



Research Article

## Credibility usefulness and utilization of communication sources and channels as perceived by wheat growers

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**SUMMARY :** Present study was conducted in Bharatpur district of Rajasthan. Results indicated that the important channels considered as 'most useful' and 'useful' by the majority of respondents were 'result demonstration', 'method demonstrations', 'training, group meeting and discussion' under personal cosmopolite channels. Agricultural supervisor, KVK scientist, progressive farmers and friends under personal localite channels', 'radio and film show and print media' under impersonal cosmopolite channels. Regarding the degree of usefulness of different communication channels is concerned, about 61% respondents considered the personal cosmopolite channels as useful, 57% considered personal localite channel while, 44% considered the impersonal cosmopolite channels as 'most useful' and 'useful'. It was also revealed in the study that adoption of seed technology, nitrogenous fertilizers and weedicides in wheat production was positively and significantly related with the communication behaviour of farmers. Further, the knowledge level of farmers regarding wheat technology was positively and significantly related with use of personal cosmopolite, localite and impersonal cosmopolite channels. Whereas, the level of attitude of farmers was positively and significantly related with use of personal cosmopolite as well as localite communication channels. The study highlighted that demonstration, scientists of ARS/KVK/ Agricultural university scientists and trainings activities were found most credible followed by print media.

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**KEY WORDS :**

Attitude, Channels, Communication behaviour, Training, Demonstration, Radio, Credibility, Sources

### **BACKGROUND AND OBJECTIVES**

It is generally accepted that communication is the basic step affecting changes in any aspect of clientele system. It is being said that the greater the number of information sources sought, the greater the adoption. Mass media plays an important role in communication of agricultural technology. There are many sources of information. Some would like to get information from personal cosmopolite channel, personnel localite and impersonal cosmopolite channels. The source preference and source utilization may also differ at different stage of innovation decision process depending upon the socio-economic, educational and other personal characteristics of farmers. Some of the communication sources are very effective as compared to others and have their own credit worthiness in communication of messages.

In present study an effort has been made to identify different sources of information and most utilized sources for developing a suitable approach to evolve an effective communication strategy. Hence, the study was undertaken with the following specific objectives:

- To study the use full and effectiveness of different communication channels being used by the farmers in adoption of wheat production technology.
- To find out degree of usefulness of different communication channels in adoption of wheat production technology.
- To find out association between communication sources utilized with adoption behaviour, level of knowledge and attitude of farmers towards wheat production technology.

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- To find out association between communication sources used with the level of knowledge and attitude of farmers towards of wheat production technology.
- To find out the credibility of information sources as perceived by wheat growers.

## RESOURCES AND METHODS

The study was conducted in the Bharatpur district of Rajasthan. Out of 9 Panchayat Samities in the district, 3 Panchayat Samities namely, Kumher, Sewar and Nadbai were selected purposively. Three villages were selected randomly from each Panchayat Samiti this way in all 9 villages were selected. To constitute a sample of 225 respondents 25 farmers who were growing wheat since last five years were selected from each village. The data were collected through specially developed interview schedule which was duly modified before the final use, The schedule was pre-tested and the data collected were duly processed and on the basis of which findings were finalized.

A five point scale was used to measure the degree of usefulness of communication channel in dissemination wheat production technology. The five points were most useful, useful, less useful, least useful and not useful, the score assigned were 5, 4, 3, 2 and 1, respectively. The usefulness of communication channels were worked out for each channel by adding the scores of all the respondents. The effectiveness of channel was worked out separately for personal cosmopolite, personal localite and impersonal cosmopolite channels. The collected data were tabulated, statistically analyzed and interpreted in light of the objectives setforth the study.

## OBSERVATIONS AND ANALYSIS

The results obtained from the present investigation have been discussed in the following sub heads:

### Usefull and effectiveness of different communication channels:

An over view of Table 1 depicts that majority of the farmer considered result demonstration (90.22 %), method demonstration (89.77%) under personal cosmopolite channel as the most useful and useful communication channels for the adoption of new technology followed by, training (78.66%) and group meeting and discussion (60.00%). Whereas, the channels which were considered to be less useful or least useful were field day, kisan mela, compaign, exhibition, farm and home visit and educational tour and field trips by 62.21, 60.44, 57.77, 55.55, 54.22 and 53.33 per cent farmers, respectively.

Under personal localite channels the A.E.O./A.A.O. (78.21%), B.D.O. (80.89%), SMS (70.22%), ICAR scientists

(65.33%), cooperative societies (68.89%), farmers organization (64.00%), Panchayat members (66.67%), gossip groups (76.89%), farm leaders (70.22%), input dealers (68.89%) and neighbours (51.11%) were considered by majority of the farmers as 'less' and 'least useful'.

The respondents considered the 'most useful' and 'useful' personal localite channels were agriculture supervisor (56.44%), ATC/KVK scientist (56.88%), progressive farmers (60.89%) and friends and relatives (50.23%), respectively.

Under impersonal cosmopolite channels the majority of respondents considered ten channels as 'Less useful' and 'Least useful' out of total 13 channels. These channels were poster/charts (61.78%) news papers and articles (59.11%), circular letter (65.78%), farm journal (70.66%), telephone calls (66.67%) krishi darshan programme (63.11%). The field board (69.78%), flip Book (66.67%), banners (55.56%) and print media (57.78%) whereas, radio, film show and personal letter were considered as most useful and useful channels by 79.79, 59.55 and 53.32 per cent farmers, respectively.

The findings are in line with the findings of Saxena *et al.* (1995), Das and Sharma (1998), Kadian and Kumar (2002), Bhagat *et al.* (2004), Katole *et al.* (2009) and Singh *et al.* (2011).

### Overall usefulness of different communication channels in adoption of wheat production technology:

The data presented in the Table 2 reveals that 31.11% respondents considered the personal cosmopolite channels as 'useful' while 30.23% respondents have considered these channels as 'most useful' to them in adoption of wheat production technology.

The table clearly indicates that 32.00% respondents found personal localite channels as 'useful' whereas 24.89% respondents considered the same as 'most useful' to them, 26.67% respondents considered channel as 'less useful'. About 17.00% respondents considered the same channels to be 'least useful' and 'not useful'. The above table further reveals that 26.67% respondents considered the impersonal localite channel as useful, 24.89% farmers considered these channels to be 'less useful' where as, about 20 per cent respondents considered the same group of channels as 'least useful'. The farmers who found impersonal cosmopolite channel as 'most useful' and not useful were 17.78% and 10.66%, respectively.

The findings of the study are in conformity with the findings of Punjabi (1990), Vashistha *et al.* (2008) and Meena (2010).

### Association between communication sources utilized and adoption behaviour of farmers about wheat production technology:

It is evident from Table 3, that a significant correlation exists between use of seed technology, use of nitrogenous

Table 1c: Usefulness of different communication channels

Sr. No.	Channels	Most useful	Useful	Less useful	Least useful	Not useful
		No. of respondents	No. of respondents	No. of respondents	No. of respondents	No. of respondents
		Percentage	Percentage	Percentage	Percentage	Percentage
1.	Personal counselling	9	72	39.00	95	49.22
2.	Home visits	78	125	55.55	29	8.89
3.	Method demonstration	34	118	37.33	19	8.45
4.	Home/field trips	25	76	33.78	32	14.22
5.	Group meetings and discussion	20	115	51.11	70	31.11
6.	Charity	15	76	33.76	98	43.55
7.	Trainings	77	100	44.44	40	17.78
8.	Workshops	15	80	34.55	95	42.22
9.	Field day	18	60	22.66	100	46.66
10.	Kisan Mela	8	70	31.11	100	44.44
	Personal counselling					
1.	Agri. Supervisor	35	92	40.89	71	31.56
2.	AIOS/AAO	3	30	13.54	98	43.55
3.	IBDO	0	22	9.77	101	44.89
4.	AIC/KVK specialist	45	83	36.88	60	26.66
5.	Cooperative societies	4	60	26.67	110	48.89
6.	SMSS	6	52	23.11	96	42.67
7.	Homeowners associations	2	69	27.55	112	49.78
8.	Panelayat members	6	58	25.78	112	49.78
9.	Progressive farmers	27	110	48.89	66	29.33
10.	Friends/Relatives	8	106	46.67	82	36.44
11.	Neighbour	14	85	37.78	97	43.11
12.	Group meetings	3	18	8.89	98	43.56
13.	Home leaders	9	45	20.00	90	40.00
14.	Input dealers	14	44	19.56	130	57.78
15.	ICAR specialists	4	62	27.56	124	55.11
	Impersonal counselling					
1.	Radio	78	102	45.33	28	12.44
2.	Personal letter	28	92	40.88	78	34.67
3.	Poster/Chart	4	62	27.55	94	41.78
4.	Wall show	32	102	45.33	56	24.89
5.	Print media	18	60	26.67	88	39.11
6.	News paper and articles	8	60	26.67	92	40.89
7.	Circular letters	9	53	23.55	88	39.10
8.	Home journals	4	40	17.78	76	33.33
9.	Telephone calls	0	10	4.44	52	23.11
10.	Kisan diakhana (demonstration programme)	0	8	3.55	50	22.22
11.	Field board	2	35	15.55	70	31.11
12.	Map book	3	28	12.44	68	30.22
13.	Journal	0	5	2.22	44	19.56
	AIIC : Agriculture Extension Officer,					
	SMSS : Specialist,					
	KVK : Kisan Vigyan Kendra,					
	AIC : Agriculture Head Centre,					
	AIOS : Assistant Agriculture Officer,					
	ICAR : Indian Council For Agricultural Research,					
	IBDO : Block Development Officer,					

fertilizer and weedicides with the utilization of all communication channels by the farmers. Where as adoption of all six technologies *i.e.* seed, nitrogenous and phosphoric fertilizer, plant protection, weedicides and irrigation technologies were found to be significantly related with utilization of impersonal communication channels by the farmers. However, seed, nitrogenous fertilizers, plant protection measures and weedicides technologies were also found significantly related with the utilization of personal localite channels.

The result clearly indicates that the extent of adoption of agricultural technology are constantly influenced by the use of different communication channels by the farmers. The phosphatic fertilizer, plant protection measures and irrigation are the three important technologies related to wheat production were not found significantly related with utilization of personal cosmopolite channels, where as, use of phosphatic fertilizers and irrigation technology were not found significantly related with use of personal localite channels.

The findings are in the agreement with the observation of the similar findings have been reported by Singh (1981) and Shirke *et al.* (2002).

### Association between communication behaviour, level of knowledge and attitude of farmers about wheat production technology:

The Table 4 clearly indicates that there was a positive and significantly correlation between the level of knowledge and attitude of the farmers towards wheat production technology with the communication behaviour, although it was not significant in one aspect only *i.e.* use of impersonal cosmopolite channels and attitude.

The findings accordance with the findings of Singh (1981), Punjabi (1990), Bareth and Intodia (1998) and Meena *et al.* (2010).

### Credibility of information sources :

Credibility refers to the trustworthiness of information sources as perceived by farmers is an important factor and gave weightage to the information source. The data presented in Table 5, reveal that farmers preference of sources for getting agricultural information was based on the credibility of the source as they perceived it on the basis of the institutes/

**Table 2 : Overall usefulness of different communication channels in adoption of wheat production technology**

Sr. No.	Degree of usefulness	Personal cosmopolite channels		Personal localite channel		Impersonal cosmopolite channel	
		No. of respondents	Percentage	No. of respondents	Percentage	No. of respondents	Percentage
1.	Not useful	12	5.33	15	6.66	24	10.66
2.	Least useful	20	8.89	22	9.78	45	20.00
3.	Less useful	55	24.44	60	26.67	56	24.89
4.	Useful	70	31.11	72	32.00	60	26.67
5.	Most useful	68	30.23	56	24.89	40	17.78
	Total	225	100	225	100	225	100

**Table 3 : Correlation coefficient between communication sources and adoption behaviour of wheat growers**

Sr. No.	Adoption behavior	Communication channel		
		PCC	PLC	ICC
1.	Seed technology	0.297**	0.378**	0.337**
2.	Nitrogenous fertilizers	0.146**	0.389**	0.346**
3.	Phosphatic fertilizers	1.420NS	0.11NS	0.329**
4.	Plant protection measures	0.0074NS	0.228**	0.257**
5.	Weedicides	0.156**	0.149**	0.141**
6.	Irrigation technology	0.114NS	0.096NS	0.186**

\* and \*\* indicate significance of values at P=0.05 and 0.01, respectively

NS = Non-significant,

PCC = Personal cosmopolite channels

PLC= personal localite channels,

ICC= impersonal cosmopolite channels

**Table 4 : Correlation coefficient between communication sources utilized with level of knowledge and attitude of farmers towards wheat production technology**

Sr. No.	Communication behavior	Knowledge (r)	Attitude (r)
1.	Personal cosmopolite channels	0.468**	0.461**
2.	Personal localite channels	0.216**	0.113**
3.	Impersonal cosmopolite channels	0.277**	0.023NS

\* and \*\* indicate significance of values at P=0.05 and 0.01, respectively

NS = Non-significant

**Table 5 : Ranking of communication sources on the basis of credibility**

Sr. No.	Communication sources	Rank order	Rank co-efficient
1.	Agriculture supervisor	VI	0.15
2.	AEO/SMS/BDO	VII	0.14
3.	ARS/KVK Scientist	II	0.35
4.	Radio	V	0.20
5.	Progressive farmers	IX	0.12
6.	Friends/relatives	XIII	0.05
7.	Demonstrations	I	0.38
8.	Print media	IV	0.26
9.	Tour/field trips	X	0.10
10.	Training	III	0.33
11.	Field day	XI	0.08
12.	Film show	XIII	0.13
13.	Input dealers	XII	0.06
14.	Kisan mela/exhibition	XIV	0.03

person/ authority's image in the society.

An effort was made to rank different important sources on the basis of credibility. It is clear from Table 5 that demonstration was considered as a most credible source and ranked first followed by ARS/KVK scientists, trainings, print media and radio for getting agricultural information. On the other hand extension officials of state Departments of Agriculture were also considered as fair and gave weightage in adoption of wheat production technology. However film shows, progressive farmers, tour/ field trips, input dealers, friends/ relatives and kisan mela/ exhibition were perceived as least credible source .

Similar findings have also been reported by Rai and Choubey(1985), Seema *et al.* (1992), Das and Sharma (1998), Bordoloi *et al.* (2003), Yadav *et al.* (2008) and Meena (2010).

### Conclusion:

From the foregoing explanation it could be concluded that the result demonstration, method demonstration, training, group meeting and discussion were important personal cosmopolite channels, considered use full by farmers. The Agriculture Supervisor, ATC/KVK scientists, progressive farmers and friends under personal localite channel and radio, film show and print material under impersonal cosmopolite channel were also considered as use full channels. Where as, the channels which were considered either 'less useful' and 'least useful' were field days, kisan mela, exhibitions, tour and field trips, farm and home visit under personal cosmopolite channels. Similarly, under personal localite channels AAO, BDO, SMS, cooperative societies, farmers organizations, Gram Panchayat members, gossip group, farm leaders, input dealers and relatives were considered as less or least use full. So as the case with the poster chart, printed material, news paper articles, farm journals, telephone call, Krishi Darshan

programme and banners under impersonal cosmopolite channel.

The other important conclusions drawn towards the degree of usefulness of different communication channels, is that 61% respondents considered the personal cosmopolite channels and about 57% farmers considered personal localite channels as use full and most use full channels while 44% respondents considered the interpersonal cosmopolite channels as 'most useful' and 'useful'.

It can also be concluded from the present study that the seed technology, nitrogenous fertilizer and weedicides were the three important components of wheat production technology which shows positive trend so far the adoption of these practices was concerned. The adoption of wheat production technology was influenced by the use and availability of communication channels. There were positive significant correlation exists between the knowledge and attitude of the farmers with communication behavior. This study also revealed that farmer's preference for getting agricultural information is based on the credibility of the sources, demonstration, scientists of ARS/KVK/ Agricultural university scientists and trainings activities were found most credible followed by print media.

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