Reaching the Unreached through Touch Screen Information Kiosk: A Field Study

By Dr. G. R. K. Sharma
College of Veterinary Science, India

Abstract- The landless livestock owners who rear different livestock for their livelihood are the vulnerable groups struggling to move out of poverty. Information is an important input in development. This is especially so when the people are more disadvantaged with other resources like land and capital. Information is an important factor that can help the livestock owners to raise their livestock better and to achieve more certainty and security in life. Information has economic value if it leads to the satisfaction of human desires. Information and Communication technologies can play a pivotal role in improving access to information by the poor.

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I. INTRODUCTION

Livestock have a complex role in the livelihoods of the poor. They have a dual role of bringing daily 'cash income' (milk, meat and egg) as well as 'capital strength' or moving bank (livestock). The cash income helps them to carry on with the day-to-day expenditure, whereas their capital strength helps them to face crucial financial exigencies like constructing huts, marriages and emergency health care etc. Information plays an important role in decreasing the poverty among farmers by increasing their ability to use human and social capital through making good and useful decisions. Studies also revealed that the poor farmers are also poor in access to information as well (Cecchini 2002 and Garforth 2003).

In development, making people realize the importance of information in improving their livelihoods is a challenging task. This requires added effort from development personnel involved in this field like more deliberations and effective delivery methods of information dissemination. In this era of Information society, Information and Communication Technology (ICT) application provides new tools for improving access to information. In the context of information management, modern communication techniques and technologies offer powerful force multipliers to conventional extension efforts. The poor need access to locally-contextualised information, which must be substantially demand-driven. Information and Communication Technology appropriately designed and used could help other wise vulnerable group to move out of the disadvantage of information-exclusion.

II. RELEVANCE OF INFORMATION KIOSK IN INFORMATION DISSEMINATION

ICT is an emerging tool of information access, directly related to social and economic development of rural population and helped to reach the un-reached. It is well known that, the ICTs has the power to cut across social and geographical distance and help people by finding new ways of facilitating the flow of Information and knowledge and is recognized as a development communication tool.

Although, information on all aspects of livestock farming exists in all the farmer-related institutions, but its transfer and uptake by the livestock owners needs radical revision at all levels of information transfer. The landless livestock owners or resource poor farmers are vulnerable groups struggling to move out of poverty. The resources they have are their labour and time, which they are converting into products through livestock rearing. Appropriate value additions to their knowledge on livestock rearing will help them in their struggle to alleviate poverty.

In this regard, enhancing the farmers' information system through appropriately designed content and outreach methods, which meet the expressed needs and objectives of the resource poor, is one of the important strategies for reducing information - poverty and to realize the importance of information in improving their livelihoods. The un-correctable limitations of existing traditional methods and enormous advantages of latest ICT tools have guided this project to come into existence.

The latest interventions of ICT tools in the process of improving knowledge of the landless livestock owners has remarkable impact in providing sustainable livelihood and reducing poverty. The prevailing conditions have stimulated the investigator to work out with the Touch screen information kiosk project. Touch screen information kiosk are put into use by different sectors, across the country and recently livestock sector has made its mark in utilization of ICT tools for effective and efficient dissemination of technologies. In the process of catching the latest trend, the department of Veterinary & animal husbandry extension of this college has tried to procure touch screen kiosks and develop related software under state plan supported project on ‘Action research on needful
lack of knowledge in the livestock sector, they were particular in knowing the latest management practices. Some of the livestock owners seem to be interested in reading the news and news papers. The livestock owners are particular in accessing that information which is of immediate use. Further, the livestock owners are particular in learning a new technology and also interested in getting the information than men, probably because of their higher degree of involvement in cattle rearing than their male counterparts. Some of the female livestock owners feel that it might be more useful to them, as they are involved in the task of rearing animals every day.

V. INSTALLATION OF INFORMATION KIOSK

The place of installation of the farmer usable Information Kiosk is one of the important factors that decide the effectiveness of the information dissemination. A workshop was organized with the livestock owners and field veterinarians to discuss on the site of installation of kiosk. Although various alternatives like local leader's house, public library and local primary school were in the list, all were of the opinion to have it in the veterinary dispensary of the Government. They felt that the people could access the kiosk in this venue without any inhibition.

Three touch screen Information Kiosks were procured as an initiation and were installed in peri-urban areas of Tirupati.

VI. USEFULNESS OF THE INFORMATION KIOSK

The Kiosk was useful in the sense that the livestock owners can avail the information that they were not aware. The livestock owners are particular in accessing that information which is of immediate use. Further, the livestock owners are particular in learning a new technology and also interested in getting the information than men, probably because of their higher degree of involvement in cattle rearing than their male counterparts. Some of the female livestock owners feel that it might be more useful to them, as they are involved in the task of rearing animals every day.
satisfaction in making the livestock owners to get the latest and basic information on various aspects of livestock farming. It is observed that Kiosk stimulates discussion / thinking among the livestock owners and other stakeholders thus helps in information dissemination by ‘Value added waiting time’ to the livestock owners who bring their animals to veterinary dispensaries for various purposes.

VII. IDEAL CONDITIONS FOR EFFECTIVE WORKING OF INFORMATION KIOSK

- The Information Kiosk must be placed in an appropriate site.
- The information in the kiosk should be need - based or demand driven and in understandable form at farmer's level.
- Care must be taken that not to overload kiosk with information.
- Information must be interesting, useful, reliable and accessible in minimum time (since study reveals that majority that the farmers tend to view only 5 screens which take appropriately 15 minutes).
- Up gradation and communication variability to be ensured based on user's feedback, but with a caution not to create 'information explosion'.
- Livestock owners must always find the kiosk in functional condition.
- Close co-operation from the personnel working at the place of kiosk installation.
- Advantages of Information Kiosk
  - It saves money and time
  - User friendly i.e. less assistance to operate, easy to operate and interesting to operate.
  - Easily accessible and credible source
  - Able to get information in their own language
  - Livestock owners can get ‘Whole information’ on a topic, compared to the ‘bits of information’ they get from other sources.
  - Seeing the pictures makes the information clearer and complete
  - Sequence of information gives a better perspective
  - The information provided strengthens the services delivered to the livestock owner in the veterinary dispensary and making it a better ‘information centre’.
  - It helps in information dissemination by ‘value added waiting time’ to the livestock owners who bring their animals to the veterinary dispensaries for services.
  - It is an improvised version of ‘Farmers’ call center’ as it provides both audio and visual content of the information.
  - Draw backs of Information Kiosk
    - Kiosk needs continuous power supply.
    - It is operational only during the working hours of the Veterinary Dispensaries.
    - It cannot get immediate answers for specific questions of the livestock owners.
  - Kiosk needs up - gradation at frequent intervals to avoid disinterest among the livestock owners to view the static information.

VIII. CONCLUSION

The livestock owners were satisfied to get information in their own language at an easily accessible place in their locality. They felt that the kiosk saves time and money other wise they would have to spend to gather the same information from various sources. Livestock owners felt they could get whole information on a topic compared to the bits of information they usually get from the veterinary professionals. Seeing the pictures, animations and short movies on different aspects of livestock farming has made the livestock owners to be more satisfied. Siosks also helped in stimulating further dialogues / discussions with the personnel at the place of installation and / or neighbours and friends. The ability of the Information Kiosk to add value to their waiting time was note worthy.

REFERENCES RéFÉRENCES REFERENCIAS


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Information Processing (IFIP), Indian Institute of Management, Bangalore, India.


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<th>S.No.</th>
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| 1 | Identification and prioritization of need based information on livestock farming | 1.1 Personal interviews with the livestock owners  
1.1.1 Livestock owners  
1.1.2 Milk producers  
1.1.3 Farmwomen  
1.1.4 Field Veterinarians  
1.2 Workshops with stakeholders  
1.2.1 Livestock owners  
1.2.2 Milk producers  
1.2.3 Farmwomen  
1.2.4 Field Veterinarians |
| 2 | Preparation of relevant text for livestock owners to be incorporated in the information kiosk. | 2.1 Printed texts from text books, farmers training manuals and other references collected by project leader and Research Workers - Draft text in English prepared.  
2.2 Text got finalized through a series of meetings with faculty of Department of Veterinary Extension and research workers of the project.  
2.3 Comments from the subject experts i.e. faculty of Livestock Production and Management, Poultry Science, Animal Reproduction and Gynaecology, Clinical medicine, Preventive Medicine and Veterinary Public Health were duly considered.  
2.4 Translated into local language (Telugu) with appropriate words as suggested by the livestock owners.  
2.5 Initially the conversion of available information from author format to multimedia format in both the languages was carried out, later touch sensitive and user interface format i.e. ‘kiosk-tailored’ versions was designed in both English and Telugu languages. |
| 3 | 'Text-as-in-kiosk' prepared for all screens. | 3.1 Pictures / photographs / animations are selected from different sources.  
3.2 Scope for graphics / animations analyzed for each screen.  
3.3 Text was finalized for each screen based on the discussion with the stakeholders. |
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<tr>
<td>4</td>
<td>4.1</td>
<td>Finding the right programmer</td>
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<td>4.2</td>
<td>Hand-over the screen-wise texts and graphics designed, to be installed in the touch screen mode of information kiosk.</td>
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<td>4.3</td>
<td>Working with the team of programmers to edit texts, pictures, graphics and animations.</td>
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<td>4.4</td>
<td>Relevant sound recording and voiceover was incorporated in the Information Kiosk on all the aspects of livestock farming both in English and Local languages.</td>
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<td>4.5</td>
<td>Relevant Movies on certain important aspects of livestock farming, fodder production, success stories were prepared.</td>
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<td>4.6</td>
<td>Touch sensitive and user interface Multimedia software was designed in both English and Telugu languages.</td>
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<td>4.7</td>
<td>Newly developed multimedia software was calibrated and tested for the compatibility and suitability with the available speed / processor of the kiosk / computer.</td>
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<td>5.1</td>
<td>Selection of places of installation of information kiosks at peri-urban area of Tirupati was in consultation with selected livestock owners, field veterinarians and faculty of the veterinary college.</td>
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<td>5</td>
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<td>Information Kiosk on “Virtual world of information on livestock production and management” for the peri-urban landless livestock owner in Tirupati, Andhra Pradesh installed on a trial basis.</td>
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<td>6</td>
<td>6.1</td>
<td>Formative evaluation of the Information Kiosk.</td>
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<td>Individual evaluation on the kiosk and contents of the kiosk.</td>
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