



Strategy for Improving the Farming Performance Through ICT of Andhra Pradesh

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ABSTRACT

The suggested strategies for increasing farming performance of poultry farmers through utilization of ICTs include: 1) provision of adequate infrastructure, 2) provision of information access to farmers through creating awareness, 3) establishing information kiosk at each village, 4) orientation of human resources towards ICT extension, 5) developing IT related curricula through distance education mode, 6) promotion of public-private partnership and 7) attitude of Veterinary scientists and extension service providers towards utilizing ICT for commercial poultry development.

KEYWORDS :

Material and Methods

RESEARCH DESIGN

Ex-post facto design adopted for the present study since the variables chosen have occurred. According to Kerlinger(1978) Ex-post facto research design is defined as systematic and empirical enquiry in which the researcher does not have control over independent variables because their manifestation already or they are inherently not manipulated.

LOCALE OF THE STUDY

The state of Andhra Pradesh was chosen purposively for the study as the researcher is familiar with local language that could definitely help the researcher to build good and quick rapport and facilitates in depth study through careful observations.

SAMPLING PROCEDURE

Location of Regions

The present study was carried out in three regions of the state i.e. Telangana, Coastal Andhra, Rayalaseema of Andhra Pradesh state and one district from each of region with highest poultry population (both in layers and broilers) was selected purposively.

Selection of Districts

Three districts viz. Rangareddy, Chittoor and East Godavari of Andhra Pradesh were selected for the study based on highest poultry population i.e layers and broilers. The map showing Andhra Pradesh state with study area was depicted in the fig.1.

Selection of Respondents: From each district 40 commercial poultry farmers in equal number of 20 layer farmers and 20 broiler farmers were selected randomly. Thus a total 120 respondents from three districts were chosen for the study.

RESULTS

Problems

The problems voiced by layer and broiler farmers were recorded and presented in Table 27.

The problems voiced by layer farmers were 'No regular mechanism for dissemination of scientific information' (86.67%) , 'Non availability of market information on feeds, prices etc.,' (83.30%), 'No efforts on customer education on value added poultry products' (58.30%), 'Dependence for information on technical persons of hatcheries' (53.30%), 'Non availability of experts during emergency / crisis' (46.67%) and 'Lack of awareness on food quality standards' (33.30%), with percentage in parenthesis.

The problems voiced by broiler farmers were *Dependence for information on technical persons of hatcheries* (83.30%), *No regular mechanism for dissemination of scientific information* (66.67%), *Non availability of market information on feeds, prices etc* (58.30%), *No efforts on customer education on value added poultry products* (41.67%), *Lack of awareness on food quality standards* (25.00%), *Non availability of experts during emergency / crisis* (16.67%), with percentage in parenthesis.

The problems voiced by both layer and broiler farmers put together, were *No regular mechanism for dissemination of scientific information* (76.67%), *Non availability of market information on feeds, prices etc.,*(70.83%), *Dependence for information on technical persons of hatcheries* (68.33%), *No efforts on customer education on value added poultry products* (50.00%), *Non availability of experts during emergency / crisis* (31.67%), *Lack of awareness on food quality standards* (29.16%)with percentage in parenthesis.

Problems voiced by commercial poultry farmers

S. No	Problems voiced	Layer farmers		Broiler farmers		Total farmers	
		f	Rank	f	Rank	f	Rank
1	Non availability of market information on feeds, prices etc.	50 (83.30)	II	35 (58.30)	III	85 (70.83)	II
2	Dependence for information on technical persons of hatcheries	32 (53.30)	IV	50 (83.30)	I	82 (68.33)	III
3	No regular dissemination of scientific information	52 (86.67)	I	40 (66.67)	II	92 (76.67)	I
4	No efforts on customer education on value added poultry products	35 (58.30)	III	25 (41.67)	IV	60 (50.00)	IV
5	Lack of awareness on food quality standards	20 (33.30)	VI	15 (25.00)	V	35 (29.16)	VI
6	Non availability of experts during emergency / crisis	28 (46.67)	V	10 (16.67)	VI	38 (31.67)	V

DISCUSSION

STRATEGY FOR IMPROVING THE FARMING PERFORMANCE THROUGH ICT

The important link between the whole chain of ICT networks and their application is the ultimate beneficiaries of these initiatives i.e. the stakeholders. In case of ICT initiatives aimed at poultry development the main stake holders are farmers. The overview of results of investigation indicated that majority of farmers are having moderate knowledge on ICT tools and services. For effective delivery of ICT based extension services for enhancing the farming performance of poultry farmers, the following strategy formulated based on the findings of the study as well as observation of existing conditions. It is hoped that implementation of the following strategy can help in improving the farming performance effectively through ICT based extension services to the commercial poultry farming community.

Provision of adequate infrastructure

The three basic infrastructural requirements for rural ICT initiatives are (i) electricity, (ii) telephony, (iii) network connectivity. The problems associated with these inputs recognized as inherent features of the landscape and tackled as an integral part of the implementation

process. To overcome these battery back-ups and uninterrupted power supply (UPSs) are mandatory for assured electricity supply. For telephone connection, WILL phones offer a cheaper and lighter and more intelligent type of network. WILL system allow simultaneous data and voice telephony across long distances. Satellite communication can be used in places where telephone line has not reached.

Provision of information access to farmers

Development of user-friendly software such as expert systems, decision support system and large database on agriculture in local languages will improve access to information sources by farmers.

a) Decision support systems: The complex nature of farming, risk involved, demand for high precision, sophistication, timeliness in quality decision making, global marketing trends etc. demands the farmer to elicit support from information systems. Decision support systems (DSS) analyses the data and presents it to the user so that he can make decisions more easily. However, the DSS should have interactivity, personalized, ad hoc reporting capability and simple web based deployment so that the needy users can utilize the same from any part of the globe. The developers of DSS should consider the needs of the poultry farmers such as formulation of balanced ration, least cost formulations, feed analysis, water analysis, cost economics, production parameters etc.

b) Poultry market information system: Market intelligence is the crucial factor for success in the changed scenario. The global market is fast changing and the India has to compete with counterparts to export its poultry products. The market opportunities, product requirements, quality, prices etc. be made available through online Information system in the tune with WTO and continuous updating of knowledge and data base makes it more reliable.

c) Comprehensive expert systems in poultry production: Very few expert systems developed on certain domains only and there is a great scope and demand for comprehensive expert system comprising of different independent modules. Expert systems must be developed in local languages that will help farmers to develop their own expertise. Expert systems in poultry farming should be built around the end user needs such as disease diagnosis, its prevention and control, treatment, postmortem examination, poultry management aspects like summer management, litter management, bio-security and vaccination.

d) Poultry feed information technology (FIT) expert system: The system should address the problems of high cost of feed, non-availability of quality feed by suggesting alternatives to maize and providing information on cheap feed ingredients. It should also facilitate formulation of balanced ration and least cost formulation. The PFIT expert system should be made available to public domain, so that farmers can use it effectively.

Creating awareness

Creating awareness is another important factor for enhancing the farming performance. Information kiosks and mobile telephony can be used effectively. Mobile text messaging, Voice SMS and MMS can be suitably employed to cater to the information needs of the stakeholders. The extension agencies and other concerned developmental organizations can enlist people in specific interest groups (mobile user groups) and can provide timely and need based information through the mobile platform.

Social media networks also appears as a bright prospect with a potential to reach global audience and an additional advantage these social networks bring in, is the opportunity for the stakeholders to actively interact and express their views without inhibitions.

A sustained campaign involving all the concerned parties like Government bodies, Universities, extension agencies, Non Governmental organizations and poultry industry can also help to enhance the aware-

ness levels among all the stakeholders.

Establishing information kiosk at each village

Considering the drawbacks of traditional extension system to reach all commercial poultry farmers to disseminate technological information in a timely manner government can think of establishing information kiosk at each village to reach the last mile delivery of extension services through ICT approach.

Poultry Information Kiosks: User-friendly touch screen information kiosks in vernacular language focusing on the perceived needs of poultry farmers. Significant improvements in family poultry production systems can be achieved through well-designed and implemented information dissemination tools such as information kiosks and interactive multimedia computer disks. Farmers can access and avail scientific production practices, scheme guidelines, training details, market prices, weather, expert advice etc. with ease in places of difficulties. The information may be presented in different formats such as visual, audio, video, pictures, animated graphics etc. for creating and sustaining interest. These centres can well be utilized by all the farmers of that village/locality.

Orientation of human resources towards ICT extension

Successful implementation of any program / project would depend on human resources. In case of ICT utilization they are the main driving force for achieving objectives. They act as interface between ICT tools and farming performance of the commercial poultry farming community. By giving incentives to grass root level extension workers, hatchery persons and extension personnel by fixing targets, access to information services could be improved.

1. Developing IT related curricula through distance education mode

The poultry development agencies, especially the NECC and state universities system need to develop sufficient infrastructure and human resources for developing information technology based curricula to reach farmers through distance education mode, using internet and intranet communication infrastructure developed for commercial poultry development.

2. Promotion of public-private partnership

Promotion of public-private partnership in establishing information kiosks and other ICT tools delivery services would help better outreach of services to the farming community. The private companies dealing with manufacture and sale of poultry – feed, vaccination, medicines, feed additives and vitamins and mineral supplements and those dealing with processing food and marketing can be reached by using ICTs. It also helps in demand driven extension services from the commercial poultry farming community. Effective PPP in utilizing ICT would help the extension system in reaching the unreached with need based, demand driven information and technologies.

3. Attitude of Veterinary scientists and extension service providers towards utilizing ICT for commercial poultry development.

Veterinary scientists and extension service providers need to develop a positive disposition towards relevance and efficacy of information technology to improve their job performance, speed-up technology generation and facilitate faster transfer of technology to farmers without any time lag distortion of information. Since these Veterinary professionals are the e-leaders in the commercial poultry development, they need to be fully prepared and face future challenges. Any hesitation or reluctance among them towards ICTs removed immediately through proper training on computers as well as improving their development orientation, information sharing, problem solving skills, etc.

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