

CYBER EXTENSION- AN EFFECTIVE LINKAGE BETWEEN SCIENTIST AND FARMERS

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ABSTRACT

ICT can play a crucial role in providing up-to-date information about pest and disease control, early warning systems, new varieties, new ways to optimise production and regulations for quality control. ICT technologies can be used to strengthen communities and farmers organizations for their own capacities and better representation of their own part when negotiating input and output prices, land claims, resource rights and infrastructure projects. ICT aids in providing up-to-date information on the market prices of commodities, inputs and consumer trends which ultimately can improve a farmer's negotiating position and their livelihood, while enabling farmers to make better decisions about future crops and commodities and also the best time and place to sell and buy goods. It is important that accurate information reaches the farmers at the right time. The rapid growth of information technology and communication system has changed the scenario entirely. Now linking computer to any mobile (cell phone) and anywhere in the world is an easy task. KVK, Ujjain took initiatives to provide SMS based messages to the farmers on their own mobile sets.

INTRODUCTION

Developing countries are always facing food shortages as the population growth rate is too high when compared to food production rates. Among some of the causes of food shortages are increasing food demands while the world is facing a decrease in natural resources (Benson, Todd 2004). These include water shortages, declining soil fertility, effects of climate change and a rapid decrease of fertile agricultural lands due to urbanization. ICTs or Information and Communication technologies are emerging as an important tool for the development of societies and are the driving forces in the world economy. ICT is used to accelerate the food growth rate by using technologies to perform tasks like predict weather conditions, learn about the latest methods to improve farming productivity and gauge the levels of supply/demand based on economic statistics, (Nancy, Hafkin 2002). To maintain quality and supply, new approaches and technological innovations are required to cope with these challenges and to enhance the livelihoods of the rural population. As such the agriculture sector is gearing up itself to make optimal use of the new

information and communication technologies.

RESEARCH METHODOLOGY

The study was conducted on a total of 200 respondents, who received SMS twice a week through KMS programme from KVK, Ujjain. These respondents were selected by KVK having mobile sets capable of receiving messages in both English and Hindi fonts, of which 145 were farmers from different villages spread over 5 out of 6 total block in the district, 35 extension personal's from Department of Agriculture posted in different blocks, 10 seed growers of leading seed producing agencies and 10 leading agri-input dealers of district. The details of the respondents selected as receivers are presented in table 1(a) (b) and table 2. This criterion of selection led to the approach in 473 villages out of a total of 1096 villages of the district. This method works in a very fast accessibility mode because the KMS is delivered through internet service provider on a fixed schedule of time and date. These messages are delivered twice a week (Tuesday and Friday) under Kisan mobile Sandesh popularly known as (KMS).The receiver is only required to press a

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button i.e. key of their cell phone to read the message. The main criterion of selection of farmers was based on the following pre-requisites.

- a) Who has a cell-phone?
- b) Who can read SMS and understand its contents?
- c) Who can use the technology given in the SMS with least loss of time? and
- d) Who is known in his vicinity for his integrity, truthfulness and a person of respect?

The opinion and perceptions of the receivers needs to be considered for enhancing the quality and effectiveness of the information sent through SMS, for increase the productivity. Thus, any improvement that can be brought about in SMS form information may add in achieving desirable social change in the rural sectors.

Table1(a) Details of blocks, number of villages and number of farmers covered under KMS

S. No.	Name of Block	No. of Village	No. of farmers
1	Ujjain	21	25
2	Ghatiya	15	25
3	Barnagar	18	25
4	Mehidpur	24	25
5	Tarana	20	25
Total		98	125

Table1(b) Details of blocks, number of villages and number of farmers covered under KMS through Extension personnel's

S. No.	Name of Block	No. of Village	No. of Ext. Per.
1	Ujjain	70	7
2	Ghatiya	50	6
3	Barnagar	80	8
4	Mehidpur	50	6
5	Tarana	50	6
Total		300	35

In this context, the present study was designed with a view to investigate the opinion of the rural people regarding the KMS and the information being served for them with following specific objectives;

1. To study the perception of the receivers regarding utility of KMS.

2. To assess the importance of SMS among the farming community in terms timely, strong linkage, save time, creditability and develop information bank.

No. of RAEO covered 30 (one RAEO cover min. 10 villages)

The programme was then launched by KVK Ujjain namely 'Kisan Mobile Sandesh' on dated 04 April, 2008 and continued till 07 July 2009. During this period a total of 111 SMS were sent by KVK to 200 respondents. The data were collected through a semi-structural schedule and personal observation. After compilation of first phase (OFT) kisan mobile sandesh were analysed using statistical tools to calculate simple frequency and percentage.

Table 2. The selection of receiver and the area covered by users under different category.

S. No.	Users Category	No. of KMS users	Village Covered
1	Through Farmers groups	145	98
2	Through Extension Personnel's	35	300
3	Through Agro Input Provider & Seed grower	20	75
Total		200	473

RESULTS AND DISCUSSION

The findings of the study in different aspect which were designed by KVK scientists are presented under different heads.

1) Appropriateness in the timing of information

The finding of the study clearly showed that 86.25 per cent receivers from farmers' category agreed that the information through SMS were appropriate in context and the time of delivery. In the extension personals category, 100.00 per cent were agreed regarding timely receive of information through SMS. About 80 per cent seed growers and 70 per cent agri-input dealers also agreed with this statement. It has been clearly said that overall 87.5 per cent were agreed with the appropriateness in the timing of information, while 26 per cent also agreed the appropriateness regarding others sources.

2) KMS also works as a reminder at critical times

Kisan mobile Sandesh (KMS) also play a very effective role in recalling the agricultural practices at critical time (in case of insect pest outbreak, sudden or untimely rains etc.). Total 82.06 per cent farmers clearly said that the SMS which they received not only keeps them on alert, but also reminded the practices at very crucial time. Almost 91.42%, 90.00% and 50.00% extension personnel, seed growers and dealers category, respectively were in agreement with this statement. It was also found that the overall 82.50 per cent were agreed with the same meanwhile, only 7 percent agreed that the recalling the agricultural practices at critical time from others sources.

3) Strong linkage with KVK

The response from selected farmers, extension personnel, seed growers and agri-input dealers

shows that they view the whole activity regarding KMS led to a development of strong linkage with KVK, corresponding to 77.935, 85.71%, 90% and 80%, respectively. The finding also clearly indicates that 80 per cent respondents agreed that linkages developed with the KVK, whereas only 3 per cent were of the view that linkages were also developed from other sources.

4) Received Need based Scientific information

It is observed that 75.86 per cent farmers had received need based scientific information through SMS. Analysis of data on different categories also revealed (table.3) that 100 per cent respondents from extension personnel and seed grower while 90 per cent dealers felt that the information received was of scientific nature easily applicable under the real farmers situation. This finding is indicative of that need of information is the main theme of this KMS programme.

Table 3. Impact of Kisan Mobile Sandesh.

S. No.	Statement	Farmers 145	Extension personnel's 35	Seed growers 10	Dealer 10	Mean Score 200	Other source of information 200
1.	Appropriateness in the timing of information	125 (86.25)	35 (100.00)	08 (80.00)	07 (70.00)	175 (87.50)	52 (26.00)
2.	Spend few seconds to receive information	84 (57.93)	26 (74.28)	05 (50.00)	04 (40.00)	119 (68.00)	31 (15.50)
3.	Received need based scientific information	110 (75.86)	35 (100.00)	10 (100.00)	09 (90.00)	164 (82.00)	25 (12.50)
4.	Easy to under stand	76 (52.41)	30 (85.71)	06 (60.00)	05 (50.00)	112 (56.00)	61 (30.50)
5.	Develop information Bank	55 (37.93)	21 (60.00)	03 (50.00)	04 (40.00)	83 (41.50)	18 (9.00)
6.	Strong linkage with KVK	113 (77.93)	30 (85.71)	09 (90.00)	08 (80.00)	160 (80.00)	6 (3.00)
7.	Save time, money and make best use of money invested	95 (65.51)	17 (48.57)	8 (80.00)	7 (70.00)	127 (63.50)	23 (11.50)
8.	KMS also works as a reminder at critical times	119 (82.06)	32 (91.42)	9 (90.00)	5 (50.00)	165 (82.50)	14 (7.00)
9.	Increase social contacts & importance as a source with credibility and reliability	88 (60.68)	35 (100.00)	8 (80.00)	8 (80.00)	139 (69.50)	29 (14.50)
10.	Possible for giving feedback	48 (33.10)	35 (100.00)	9 (90.00)	9 (90.00)	101 (50.50)	34 (17.00)

5) Save time, money and make best use of money invested

It is evident from table 3 that the 65.51 per cent farmers expressed their view regarding KMS that it saved the time and money and proper use of various resources and inputs during the cultivation of various crops. While only 48.57 per cent extension personnel, 80 per cent seed growers and 70 per cent dealers also expressed their view regarding the same. This finding is indicative of all SMS receivers 63.50 per cent are in favour of this statement while only 11.50 per cent receivers had clearly expressed that other sources of information.

6) Increase social contacts & importance as a source with credibility & reliability:

The farming community resides at villages of our country. In villages farmers have a very close relationship with each other and hence are in regular touch and interact among themselves. In case of receiver i.e. the message reader, was regarded as a very important person among the villagers as he acts also as a communicator or interpreter of the KMS. Total 60.68 per cent respondents from the farmer's community agree, whereas 100 per cent extension personnel's realized that this increased their credibility and technical reliability among the farming community and apparently, 80 per cent from categories of, seed growers and dealers. Total 69.5 per cent receivers had clearly stated that the KMS has increased their social contact and importance as a resource with creditability and reliability as compared to the other source of information (14.9 per cent).

7) Spend few seconds to receive information

It was also found that maximum number of the SMS receivers (68%) had the opinion that SMS items received in a few second and also received valuable information regarding cultivation etc very quickly just by pressing a key of cell (Mobile), while 15.5 per cent respondents stated that the same information also available from other sources.

8) Easy to understand

The SMS received by the above said receiver through KMS is in very easy and understandable language. Hence it was observed that 52.41 per cent from Farmers community, 85.71% from Extension

personnel's, 60% from seed growers & 50% from seed dealers agreed with the above statement. Overall 56% respondents perceived the SMS while 30.50% think that other source of information are much better to understand.

9) Develop information Bank

Table indicated that the 41.5 per cent respondents were strongly expressed that we have developed an information bank while only 9.00 per cent respondents develop information bank from other sources. In case of farmers categories 37.93 per cent respondents agree that it help us to develop information bank while in other categories such as seed growers (50 and dealers(40%) & extension personnel (60%) agree with the same.

10) Possible for giving feedback

The table 2 revealed that fifty per cent respondents were in the opinion that the possibility to give feedback is increased as we received messages twice a week, while only 17 per cent said that possibility of giving feedback lies on other source of information. The finding clearly shows that the KMS programme run by KVK and KVK scientists is very much closed to local situation therefore the possibility to discuss problem and to solve them with feedback is increased.

CONCLUSION

In the light of the present investigation it can be concluded that the popularity of KMS among the selected farmers, extension personal's, seed growers and dealer was significant as the receiver got timely information which were shared with others of heterogeneous groups. This also led to the enhancement in the credibility of the receiver. Regarding perception of received SMS and the utility of information, it was found that majority of them felt that the content of the SMS, was very easy to understood, moderate to highly trustworthy, appropriately timed and need based but the respondents could not document it to develop information bank in a affirmative form.

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