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Research Article

STUDY OF AVAILABILITY, UTILIZATION PATTERN AND CONSTRAINTS PERCEIVED BY THE ON-LINE COMMUNICATION USERS

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Abstract- A study was carried out to find out the availability, utilization pattern and various constraints in on-line communication users as perceived by the farmers in two district of Bareilly and Rampur, Uttar Pradesh, India. About 200 on-line users farmers selected villages were randomly selected for the study. Farmers were interviewed and available information was collected. The study revealed that the maximum farmers gather information from Kissan Call Centre and the least number of farmers were receiving information from the telephone among the availability, utilization pattern of different on-line communication services found that the highest for the KCC users followed by SIS, ITC, ATIC, HKB, Telephone and CIC, respectively. The socio-economic constraints "size of small holding" as it has highest mean score (2.86), technical constraints "complexity of information" mean score (2.65), in case of administrative constraints "delay in communication of message at the right time has become barrier to the successful implementation services" mean score (2.73), political constraints "dominancy of local leadership" mean score (2.64). Most of the farmers observed that "less availability of technical information during transfer of agricultural technology" mean score (2.98) was become of availability constraints and majority of the farmers were expressed that "lack of communicative facilities between top officials and field staff" mean score (2.40) as supervision and guidance constraints.

Keywords- On-line users, Constraints, Crop production technologies and suggestion

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Introduction

There are also many information servers available in online communication services at grass root levels, some of them are effective in transfer of agricultural technology in online communication services [1-3]. The telephone, computer and internet and other online communication services are more effective for the transfer of agricultural technologies. In India, caste and class are synonymous and hence the greater use of institutional services by higher caste further reinforces the positive association between economic status and utilization of institutionalized services. The main problem in communicating new ideas to the farmers is that they are illiterate in the sense of reading and writing through very clever and showed in their job. Indian farmer is very conscious about the economics of his farming, but believes more in his own experience than other things [4]. He has infected limited facilities to learn from the experience of others. To ensure a successful communication mixture of various communication media, local extension organizations and communication skills and opinion leaders who can contribute significant role towards diverting the peoples modes of thought and action is the best recommended [5-10]. The magic of audio visual aids alone can only entertain and inform, but it does not produce the preferred behavioral change. In spite of the best efforts made by the officials to help rural poor who are below the poverty line these existed many problems and difficulties in the on-line services, implementation of various as the farmers were reported experiencing several hindrances in the execution and follow up of the various on-line service activities.

MaterialsandMethods

In this study, two type of organization, i.e. public (Agricultural Technology Information Centre, Kissan Call Centre & Sugarcane Information System) and private (Hariyali Kissan Bazaar, Chaupal Sagar & Computer and Internet Centre) are running the on-line communication services in Uttar Pradesh. Both types of organizations were identified and three centers each from both the types, organization were selected randomly. District Bareilly and Rampur were purposively selected as these districts are directly benefited by helpline services. Two blocks were selected randomly from each of the selected district. Two blocks namely Shergarh and Baheri were selected from district Bareilly and two blocks namely Bilaspur and Milak form district Rampur. So from each selected block five villages selected on random basis thus, the total 20 villages selected from four blocks. From each village, 10 farmers randomly selected. Thus, the total 200 farmers from all the selected villages were chosen for study, which were using different helpline services. Farmers were interviewed through personal interview. Prior to interview, farmers were taken in to confidence by revealing the actual purpose of the study and full care was taken in to consideration to develop good rapport with them. For the data collection well designed and pre-tested interview schedule were used. Collected data were analyzed by the help of various statistical tools i.e. three point rating scale, frequency, mean score and rank order.

Constraints measurement

The three point rating scale was exercised with the following corresponding numerical value.

1.	Agree	3 Score
2.	Undecided	2 Score
3.	Disagree	1 Score

On the basis of obtained mean value, the statements were categorized in descending order and provide the rank.

Mean

The simplest and most important measure of average arithmetic mean. It was calculated with the help of following formula.

$$\textbf{Mean score} = \frac{Total\ weighted\ score\ on\ particular\ item}{Number\ of\ respondents}$$

Percentage

Simple comparisons were made on the basis of percentage. The percentage was worked out in the following manner.

$$Percentage = \frac{\text{Number of respondents belonging to particular category}}{\text{Total number of respondents}} \times 100$$

Results and Discussion

Table-1 *Availability of on-line communication services N = 200*

S.N.	On-line communication services	Availability	Percentage
1.	Kissan Call Centre (KCC)	187	93.50
2.	IVRI helpline (ATIC)	99	49.50
3.	Sugarcane Information System (SIS)	149	74.50
4.	Chaupal Sagar (ITC)	122	61.50
5.	Hariyali Kissan Bazaar (HKB)	112	56.50
6.	Computer and Internet Centre (CIC)	49	24.50
7	Telephone	47	23.50

The availability of different on-line communication services were analyzed and presented in [Table-1]. The result reveals that availability of the Kissan Call Centre was the highest 93.50 percent among the farmers in respective areas followed by Sugarcane Information System 74.50 per cent, Chaupal Sagar 61.50 per cent, Hariyali Kisaan Bazaar 56.50 per cent, IVRI helpline 49.50 per cent, Computer and Internet Centre 24.50 per cent and telephone 23.50 per cent.

Thus, it can be concluded that maximum farmers gather information from the Kissan Call Centre and the least number of farmers were receiving information from the telephone among the availability of on-line communication services in the study area.

Table-2 *Utilization pattern of on-line communication services N = 200*

S.N.	On-line communication source	Utilization pattern		
		Mostly	Often	Sometime
1.	Kissan Call Centre (KCC)	94 (50.26)	58 (31.01)	35 (18.71)
2.	IVRI helpline (ATIC)	37 (37.38)	41 (41.42)	21 (21.22)
3.	Sugarcane Information System (SIS)	67 (44.96)	49 (32.88)	33 (22.14)
4.	Hariyali Kissan Bazaar (HKB)	70 (62.50)	31 (27.38)	11 (9.82)
5.	Chaupal Sagar (ITC)	41 (33.60)	59 (48.36)	22 (18.03)
6.	Computer and Internet Centre (CIC)	17 (34.69)	21 (42.85)	11 (22.44)
7	Telephone	10 (21.27)	16 (30.04)	21 (44.68)

The study of utilization pattern of on-line communication services exhibit that 50.26 per cent farmers used Kissan Call Centre mostly, 31.01 per cent used it often and 18.71 per cent used it sometime. Maximum 37.38 per cent farmers used IVRI helpline (ATIC) mostly, 41.42 per cent used it often and 21.22 per cent used it sometime. In case of the Sugar Cane Information System, maximum 44.96 per cent farmers used (SIS) mostly, 32.88 per cent used it often and 22.14 per cent used it sometimes. As regards the Hariyali Kissan Bazaar (HKB) maximum 62.50 per cent farmers used Hariyali Kissan Bazaar mostly, 27.38 per cent used it often and 9.82 per cent used it sometimes. The data showed that 33.60 per cent farmers used Chaupal Sagar (ITC) mostly, 48.36 per cent used it often and 18.03 per cent it used sometimes. In the case of Computer and Internet Centre (CIC) maximum 34.69 per cent farmers used Computer and Internet Centre mostly, 42.85 per cent used it often and 22.44 per cent used it sometimes. As regards the telephone maximum 21.27 per cent farmers used telephone mostly, 30.04 per cent used it often and 44.68 per cent used it sometimes [10-13]. Overall study of observations revealed that the utilization pattern of on-line communication services among the farmers was categorized into a three group's *viz*. mostly, often and sometimes.

In mostly category Kissan Call Centre reached first, followed by Hariyali Kissan Bazaar, Sugar Cane Information System, Chaupal Sagar, IVRI helpline ATIC and Computer, Internet Centre and telephone, respectively. In often category, the utilization pattern of on-line communication chaupal sagar has top position followed by the Kissan Call Centre, Sugarcane Information System, IVRI helpline ATIC, Hariyali Kissan Bazaar, Computer and Internet Centre and telephone, respectively. Utilization pattern of different on-line communication services for sometimes category was found the highest for the Kissan Call Centre users followed by the Sugarcane Information System, Chaupal Sagar, IVRI helpline ATIC, Hariyali Kissan Bazaar, Telephone and, Computer and Internet Centre respectively [14].

The most important item of the socio-economic constraints faced by the farmers was "small size of holding" as it has got the I rank with the highest mean score (2.86). It was followed by the "Lack of assistance at the time of need" (2.74), "Lack of exposure" (2.55), "Lack of education" (2.44), "Poverty" (2.41), "Lack of transportation facilities and marketing" (2.30), "Inadequate budget for on-line communication service" (2.25), "Lack of economic freedom" (2.24), "Lack of self confidence" (2.14), "Fear of social security" (1.99) and "Caste barrier" (1.95) these have got II, III, IV, V, VI, VII, VIII, IX, X and XI rank respectively, felt by the farmers.

The technical constraints faced by the online users were in the order of the "complexity of information" was the major constraints, I in rank with the mean score highest (2.65) related to technical information as felt by on-line users. There were followed by "inadequate telecommunication system in respective area" (2.55), "not suited for available resources" (2.50), "Lack of improved technology" (2.06) and "technology not suitable to the agro climatic region" (1.86) these have got II, III, IV and V ranks respectively, felt by the farmers.

"Delay in communication of message at the right time has become a barrier to the successful implementation of the on-line communication services" was most important administrative constraints, I in ranks with the highest mean score (2.73) as felt by the online users. There were followed by "flow of credit by the government is not proper" (2.71), "Lack of need based programmes" (2.40), "Lack of supply of inputs" (2.21), "Farmers do not got proper information by government" (1.99), "Lack of guidance due to non availability of staff at time of farmer need" (1.89), "Indifferent behaviors of the administration" (1.88) and "Official staff cannot solve non technical problem of farmer" (1.83) these have got II, III, IV, V, VI, VII and VIII ranks respectively, felt by the farmers.

Regarding to political constraints "Dominancy of local leadership" I in ranks with the highest mean score (2.64) was a major problem. There were followed by "Political interference in the on-line communication services implementation" (2.48), "in different behavior of the political leader & an administration" (2.25) and "Unawareness village leader about the on-line communication services" (1.94) these have got II, III and IV ranks respectively, felt by the online users.

Availability constraints of on-line users were in order of "Less availability of technical information during transfer of agricultural technology" I in ranks with highest mean score (2.98) was the major problems related to availability

constraints felt by the farmers where as "Electric supply in village is not proper" II in ranks with (2.82), "Connectivity in village is poor" ranks III with (1.90), "Lack of proper visit by extension personnel" ranks IV with (1.34) and "Availability of extension personnel is not sufficient for enhancing on-line communication service" has a availability constraints faced by the on-line users.

Table-3 *Constraints faced by the on-line communication users and recommended Crops production technologies in (n=200)*

S. No.	Constraints	Mean Score	Rank Order
A	**Socio-economic constraints**		
	1. Lack of education	2.44	IV
	2. Lack of economic freedom	2.24	VIII
	3. Small size of holding	2.86	I
	4. Lack of self confidence	2.14	IX
	5. Fear of social security	1.99	X
	6. Poverty	2.41	V
	7. Lack of assistance at the time of need	2.74	II
	8. Lack of exposure	2.55	III
	9. Caste barrier	1.95	XI
	10. Inadequate budget for on-line communication services	2.25	VII
	11. Lack of transportation facilities and marketing	2.30	VI
B	**Technical constraints**		
	1. Lack of improved technology	2.06	IV
	2. Inadequate telecommunication system in respective area	2.55	II
	3. Not suited for the available resources	2.50	III
	4. Complexity of information	2.65	I
	5. Technology not suitable to the agro climatic region	1.86	V
C	**Administrative constraints**		
	1. Lack of need based programmes	2.40	III
	2. Lack of supply of inputs	2.21	IV
	3. The flow of credit by the government is not proper	2.71	II
	4. Lack of guidance due to non availability of staff at time of farmer need	1.89	VI
	5. Indifferent behaviors of the administration	1.88	VII
	6. Farmers do not got proper information by government	1.99	V
	7. Delay in communication of message at the right time has become barrier to the successful implementation services	2.73	I
	8. Official staff cannot solve non technical problem of farmer	1.83	VIII
D	**Political constraints**		
	1. Dominancy of local leadership	2.64	I
	2. In different behavior of the political leader & administration	2.25	III
	3. Political interference in the on-line communication services implementation	2.48	II
	4. Unawareness of village (local) leader about the on-line communication services	1.94	IV
E	**Availability Constraints**		
	1. Connectivity in village is poor	1.90	III
	2. Electric supply in village is not proper	2.82	II
	3. Lack of proper visit by extension personnel	1.40	IV
	4. Availability of extension personnel is not sufficient for enhancing on-line communication service	1.34	V
	5. Less availability of technical information during transfer of agricultural technology	2.98	I
F	**Supervision and guidance constraints**		
	1. Lack of cohesiveness and coordination	1.95	III
	2. Lack of proper evaluation of the work done by on-line communication centre	2.05	II
	3. Lack of communicative facilities between top officials and field staff	2.40	I
	4. Lack of timely visit and advice by the supervisory staff	1.48	V
	5. Uncommandable jurisdiction of coordinator for information implementation	1.68	IV

The most important item of the supervision and guidance constraints faced by the farmers "Lack of communicative facilities between top officials and field staff" as it has got the I rank highest mean score (2.40). It was followed by the "Lack of proper evaluation of the work done by on-line communication centre" (2.05), "Lack of cohesiveness and coordination" (1.95), "Lack of timely visit and advice by the supervisory staff" (1.48) and "Uncommandable jurisdiction of coordinator for information implementation" (1.68) These have got II, III, IV and V ranks respectively, felt by the farmers.

Table-4 *Suggestions of on-line communication users' farmers for solving the constraints to the improvement of crops production technologies (n=200)*

S. N.	Suggestion	No. of on-line users	Percentage	Rank
1.	Priority of works which was being undertaken by on-line communication services should be clear.	195	92.50	VII
2.	Planning for the gross root level should not be delayed.	189	94.50	V
3.	Enhancement of the poor participation of stake holders	191	95.50	IV
4.	Improve mutual understanding and motivational spirit	158	79.00	XV
5.	Enhance the awareness of the farmers about on-line communication services	179	89.50	IX
6.	Social audit should be necessary	180	90.00	VIII
7.	Strengthen the infrastructure of on-line communication information services at village level	155	77.50	XVI
8.	Publicity of on-line communication services through different mass media	169	84.50	XII
9.	Timely recruiting of well trained staff, familiar with local area	159	79.50	XIV
10.	There is need of Public Private Partnership (PPP) for effective management of on-line communication services in transfer of agricultural technology	175	87.50	X
11.	Regular monitoring the call completion rate and configuration of the telephone exchange in the state is very much required for proper function of on-line communication centre	167	83.50	XIII
12.	Regular training should be given to the farmers about the procedure of accessing the on-line information services through call centre	192	96.00	III
13.	Computer, another effective on-line communication sources should be extended at least each villages so that farmer of rural part may get the recently information of transfer of agricultural technology	198	99.00	I
14.	Location specific problem should be prioritized, such problem to make the on-line information service more effective	171	85.50	XI
15.	Mostly answer given by the on-line communication centre in local language, it well increase efficiency of centre	193	96.50	II
16.	Government should be always trying to given found at proper time in proper place, it helps to disseminating information of transfer of agricultural technology	187	93.50	VI

It is revealed from the above [Table-2] that 99.00 per cent farmers were suggested that Computer, another effective on-line communication sources should be extended at least each villages so that farmer of rural part may get the recently information of transfer of agricultural technology for improvement of the on-line communication service (rank I). There were followed by 96.50 per cent farmers were suggested that mostly answer given by the on-line communication centre in local language, it well increase efficiency of centre (with rank II), 96.00 per cent farmers suggested that regular training should be given to the farmers about the procedure of accessing the on-line information services through call centre (with rank III), 95.50 per cent farmers suggested that enhancement of the poor participation of stake holders (with rank IV), 94.50 per cent farmers suggested that planning for the gross root level should not be delayed (with rank V), 93.50 per cent farmers suggested that government should be always trying to given found at proper time in proper place (with rank VI), 92.50 per cent farmers suggested that

priority of works which was being undertaken by on-line communication services should be clear (with rank VII), 90.00 per cent farmers suggested that social audit should be necessary (with rank VIII), 89.50 per cent farmers suggested that enhance the awareness of the farmers about on-line communication services (with rank IX), 87.50 per cent farmers suggested that there is need of Public Private Partnership (PPP) for effective management of on-line communication services in transfer of agricultural technology (with rank X), 85.50 per cent farmers suggested that location specific problem should be prioritized (with rank XI), 84.50 per cent farmers suggested that such problem to make the on-line information service more effective (with rank XII), 83.50 per cent farmers suggested that publicity of on-line communication services through different mass media (with rank XIII), 79.50 per cent farmers suggested that regular monitoring the call completion rate and configuration of the telephone exchange in the state is very much required for proper function of on-line communication centre (with rank XIV), 79.00 per cent farmers suggested that timely recruiting of well trained staff (with rank XV), and 77.50 per cent farmers suggested that familiar with local area, Improve mutual understanding and motivational spirit and Strengthen the infrastructure of on-line communication information services at village level, respectively were considered importance by the farmers, respectively as a suggestion given by on-line users [15].

Conclusion

The availability of on-line communication services in the area, the highest majority farmers with (KCC) followed by farmers with availability of (SIS), (ITC), (HKB), ATIC, (CIC) and Telephone in respective area. In mostly category utilization pattern of (KCC) reached first followed by (HKB), (SIS), (ITC), (ATIC), (CIC) and telephone, respectively. In often category, the utilization pattern of on-line communication (ITC) has top position followed by (KCC), (SIS), and (ATIC), (HKB), (CIC) and telephone, respectively. Utilization pattern of different on-line communication services for sometimes category was found the highest for the (KCC) users followed by (SIS), (ITC), (ATIC), (HKB), Telephone and (CIC), respectively. The major constraints perceived by the farmers were size of small holding, complexity of information; delay in communication of message at right time has become barrier to the successful implementation of the on-line communication services, dominant of local leadership.

Conflict of Interest: None declared

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