been noted that if farmers adopt the modern practices, it lead the increased productivity, yield, income and production.

### **Need of the Study**

- **Decision Making For Farmers**

This will act as decision support system for farmers. Farmers can take information related to agriculture and make decisions based on the information. This can boost their income and productivity.

- **Market Information**

To be competitive in market, farmers have to take information of market fluctuations. Any change in the market can affect the prices of products. So farmers can take needful market information time to time and make the strategies based on this information.

- **Not Technology Savvy**

Indian farmers are not technologically handy. They still use the conventional practices. This ends up their work delay and also their income is decreasing.

**Objectives of the Study:**

- Extent of Penetration and usage of smart phones by farmers
- Farmers habits, exposure and influence of smart phones(usage of apps, browsers etc.)
- Age group, Education level and Land Holding size of smart phone users(Farmers)
- Type of information disseminated through phones by companies

**MATERIAL AND METHODS**

**Area of Study- Agra, Uttar Pradesh**

**Research design - Descriptive Research**

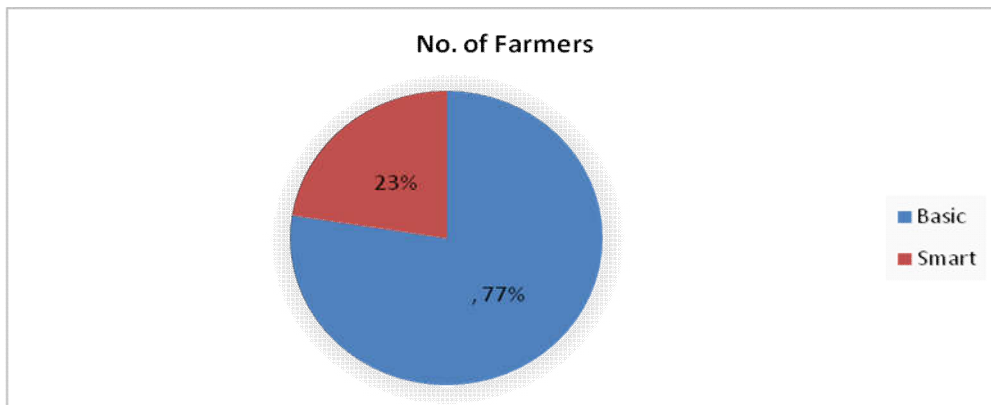
**DATA SOURCE**

- **Primary Data**
  - ✓ Farmers
- **Secondary Data**
  - ✓ Internet
- **Research Instruments**
  - ✓ **Questionnaire** - Close ended
  - ✓ **Discussion** - Farmers
- **SAMPLING TECHNIQUE**
  - ✓ Judgemental (For Potential Villages )
  - ✓ Snowball (For Farmers )
- **SAMPLE SIZE**
  - ✓ Farmer - 80

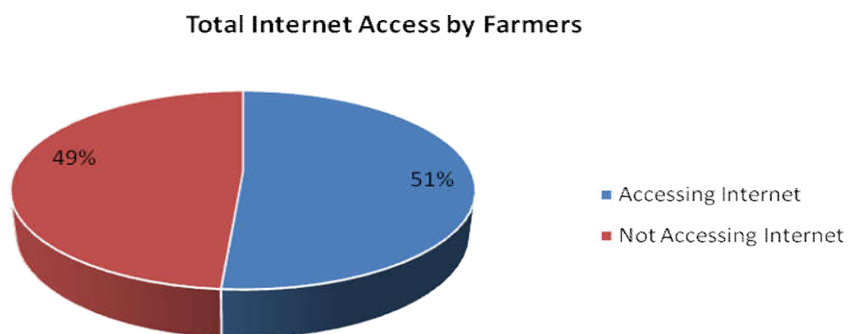
**RESULT AND DISCUSSION**

**Objective 1:** Extent of Penetration and usage of smart phones by farmers

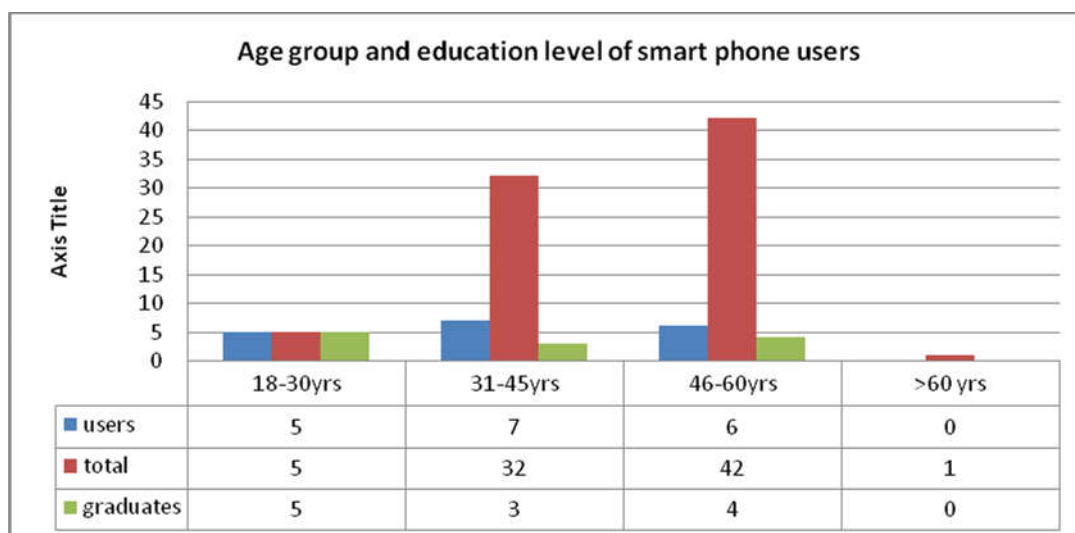
Type of Phone Used by Farmer



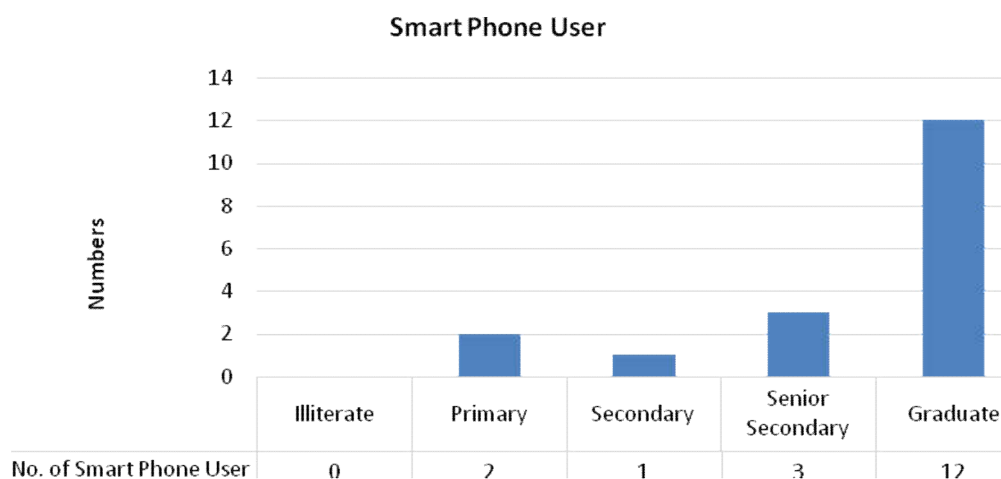
**Objective 2:** Farmers habits, exposure and influence of smart phones(usage of apps, browsers etc.)



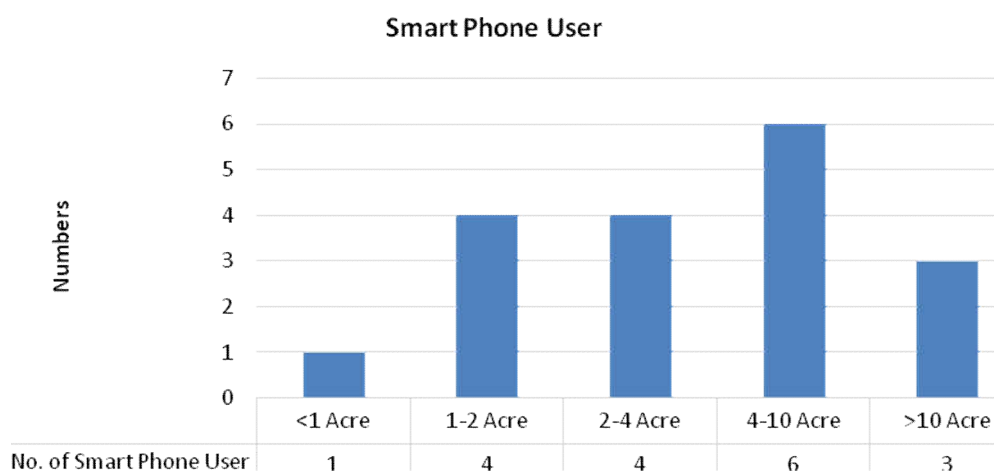
**Objective 3:**Age group, Education level and Land Holding size of smart phone users(Farmers)



**Education Level of Smart Phone Users**



**Land Holding of Smartphone Users**

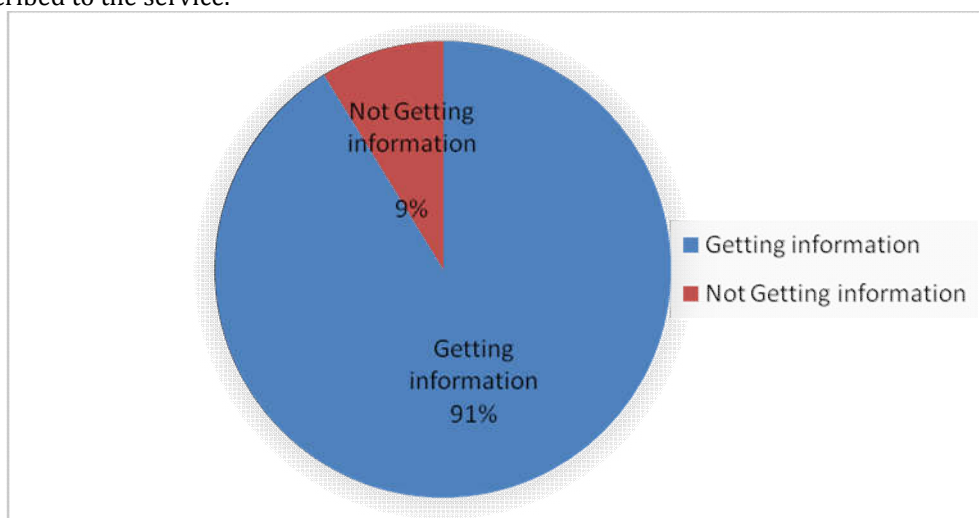


**Objective 4: Type of information disseminated through phones by companies**

Types of Information

- Weather
- Mandi Prices
- Promotional
- Plant Protection

Only TKS is giving the service of providing timely agricultural information to 73 farmers out of 80, who are subscribed to the service.



### CONCLUSION

- 23% of farmers in the region is using Smartphones
- Farmers who are Graduate, having Land holding of 4-10 acre and Age group of 31-45 years are the major smartphones holder
- TKS subscription is the major source of getting agricultural information
- 51% of farmers are using internet, 41% among them are smartphone users

### REFERENCES

1. Role of Information technology in Agriculture accessed from : <https://orisys.in/role-of-information-technology-in-agriculture/>
2. Ankur Seth, "Digital Technologies Transforming Indian Agriculture", Digital Technologies Transforming Indian Agriculture, Ch- 5
3. [http://www.satnetasia.org/public/Mobilenextension for empowering smallholder farmers India ICAR,India.pdf](http://www.satnetasia.org/public/Mobilenextension%20for%20empowering%20smallholder%20farmers%20India%20ICAR,India.pdf)
4. <https://genesis.iitm.ac.in/downloads/resources/startup/tracking%20the%20growth%20of%20indian%20middle%20class.pdf>
5. [http://censusindia.gov.in/2011-prov-results/paper2/data\\_files/india/Rural\\_Urban\\_2011.pdf](http://censusindia.gov.in/2011-prov-results/paper2/data_files/india/Rural_Urban_2011.pdf)
6. [http://www.agrievolution.com/Summits/2013/Presentations/Files/MechanizationTrends in India-S.Goyle, Mahindra.pdf](http://www.agrievolution.com/Summits/2013/Presentations/Files/MechanizationTrends%20in%20India-S.Goyle,%20Mahindra.pdf)

### CITATION OF THIS ARTICLE

Deepika Tiwari, Jagdish Aditya Dinakar- Information Technology Penetration in Agriculture in Agra (Uttar Pradesh). Bull. Env. Pharmacol. Life Sci., Vol 8 [3] February 2019: 59-62