

Use of information technology among farmers

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ABSTRACT

India is a land of villages, where 68% of population lives in rural areas. Agriculture is the mainstay of the Indian economy because of its contribution to the overall economy growth through supply of food, raw materials and exports. It is a source of livelihood for 61% of the population. The role of information technology to develop agriculture and quality of life in rural area is well established. IT can help an average Indian farmer to get relevant information regarding agro-inputs, crop production technologies, agro processing, market support, agro-finance and management of farm agri-business. In fact *Prosperity of agriculture is prosperity of India*. The focus of this study was on the level of knowledge/awareness of farmers towards information technology as a source of information use in extension service delivery in selected place of Uttar Pradesh. The study was conducted from November 2015 to April 2016 over a short period of 6 month. Validated questionnaire was used for data collection and appropriate statistical tools were used to analyze the collected data. Simple random sampling technique was used in the selection of 100 farmers as the sample of study. The result showed that majority of the farmers were not aware about Information Technology and their main source of information was their relatives and gram-pradhan.

Key Words : Information technology, Farmers, Awareness, Knowledge, Agri-business

INTRODUCTION

IT (information technology - or technologies) is an umbrella term that includes any communication device or application, encompassing radio, television, cellular phones, computer and network hardware and software, satellite systems and so on, as well as the various services and applications associated with them, such as video conferencing and distance learning (Banergee, 2011). The role of Information technology in the agricultural sector is becoming more and more visible. We use IT to convey and spread information to people on matters relevant to crop production and crop protection. People must have a computer or a computing device like a smart phone to avail use of information technology. The use of information technology is an important pillar of Agricultural extension and in the current scenario of a rapidly changing world, has been recognized as an essential mechanism for Delivering knowledge (information) and advice as an input for modern farming (Jones, 1997). Agricultural extension services provide critical access to the knowledge, information and technology that farmers require to improve the productivity and thus improve the quality of their lives and livelihoods. It is hence crucial to provide farmers with the knowledge and information in a quality and timely way. Although some ground breaking tools like

the telecenters can serve as major catalysts for information, knowledge and development opportunities, the access for farmers in remote villages is restricted due to the lack of infrastructure (UN, 2005). The adoption of new technology and modern input such as smart phone, GPRS system, AGRIMATE (automated crop weather calendar software) in farm operation have increased the demand for agriculture credit. Information Technology include online service for information, advising and educating farmers in their decision making, Enabling farmers to clarify their own goals and possibilities. It also providestele-education to the farmers.

IT in Agriculture:

The generation and application of agricultural knowledge is increasingly important, especially for small and marginal framers, who need relevant information in order to improve, sustain, and diversify their enterprises. Agriculture can require substantial knowledge transfer to farmer and among farmers, including information about successful farming practices, new technologies or controls of pest and disease outbreaks, and new markets. ICTs have high potential value across both public and private enterprises; and at multiple levels, for example from software business in urban areas to health delivery in rural village (Avgerou and Walsham, 2000). In India, information technology (IT) projects that support such information flows are rapidly growing, with many initiatives in operation today. IT scan directly support farmer’s access to timely and relevant information, as well as empower the sharing of knowledge of the farming community itself. ITs in agriculture have the potential to facilitate greater access to information that drive or support knowledge sharing. In the past, television and radio were the main electronic broadcast technologies used to reach rural communities; however, in the past two decades, internet- and mobile-based channels have emerged. According to Janet (2009) Investing in information technology can facilitate effective flow of information technology (IT) can broadly be defined as the science or practice of information in all sectors of the science or practice of collecting, storing, using and sending out information by means of computer systems and telecommunications. Moreover, the combination of old and new information and communication technologies of broadcasting, telecommunications, the Internet, CD-ROM, satellite and cable have created abundant applications of IT to facilitate access to information. To sum up, the need for information on agriculture is derived from the following crucial factors:

- The critical role of agriculture in economic and social development in most developing countries.
- Associated issues of food security and welfare
- The need to increase yields
- The need to improve quality
- The need to avoid costly mistake

Applications of IT in support of agricultural and rural development fall into five main areas, as outlined by Don Richardson (FAO, 1996). These are:

- Economic development of agricultural producers;
- Community development;
- Research and education;
- Small and medium enterprises development; and
- Media networks.

Who needs information on agriculture? :

Various categories of users or client require information so as to carry out their activities

effectively. These clients range from senior government officials to the small holder farmers or from the chief executive of a cooperative society to a group of NGOs. These may need different information in different forms or media. The role of information professionals in this case is to match clients' needs with the right information. In the right form, and at the right time. The main users of agricultural information include the following: researchers and research managers, extension workers (technology transfer agents including NGOs), farmers, policy makers, trainers, consultants, bankers and the business community as a whole. However, information is of vital importance to the other users mentioned above; for instance;

- Extensionists need information to keep abreast of new agricultural technological developments and to produce extension materials for the end users.
- Research managers need management information to monitor and evaluate research activities and make sound decisions on research programs.
- Policy makers need information to assist government in making sound judgment and correct decisions.
- Trainers need information to update their subject knowledge.
- Agricultural consultants need information so as to give sound advice to their client.
- Farmers: Farmers need information on generated technologies from the research system to apply for agricultural production. Informational needs of farmers;

Presowing:

Agricultural inputs like seeds, fertilizers etc. credit, weather soil testing etc.

Pre-harvest:

Good Agricultural practices, pest management techniques of harvesting, packaging.

Post-Harvest:

Post harvest management, storing, grading and standardization

Market information:

Alternative market channels, commodity prices, mandi information, consumer behavior

METHODOLOGY

Area and sampling:

Audaha village of Kurwar block of Sultanpur district was selected purposively for study location and through simple random sampling technique 100 farmers were selected for the study.

Research tools:

Validated questionnaire was used for data collection; an effort was made to include all the questions relevant to the study and also to make it comprehensive and easy to fill up the questionnaire in minimum time. The study was based on both primary and secondary data. The primary data were collected from the selected 100 farmers on the basis of questionnaire by interview method and the secondary data were collected from various publication, journals, books, report etc.

Statistical analysis:

The researcher arranged all the data in simple tabular form. After tabulation collected data

was analyzed by percentage distribution.

RESULTS AND DISCUSSION

Socio-economic profile of the Respondents:

Socio-economic characteristics of farmers were analyzed and presented in Table 1.

Table 1 : Distribution of the respondent according to their socio-economic profile (n=100)		
Particulars	Frequency	Percentage
Age (years)		
25-35	10	10
35-45	20	20
45-55	50	50
55 above	20	20
Socio-economic status		
HIG	30	30
MIG	40	40
LIG	30	30
Educational status		
Educate	75	75
Illiterate	25	25
Awareness on various IT tool		
Mobile	50	50
Computer	5	5
Internet	5	5
Radio/television	40	40

Result in Table 1 shows that majority (50.0%) of the respondent's belonged to 45-55 years age group. Also we can see that most of them were from middle income group families and maximum number of respondent were educated. While looking at the awareness status of respondent result revealed that majority (50.0%) of respondents had mobile phone, (40.0%) of the respondents had awareness about Radio/Television, only (5.0%) of the respondent were use Internet and also (5.0%) of the respondent had awareness about Computer.

Table 2 indicated that (55.0%) of the farmers get information from their friends/neighbor/gram pradhan and relatives; on the other hand (40.0%) of them were get information from newspaper, radio and T.V. (3.0%) of the farmers were user of internet and few of them (2.0%) were aware about different type of IT technique.

Table 2 : Distribution of the respondents according to source of information		
Source	Frequency	Percentage
Friends/neighbor/gram-pradhan, Relatives	55	55
News-papers, radio, T.V.	40	40
Internet service	3	3
All of the above	2	2
None of the above	-	-

It can be observed from Table 3 that most of the farmers (60.0%) were aware about community radio station and video talk, (30.0%) of them were aware to mkisan portal, (8.0%) farmers were aware to kisangyanrath and very few (2.0%) of the farmers were aware about vkvk. Jones 2004 reported that rural telephone and community radio services initiated in India and Sri Lanka had received a positive response from farmer community.

List of technique	Frequency	Percentage
Mkisan Portal	30	30
Kisangyanrath	8	8
Vkvk (voice Krishi Vigyan Kendra)	2	2
Community radio station and video talk	60	60

Table 4 depicts that because of lack of interest and knowledge on IT (35.0%) of the farmers were deprived, (20.0%) of them were deprived because of lack of time and also (20.0%) of them faced all type of problems. (15.0%) of the farmers were deprived because insufficient availability of IT services to rural areas.

Reasons	Frequency	Percentage
Lack of time	20	20
Lack of interest and knowledge on IT	35	35
Insufficient availability of IT service to rural area	15	15
Social barrier	10	10
All of the above	20	20

Conclusion:

There were so many difficulties in path of revolution and ITs are only solution for this. Finding shown that lack of the knowledge of Information Technology can be unbeneficial for them. There were need of more improvement and awareness among farmers. Finding indicates that Gram Pradhan, neighbors, relatives and friends as the preferred source of their information in addition mobile phones, and T.V./radio are secondary preferred sources. Source like fax, E-mail, mkisan portal, vkvk, are their least preferred tools/technologies of information as farmers were not aware about these sources.

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