

Communication Methods used by Extension Functionaries for Transfer of Technology to Farmers

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ABSTRACT

The present study was undertaken to find out the communication methods used by extension functionaries for transfer of technology and constraints faced by them. The present study was conducted in Sardarkrushinagar Dantiwada Agricultural University jurisdiction. A sample of 100 extension functionaries was selected through purposive random sampling. Questionnaire technique was used for collecting data. Data was analysed by using frequency, percentage, mean and correlation. The findings revealed that the most used methods by extension functionaries were training, group meeting, farm and home visit, farmers - scientist interaction and farmers' visit to the centre. The most used media were telephone and whatsapp mobile app call. The major constraints faced by extension personnel were more office work, large area to cover and lack of need based and area specific technologies. Thus, the need based and appropriate technologies should be developed and send to farmers through appropriate media and methods.

Key words: Media, Extension personnel, Constraints, Telephone, Mobile app, Training

INTRODUCTION

The researchers develop user friendly, economical and practically compatible technologies in every field. There is no use of technologies developed in laboratories unless it reaches to ultimate users. Extension education plays an important role in the transfer of useful information, and technologies to the farmers in such a way that they can use it immediately. Generally, information and technologies are delivered to farmers by extension personnel by using various communication methods and media. Communication methods are the ways and means used by extension functionaries for disseminating

technologies to farmers such as farm and home visit, office calls, telephone calls and SMS, social media, email, field days, demonstration, training, campaign, exhibition, farmer tours, advisory services, film shows, TV show/talk, use of leaflet, bulletin, farm magazine etc. The use of right and efficient method for transferring technologies to farmers play a very important role in adoption of innovation and practices. The wrong selection of communication method by extension functionaries is not only restricted the adoption of innovation but negatively affected the future work also. The lack of coordination and integration among farmers, extension functionaries and

researchers impede the development of rural people and agricultural production.

Thus, there is a need to find out ways and means to bridge the gap between what is known and what is practiced. To uplift the farmers and achieve a high level of production, it is not enough to develop technologies, but it is also necessary to transfer these technologies to rural people in proper way. Looking to above facts, the present investigation was undertaken to examine the "Communication methods used by extension functionaries for transfer of technology to farmers".

MATERIALS AND METHODS

Present study was conducted in Sardarkrushinagar Dantiwada Agricultural University jurisdiction. A sample of 100 extension functionaries was selected for the present study. Purposive random sampling was used for sample selection. Questionnaire method was used for data collection. Questionnaire was developed by researcher which consisted of three sections viz; background information, communication methods used by extension personnel for transfer of farm technology and problems faced by them. Data was analyzed by using frequency, percentage, mean and correlation.

RESULTS AND DISCUSSION

Demographic profile of the respondents

Demographic profile of the respondents shows that nearly half of the respondents were of age between 25-37 years (48.0%) and educated up to post graduation (53.0%) and Ph.d. (41.0%). Fifty three per cent

respondents belonged to the general caste and 41 per cent respondents were from backward caste. Three fourth respondents (75%) are earning 6 to 10 lakhs per annum. Thirty two percent respondents have been working for more than 15 years whereas 11 percent respondents had job experience of 10 to 15 years. Twenty one percent respondents had less than 5 years of service experience. 36 percent respondents had job experience of 6-10 years.

Regarding experience in transfer of technology, 31 percent respondents had less than five years of experience in transfer of technology to the farmers while 40 per cent had 6 to 10 years of experience in extension work. Twenty percent respondents were involved in transfer of technology to farmers from more than 15 years. Less than half of the respondents (41%) attended more than three training programmes while almost equal number of respondents attended two (20%) and three (23%) trainings respectively. Nine respondents did not attend any training yet. More than half of the respondents (53%) had nuclear family while rest (46%) had joint family with small (43%) and medium (35%) size family. It is encouraging to note that all the respondents had mobile phones and internet facility either at office or home. Majority of the respondents had computer (68%), laptop (77%) and TV (86%). Thirty per cent respondents had landline phones.

Communication Methods used by Extension Personnel for Transfer of Technology to Farmers

Data regarding communication methods used by extension personnel for transfer of technology to farmers is given in Table 1. Data show that the training was most used

method by extension personnel to transfer technology to farmers with rank first (3.09MS) which followed by group meeting (2.97 MS). The reason might be that the organisation of training is mandatory for most of extension institutes. Further training is the best method to convey detailed information to farmers. The reason for more use of group meeting might be that it is an easy way to take decision and resolve issues in a group and sending information to a group of people at the same time and being able to get their response. The findings are in accordance with the findings of *Ghanghas* (2011) who reported that the most commonly used group contact methods were group meetings and, demonstrations.

Farm and home visit was used by majority of the extension personnel (2.55 MS). These visits facilitate the extension personnel to have a better knowledge of their conditions and also build a personal relationship and bonding with them which would assist them in giving customised advice to particular farmer. Farmers -

scientist interaction (2.92MS) and farmers' visit to the centre (2.87 MS) were also used frequently by extension personnel as farmers get help from scientist in solving the problems related to crop, credit, inputs etc. Demonstration (2.78 MS), *kisan goshti* (2.55 MS), field-days (2.71 MS) were often used by extension personnel for transfer of technology to farmers. Campaign (1.13 MS) was the least used method.

Similar findings are reported by *Surudhi et al.* (2017) that the extension functionaries frequently used telephone, office calls and farm and home visits for transferring technologies to farmers. SMS based communication was very rarely used by extension functionaries. Meetings was the frequently used and demonstrations, farmer field school, farmer interest groups, field trips and farmer training programmes were moderately adopted group methods.

Media used by Extension Personnel for Transfer of Technology to Farmers

Data regarding media used by extension personnel for transferring technologies to

Table: 1 Distribution of respondents according to use of methods for transfer of technology to farmers. n=100

S. No.	Methods	Mean	Rank
1.	Training of farmers	3.09	I
2.	Group meetings	2.97	II
3.	Farm & home visit	2.94	III
4.	Farmer-scientist interaction	2.92	IV
5.	Farmers' visit to the centre	2.87	V
6.	Demonstrations(Result/method)	2.78	VI
7.	Field days	2.71	VII
8.	Kisangoshti	2.55	VIII
9.	Diagnostic visit	2.11	IX
10.	Exhibitions	1.94	X
11.	Farmers Fare and Krushi mahautsav	1.91	XI
12.	Exposure visit	1.86	XII
13.	Campaigns	1.13	XIII

farmers are presented in table 2. Increasing use of phones or mobile phone has changed the agricultural communication process. Extension personnel can communicate with farmers at any time through mobile. Thus, most of the extension personnel used telephone call (2.95 MS) to transfer information to farmers which followed by whatsapp (2.55 MS) and SMSs (2.11 MS). Extension functionaries sent voice messages to farmers which were easily understood by illiterate farmers too. Although literacy level is not good of the older farmers but messages sent by extension person are read by younger member of family and communicate to them.

Regarding farm literature, extension

personnel used leaflet, bulletin (0.39), folder, farm magazine, booklet for transfer of technology. They expressed that they use these media as per the availability. Leaflets (2.11 MS) were used by most of extension personnel for giving precise information on any topic to farmers. Leaflets are very handy and attractive which makes them popular among farmers. It is cheaper than folders and booklets which increased its usages. Extension functionaries preferred folders (1.78MS) for giving detailed information to farmers. Bulletins (0.39MS) and farm magazines (0.28MS) were least used farm literature for transferring technologies.

Emails (0.91) were used by very few functionaries. Extension personnel used

Table: 2 Distribution of respondents according to use of media for transfer of technology to farmers

n=100

S. No.	Media	Use <i>f</i> (%)	Mean	Rank
PRINT MEDIA				
1	Farm literature			
	✓ Leaflets	68	2.11	IV
	✓ Folder	59	1.78	VI
	✓ Booklet	36	0.73	X
	✓ Bulletins	13	0.39	XI
	✓ Farm Magazine	9	0.28	XII
Electronic Media				
2	Radio			
	✓ Radio talks	35	0.95	VIII
3	TV			
	✓ T.V. talks	41	1.21	VII
4	Telephone			
	✓ Calls	81	2.95	I
	✓ SMS	68	2.14	III
5	Mobile Apps			
	✓ Whatsapp	73	2.55	II
6	Internet			
	✓ emails	30	0.91	IX
7	Educational films/video show	62	1.83	V

email for official communication rather than contacting farmers.

Radio (0.95 MS) and TV (1.21MS) were less used media by extension personnel for transferring technologies. The reason for less use of TV and Radio might be that the production of programmes is not within the reach of extension personnel. The similar findings were reported by Surudhi et al, (2017) and Melak and Negatu (2012), they found that television and radio were rarely used by the extension functionaries.

Educational film or video show was used by sixty two percent functionaries. Although it is liked by farmers but facilities like projector, screen, electricity etc were not available in all the villages.

Personal and Institutional Problems Faced by Extension Personnel

Data regarding personal and institutional problems faced by extension personnel is presented in table 3. It is apparent from data that more office work than technical work was reported by 87 percent respondents.

The other constraints reported by the respondents were huge geographical area to cover (68%), poor economic condition of farmers (66%), scarcity of need based researches on different aspects (64%), shortage of staff (64%), less need based policy and programmes (63%). Constraints like improper interaction mechanisms (50%), and lack of co-ordination among various units (45%) restrict the extension personnel to transfer technology to farmers. Some of respondents also faced problems of vehicle (36%), funds (25%), inputs (18%) and communication facilities (12%) in transfer of technology to farmers.

Similar results are reported by Madhvan et al (2016) that constraints faced by Agricultural Assistants in transferring technologies were constraints in Input supply, administrative aspects. Additional work load which affect the routine work during natural calamities and risk in input supply were found as the most severe ones. Surudhi *et al.* (2017) reported that major

Table: 3 Distribution of respondents according to personal and institutional problems faced by extension personnel n=100

S. No.	Nature of Problem	f %
1.	More office work than technical	87
2.	Poor facilities like	
	✓ Vehicle	36
	✓ Funds	25
	✓ Lack of Staff	64
	✓ Inputs	18
	✓ communication facilities	12
3.	Less co-ordination among various units	45
4.	Shortage of appropriate researches on different aspects	64
5.	More geographical area to cover	68
6.	Inappropriate interaction mechanisms	50
7.	Poor economic condition of farmers	66
8.	Highly opinionated political interference	43
9.	Less need based policy and programmes	63

Table 4 Correlation between socio-economic characteristics of extension functionaries with communication methods and media used by them for transferring technologies to farmers n=100

S. No.	Independents Variables	Dependent variables	
		Communication methods	Communication media
		r value	r value
1.	Age	-.088	.080
2.	Education	.190	.250*
3.	Income	.104	.294**
4.	Job Experience	.068	.096
5.	Experience in transfer of technology	.042	.138
6.	Trainings attended	.344**	.140
7.	Parental Occupation	-.041	-.104
8.	Media possession	.077	.064

constraints expressed by the respondents were lack of appropriate technologies for transfer of technologies, poor infrastructure facilities and lack of input supply for programmes implementation, inadequate staff strength in respective departments and lack of proper transfer policy, lack of support from superiors and colleagues and lack of participation in programme planning.

Correlation between communication methods and media with sets of independent variables

In order to ascertain relationship if any between socio- demographic variables (age, education, income, job experience, experience in transfer of technology, trainings attended, parental occupation, media possession and communication media and methods, pearson's correlation was computed. This has been presented in Table 4. It is apparent from data that only three variables namely training attended, education and income were positively and significantly correlated with linkages used for transfer of technology to farmers by extension personnel. Age is negatively

correlated with communication methods and media used by extension personnel.

CONCLUSION

On the basis of findings it can be concluded that most used methods for transferring information to farmers by extension functionaries were training, group meeting, telephone calls, farm and home visit, demonstration. Many times significant technologies could not reach to farmers due to more office work, large coverage area, lack of staff and lack of need based appropriate researches. Thus the efforts should be made to take appropriate measures to resolve the constraints and strengthen the means and mechanism for transferring technologies so that the rural community may not get deprived of the any technologies.

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