

RESEARCH ARTICLE

Effectiveness of mobile based SMS in transfer of agricultural technology

■ S. Neelaveni, P. Venkatarao, Ch. Balakrishna, B. Mounika and D. Chinnam Naidu

SUMMARY

Effective communication strategy is need of the hour to enable research results to reach the farmers fields without much time lag. Hence, it is obvious to use modern ways of communication besides traditional methods of communication. KVK, Amadalavalasa has started sending mobile based SMS through WAY 2 SMS to the KVK registered farmers to transfer of agricultural technology since June 2010. Here study was conducted with the objective of studying the effectiveness of mobile based SMS in transfer of agricultural technology. Efforts should be made to disseminate complete and precise information on all aspects of crop and related information for harnessing the possibilities of utilizing the information, The mobile service authorities need to take extra care to streamline the system so as to prepare relevant content for maximum utility by the end users. Hence more concentration should be given on demand and need of the farmer rather than the technology. Leaders are needed for the long haul as interventions that require new infrastructure or policy and institutional reforms take years to complete. Real time agro advisory is need of the hour to cover more number of farmers. Voice messages may be preferable than text messages for covering illiterate farmers. KVKs and other extension functionaries can make new platforms to reach the unreachable through mobile advisory.

Key Words : Mobile based, SMS in transfer, Agricultural technology

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Effective communication strategy is need of the hour to enable research results to reach the farmers fields with out much time lag. Hence, it is obvious to use modern ways of communication besides traditional methods of communication. KVK, Amadalavalasa has started sending mobile based SMS through WAY 2 SMS to the KVK registered farmers to transfer of agricultural technology since June 2010. Here study was conducted with the objective of studying the effectiveness of mobile based SMS in transfer of agricultural technology.

MATERIAL AND METHODS

This study was conducted during January 2022 to December 2022. Ex post facto research design was followed for the study. Randomly 30 farmers were selected as respondents for the study by simple random sampling method. Structured interview schedule was developed consisting of 9 items to measure effectiveness of mobile based SMS sent by KVK, Amadalavalasa for the year 2022. Each respondent was asked to indicate their response for the each item. Based on the responses, frequency and percentage was calculated for each item.

RESULTS AND DISCUSSION

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

Watching messages immediately after receiving:

Around 77 per cent of the farmers watching the messages immediately after receiving the messages. This might be due to that farmer are habituated to use modern ways of communication and usage of android phones increased tremendously.

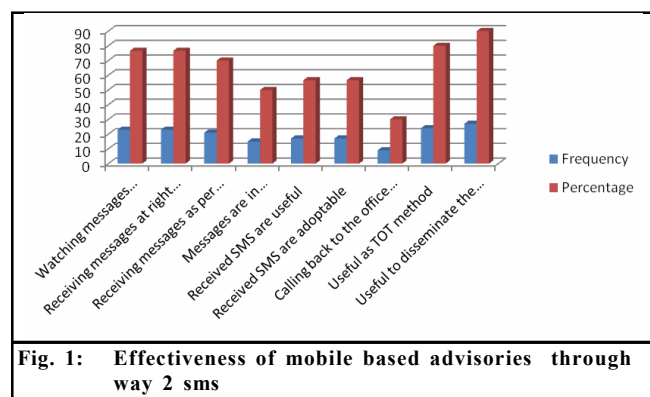


Fig. 1: Effectiveness of mobile based advisories through way 2 sms

Receiving messages at right time:

It might be due to SMS prepared based on the problems identified during field diagnostic visit and because of precision in the internet, cell phone technology.

Receiving messages as per the technological needs of the farmers:

The SMS selected for sending to the registered farmers were as per their technological needs. Hence more concentration should be given on demand and need of the farmer rather than the technology.

Messages are in understandable language because:

Messages were very simple, meaningful, logical and written in English Telugu in understandable way. Message focused on solution to one particular problem in agriculture.

Received SMS are useful :

It might be due to messages are pragmatic, applicable to them as they were developed from field experience and real time agro advisory was given.

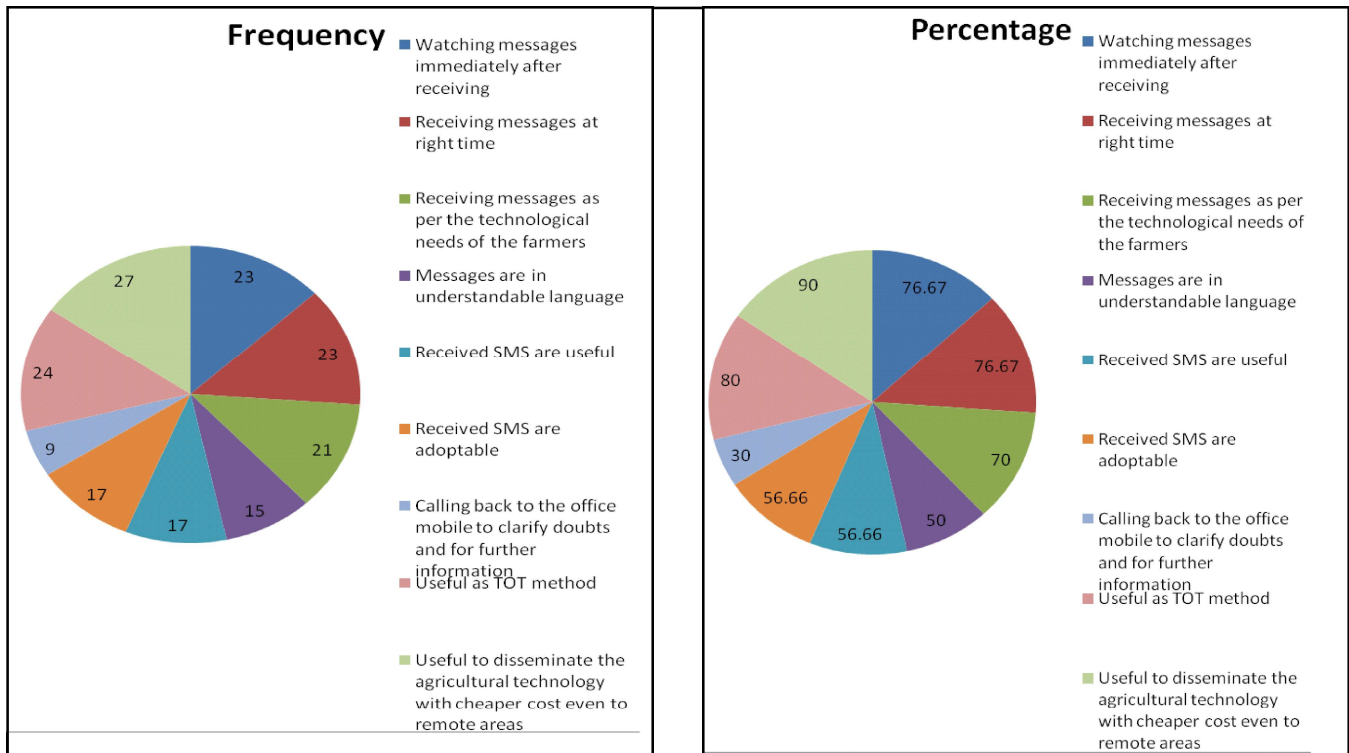
Received SMS are adoptable :

The given messages were adoptable as they have attributes like relative advantage, observability, compatibility and predictability. As the messages were precisely edited and given based on practical utility, hence the received messages are adoptable.

Calling back to the office mobile to clarify doubts and for further information:

Farmers are able to get more clarifications after calling back immediately and how to do the job also will be easy after calling back to the expert. hence farmers

Sr. No.	Item	Frequency	Percentage
1.	Watching messages immediately after receiving	23	76.67
2.	Receiving messages at right time	23	76.67
3.	Receiving messages as per the technological needs of the farmers	21	70.00
4.	Messages are in understandable language	15	50.00
5.	Received SMS are useful	17	56.66
6.	Received SMS are adoptable	17	56.66
7.	Calling back to the office mobile to clarify doubts and for further information	9	30.00
8.	Useful as TOT method	24	80.00
9.	Useful to disseminate the agricultural technology with cheaper cost even to remote areas	27	90.00



are calling to immediately who ever the farmers are having good extension contact and rapport with the expert.

Useful to disseminate the agricultural technology with cheaper cost even to remote areas of because of its low cost and pervasive connectivity :

The reach and affordability of broad band internet is also improving dramatically. Internet connectivity around the world has grown exponentially since 2000 by over 480 percent (Internet world statistics, 2011).

Mobile phones are in the vanguard of ICTs in Agriculture. By the end of 2011, over 6 billion mobile phone subscriptions or more accurately, subscriber identity module (SIM) cards are expected to be in use world wide (Wireless Intelligence, 2011).

Farmer access to information through mobile phone was varied by age, gender and farmer category. This digital divide reflects the prevalent social realities in access to extension, which have been in part attributed to differences in literacy, socio-cultural factors, ownership or control of mobile phones, and technological skills (Mbo'o-Tchouawou and Colverson, 2014). These differences, in particular, education attainment, sex, and age of respondent, to a great extent affected the level of understanding of the messages received. This flags some

potential challenges in equitably reaching farmers, in particular women, elderly and resource-constrained farmers with mobile extension delivery mechanisms. There was evidence that farmers were willing to take action and adopt new practices based on the information they received through mobile services.

Parallel to other studies on access to agricultural extension, this study also shows a great reliance of farmers on farmer-to-farmer exchange for agricultural information (Drafor, 2016; Kiptot and Franzel, 2015). Farmer-to-farmer exchange and information sharing is a good proxy for its perceived value. It is also an indicator of how far information is likely to spread within any given farming community, giving an estimate of the potential 'reach' for the service in broad terms, although this would need further and more detailed investigation.

Amanish *et al.* (2022) also conducted a similar study and found that, almost third-fourth of the respondents regularly used messages delivered by mobile-based agricultural advisory services about sowing time (73.34%) and weather (71.67%). While, in case of overall utilization, majority of the respondents were moderately (72.50%) utilized the mobile based agro-advisory services.

Similar study was carried out by Khan *et al.* (2020) in Sehore district of M.P. with an aim to know the

effectiveness of Mobile Agro-Advisory Services in Extension Delivery System. For this the 110 respondents selected randomly from ten villages. The major findings of the study showed that 44.55 per cent had medium effectiveness of mobile based agro-advisory services.

Conclusion and Implications:

Local language customization and remote transaction services need to strengthen. Commercial enterprises such as processors, input suppliers and exporters should be motivated to invest in ICT because they often lead to increased efficiency and revenue as well as extension to client base like isolated farmers. Hence, efforts should be made to disseminate complete and precise information on all aspects of crop and related information for harnessing the possibilities of utilizing the information, The mobile service authorities need to take extra care to streamline the system so as to prepare relevant content for maximum utility by the end users. Hence more concentration should be given on demand and need of the farmer rather than the technology. Leaders are needed for the long haul as interventions that require new infrastructure or policy and institutional reforms take years to complete. Real time agro advisory is need of the hour to cover more number of farmers. Voice messages may be preferable than text messages for covering illiterate farmers. KVKs and other extension functionaries can make new platforms to reach the unreach through mobile advisory.

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