

Information seeking and processing behaviour of KVK's SMS for transfer of technology

■ Prakash Kadam* and Nitin Thoke

Krishi Vigyan Kendra, (Y.C.M. Open University), NASHIK (M.S.) INDIA

(Email: kgpk75@gmail.com)

ARTICLE INFO :

Received : 26.02.2016
Revised : 08.04.2016
Accepted : 12.05.2016

KEY WORDS :

Information seeking, Information processing, Behaviour

HOW TO CITE THIS ARTICLE :

Kadam, Prakash and Thoke, Nitin (2016). Information seeking and processing behaviour of KVK's SMS for transfer of technology. *Adv. Res. J. Soc. Sci.*, 7 (1) : 62-67, DOI: 10.15740/HAS/ARJSS/7.1/62-67.

*Author for correspondence

ABSTRACT

The availability of information sources has drastically increased in all fields in various forms and formats during the last two decades. Information seeking behaviour is an essential component in designing and developing of need based information centers for meeting the information requirements of users. In order to serve agriculture scientists better and design and develop need based information systems and its surrogates. It is an urgent need to focus on the information seeking and processing behaviour of the agriculture scientists covering all facets of their information seeking and processing behaviour. It is necessary to have a clear understanding the various concepts related to information seeking and processing behaviour of agriculture scientists. The study revealed that more than half (57.52 %) of the Subject Matter Specialists had medium level of information seeking behaviour followed by low level (23.53 %). Most (84.31 %) of the respondents 'always' receive information on scientific agriculture by self-observation method. More than three fourth of the SMS 'always' used group contact sources like discussion with colleagues (77.12 %) and discussion with farmers (79.13 %). About 86.27 per cent and 81.04 per cent of the SMS 'always' used the print media viz., extension publications and newspapers, respectively for information seeking for transfer of technology. Large majority of Subject Matter Specialists evaluated, stored and transformed agricultural information by discussion with fellow scientists and extension personnel, writing in notebooks, and preparation of research report. Majority (70.59 %) of participants exhibited medium level of information processing behaviour followed by 15.69 per cent who had low level of information processing behaviour. More than 90.00 per cent participants stored agricultural information by writing in general notebooks and transformed information by preparation of research report, writing of research/extension articles, folders and radio-talk.

INTRODUCTION

Information seeking and processing behaviour involves the searching, locating, retrieving, and using of information. This process is influenced by the personality, emotional variables, educational variables and

demographic variables of the person who seeks and process information. Knowledge about the information seeking and processing behaviour of scientists could play a vital role in meeting their information needs effectively. There is rich agricultural technology available, but full use of it is not satisfactory in many parts of the country.

It is necessary to select quick and effective system of transfer of technology to keep farmers in tune with these recent agriculture technologies.

The work of transfer of farm technology is mainly undertaken by the State Department of Agriculture, State Agricultural Universities and Krishi Vigyan Kendras. The Subject Matter Specialists of Krishi Vigyan Kendras play an important role in this regard. The Subject Matter Specialists seek to reach the farming community through different extension teaching methods grouped as individual, group and mass contact by giving proper treatment to technological messages. Information processing encourages the development towards a science and technology of agriculture information through promoting the use of knowledge and methods from the information processing technologies in the agriculture.

MATERIAL AND METHODS

This study employs an exploratory survey method and a structured questionnaire as a research technique to collect primary data from the sample. The sample comprising 153 SMS of various disciplines from Krishi Vigyan Kendra's of Maharashtra. On the basis of the review of literature having direct and indirect bearing on the problem the conceptual framework was developed for the study. The schedule was developed in accordance with the objectives laid down for the study. The schedule was pre-tested before using it for collecting data. The collected data were analyzed by using different statistical and arithmetical tools.

To calculate the information seeking and processing behaviour, the respondents were requested to give their responses on sources, channels used and methods used by them for information storage, evaluation and transformation. The frequency was measured as 'always', 'sometimes' and 'never' with the scores of 2, 1 and 0, respectively. The sum total of these scores constituted the information seeking and information processing score.

Considering the information seeking and information processing score of the respondents, they were grouped into three categories on the basis of mean \pm S.D.

Sr. No.	Category	Information seeking behaviour Score	Information processing behaviour Score
1.	Low	Upto 26	Upto 23
2.	Medium	27 to 44	24 to 32
3.	High	45 and above	33 and above

OBSERVATIONS AND ANALYSIS

The results obtained from the present investigation as well as relevant discussion have been summarized under following heads :

Information seeking behaviour of subject matter specialists :

The data in respect of various channels / media used by Subject Matter specialists for seeking the scientific agricultural information are given in Table 1.

It is observed from Table 1 that more than half (57.52 %) of the Subject Matter Specialists had medium level of information seeking followed by low level of information seeking (23.53 %) and 18.95 per cent had high level of information seeking. This shows that majority of the Subject Matter Specialists had medium level of information seeking at their work place in Krishi Vigyan Kendras from individual sources, group sources and mass media sources.

Sr. No	Information seeking behaviour	No. of respondents	Percentage
1.	Low (Upto 26)	36	23.53
2.	Medium (27 to 44)	88	57.52
3.	High (45 and above)	29	18.95
	Total	153	100.00

(SD: 8.96, M: 35.25)

Individual sources used by subject matter specialists:

It is observed from Table 2 that most (84.31 %) of the Subject Matter Specialists 'always' receive information on scientific agriculture by self-observation method. Majority of the Subject Matter Specialist 'sometimes' used telephone calls (73.86 %) and extension personnel (79.08 %) for seeking information.

Group contact sources used by subject matter specialists:

More than three fourth of the Subject Matter Specialists 'always' used group contact sources like discussion with colleagues(77.12 %) and discussion with farmers (79.13 %). Majority (70.59 %) of the respondents 'sometimes' used group discussion method, training class as media (73.20 %), professional meetings (71.90 %) and seminar / workshops, (64.05 %) for seeking information.

Print media used by subject matter specialist :

About 86.27 per cent and 81.04 per cent of the Subject Matter Specialists 'always' used the print media viz., extension publications and newspapers, respectively. However, the research journals were 'always' used by 60.13 per cent respondents and 71.89 per cent used the textbooks /magazines for seeking information.

Electronic media used by subject matter specialist :

Nearly half (50.98 %) of the respondents 'always' used Internet as media to get information on recent agricultural technology. About more than half of Subject

Matter Specialist 'sometimes' used farm radio broadcast and farm telecast to receive the information on scientific agriculture.

It can be concluded that Subject Matter Specialist has 'always' given more emphasis on print media for information seeking. Whereas, they have given preference to receive information through the media such as group contacts, individual sources, electronic media and other sources. Use of internet by half of the SMSs is an encouraging finding.

These findings of the present study are similar to those of Patil (1983); Veeraswamy *et al.* (1992); Jawahar

Table 2 : Distribution of SMS according to sources use for information seeking behaviour

Sr. No.	Channels/sources	Frequency of use (n = 153)		
		Always	Sometimes	Never
Individual sources				
1.	Personal letters	4 (2.61)	8 (5.23)	141 (92.16)
2.	Telephone calls	22 (14.38)	113 (73.86)	18 (11.76)
3.	Extension personnel	8 (5.23)	121 (79.08)	24 (15.69)
4.	Self-observation	129 (84.31)	18 (11.77)	6 (3.92)
5.	Immediate superior	45 (29.41)	97 (63.40)	11 (7.19)
Group sources				
1.	Group discussion	28 (18.30)	108 (70.59)	17 (11.11)
2.	Training class	36 (23.53)	112 (73.20)	5 (3.27)
3.	Visit to demonstration sites	72 (47.06)	78 (50.98)	3 (1.96)
4.	Seminar/workshop	41 (26.80)	98 (64.05)	14 (9.15)
5.	Professional meetings	35 (22.87)	110 (71.90)	8 (5.23)
6.	Discussion with colleagues	118 (77.12)	31 (20.26)	4 (2.62)
7.	Discussion with farmers	122 (79.73)	27 (17.65)	4 (2.62)
Mass media sources				
<i>Print media</i>				
1.	Extension publications	132 (86.27)	20 (13.07)	1 (0.66)
2.	Newspapers	124 (81.04)	19 (12.42)	10 (6.54)
3.	Research journals	92 (60.13)	47 (30.72)	14 (9.15)
4.	Textbooks/Magazines/others	110 (71.89)	38 (24.84)	5 (3.27)
<i>Electronic media</i>				
1.	Farm radio broadcast	48 (31.37)	87 (56.86)	18 (11.77)
2.	Farm telecast	31 (20.26)	94 (61.44)	28 (18.30)
3.	Video films	23 (15.03)	62 (40.52)	68 (44.45)
4.	VCD	33 (21.57)	67 (43.79)	53 (34.64)
5.	Internet	78 (50.98)	62 (40.52)	13 (8.50)
<i>Other sources</i>				
1.	Farmers day	22 (14.38)	75 (49.02)	56 (36.60)
2.	Agriculture exhibition	47 (30.72)	97 (63.40)	9 (5.88)
3.	Farmers rallies	21 (13.73)	114 (74.51)	18 (11.76)

The figures in the parentheses indicate the percentages

(1993); Santiprabha (1994); Borase (1997) and Mali (2004).

Information processing behaviour of subject matter specialists :

The findings pertaining to the information processing behaviour of Subject Matter Specialists *viz.*, methods of information evaluation, methods of information storage and methods of information transformation are given in Table 3.

It is observed from Table 3 that majority (70.59 %) of the Subject Matter Specialist had medium level of information processing behaviour followed by 15.69 per cent who had low level of information processing and 13.72 per cent had high level of information processing behaviour. This shows that more than two third of Subject Matter Specialists had medium level of information processing behaviour at their work place in Krishi Vigyan Kendra for methods used for information evaluation, information storage and information transformation.

Methods of evaluating information :

The methods of evaluation of the agricultural information used by the Subject Matter Specialists are shown in Table 4.

It is revealed from Table 4 that a large majority (more than 90.00 %) of Subject Matter Specialists evaluated agricultural information by ‘discussion with

fellow scientists and extension personnel’, ‘examine its validity’ and ‘consider the technical feasibility’. ‘Analysis in the light of past experience’, ‘judge against the socio economic and agro climatic condition of the area’ and ‘cross check against past researchers’ were the most commonly used methods of evaluation.

Thus, almost all the Subject Matter Specialists were found using all methods for evaluating the agricultural information. Subject Matter Specialists were found to be holding discussion with other knowledgeable sources such as researchers, specialists, extension personnel. Now, the choice of person to have discussion depend upon number of factors such as knowledge level, willingness to co-operate, attitudes towards the agricultural development and his own experiences with the technology. From this, one thing can be suggested which involves less risk but gives accurate results. Thus, though it is time consuming, this method will conveniently prove the utility of new technology and build upon the confidence among the Subject Matter Specialist.

The findings of the present study are similar to those of Veeraswamy *et al.* (1992); Jawahar (1993) and Veeraswamy *et al.* (1994).

Methods of storing information :

The findings pertaining to the methods used by the Subject Matter Specialist for storing the information received are gives in Table 5.

The data from Table 5 indicated that large majority

Sr. No	Information processing behaviour	No. of respondents	Percentage
1.	Low (upto 23)	24	15.69
2.	Medium (24 to 32)	108	70.59
3.	High (33 and above)	21	13.72
	Total	153	100.00

(SD: 4.68, M: 27.43)

Sr. No.	Types of evaluation	Frequency of use (n=153)		
		Always	Sometimes	Never
1.	Analysis in the light of past experience	138 (90.20)	13 (8.50)	2 (1.30)
2.	Examine its validity	139 (90.85)	13 (8.50)	1 (0.65)
3.	Cross check against past researchers	138 (90.20)	11 (7.19)	4 (2.61)
4.	Judge against the socio-economic and agro climatic conditions of the area	140 (91.51)	11 (7.19)	2 (1.30)
5.	Consider technical feasibility	143 (93.47)	7 (4.57)	3 (1.96)
6.	Discuss with specialists	141 (92.16)	10 (6.54)	2 (1.30)
7.	Discuss with fellow scientists and extension personnel	140 (91.50)	10 (6.54)	3 (1.96)

The figures in the parentheses indicate the percentages

(90.86 %) of the Subject Matter Specialists stored agricultural information by 'writing in notebooks' closely followed by 'memorizing' (81.05 %), 'maintaining the specified notebook' (79.74 %), 'making reference cards' (77.78 %) and 'making subject wise file' (67.62 %).

It can be said that Subject Matter Specialist rely mainly on writing in notebooks for storage of agricultural information which is desirable.

These findings of the present study are consistent with the findings of Khonde (1985); Veeraswamy *et al.* (1992) and Jawahar (1993).

Methods of information transformation :

The various information transformation procedures employed by Subject Matter Specialist are presented in Table 6.

It is seen from Table 6 that more than 90 per cent of the Subject Matter Specialists transformed information by preparation of research report, writing of research/ Extension articles, Slides / Photographs and Radio-talk Folders / Posters / Charts / Flash cards.

The Subject Matter Specialists should be encouraged in using these methods to greater extent and also be provided with facilities and material so as to enable them to perform their role more effectively.

Similar findings were reported by Ambastha (1980); Veeraswamy *et al.* (1992) and Jawahar (1993).

Conclusion :

Information seeking behaviour of the SMS :

- More than half (57.52 %) of the Subject Matter Specialists had medium level of information seeking behaviour followed by low level (23.53 %).
- Most (84.31 %) of the Subject Matter Specialists 'always' receive information on scientific agriculture by self-observation method.
- More than three fourth of the Subject Matter Specialists 'always' used group contact sources like discussion with colleagues(77.12 %) and discussion with farmers (79.13 %).
- About 86.27 per cent and 81.04 per cent of the Subject Matter Specialists 'always' used the print media *viz.*, extension publications and newspapers, respectively for information seeking.

Information processing behaviour of the SMS :

- Majority (70.59 %) of the Subject Matter Specialist exhibited medium level of information processing behaviour followed by 15.69 per cent who had low level of information processing behaviour.
- Large majority *i.e.*, more than 90.00 per cent of Subject Matter Specialists evaluated agricultural information by discussion with fellow scientists

Sr. No.	Method of storage	Frequency of use (n = 153)		
		Always	Sometimes	Never
1.	Maintaining the specified notebook	122 (79.74)	19 (12.42)	12 (7.84)
2.	Making reference cards	119 (77.78)	26 (16.99)	8 (5.23)
3.	Writing in notebooks	139 (90.86)	12 (7.84)	2 (1.30)
4.	Making subject wise file	103 (67.32)	38 (24.84)	12 (7.84)
5.	Memorizing	124 (81.05)	27 (17.65)	2 (1.30)
6.	Never try to store any material	3 (1.96)	4 (2.61)	146 (95.43)

The figures in the parentheses indicate the percentages

Sr. No.	Method of transformation	Frequency of use (n=153)		
		Always	Sometimes	Never
1.	Preparation of research report	146 (95.43)	5 (3.27)	2 (1.30)
2.	Writing of research/Extension articles	144 (94.12)	6 (3.92)	3 (1.96)
3.	Radio-talk	142 (92.81)	9 (5.89)	2 (1.30)
4.	Folders/Posters/Charts/Flash cards	138 (90.20)	11 (7.19)	4 (2.61)
5.	Slides/Photographs/PowerPoint	141 (92.16)	8 (5.23)	4 (2.61)

The figures in the parentheses indicate the percentages

and extension personnel, examined its validity and considered the technical feasibility.

- Large majority (90.86 %) of the Subject Matter Specialists stored agricultural information by writing in general notebooks, closely followed by memorizing (81.05 %) and maintaining the specified notebook (79.74 %).
- More than 90 per cent of the Subject Matter Specialists transformed information by Preparation of research report, writing of research/Extension articles, Slides / Photographs and Radio-talk Folders / Posters / Charts / Flash cards.

REFERENCES

- Ambastha, C.K. (1980). Communication pattern of farm scientists. *Indian J. Extn. Edu.*, **16** (1& 2) : 34-38.
- Ambastha, C.K. and Singh, K.N. (1977). Communication pattern of farm scientists – A system analysis. *Indian J. Extn. Edu.*, **13** (1& 2) : 22-29.
- Balsubramaniam, U.A. and Radhakrishna Menon, K. (1977). Extension Personnel communication linkage with researchers. *Indian J. Extn. Edu.*, **19** (3& 4) : 61-63.
- Borase, T.R. (1997). Contribution of village Development Officers in extending agricultural information. *Indian J. Extn. Edu.*, **14** : 96-99.
- Jawahar, P. (1993). An analysis of communication patterns of agricultural researchers, extension personnel and teachers of Andhra Pradesh Agricultural University. M.Sc. (Ag.) Thesis, Andhra Pradesh Agricultural University, Rajendranagar, Hyderabad, Thesis Abstract, *Andhra Agric. J.*, **21**(4): 269.
- Khonde, S.R. (1985). Communication network of extension services and farming community. Ph.D. Thesis, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, M.S. (INDIA).
- Mali, M.E. (2004). A study of electronic media use behaviour of farm scientists for transfer of technology. M.Sc. (Ag.) Thesis, Mahatma Phule Krishi Vidyapeeth, Rahuri, Ahmednagar, M.S. (INDIA).
- Patil, S.S. (1983). Communication pattern of agricultural researchers at the main station and at the substation of the regional research station, Dharwad, Karnataka state. M.Sc. (Ag.) Thesis, University of Agricultural Sciences, Dharwad, KARNATAKA (INDIA) .
- Santiprabha, S. (1994). Utilization of mass media by Andhra Pradesh Agricultural University scientists. M.Sc. (Ag.) Thesis, Andhra Pradesh Agricultural University Rajendranagar, Hyderabad, A.P. (INDIA).
- Sridhar, G. (1978). An analysis of communication patterns of personnel in extension and client system – A systems approach. M.Sc. (Ag.) Thesis, Agricultural College, University of Agricultural Sciences, Habel, Bangalore, KARNATAKA (INDIA).
- Srivastava, J.P., Rai, R. and Kumar, K. (1998). Communication behavior of field extension personnel under T and V system. *Indian J. Extn. Edu.*, **34** (3&4) : 133-137.
- Veeraswamy, S., Satapathy, C. and Apparao, G. (1992). Information input, processing and output behavior of farm scientists. *Indian J. Extn. Edu.*, **28** (3&4) : 67-71.
- Veeraswamy, S., Satapathy, C. and Apparao, G. (1994). Information input, processing and output behavior of extension personnel. *Indian J. Extn. Edu.*, **30**(1-4) : 35-41.