

CONSTRAINTS IN ICT UTILIZATION AMONG FIELD VETERINARIANS OF ANDHRA PRADESH

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ABSTRACT

An ex-post-facto research study was conducted to identify the constraints faced by field veterinarians in ICT utilization in their day-to-day life. The major findings of the study depicted that the field veterinarians were lacking knowledge in using ICT tools, lack of formal training programmes for ICTs at field level, insufficient number of ICTs in Veterinary Dispensaries, interrupted power supply and internet connectivity problems. To overcome these constraints, field veterinarians had suggested conducting training programmes and provision of ICT tools along with power backup devices and high speed internet connectivity at individual Veterinary Dispensaries. Based on the results, practically implementable strategies were developed in order to improve the ICT utilization among field veterinarians.

KEYWORDS: Andhra Pradesh, Animal Husbandry Department, ICT, NADRS, VAS and Veterinarian

INTRODUCTION

India is a country of agriculture and livestock is an integral part of it since times immemorial. Almost 1/4th of agricultural GDP is contributed by livestock and it is still improving from year to year. Thanks to all the livestock development programmes for bringing the development of livestock sector to an accelerating mode. But the continuity of this pace needs instant information outreach with the intervention of Information and Communication Technology (ICT) from lab to land. Because of this very reason the present day veterinarians are obviously reliant on this robust technology starting from acquiring the needy information to its dissemination to the end beneficiaries. Even though, the ICT is having its own advantages like instant communication, availability of global information, etc., it was found that ICT utilization among field veterinarians is limited to medium extent in converse with the expected high level of utilization. So, to have an insight into the issue, a study entitled “Constraints in ICT utilization among Field Veterinarians of Andhra Pradesh” was systematically planned and conducted.

METHODOLOGY

Ex-post-facto research design was followed in the present study. Andhra Pradesh was purposively selected for carrying out the study and three districts namely, Srikakulam, Guntur and Chittoor representing northern most, central and southern most parts of the state were purposively selected. List of Veterinary Assistant Surgeons (VASs) working in A.H. Department was prepared and 40 VASs using ICT tools were selected randomly from each district thus, to constitute a sample of 120 for the study. An ICT utilization index was developed based on the ratings provided by the experts in extension, veterinary sciences and stakeholders in Animal Husbandry Department along with pretested structured interview schedule was administered for collecting the data. To avoid gender bias, a ratio of 3:1 was maintained for selections of

males and females respectively which was almost proportionate to the gender ratio of VASs in the selected districts.

RESULTS AND DISCUSSION

Constraints of Field Veterinarians in Utilization of ICT Tools

From Table 1, it can be inferred that a great majority (85.83%) of the respondents felt that lack of knowledge in using ICT tools was the emerging problem in ICT utilization by veterinarians, followed by lack of training in ICTs (77.50%), insufficient number of ICTs in Veterinary Dispensaries(V.Ds) (72.50%), interrupted power supply (70.00%), internet connectivity problems (66.67%), lack of maintenance of computers (65.83%), A.H Department Website and its server are slow (55.83%), lack of proper room facility for ICTs (49.17%), communication problems within and among the development departments (38.33%), lack of A.V.Aids in V.Ds (22.50%) and lack of free time to learn new techniques personally (10.83%). (Kabir, 2015; Sireesha *et al.*, 2014; Agwu and Ogbonah, 2014; Adetumbi *et al.*, 2013; Subash *et al.*, 2013; Tanko *et al.*, 2013 and Karuna and Sandhya, 2009)

Table 1: Constraints of Field Veterinarians in Utilization of ICT Tools

S.No.	Perceived Constraint	Frequency	Percentage	Rank
1.	Lack of knowledge in using ICT tools	103	85.83	I
2.	Lack of training in ICTs	93	77.50	II
3.	Insufficient number of ICTs in V.Ds	87	72.50	III
4.	Interrupted power supply	84	70.00	IV
5.	Internet connectivity problems	80	66.67	V
6.	Lack of maintenance of computers	79	65.83	VI
7.	A.H Department Website and its server are slow	67	55.83	VII
8.	Lack of proper room facility for ICTs	59	49.17	VIII
9.	Communication problems within and among the development departments	46	38.33	IX
10.	Lack of A.V.Aids in V.Ds	27	22.50	X
11.	Lack of free time to learn new techniques personally	13	10.83	XI

Suggestions of Field Veterinarians in Utilization of ICT Tools

It was apparent from Table 2 that a vast majority of the respondents suggested that trainings and workshops on ICT utilization and its application in information management should be conducted on a regular basis (90.83%), followed by provision of ICT tools like desktops, laptops, tablet PC, smart phones etc., to all VASs (85.00%), supply of power backup devices like inverters, generators or UPS to all V.Ds (77.50%), provision of high speed internet connectivity with Broad Band connection and Dongles to all V.Ds (73.33%), regular monitoring and maintenance of ICT tools should be done by technical personnel (67.50%), construction of new buildings for V.Ds with computer room facility (60.00%), improving social participation of the veterinarians by establishing formal WhatsApp and Facebook groups (44.17%) and provision of A.V.Aids like, LCD projectors, Televisions, etc., to V.Ds (25.83%). The results were in line with (Sireesha *et al.*, (loc.cit), Hashemi *et al.*, (2014) and Agwu and Ogbonah (loc.cit)).

Table 2: Suggestions of Field Veterinarians for Improvement of Utilization of ICT Tools

S.No.	Suggestion	Frequency	Percentage	Rank
1.	Trainings and workshops on ICT utilization and its application in information management should be conducted on a regular basis	109	90.83	I
2.	Provision of ICT tools like desktops, laptops, tablet PC, smart phones etc., to all VASs	102	85.00	II
3.	Supply of power backup devices like inverters, generators or UPS to	93	77.50	III

	all V.Ds			
4.	Provision of high speed internet connectivity with Broad Band connection and Dongles to all V.Ds	88	73.33	IV
5.	Regular monitoring and maintenance of ICT tools should be done by technical personnel	81	67.50	V
6.	Construction of new buildings for V.Ds with computer room facility	72	60.00	VI
7.	Improving social participation of the veterinarians by establishing formal WhatsApp and Facebook groups	53	44.17	VII
8.	Provision of A.V.Aids like, LCD projectors, Televisions, etc., to V.Ds	31	25.83	VIII

Strategies for Improving the Utilization Pattern of ICT Tools by Field Veterinarians

Keeping all the findings of the study in view, the need of the hour was to improve the utilization of ICT tools by field veterinarians in their regular job structure for effective service delivery. Hence, an attempt had been made to develop practically applicable strategies and the same were mentioned below.

Capacity Building

- Capacity building should start from Undergraduate studies itself.
- One or two credited compulsory courses regarding practical applicability of ICT tools should be incorporated into the UG course curriculum.
- Students should be assigned to retrieve information from World Wide Web.
- During the internship programme itself, students should be acquainted with National Animal Disease Reporting System (NADRS) and entry of patient data into it.
- Pre-service and in-service trainings to the field veterinarians on the advancements in information and communication technology.
- Regular need based trainings and refresher trainings should be conducted by the A.H.Department.
- Field veterinarians should be encouraged and oriented to take part in workshops and conferences conducted by various educational institutions.
- Giving importance to e-courses developed by Veterinary Universities as a part of continuing veterinary education and providing allowances similar to that of PG and PG Diploma courses.

Infrastructure Development

- Each and every V.D should be provided with latest configured desktop, laptop, or tablet PC along with good maintenance facilities.
- Uninterrupted internet connectivity should be provided with Dongles and Broadband connections at free of cost.
- Establishment of separate ICT room facility at V.D level.
- Uninterrupted Power Supply (UPS) facility should be provided to all the V.Ds
- Installation of all the computers with Total Security software by forming linkages with Antivirus software companies.

- Regular monitoring of ICT tools by qualified ICT technical person.
- Provision of instant solution facility for service related problems.
- Strengthening the NADRS by regular case entry and updating of website.

CONCLUSIONS

The study on constraints in ICT utilization among field veterinarians of Andhra Pradesh had highlighted the need to address several hurdles faced by VASs in utilizing ICT tools. A focus on suggestions provided by field veterinarians and the strategies developed by researchers viz., Capacity building in ICTs, Infrastructure development with good maintenance facilities for ICTs would certainly promote the ICT utilization among field veterinarians.

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