



Job Performance and Participation of Subject Matter Specialists in Extension Activities of KVK's

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ABSTRACT

Although Indian agriculture started journey towards mechanized farming from last few decades but the change is very slow and noticed in few pockets of country. The modernized agriculture largely depends upon development and dissemination of technology. The State Department of Agriculture, SAU's, NGO's and Krishi Vigyan Kendra are the main extension agencies working towards the transfer of technology. The Subject Matter Specialists playing vital role in generating knowledge, testing the technology and communicating the same towards the farming community as well as the extension functionaries. The present investigation was undertaken to access the job performance and participation of SMSs in different extension activities working in eight Krishi Vigyan Kendra of Vidarbha region of Maharashtra State. Forty-Eight SMSs working in the KVKs were selected purposively and interviewed with a structural interview schedule. The findings revealed that larger proportion (89.58%) of the SMSs were observed under good job performance category, while none of the SMS's were noticed with poor and below average job performance category. Organization of training's, frontline demonstrations, management & supporting activities were noticed as the main areas in the job performed by the SMS's. Almost all the SMS's using different extension activities for dissemination of technology towards the farming community, 1058 field visit, 686 diagnostic field visits were made, while 152 FLD, 140 OFT were organized, 476 guest lectures were delivered, 183 radio talks were broadcast and 429 extension publication were brought out all the SMS's working in the studied area during the period of one year.

Key words: Krishi Vigyan Kendra; Job performance; Front line Demonstration; On-farm Testing.

The effective and efficient utilization of available human resources is main concern for the administrators of any organization. The administrators are more concern about the effective management of human resources as well as the efficient performance of people working in the organization. The job performance of the employees has prime importance as it is an, indicator of the success and health of an organization. To enhance the performance of employees one has to know their present level of performance and delineate the factors responsible for it.

Krishi Vigyan Kendra (KVK) is the vital organization which made remarkable contribution towards development of agricultural sector and rural development. KVK's working towards technology backstopping to extension personnel as well as farmers to enhance their productivity and profitability (Kokate, 2010).

Subject Matter Specialists are the grass root level extension functionaries engaged in crucial task of technology dissemination. SMS's not only engaged in delivering information to farmers, but also attempt to make farmers creative, self-confident and competent enough to overcome their own problems. (Sulaiman and Hall, 2003). Hence, to accomplish the set forth goal and objectives, SMS's need to perform the assigned task at an optimum level. Keeping this in view the present study was contemplated with the objectives to study the job performance of the SMSs and their participation in extension activities implemented by Krishi Vigyan Kendra.

METHODOLOGY

An Exploratory Research Design of social research has been used in the present study. The study was completed as doctoral research work in the Vidarbha region of Maharashtra State during 2019-20. The selected region of comprises of 14 Krishi

Vigyan Kendra, which are engaged in dissemination of technology as well as identifying the technological need of the region. Among the 14 KVKs, eight Krishi Vigyan Kendra were selected purposively. In each KVK, six SMS's engaged in the task of technology dissemination, thus 48 Subject Matter Specialists were selected for the study.

Performance was operationalized as the degree to which the different job activities were performed by an individual. In order to measure the job performance quantitatively, scale developed by *Kumar and Kaur (2014)* was used. The response was elicited on five-point continuum i.e., most frequently, frequently, sometimes, seldom and never with the scores of 5, 4, 3, 2 and 1 respectively. The obtained score was converted into the job performance index with the help of the formula as mentioned below.

$$\text{Job performance index} = \frac{\text{AOJPS}}{\text{MOJPS}} \times 100$$

Where,

AOJPS= Actual obtained job performance score,

MOJPS= Maximum obtainable job performance score,

The SMSs were grouped into four categories on the basis of four quartiles of obtainable index range viz. poor, below average, above average and good job performance categories. The same scale of job performance was used to obtain the superior rating from Programme Coordinators of KVKs under study to assess the superior rating about the job performed by the SMSs.

The overall job performance of the SMS's was measured on the basis of nine different areas attached with their duties as technology disseminator. The mean indices of the respective areas of job performance were worked out, by collecting the mean score of the self-ratings as well as the superior ratings.

The participation of the SMSs in nine different areas of job performance were identified and the findings were computed on most often, often, sometimes, seldom and never basis. The participation of the SMSs in the extension activities of Krishi Vigyan Kendra, were measured on the basis of number of extension activities performed and reported by the SMSs for the period of one year.

RESULTS AND DISCUSSION

Job performance level of the Subject Matter Specialists: It was observed (Table 1) that majority (89.58%) of the SMSs in their self-ratings while around three

Table 1. Distribution of the Subject Matter Specialists according to their job performance (N=48)

Category	Self-rating of SMSs		Superior's rating of PCs	
	No.	%	No.	%
Poor	0	0.00	0	0.00
Below average	0	0.00	0	0.00
Above average	05	10.42	13	27.08
Good	43	89.58	35	72.92
Total	48	100.00	48	100.00

forth (72.92 %) of the SMSs as per their superior's rating were observed with the good job performance category. This was followed by, one tenth (10.42%) of the SMSs were recorded their job performance in the above average category in their self-rating whereas more than one forth (27.08%) of the SMSs as per their superior rating were observed with above average category with regard to their job performance.

It was worthwhile to mention that none of the SMSs were noticed under the poor as well as below average job performance category in their own ratings and superior's rating.

The above findings were in line with the findings reported by *Ramannanavar and Nagnur (2016)* the duo studied the job performance of 120 SMSs working in KVKs of Karnataka State and revealed that almost all SMSs were having medium to high (98.34 %) level of job performance whereas, *Mishra et al (2007)* reported that majority (75.41%) of the extension officers belonged to medium level of job performance while *Purnima et al (2018)* studied the role performance of the extension functionaries in South India and revealed that majority of the respondents fell under moderate to high category of rope performance.

Job performance of the SMSs according to different areas attached to their job : Table 2 revealed that the job performed by the SMS's pertaining to these areas were recorded on five-point continuum and the findings revealed that about half (50.00%) of the SMS's most often engaged in organization of front-line demonstrations whereas 39.58 per cent were often engaged with the said area job performance. *Kumar and Kaur (2014)* were identified the nine different areas to examine the job performance of the SMSs.

Organization of the training programme is another studied area of job performed by the SMS's, about 81.60 per cent of the SMS's recorded they engaged with organization of training programmes on most

Table 2. Distribution of the Subject Matter Specialists according to different areas of job performance

Areas of job performance	MO	O	ST	SD	N
Organization of trainings	23 (47.57)	16 (34.03)	5 (10.76)	3 (5.56)	1 (2.08)
Frontline demonstrations	24 (50.00)	19 (39.58)	4 (8.33)	1 (2.08)	0 (0.00)
Subject matter authority	11 (22.92)	21 (43.75)	9 (18.75)	4 (8.33)	3 (6.25)
Communication and feedback	12 (25.00)	29 (60.42)	6 (12.50)	1 (2.08)	0 (0.00)
Evaluation	14 (29.17)	25 (52.08)	4 (8.33)	2 (4.17)	3 (6.25)
Management	22 (45.83)	20 (41.67)	4 (8.33)	2 (4.17)	0 (0.00)
Services and Supplies	15 (31.25)	25 (52.08)	8 (16.67)	0 (0.00)	0 (0.00)
Office work and reporting	20 (41.67)	24 (50.00)	4 (8.33)	0 (0.00)	0 (0.00)
Supporting activities	21 (43.75)	20 (41.67)	5 (10.42)	2 (4.17)	0 (0.00)

MO= Most often, O= Often, ST= Sometimes, SD= Seldom, N= Never

Figures in parenthesis indicate percentage

often and often basis, while nearly one tenth (10.76%) of the SMS's reported then sometimes associated with the said area of job performance.

Majority of the SMS's i.e., 45.83 per cent and 41.67 per cent disclosed that, they were most often and often associated with the management of extension, research as well as administrative activities carried out at their respective Krishi Vigyan Kendra.

Almost equal proportion of the SMS's i.e., 43.75 and 41.67 per cent had revealed that, their job performance activities were most often and often related to work towards supporting activities in different official work. The participation of the SMSs in the supporting activity will certainly help to build up good harmony with the office staff member and create positive atmosphere for the efficient working of an organization.

More than half (60.42%) and (52.08%) of the SMS's stated that, their job activities were often related towards communication & feedback and evaluation of various extension activities conducted by Krishi Vigyan Kendra for the benefit of the farming community. It is worthwhile to mention that meagre percentage of the SMSs recorded their participation in the identified areas of job performance on never basis.

Kumar & Kaur (2017) studied the difference in role performance of SMSs of selected KVK of Northern India and revealed that organization of trainings, on-farm trails, frontline demonstrations were the main extension activities performed by the selected SMS's under the said study.

Discipline wise SMSs working in Krishi Vigyan Kendra under the study area : As per the Table 3, it could be seen that out of total SMS under the selected KVK, SMSs representing the Agronomy and Extension

Table3. Distribution of the Subject Matter Specialists according to their discipline (N=48)

Discipline	No.	%
Agronomy	8	16.67
Plant Protection	6	12.50
Horticulture	7	14.58
Extension Education	8	16.67
Animal Husbandry & Dairy Science	7	14.58
Home science	6	12.50
Agriculture Engineering	4	8.33
Fishery Science	1	2.08
Agriculture Economics	1	2.08
Total	48	100.00

Education discipline working at all the KVKs under the study area, probably because in larger proportion of the cultivated area were occupied by the agronomical crops under the Vidarbha region, and Subject Matter Specialists of Extension Education discipline is vital resource engaged in transfer of technology towards the farmers and extension functionaries, followed by seven (14.58%) SMSs were represented the Horticulture and Animal Husbandry & Dairy Science discipline, this might be due to increasing area under horticultural crops under the study area and may be more involvement of the farming community in subsidiary occupation such as dairy, goatry and fishery etc., 12.50 per cent i.e. six SMSs were belonged to Plant Protection and Home Science discipline. Insects & Pest are the major concern in obtaining higher crop production, SMSs of Plant Protection discipline certainly helpful to provide much needed information about the management of insects and pests. Presence of Home Scientists in the Krishi Vigyan Kendra helpful for the development of entrepreneurship among the women farmer's as well reduction of drudgery in different farm operation.

Table 4. Distribution of discipline wise participation of Subject Matter Specialists in different extension activities

No. of SMS working	Total No of activities undertaken									Total
	Agro-nomy	Plant Prot.	Horti-culture	Extn. Educ.	AHDS	Home Sci.	Agri. Engg.	Fishery Sci.	Econo-mics	
	8	6	7	8	7	6	4	1	1	
<i>Extension activities identified</i>										
FLD	37	24	24	5	25	22	13	2	0	152
OFT	27	25	24	0	25	23	14	2	0	140
Field Day	36	16	14	15	7	8	5	2	0	103
Organizing Training	142	81	103	105	110	123	38	7	15	724
Field Visit	188	155	279	164	97	68	39	22	46	1058
Diagnostic field visit	183	91	139	54	151	40	11	17	0	686
Guest lecture	76	114	47	75	93	22	24	24	1	476
Extension publication	83	48	86	60	61	82	7	1	1	429
Radio talk	32	44	20	24	12	11	3	25	12	183
TV talk	7	7	8	11	7	2	5	3	0	50

Four (8.33%) SMSs were represented Agriculture Engineering discipline, whereas one SMSs each from Fishery Science and Agricultural Economics discipline was performing the task of technology dissemination under the studied Krishi Vigyan Kendra's.

Overall participation of SMS in various extension activities : The SMSs used various extension activities to reach towards farming community for transfer of technology as well as to obtain their feedback about the same. Ten extension activities were considered to record the participation of the respective SMS's.

Frontline demonstrations and On Farm Testing had prime importance to disseminate the proven technology and to test the technology in their area. Table 4, revealed that 37 number of FLD and 27 OFT were conducted by the SMS (Agronomy) followed by almost equal FLD and OFT were carried out by SMS (Plant Protection), SMS (Horticulture), SMS (AHDS) and SMS (Home Science), whereas 13 FLD and 14 OFT were implemented by SMS (Agri. Engg.), while 2 FLD and 2 OFT were framed by SMS (Fishery Science) during period of one year. Overall, 152 FLD and 140 OFT were successfully implemented by the all the SMSs under the study area during the period of one year.

Organization of Field Day, to demonstrate the technology is an important extension activity, to motivate the farmers for use of proven technology. Higher number of field day i.e. 36 were organized by SMSs (Agronomy), followed by 16, 14 and 15 number of field day were executed by SMSs of Plant

Protection, Horticulture and Extension Education discipline respectively whereas, 7, 8 and 5 number of field day organized by SMSs of AHDS, Home Science and Agriculture Engineering respectively. Overall, 103 field day were organized by all the SMS's during the studied period.

Training programme are helpful to create awareness and interest among the farming community about the improved technology, overall, 724 training programmes on different areas were organized by the SMS's out of which 142, 123, 110, 105 and 103 training programme were organized by the SMS's of agronomy, home science, animal husbandry & dairy science, extension education and horticulture discipline respectively while 81, 38, 15 and 7 training programme were executed by SMS's of plant protection, agri. engineering, economics and fishery science respectively.

Field visit and diagnostic field visit of the SMS's will helpful for the farmers to get first-hand information about the problems of crop production, during the said visit, the SMS's tried to provide the solution to overcome the barrier in adoption of technology. During the period of one year, 1058 and 686 field visits and diagnostic filed visits were reported by all the SMS's. Out of which 279 and 139 filed and diagnostic field visits were made by SMS (Horticulture), while SMS (Agronomy) reported 188 & 183 file and diagnostic filed visit during the said period. The contribution of the SMS's representing other discipline was also remarkable.

Delivering guest lecture and publication of extension literature in different farm journals, agriculture daily, agriculture magazine will help to increase the knowledge level of the farming community about improved farming practices. During the period of one year 476 guest lectures and 429 extension related articles were brought out by all the SMS's working at different locations under the study area. Out of which 114, 93 and 76 guest lectures were delivered by SMSs of plant protection, animal husbandry & dairy science and agronomy discipline respectively. Almost equal contribution of SMS's horticulture, agronomy and home science discipline were observed in publication of extension related articles.

TV Talks and Radio talk of the expert scientists provide opportunity to reach vast farming community at the shortest span of time. SMSs of all the discipline should use these mass media to reach towards the unreach. But the participation of SMSs in TV and Radio talk was observed at minimum level as only 183 Radio talk and only 50 TV talks were delivered and broadcasted by these SMSs under the study area. Out of which 44 radio and 7 TV talks given by SMS (Plant Protection), while 32 Radio and 7 TV talk delivered by SMS (Agronomy). The contribution of all the SMS's in delivering Radio, TV Talk and in publication of extension literature need to be increased so that the farming community of the region get aware about the proven technology.

CONCLUSION

The findings of the study indicated that larger proportion of the SMSs as per their self-rating (89.58%) and superior rating (72.92%) were recorded under good job performance category, the findings with regard to the involvement of the SMSs in the different areas attached with their job indicated that, majority of the SMSs most often associated with organization of training, front line demonstration, management activities and supporting activities.

Significant contribution of all the Subject Matter Specialists was noticed in dissemination of available technology by using different extension activities, still there is scope for the SMSs to make the effective use of available mass media channels such as Radio, TV, New paper, Agriculture Magazines etc., in the era of globalization these mass media are crucial to reach towards the farming community with latest technological information at shortest span of time.

CONFLICTS OF INTEREST

The authors have no conflicts of interest.

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