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# Constraints in Utilization and Accessibility of Extension Service Delivery Perceived by KVK Beneficiary Farmers of Chhattisgarh

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**ABSTRACT**

The present study was conducted purposively in Chhattisgarh state, with a view to evaluate constraints faced by Krishi Vigyan Kendra beneficiary farmers in utilization and accessibility of extension service delivery. Chhattisgarh comprises of three agro-climatic zones, out of that one district were selected randomly from each agro-climatic zones. From each selected districts, 40 KVK beneficiary farmers were selected randomly which constitute a total sample size of 120. A list of constraints were classified into five categories namely Infrastructural, technical, socio-economic, organizational and other constraints measured with the help of a 3 points continuum scale as most serious (3), serious (2) and least serious (1). Data was collected through pretested semi-structured interview schedule. The result showed that lack of resource at village level (2.42), costly inputs/technologies (2.31), lack of education (2.35), lack of timely advice and guidance (2.27) and climatic risk and uncertainty (2.13) were reported with respective total weighted mean scores (TWMS). The finding of the study signify that it is essential to call for attention from government, policy maker, and planners to design effective policy/ strategy that would ensure to measures overcome the constraints faced by the farmers in reaping the benefits of KVK.

**Keywords:** Chhattisgarh, constraints, extension, KVK, Service delivery

## INTRODUCTION

Indian economy is predominantly rural and agriculture oriented where the declining trend in the average size of the farm holding poses a serious problem. In agriculture 84 per cent of the holding is less than 0.8 ha. Majority of them are drylands and even irrigated areas depend on the vagaries of monsoon. In this context, the socio-economic status of farmers is low because of inherent social hierarchy and economic deprivation. To ameliorate the poor socio-economic conditions of the farmers by raising the level of farm productivity, income and employment with application of agricultural innovation generated at research station, an innovative extension education institution i.e. Krishi Vigyan Kendra (KVKs) was introduced by Indian Council of Agricultural Research (Dubey *et al.,* 2008). KVKs are the real carriers of frontline technologies and impart knowledge and critical input support for the farmers. After first pilot basis establishment of KVK at Puducherry under the administrative control of the Tamil Nadu Agricultural University, Coimbatore in year 1974 based on the recommendations of Education commission (1964-65) and Dr. M. S. Mehta committee, this important movement has travelled almost 43 years of successful journey to build a strong network almost in all districts of the country. Gradually working guidelines are prepared to make the KVK as the lighthouse for the rural people.

The KVKs (Farm Science Centres) have been largely regarded as an institutional innovation that effectively link agricultural research and extension at the district level in India. KVKs provide a key facilitating role in the refinement of technologies to specific conditions, by acting as a two-way link between research and farmers. Application of technology/products through assessment, refinement and demonstration for adoption, thus, is the main mandate of the KVKs (Chander, 2015). To achieve this mandate each KVK envisaged with activities like on-farm trial/testing, front line demonstrations, capacity development programme, knowledge and resource centre, farm advisories, data documentation, characterization and strategic planning of farming practices to implement the mandate effectively. At present, the number of KVKs is grown up to 665 distributed all over the country working under

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administrative control of the State Agricultural Universities, ICAR institutes and Non Government Organizations etc (ICAR, 2017). However, several operational and organizational challenges continue to confront the KVK as a system of extension. Yet, KVK is seen as the key intervention for reforming the extension system in India. However, an understanding of the discrepancy between the demand and supply of extension service is still lacking. Keeping this in view the present study was undertaken to analyze constraints perceived by KVK beneficiary farmers in accessibility and utilization of extension service delivery.

## METHODOLOGY

The study was purposively carried out in the Chhattisgarh state, comprising of three agro-climatic zones (Chhattisgarh Plains, Bastar Plateau and Northern Hill Regions). From each agro-climatic zone, one district (Surguja, Durg and Bastar) was selected randomly. Out of the each selected districts, 40 KVK beneficiary farmers were selected randomly to constitute a total sample size of the study comprised of 120 (3*40 nos.). The constraints faced by KVK beneficiaries' differ from individual to individual depending upon their socio-economic status, communication behavior, livelihood requirement, scopes and opportunities of marketing etc. The constraints were classified into five categories namely infrastructural, technical, socio-economic, organizational and other constraints measured with the help of a 3 points continuum scale as most serious (3), serious (2) and least serious (1) and accordingly each respondent were given score as per their preference to various constraints and mean weighted score was worked out for each statement under above mentioned three categories. The index values of observations were measured with the help of mean score figure. The data were collected through personal interview method using a pretested semi-structured interview schedule. The statistical analysis was done by following the statistical tools like frequency, percentage, mean and rank analysis.

## RESULTS AND DISCUSSION

### Infrastructural constraints

Good infrastructure is an essential ingredient for successful completion of extension activity. Directly or indirectly, it helps farmers to diversify into different activities so that vulnerability can be reduced and outcomes can be achieved. In table 1 reveals that lack of resources at village level (2.42) emerged as the most important constraints perceived by KVK beneficiary farmers, that hinder the extension service delivery in rural areas followed by low mobility in rural areas (2.24), lack of marketing and storage facilities (2.12), poor communication facilities (2.06) and poor transport facilities (1.96). The finding suggested that besides creating facilities for training to enhance service delivery, the constraints commonly agreed upon by the farmers need to be taken special care. Similar finding was also reported by Kumbhare and Singh (2011).

**Table 1: Distribution of respondents based on perceived infrastructural constraints**

| Infrastructural constraints | TWS | TWMS | Index | Rank |
|---|---|---|---|---|
| Lack of marketing and storage facilities | 254 | 2.12 | 70.56 | III |
| Poor communication facilities | 247 | 2.06 | 68.61 | IV |
| Poor transport facilities | 235 | 1.96 | 65.28 | V |
| Lack of resource at village level | 290 | 2.42 | 80.56 | I |
| Low mobility in rural areas | 269 | 2.24 | 74.72 | II |

TWS – Total Weighted Score, TWMS- Total Weighted Mean Score,
Index = (TWMS / 3) *100, where, 3 is the maximum attainable score for each statement.

### Technical constraints

Table 2 reveals that costly inputs/technologies expressed as most serious by the KVK farmers with 2.51 TWMS, followed by complex technology (2.20), less training opportunity on improved technology (2.18), non-availability of trained labour (2.04) and incompatible technologies (1.98). The problems relating to training opportunity and complex technologies among farmers might have been due to deprived education, awareness and extension system in study area. The findings are in conformity with the findings of Ghatul (2013) in Akola district of Maharashtra for analysis of constraints faced by the farmers.

**Table 2: Distribution of respondents based on perceived technical constraints**

| Technical constraints | TWS | TWMS | Index | Rank |
|---|---|---|---|---|
| Non-availability of trained labour | 245 | 2.04 | 68.06 | IV |
| Incompatible technologies | 237 | 1.98 | 65.83 | V |
| Costly inputs/technologies | 277 | 2.31 | 76.94 | I |
| Complex technologies | 264 | 2.20 | 73.33 | II |
| Less training opportunity on improved technology | 262 | 2.18 | 72.78 | III |

### Socio-economic constraints

Major constraint faced by the KVK farmers was lack of education having TWMS 2.40, followed by small and dispersed land holding (2.18), poor economic condition of family (2.13), lower social participation (2.13) and lack of risk bearing capacity (1.93) were considered as moderately serious constraints, while lack of knowledge and awareness on improved technology (1.83) and lack of change agent (1.53) were considered as least serious. Similar findings were also reported by Singh et al. (2012) for constraints in adoption of soybean production technology and Yadav *et al.* (2014) for identification of constraints in farm management practices.

**Table 3: Distribution of respondents based on perceived socio-economic constraints**

| Socio-economic constraints | TWS | TWMS | Index | Rank |
|---|---|---|---|---|
| Small and dispersed landholding | 261 | 2.18 | 72.50 | II |
| Lower social participation | 255 | 2.13 | 70.83 | IV |
| Lack of education | 282 | 2.35 | 78.33 | I |
| Lack of knowledge and awareness on improved technology | 219 | 1.83 | 60.83 | VI |
| Lack of change agents | 183 | 1.53 | 50.83 | VII |
| Lack of risk bearing capacity | 232 | 1.93 | 64.44 | V |
| Poor economic condition of family | 256 | 2.13 | 71.11 | III |

**Organizational constraints**

Table 4 reveals that lack of timely advice and guidance (2.27) by KVK farmers followed by low credibility of extension personnel (2.05), expressed as most serious constraints by the farmers. Lack of effective supervision and monitoring, lack of motivation and feedback, and lack of exposure visits were considered as moderately serious constraints having TWMS between 1.96 to 1.81, while biased attitude of extension personnel, non-availability of quality inputs and lack of linkage with service provider were considered as least serious having TWMS 1.78 and 1.60, respectively. Similar findings were also reported by Samantaray et al. (2009) in Orissa with respect to vegetable production.

**Table 4: Distribution of respondents based on perceived organizational constraints**

| Organizational constraints | TWS | TWMS | Index | Rank |
|---|---|---|---|---|
| Low credibility of extension personnel | 246 | 2.05 | 68.33 | II |
| Biased attitude of extension personnel | 213 | 1.78 | 59.17 | VI |
| Lack of linkage with service provider | 192 | 1.60 | 53.33 | VIII |
| Lack of effective supervision and monitoring | 235 | 1.96 | 65.28 | III |
| Nonavailability of quality inputs | 204 | 1.70 | 56.67 | VII |
| Lack of timely advice and guidance | 272 | 2.27 | 75.56 | I |
| Lack of motivation and feedback | 227 | 1.89 | 63.06 | IV |
| Less exposure visits | 217 | 1.81 | 60.28 | V |

**Others Constraints**

Constraints, as mentioned in this category, were also very important for effective extension service delivery and for the overall development of the farmers. The other constraints perceived by KVK farmers according to their priority were climatic risk and uncertainty (2.13), seasonal attacks of diseases (2.03), political hindrance (1.74), insufficient coverage of success stories (1.72) and red-tapism (1.38). Saha and Bahal (2012) have also reported similar types of findings in their study of constraints impeding livelihood diversification of farmers in West Bengal. Yet, very few farmers were taking up these constraints as opportunities because of lack of ability to visualize and potentiality to mobilize resources to utilize these opportunities.

**Table 5: Distribution of respondents based on perceived other constraints**

| Other constraints | TWS | TWMS | Index | Rank |
|---|---|---|---|---|
| Political hindrance | 209 | 1.74 | 58.06 | III |
| Seasonal attack of diseases | 243 | 2.03 | 67.50 | II |
| Climatic risk and uncertainty | 255 | 2.13 | 70.83 | I |
| Redtapism | 165 | 1.38 | 45.83 | V |
| Insufficient coverage of success stories | 206 | 1.72 | 57.22 | IV |

## CONCLUSION

In spite of these constraints, KVK has huge potential to expand the accessibly and utilization of extension service delivery in Chhattisgarh. Constraints can be used for the researchers and policy makers to plan and modify the research and extension programmes and for the officials of the state department of agriculture so as to eliminate and can play an important role in improving the knowledge and awareness of the farmers in service delivery for their benefits and reversing their negative mindset toward improved practices. Further, to overcome these constraints extension workers should act more as a collaborator, consultant, and facilitator in dissemination of the knowledge by the use of different mass media, field visits and demonstrations for effective extension service delivery.

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