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Objectives of Extension Education: An Analysis of Perception of KVK Professionals

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ABSTRACT

Krishi Vigyan Kendra provides training to various stakeholders as a means of delivering technology. As a profession, the KVK professionals should have the holistic understanding and appropriate perception towards objectives of extension education. The objective of study was to analyze the perception of KVK professionals towards objectives of extension education. The study was conducted during March-August, 2021 using structured questionnaire. The sample of the study included 150 KVK scientists from 145 KVKs spread over 24 states and Union territories. The study assessed the perception of the KVK professionals towards the objectives of Extension. This Perception towards objectives was measured by using 5 point continuum on Liker scale with the help of 34 statements. The objective *"Communicating the research information that is useful for economic and practical purposes"* scored first rank with 66.67 weighted mean score and also revealed that majority of KVK professionals were having favorable Perception regarding objectives (74.67%) of extension followed by equal number of respondents (12.66%) were having both highly favorable and unfavorable perceptions towards objectives of extension. Additionally, it was shown that information seeking behaviour had positive and significant relationship with the perception of KVK professionals regarding objectives of extension education. Step-wise regression model revealed that information seeking behavior contributed about 2.70 per cent of total of variances in perceptions toward objectives of extension. Hence, it can be concluded that KVK professionals need to have favourable perception towards objectives of extension for executing mandates of KVK more successfully.

INTRODUCTION

An institutional project of ICAR, Krishi Vigyan Kendra, acts as "the lighthouse for farmers in India," and demonstrates the utilization of science and technological input in agricultural research and education in the fields of farmers in rural regions. The focus of Agricultural Technology Application Research Institutes (ATARIs) is to coordinate the activities KVKs in their respective region (Acharya et al., 2020). KVKs offer a wide range of technical solutions to help farmers manage their farms sustainably and holistically (Sinha et al., 2021). In India, Krishi Vigyan Kendras (KVK) is crucial for the transmission of agricultural technologies (Kumbhare, 2009). Extension programmes must adapt to the recent changes in global agriculture and assist farmers by enhancing their management and decision-making skills (Singh et al., 2018; Singh et al., 2020). For empowering the stakeholders an innovative idea created and supported by the Indian Council of Agricultural Research is called Krishi Vigyan Kendra (ICAR) (Patil & Kokate, 2011). KVKs are designed to apply technology via evaluation, improvement, and demonstration of tried-and-true methods in various types of "micro-farming" in every district (Das, 2007). The majority of Krishi Vigyan Kendras' training initiatives are

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focused on providing services to unjust communities for both men and women (Karak, 2019).

In accordance with amended mandate Technology Assessment and Demonstration for its Application and Capacity Development by KVK, offers need-based vocational training to rural youth, women, farmers, and extension professionals and extension service providers (Sahoo et al., 2021; Paul, 2016). It is well acknowledged that the competence and experience of the extension personnel to quickly communicate and route information to the clientele system at the proper time in the most appropriate manner is essential to the success of any extension programme. These institutes get substantial budgetary allocations as well as a considerable number of highly skilled workers. Despite all of these efforts, there is still an unwanted technological gap between the technology that has been produced and the technology that has been embraced by the end users. The recommendations made by KVK authorities must be carefully considered in order to effectively disseminate technology (Bashir & Narmatha, 2016). As of May 2021, there are 731 KVKs throughout India. The purpose of the study was to determine how KVK professionals perceive the objectives of extension education. An objective means a direction of movement. KVK professionals must keep in mind a set of basic objectives of extension when working in the field since extension concepts are founded on these objectives (Ray, 1998). The principles, objectives, philosophy of extension are the part of curriculum at graduation and post graduation level.

The research question was 'whether extension professionals in general and KVK professionals in particular remember/recall the objectives of extension? If so how they perceive the objectives of extension?' Perception is defined as the way you think about something and your idea of what it is like; the way that you notice things with your senses of sight, hearing etc.; the natural ability to understand or notice things quickly (Qiong, 2017).

METHODOLOGY

The study was conducted in 2021 in which Extension service providers working in Krishi Vigyan Kendra's all over India were considered as the respondents of the study. According to Ministry of Agriculture and Farmers Welfare (2022) 731 Krishi Vigyan Kendras (KVKs) are presently working in the country (https://www.pib.gov.in/PressReleasePage.aspx?PRID=1843884). These KVKs are operated by state agricultural universities, Indian Council of Agricultural Research institutions, central universities, government agencies, and non-governmental organizations. The structured questionnaire was mailed to extension professionals serving in 721 KVKs out of which 150 professionals responded from 145 KVKs. Socio-personal variables *viz.*, age, sex, caste, education, experience, background, position in KVK like- Head/PC, SMS, socio-economic (job satisfaction), and communicational characteristics (Information Seeking Behavior) of KVK professionals were the independent variables of the study. While KVK professional's perception towards objectives of extension education was considered as dependent variable. With the assistance of specialists, a thorough structured questionnaire was developed to examine how KVK professionals perceive the objectives of extension education.

Collected data were analyzed with the help of percentage, frequency, mean and standard deviation, as well as relational statistics like chi-square, correlation and step-wise regression coefficients. The respondents indicated their agreement or disagreement and the scores are given accordingly strongly agree-5, agree-4, undecided-3, disagree-2, and strongly disagree-1 in case of positive statements while reverse score were given for negative statements in which strongly agree-1, agree-2, undecided-3, disagree-4, and strongly disagree-5. The maximum score assigned was 5 and the minimum score assigned was 1. The respondents had given their level of agreement and disagreement on 34 statements. The questions were framed to assess the perception of KVK professionals regarding objectives of extension education. Based on their scores, mean and standard deviation was calculated and accordingly the respondent's perceptions toward objectives of extension education were categorized into unfavourable, favourable and highly favourable.

RESULTS AND DISCUSSION

Perception of KVK professionals toward objectives of extension

The objectives of extension education (listed in Table 1) were presented to respondents with the help of a uniquely designed index to examine how these objectives was perceived.

Overall perception regarding each objective of extension

Table 1 heralds the findings of objectives of extension education, which are ranked according to the weighted mean score. The objective of extension *"To disseminate research information of economic and practical importance in a way people would be able to understand and use"* weighted mean score was 66.67 and was ranked I. It was because KVK professionals provide location specific information in their regional languages. Any efforts of dissemination of information deviating the local needs are not accepted by the stakeholders. Hence, introduction of innovations in the field setting is a challenging task. The extension professionals must focus on economic and practical aspects of innovation. The

Table 1. Dispersion of KVK professionals apropos to overall Perception toward each objective of extension

Objectives of Extension Education (adopted from Ray 1998)	Weighted mean score	Rank
To assist people to discover and analyze their problems and identify the felt needs	59.11	V
To develop leadership among people and help them in organising groups to solve their problems	66.22	II
To disseminate research information of economic and practical importance in a way people would be able to understand and use	66.67	I
To assist people in mobilizing and utilizing resources which they have and which they need from outside	63.55	III
To collect and transmit feedback information for solving management problems	63.33	IV

next issue is medium of presentation, the local language/dialect is always preferred and recommended. The only logic is the stakeholders can understand the innovation in holistic manner.

The objective *"To develop leadership among people and help them in organising groups to solve their problems"* scored weighted mean score was 66.22 and was ranked II. The processes of extension develops leadership among stakeholders. Extension professional as an intervention can be with the stakeholders for a limited period of time. Once the skills are accumulated by the members of community / stakeholders, the effects are going to be long lasting. Local leaders are the custodians of local thought and action. The involvement of local leaders and legitimization by them are essential for the success of a programme and perception toward extension. In Indian context, as the number of people dependent on agriculture are more and agriculture is part of Indian culture, the stakeholders need to be organized into groups. As we form groups, we need leaders also. Hence extension focuses on group approach. The decisions taken by the members of the group are effective as every member has the commitment to practice it.

The objective *"To assist people in mobilizing and utilizing resources which they have and which they need from outside"* weighted a mean score of 63.55 and ranked III. The adoption rate of an innovation was more if the innovation is involving more of local resources. In the rush of adoption of green revolution innovations, the dependency on external inputs is more than locally available resources. Off late the agricultural research and extension fraternity is realizing the issue. On the contrary the objective of extension emphasizes on exploitation of locally available resources. To achieve this, the communities should have an inventory of the locally available resources. In this context, indigenous technical knowledge is the most potential resource. The base of ITK is local resources. Even though it was neglected during green revolution period, in post 1990's due attention is being given to indigenous knowledge systems.

For the objective *"To collect and transmit feedback information for solving management problems"* weighted mean score was 63.33 and was ranked IV. It is because, the feedback system helped in evaluation of programmes executed by the KVK professionals. Feedback evaluation helps KVK professionals to determine what works well and what could be improved in the program or initiative. Also the outcomes of feedback are inputs for research system and the outputs of research system are inputs for extension system. The cycle continues.

The fifth objective *"To assist people to discover and analyze their problems and identify the felt needs"* the weighted mean was 59.11 and it ranked V. KVK professionals work directly with stakeholders and are aware of many common problems faced by them. The objective of extension emphasize on the role of KVK professionals in educating the stakeholders on identifying the needs and problems as well as providing solutions. The needs may be 'felt needs' or 'unfelt needs'. Translation of unfelt needs to felt needs related to agriculture and an allied science is the prime responsibility of KVK professionals.

Distribution of KVK professionals based on perception regarding objectives of extension education is presented in Table 2. It is evident from the Table that slightly less than three-fourth (74.67%) of KVK professionals revealed favorable perceptions towards the objectives of extension education, equal number of respondents (12.67%) expressed 'unfavorable' and 'highly favorable' perceptions towards extension education. The regular and continuous interaction of KVK professionals with various stakeholders helps in forming appropriate perceptions about the basics of extension education. The objectives of extension education act as instruments of navigation for extension professionals in order to deal with varied needs and issues associated with diverse categories of stakeholders. Similar findings were reported by Singh (2016); Singh et al., (2018). The studies revealed that slightly less than three-fourth of respondents (73.30%) were having favorable attitude followed by 17.30 per cent having highly favorable and 8.60 per cent having unfavorable attitude toward objectives of extension education.

Table 2. Distribution of KVK professionals according to their Perception regarding objectives of extension education

S.No.	Degree of perception	Range	Frequency	Percentage
1	Unfavorable	<109.97	19	12.67
2	Favorable	109.97 to 126.03	112	74.67
3	Highly favorable	>126.03	19	12.66

(Mean: 118, SD: 8.03)

The correlation analysis between Information seeking behavior of the KVK professionals and their Perception towards objectives of extension education revealed the 'r' value of 0.165 (Table 3). Based on the co-efficient of correlation, the following observations were made about the relationship between socio-personal variables and perception of KVK professionals towards objectives of extension education. Relationship divulge tendency towards the positive direction at 0.05 level of probability. Hence the relationship was significant. Thus it can be concluded that those who had higher level of information seeking behaviour had more favorable Perception toward objectives of extension education. But the findings reported by Singh (2016); Singh (2018); in their study reveal that Education, Communication Behaviour and Extension

Table 3. Correlation and Chi square analysis of Socio-economic variables with perception of KVK professionals toward objectives of extension

S.No.	Independent variable	r value	P-value
1	A	0.137	0.095
2	B	0.095	0.250
3	C	0.058	0.480
4	D	0.165*	0.043
S.No	Independent variable	Chi square value	P-value
5	E	3.133[a]	0.209
6	F	2.967[a]	0.227
7	G	1.285[a]	0.526
8	H	4.582[a]	0.598
9	I	3.040[a]	0.219

(A= Age, B=Experience, C= Job satisfaction, D= Information Seeking Behavior, E=Education, F= Sex, G= Background, H= Caste and I= Position), * *Correlation is significant at 0.05 level (2-tailed)*

Table 4. Summary of the model's quantum effects of independent variables on how KVK professionals perceive the objectives of extension (Stepwise Regression)

Model Summary[b]										
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	0.165[a]	0.027	0.021	7.94501	0.027	4.157	1	148	0.043	1.876

a. Predictors: (Constant), Information Seeking Behaviour

b. Dependent Variable: Perception (Perception toward objectives of extension)

System Link were positively and significantly associated with attitude of extension professionals towards objectives of extension education. For the Education calculated value of 'r' (0.186*) was found to be less than tabulated value 'r' (0.178) with 0.05 level of probability and for Communication Behaviour and Extension System Link calculated value of 'r' (0.243**) and (0.467**) was found to be less than tabulated value 'r' (0.210) and (0.210), respectively with 0.01 level of probability. While in case of chi-square analysis, it was observed from the above table that calculated P-value of independent variables were education (0.14), sex (0.14), background (0.09), caste (0.17) and position (0.14). Hence it is reported that there was no significant relation between independent variables with the dependent variable i.e. perception of KVK professionals towards objectives of extension education. While the findings reported by Singh (2021); Singh (2022); in their study indicate that education level has shown significant relation with Perception toward principles of extension education at 1% level of significance. Position and background of professionals has shown significant relation with Perception of KVK professionals at 5% and 10% level of significance, respectively (Table 4).

To determine the degree to which specific independent variable affected extension service provider's (Krishi Vigyan Kendra Professional's like Head/Programme Coordinator and Subject Matter Specialists) perceptions towards objectives of extension education and to identify the major factor contributing to the regression model, step-wise regression was used. It was found that the sole variable *viz*., information seeking behaviour was responsible for the 2.70 per cent variance in perception of KVK professionals towards objective of extension education. The regression model's significance was also assessed to be within an acceptable range of multi-collinearity (p value=.000). It may be determined that behaviours related to information seeking that were included in the study contributed only 2.70 per cent and about 96.30 per cent were not included in the research. The studies conducted by Singh (2021); Singh (2022) observed that job satisfaction and position in KVK contributed around 12.30 per cent of the variances in perceptions of KVK professionals' towards the principles of extension education. Additionally, it was determined that the regression model's significance (p value=.000) fell within an acceptable range of multi-collinearity.

CONCLUSION

Krishi Vigyan Kendra, as the lighthouse for farmers in India, demonstrates the utilisation of science and technological input in agricultural research and education in the fields of farmers in rural areas. The results of the study reveal that, Krishi Vigyan Kendra personnel had a positive perception regarding objectives of extension education. It may be argued that for Krishi Vigyan Kendra programmes to be more effective, Krishi Vigyan Kendra personnel need to transform their unfavorable perception towards objectives of extension education into a highly favorable one. The way in which information seeking behaviour is sought for directly influences how Krishi Vigyan Kendra professionals perceive the objectives of extension. Therefore, high job satisfaction and regular exposure to official, informal and mass-media sources are definitely required to improve the perception of Krishi Vigyan Kendra professionals regarding objectives of extension.

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