

Constraints Being Perceived During Utilization Of Information And Communication Technologies (ICTs) By KVKs Scientists in Madhya Pradesh and Chhattisgarh

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ABSTRACT

KVKs is an innovative institution providing for effective linkage among researchers, farmers and extension workers, practical approach to training through "Learning by doing" and flexible syllabi based on a survey and needs of farmers and location specific requirements. Information and Communication Technologies (ICTs) provides information about any event-taking place anywhere in the world, at any time, available to any person anywhere in the world at any time. ICTs can be used to increase effectiveness and efficiency of extension system. So, in this era of information revolution, the KVKs Scientists should be encouraged to use ICTs for different extension activities and field works. But constraints are elements, factors, or subsystems that restricts an individual or an entity, from achieving its potential (or higher level of output) with reference to its goal. So, it has become imperative to identify and prioritize the factors or reasons that hinder utilization of ICTs. Hence an attempt was made through a research study was undertaken for 304 scientists working in different KVKs in Madhya Pradesh and Chhattisgarh, to find out the problems and constraints being faced by KVKs Scientists during utilization of ICTs as perceived by them. The findings of the study indicate that among economic constraints 'less financial support from the government, among technical constraints Slow and poor server connectivity and among operational constraints Lack of ICTs- oriented training were perceived as serious constraints in the utilization pattern of ICTs by KVKs scientists.

Key words: Constraints, Information and Communication Technologies (ICTs), Krishi Vigyan Kendras (KVKs), Learning by doing.

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INTRODUCTION

The paradigm shift in participation and sustainability coupled with revolution in the information and communication technologies have provided opportunities for extension and rural communities to move into the information age [4].

Nowadays agricultural extension is facing a large quantity of innovations, discoveries and information in different fields of science, skills and agricultural technology and has got the latest findings from the resources of producing information and make it accessible for the users and for being successful in this important matters, it is necessary to have a powerful and effective informing system [2].

ICT has an important role in connecting research, extension and the market toward expanding the professional and entrepreneurship abilities, capacities among the experts and the agricultural communities [1]. The advancements in ICT can be utilized for providing accurate, timely, relevant information and services to the farmers, thereby facilitating an environment for more remunerative agriculture.

Krishi Vigyan Kendra's (KVKs) scientists are playing a proactive role in transferring new technology at field level with beneficial impacts. They are continuously engaged in improving their professional knowledge and skills by keeping themselves abreast with latest information. The overall development of KVK's scientists largely depends on their capacity and willingness to seek and share relevant information with their colleagues peers juniors superiors and other members of organization.

ICTs can be used to increase effectiveness and efficiency of extension system. So, in this era of information revolution, the KVKs Scientists should be encouraged to use ICTs for different extension activities and field works. But constraints are elements, factors, or subsystems that restricts an individual or an entity, from achieving its potential (or higher level of output) with reference to its goal. So, it has become imperative to identify and prioritize the factors or reasons that hinder utilization of ICTs.

Keeping these things in mind an attempt was made through a research study was undertaken for 304 scientists working in different KVKs in Madhya Pradesh and Chhattisgarh, to find out the problems and constraints being faced by KVKs Scientists during utilization of ICTs as perceived by them.

MATERIAL AND METHODS

The study was carried out in State Agricultural Universities of Madhya Pradesh and Chhattisgarh State. The study population included all scientists of KVKs of all SAUs, NGOs and ICAR Jurisdiction in both the States. A structured questionnaire was designed based on related literature and objectives of the study and variables and it was send to all scientists of KVKs comes under study area. Validity of the instrument was ensured through a panel of experts. Data was analyzed with using frequencies, percentages, mean and multiple correlation and regressions.

RESULT AND DISCUSSION

Frequently occurring constraints categorized under the sub-heads of economic, technical and operational were identified and presented below:

Table 1: Classification of constraints faced by KVKs Scientists during utilization of ICTs

Sr. No.	Constraints	Frequency	Percentage	Rank
Economics				
1	Less financial support from the government	180	89.10	I
2	Insufficiency of institutional financial resources	144	71.28	III
3	High cost of ICT tools	171	84.65	II
4	Insufficient rewards and recognition for Scientists who produce ICT	134	66.33	IV
Technical				
1	Electricity failure	158	78.21	III
2	Less availability of ICT tools	119	58.91	VII
3	Slow and poor server connectivity	193	95.54	I
4	Unavailability of inverter	139	68.81	V
5	Deficiency in support services	165	81.68	II
6	Poor ICT infrastructure	140	69.30	IV
7	ICT production and usage as a key factor in promotion/ selection in agricultural extension posts	137	67.82	VI
Operational				
1	Lack of expertise and skills in ICT usage and production	176	87.12	III
2	Lack of ICT- oriented training	192	95.04	I
3	Lack of time to acquire skills needed to use and	185	91.58	II

	produce ICT			
4	Lack of interest in ICT usage and production	151	74.75	V
5	Lack of information about how to use the various ICTs	175	86.63	IV
6	Shortage of qualified personnel in institute/ college to provide advanced ICTs training to Scientists	148	73.26	VI

Economic constraints

According to the Table 36, among four economic constraints, with 89.10 per cent 'less financial support from the government' was on first rank, whereas, 'high cost of ICT tools' on second rank with 84.65 per cent. The third rank was occupied by; 'insufficiency of financial resources in institute/ college' with 71.28 per cent and 'insufficient rewards and recognition for Scientists who produce ICT', got fourth rank with 66.33 per cent.

Technical constraints

According to the Table 36, among seven technical constraints, Slow and poor server connectivity with 95.54 per cent was on First rank, whereas, Deficiency in support services with 81.68 per cent was on second rank. The third rank was occupied by Electricity failure with 78.21 per cent. Poor ICT Infrastructure got fourth rank with 69.30 per cent, followed, Unavailability of inverter with 68.81 per cent, ICT production and usage as a key factor in promotion/ selection in agricultural extension posts 67.82 per cent, less availability of ICT tools with 58.91 per cent which were ranked fifth, sixth and seventh, respectively.

Operational constraints

According to the Table 36, among six operational constraints, Lack of ICT- oriented training with 95.04 per cent was on First rank, whereas, Lack of time to acquire skills needed to use and produce ICT with 91.58 per cent was on second rank. The third rank was occupied by Lack of expertise and skills in ICT usage and production with 87.12 per cent. Lack of information about how to use the various ICT got fourth rank with 86.63 per cent, followed, Lack of interest in ICT usage and production with 74.75 per cent Shortage of qualified personnel in institute/ college to provide advanced ICTs training to Scientists with 73.26 per cent which were ranked fifth and sixth respectively.

This finding was in conformity with the findings of Khamoushi [3].

CONCLUSION

So, the findings of the study in which frequently occurring constraints categorized under the sub-heads of economic, technical and operational that hinder utilization of ICTs among KVKs scientists concluded as that among economic constraints 'less financial support from the government', among technical constraints 'Slow and poor server connectivity' and among operational constraints 'Lack of ICT- oriented training' were perceived as serious constraints in the utilization pattern of ICTs by KVKs scientists.

ABBREVIATIONS

ICT - Information and Communication Technology, KVKs - Krishi Vigyan Kendras, SAU - State Agriculture University, NGO – Non-Government Organization, ICAR – Indian Council of Agriculture Research, MP – Madhya Pradesh, UP- Uttar Pradesh.

AUTHOR STATEMENT

All authors read, reviewed, agree and approved the final manuscript

CONFLICT OF INTEREST: None declared

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