

Original Research Article

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Utilization of ICT Sources by Livestock farmers in the Auraiya District of Uttar Pradesh, India

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ABSTRACT

The study was conducted to describe the socio-economic characteristics of livestock producers, determine sources, type of information and communication technology obtained, utilization level of information and communication technology on the livestock farmers in the Auraiya district of Uttar Pradesh, India. Data were generated through random administration of 120 questionnaires to livestock producers and oral interviews for the study from December 2018 to July 2019. Results showed that seventy percent (64%) of the livestock producers contacted were men, 50% were between the ages of 17 and 48 years old. 66% of the livestock producers are married with 34, 29 and 23% farmer's education qualification below 10th, 12th and illiterate, respectively. While, 29% Non-worker are, 26 and 23% are labours and fulltime farmers, respectively. Farmers are more familiar with mobile phones (20.83%), radio (19.17%), and Internet (16.67%). 23% of the livestock farmers use ICT to watch agricultural news, 19% and 16% use ICT for watching business news and religious programs respectively, whereas 14% use ICT to obtain political information and 13% use ICT for entertainment. It was reported that only thirty-five (35%) of the farmers used several sources of information frequently. This shows that there forty-six percent (46%) & nineteen percent (19%) are untold a limited level of awareness on the use of ICT to improve and enhance livestock production. This showed that there is still limited level of awareness on the use of ICT to improve and enhance livestock production in the Auraiya District of Uttar Pradesh.

Keywords

Agriculture,
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Development

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Introduction

The desire to promote better information access to improve the socio-economic condition of the farmers has always been the top priority of agricultural extensionists and rural advisory service providers. Further, the role of ICTs in accessing more information to

enhance food security and support rural livelihoods has also been increasingly recognized and officially endorsed at the World Summit on the Information Society (WSIS) 2003-2005 (IICD, 2007).

Therefore, to benefit the rural people, extensionists are grappling with the question

of how to harness ICTs to improve rural livelihoods to contribute towards better information exchange and access. The role of ICTs as an instrument for progress and development has been widely acknowledged in this 'Global Information age', and it has been observed that people with all walks of life are being impacted by the IT sector directly or indirectly.

Information and communication technology (ICT) refers to all information and communication systems and technologies including not only the digital formats such as the internet or the world-wide web but also interfaces with radio, cable and wireless television, video, cellular phones, and print media (Hazelman and Flor, 2004). Information and knowledge are indispensable tools for empowering livestock producers so that they will be able to make informed decisions. Throughout the world, Information and Communication Technology (ICT) has formed a source of linkages, thus bringing the world into a small global village. It should be noted that several types of ICT have contributed positively to the development of this country as a source of information in commerce, industries, agriculture, education, health, sports, culture and tourism, and even religion [ICT, Update 2004].

For instance, the use of radio in communication is one of the oldest forms of relaying information to people at all levels (ICT, Update 2004). The radio is generally conceived as a receiving set, especially one for receiving the waves of the adopted frequency of certain transmitters or broadcasting stations. Adams described the radio as the most powerful medium of education and entertainment in the tropics. Most development support communication researchers and extension experts have severally recommended it as the cheapest medium for reaching the majority of rural

farmers in many developing nations (Adams, 1982).

Television is another medium of information for farmers in most developing nations. Slots are devoted to weekly programs, interesting agricultural information, and news generally, but it is not widely distributed like radio because many farmers cannot afford it and also lack of electricity in the rural areas where the majority of the full-time farmers' dwell (ICT, Update 2004).

According to Surmeon, Z., Equally, since the advent of the Global System of Mobile Communication (GSM), mobile phones have become useful to farmers in the dissemination of information from one place to another with ease. However, this also is limited due to a lack of service coverage nationwide. The cellular phones help in faster delivery of information and news.

According to Wolf, the internet is a threatening place for morally upright people due to pornography mail bombs and online sexual harassment. People could say things online that they would never have said in the face to face conversation. The introduction of radio and television had profound effects on many countries where they were vital tools of development in creating a sense of nation and national identity and enhancing agricultural productivity in the country.

For instance, farmers also reported using ICTs to know the market days, to know where products could be sold and identifying a different market location for efficient marketing of produce (Oyeyinka and Bello, 2013). However, traditional ICTs viz., radio and television have also been reported to be used by farmers in accessing agriculture-related information (Batte *et al.*, 1990; Nazari and Hasbullah, 2008; Shetto, 2008; Emmanuel, 2010; Nakweya, 2013). However,

ICT applications such as calls and Short Messaging Services are used often by farmers (Mtega and Msungu, 2013).

ICTs, therefore, offer opportunities to reach more people through easy access to local or global information and knowledge. For instance, Jabir (2011) reported that ICT-based information delivery has helped the livestock farmers of Uttar Pradesh in India in making significantly better quality decisions on various livestock practices as compared to ICT non-users. Further, the application of ICT among farmers of Madhya Pradesh, Uttar Pradesh, and Tamil Nadu of India reported that information acquisition and facilitating transactions in input and output markets by ICT-based initiatives have also helped farmers in reducing transaction cost (Adhiguru and Devi, 2012).

The objectives of the study were to describe the socio-economic characteristics of livestock producers; determine the sources of information and communication technology obtained by livestock producers; determine the type of information being obtained by livestock keepers; assess the level of information and communication technology utilization by the livestock producers and assess the impact of information and communication technology on the district Auraiya of Uttar Pradesh livestock farmers.

Materials and Methods

The study was carried out in the Auraiya district of Uttar Pradesh State, India. Data on the socio-economic characteristics of livestock producers, various sources, type, utilization, and impact of information and communication technology on Auraiya district of the U.P. Data were generated through random administration of 120 well-structured questionnaires to livestock producers and oral interview of herdsmen. The study covered 8 months (between

December 2018 and July 2019). The data generated were subjected to descriptive statistics.

Results and Discussion

Socio-economic status of livestock farmers

These results clearly show that the district Auraiya local area livestock farmers producers of Uttar Pradesh. The results showed that sixty-four percent (64%) of the livestock producers male and (36%) female. Fifty percent (50%) are between the age of 17-48 years, twenty-seven percent (27%) are between 0-16 years of age while twenty-three percent (23%) are 49 years of age-old and above. The marital status results showed that sixty-six percent (66%) are married livestock producers for responsible farmers and thirty-four percent (34%) are single. These table educational qualifications indicate that the twenty-three percent (23%) of the livestock producers are illiterate, thirty-four percent (34%) are high school & below qualification, twenty-nine percent (29%) are high school & intermediate qualification while fourteen percent (14%) are graduate & postgraduate qualifications. The behavioral categories are livestock farmers indicate fifty-six percent (56%) of the general, twenty-three percent (23%) are OBC while twenty-one percent (21%) are SC/ST categories. This table indicates that the twenty-nine percent (29%) are non-worker while twenty-six percent (26%) are labor farmers, twenty-three percent (23%) full-time farmers, thirteen percent (13%) are private and nine percent (09%) are government employees. These results are tabulated in table one (1).

This table was indicated that livestock farmers based on the source of information with (20.83%) are Mobile phone&(19.17%) radio while (16.67%) internet, (15.83%) newspaper and 15% & 12.5% through television and magazines as shown in table 2.

Table.1 Distribution of livestock producers based on their socio-economic status

Variables	Frequency	Percentage (%)
Sex		
Male	76	64
Female	44	36
Age		
0-16	33	27
17-18	60	50
49-above	27	23
Marital Status		
Married	79	66
Unmarried	41	34
Educational Qualification		
Illiterate	27	23
10 th & Below	41	34
10 th & 12 th	35	29
Graduate/Postgraduate	17	14
Category		
General	67	56
OBC	28	23
SC/ST	25	21
Occupation		
Labor	31	26
Farmer	27	23
Government	11	09
Private	16	13
Non-worker	35	29
Total	120	100

Table.2 Distribution of livestock producers based on sources of information

Variables	Frequency	Percentage (%)
Newspaper	19	15.83
Magazine	15	12.5
Radio	23	19.17
Television	18	15
Mobile phone	25	20.83
Internet	20	16.67
Total	120	100

Table.3 Distribution of livestock producers based on type of information obtained

Variables	Frequency	Percentage (%)
Agricultural news	27	23
Political news	17	14
Health news	18	15
Business news	23	19
Entertainment	16	13
Religious programs	19	16
Total	120	100

Table.4 Distribution of livestock producers based on information utilization

Variables	Frequency	Percentage (%)
High	42	35
Medium	55	46
Low	23	19
Total	120	100

Figure.1 Distribution of livestock producers based on sources of information

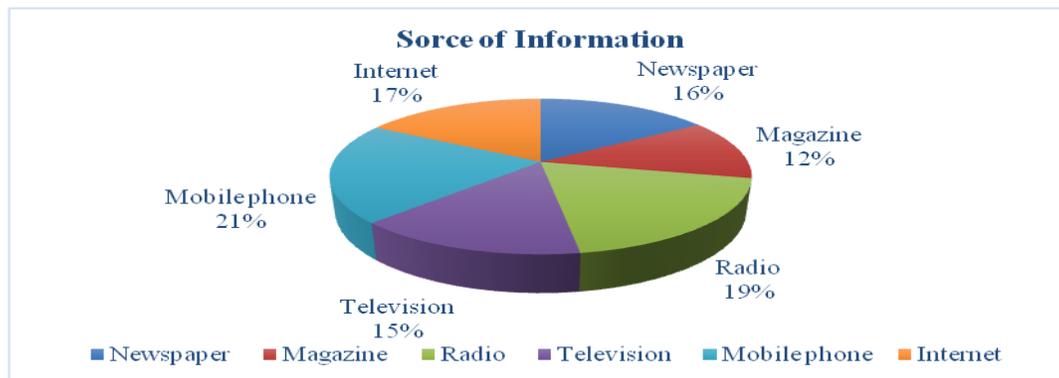
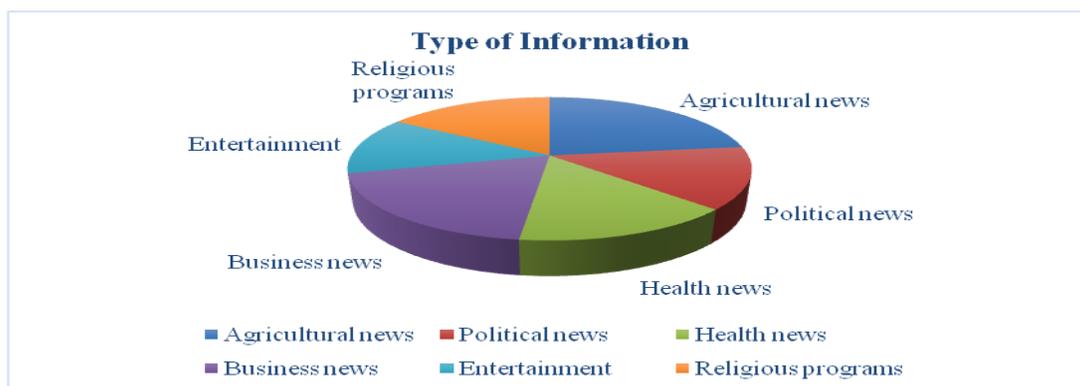


Figure.2 Distribution of Livestock Producers Based on Type of Information obtained



These results agreed with that of ICT Update and socio-economic characteristics of livestock producers; which reported that radio, determine the sources of information and communication mobile phones and internet remain the most frequently technology obtained by livestock farmers; determine used tools of relaying information. Only few people used the type of information being obtained by livestock information obtained from newspapers and magazines; assess the level of information and livestock advancement and development. Few livestock communication technology utilizations by the livestock marketers use ICT in relating information regarding to producers and assess the impact of information and market prices, weather, security (Fig. 1 and 2).

This table 3 showed that the (23%) of the livestock farmers are use ICT for agricultural news, (19%) business news, (16%) use ICT to obtain religious programs, (15%) use ICT for health news, (14%) use ICT to obtain political news while (13%) use ICT for entertainment. The major agricultural news obtained includes programs that equip farmers with knowledge and skills on how to treat animal disease and parasites upgrade animals using modern breeding techniques, improve feeding and management systems that increase productivity in the livestock sector. Marketing of livestock products is often broadcast & exhibition on radio and television which is highly interactive as they provide farmers with an opportunity to contribute through phone calls.

These results indicate in table 4 the level of exploiting of the several sources of information. It was conceived that only thirty-five (35%) of the farmers used several sources of information frequently. This shows that there forty-six percent (46%) & nineteen percent (19%) are untold a limited level of awareness on the use of ICT to improve and

enhance livestock production in the Auraiya district of U. P.

In conclusion, farmers are more sources of information table was indicated that livestock farmers based on the source of information with (20.83%) are Mobile phone & (19.17%) radio while (16.67%) internet, (15.83%) newspaper and 15% & 12.5% through television and magazines. It was observed that the majority of the livestock men only 35% of the farmers used the various sources of information frequently, while there is untold a limited level of awareness on the use of ICT to improve and enhance livestock production in district Auraiya.

Based on the findings of the study, the following recommendations were also made:

Dissemination of agriculture-related information through radio programs, KisanMela, and television would be recommended.

More awareness-cum-training programs on ICTs should be encouraged among farmers by agricultural state departments, research organizations, and its allied departments to increase the confidence, competence, and skill in using ICTs for development.

Increased engagement in social media among rural youths on farming to enhance the communication pattern among themselves and extension personnel.

Since there is a lack of repairing centers of ICTs at the village level, vocational training for the youths on ICT infrastructure would be recommended.

References

- Adams, M.E., 1982. Agricultural Extension in Developing Countries, Longman, Essex, U.K.,
- Adhiguru, P. and Devi, S.V. (2012) ICT in Indian Agriculture: Learnings and way

- ahead. International Journal of Extension Education,8:1-4.
- Emmanuel, C.O. (2010) Differential mass media usage among rice farmers in Nigeria. Evidence from Benue State. Journal of Communication, 1(1): 33-36.
- Hazelman, M., and A.G. Flor, 2004. Regional prospects and initiatives for bridging the rural digital divide. AFITA/WCCA Joint Congress on Agriculture.
- ICD. (2007) How ICT can make a difference in agricultural livelihood. The Common Wealth Ministers Reference Book-2007.
<http://www.iicd.org/files/ICT%20and%20agricultural%20livelihoods.pdf>.
- ICT, Update 2004. Information is Changing Things in The Market Place. ICT Update, A Current Awareness Bulletin for ACP Agric., 18: 4-5.
- Jabir, A. (2011) Use of quality information for decision -making among livestock Farmers: Role of ICT. Livestock Research for Rural Development, 23 (3).
- Nakweya (2013) Radio, mobile phones could boost African farm yields.
<http://www.scidev.net/sub-saharan-africa/icts/news/radio-mobile-phones-could-boost-african-farm-yields.html>.
- Nazari M.R. and Hasbullah, A.H. (2008) Farmers' approach and access to information and communication technology in the efficient use of modern irrigation methods. European Journal of Scientific Research, 21(1): 38-44.
- Oyeyinka, R.A. and Bello, R.O. (2013) Farmers Use of ICTs for Marketing Information Outlets in Oyo State, Nigeria. Journal of Agricultural Science, 5(11): 150-158. ,doi: 10.5539/jas.v5n11p150.
- Shetto, M.C. (2008) Assessment of agricultural information needs In African, Caribbean, and Pacific (ACP) States Eastern Africa Country Study: Tanzania. Ministry of Agriculture, Food Security, and Cooperatives on behalf of the Technical Centre for Agricultural and Rural Cooperation (CTA).http://icmpolicy.cta.int/filesstk/Tanzania_Final-report-081209.pdf.
- Surmeon, Z., and Y Schoster, 1993. The Use of Cellular Phone in Information Delivery. Www. Of Surmeon Z and Schoster Y Online Accessed. on 28th September, 2010.

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