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

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Abstract- The landless livestock owners who rear different livestock for their livelihood are the vulnerable groups struggling to more 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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Strictly as per the compliance and regulations of:

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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-today 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.

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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

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information on livestock Production and Management for the development of resource poor farmers through Touch Screen Information Kiosks'

III. Designing of Touch Screen Information Kiosk

The Information Kiosk designed for livestock farming information dissemination was thus considered an important information kit. The Information Kiosk has two parts in its synthesis.

1. The machine i.e. hardware part (computer with interactive screen).
2. The matter i.e. software part (programme which has text and pictures with audio back-up)

a) The Machine

Technical specification of the computer: Intel Pentium IV with 1 GB DDR RAM 800MHz, 120GB HDD, DVD R & R/W Combo Drive, Mechanical Keyboard, Optical Scroll Mouse, 100 kbps internal modem and with 19 inch TFT Touch Screen monitor, windows XP operation system, rust free cabinet with wheels (Fig. 1).

b) The Matter

The information matter prepared in consultation of selected livestock owners, field veterinarians and its correctness verified by the faculty of college of veterinary science,Tirupati. Appropriate pictures, photographs and animations were added to the text. later these were translated into local language. The voice back-up was added in both English and local languages for the benefit of those livestock owners who can not read (Table 1 and Fig. 2).

IV. Information at Kiosk

At the beginning giving emphasis to the evolution and role of livestock farming in rural livelihood and later, it lead to Main screen, which contains twelve categories related to different livestock farming and waits for the user to interact for instant access to the latest information on every aspect of livestock production and management. The user interface multimedia content, displays the information on an attractive screen along with the voice interface (for those who cannot read) in both the languages such as English and local. The main screen contains Twelve major categories, which in turn includes many more multimedia screens along with text and voice interface in both English and local languages, such as:

❖ About Us
❖ Cattle and Buffalo Production
❖ Sheep and Goat Production
❖ Pig Production
❖ Rabbit Production
❖ Backyard Poultry Production
❖ Emu Farming
❖ Fodder Production
❖ Developmental and Welfare Activities
❖ Success Stories
❖ Related Links
❖ Contact Us

V. Installation of Information Kiosk

The place of installation of the farmer usable Information Kiosk is one of the important factors that will 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 dispensaries of the Government. They felt that the people could access the kiosk in this venue without any inhibition, since all of them come to the veterinary dispensaries for artificial inseminations and first aid treatment of their livestock. 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 i.e. relevance to the latest management practices. In general, the farmwomen are giving more importance and interest in getting the information than men, probably because of their higher degree of involvement in cattle rearing than their male counterparts. Some of the male livestock owners feel that it might be more useful to the females who are much involved in cattle rearing activities on a day-to-day basis. Milk producers or Vendor feel that they know much of the information from their experience as they were moving to different places and coming across different type of animals and diseases. So generally they won't spend much time with the Kiosk and they even opinioned that it was really useful to those who recently opted for livestock farming without much exposure. Finally they expressed that it will take time to get tuned to this type of new interventions (Kiosk) but time will come that they realize the worth of the information. The presence of the kiosk has converted the places of installation into better information centres. In spite of the monotonous routine practices, local veterinarians opinioned to have the

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. Kiosks 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.

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Table 1 : Methodology adopted in the preparation of information material for the kiosk

S.No.	Activity	Methodology

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.

4	Designing the Information Kiosk	4.1 Finding the right programmer 4.2 Hand-over the screen-wise texts and graphics designed, to be installed in the touch screen mode of information kiosk. 4.3 Working with the team of programmers to edit texts, pictures, graphics and animations. 4.4 Relevant sound recording and voiceover was incorporated in the Information Kiosk on all the aspects of livestock farming both in English and Local languages. 4.5 Relevant Movies on certain important aspects of livestock farming, fodder production, success stories were prepared. 4.6 Touch sensitive and user interface Multimedia software was designed in both English and Telugu languages. 4.7 Newly developed multimedia software was calibrated and tested for the compatibility and suitability with the available speed / processor of the kiosk / computer.
5	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.	5.1 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.
6	Modification of the information material based on formative evaluation.	6.1 Formative evaluation of the Information Kiosk. 6.1.1 Observation 6.1.2 Critical Group Reflection and 6.1.3 Individual evaluation on the kiosk and contents of the kiosk.