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Use of Information and Communication technologies among poultry farmers of Vidisha District

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Abstract: The study assessed the utilization ICTs among poultry farmers of Vidisha district. Multistage sampling technique was used in the selection of 80 respondents for the study. Validated and structured interview schedule was used to collect data from the selected poultry farmers. Data collected was analyzed with aid of frequency counts, percentages and mean as descriptive statistical tools, while Pearson product moment correlation was used as inferential statistical tool. The result of analysis showed that majority (79.2%) of the respondents are male with mean age of 50 years and mean years of poultry farming experience was 6 years. Personal mobile phone, TV and Radio ranked 1st, 2nd and 3rd respectively as the mostly used and accessible ICT facilities in receiving poultry related information. Technical knowledge, poor power supply and inadequate access to some of the ICT facilities are the major constraints encountered by the respondents in the use of ICTs in the area. The result of Pearson Product Moment Correlation shows that Age ($r=0.53$; $P<0.05$), household size ($r=0.42$; $P<0.05$) and income per annum ($r=0.48$; $P<0.05$) exhibited positive and significant relationship with the use of ICTs. The recommendations of this study were that efforts should be made by the service providers to improve network coverage in the study area through information technologies and efforts should be made to educate the farmers on the use of IT tools.

Key words : Information, communication, technology, farmers, ICT.

Introduction: Information and communication technologies also known as ICT, are now pervasive in many facets of daily life. They have quickly established themselves as one of the fundamental pillars of contemporary culture, and many nations today view mastering ICT fundamentals—including reading, writing, and arithmetic—as part of the core of education (Khvilon & Patru, 2002). Information and communication technologies (ICTs) are a group of tools used to manage information and improve communication (Ratheeswan, 2018 and Omotayo, 2005). ICTs employ a variety of devices, including computers, mobile phones, radio, television, email, and internet-connected devices. If used effectively and efficiently, ICTs have the ability to satisfy the information needs of enhanced chicken farmers (Asenso-Okyere and Mekonnen, 2012).

One of the key initiatives for better services in agricultural growth is the use of ICT. ICTs are essential for disseminating new, scientific technologies that will increase output and productivity. Poultry farming might also become one of the government's major initiatives for eradicating poverty and assisting the most marginalized socioeconomic groups because it is accessible to all social classes, including women, marginal farmers, schedule castes, and tribes. Therefore, poultry farming is a crucial industry for small, middle, and large-scale farmers to generate revenue. According to CBS (2011), poultry makes up 4% of the agricultural GDP and 11.5 % of the animal GDP.

Poultry farming is one of the major animal industries in terms of generating cash and a living. The national poultry flock consists of pigeons, chickens, ducks, and other birds that are raised using various production methods. Due to their quick, rapid broadcast of information, capability for storage, retrieval, and feedback of the information to the source, mobile phones are effective ICTs instruments. Thus, mobile phone users—including chicken farmers—can take part in the procedure and profit from its application. When used properly, mobile phones can contribute significantly to the growth of the upgraded chicken farming industry. It can offer its users fresh information services. Under this study we found the answers of these questions. These are

1. Under the study area what is the level of awareness of ICT among poultry farmers?

2. Under the study area what is the extent of accessibility of ICT tools to poultry farmers in the study area?

3. Under the study area what is the level of utilization of ICT tools among the respondents?

4. Under the study area what the constraints to utilization of ICT among the respondents?

Objectives of the study: In general, the study evaluated how chicken producers in Vidisha district, M.P., used ICTs. In particular, the study described the socioeconomic traits of poultry farmers, established the level of awareness of ICTs, ascertained the level of ICT usage among the respondents, evaluated the accessibility of respondents to ICT facilities, and identified the barriers to ICT tool usage among poultry farmers in the study area.

HYPOTHESIS: According to the study's goals, the following null hypothesis was made: There is no significant association between the respondents' level of ICT use and any of their specified socioeconomic factors.

Methodology: The study was carried out in Madhya Pradesh's Vidisha district. Wheat and rice are the two main crops farmed, and farming is the main employment of the population.

Additionally, a significant portion of the local government is engaged in the production of livestock, particularly chicken. A multistage sampling methodology was used to choose the respondents. Due to the predominance of chicken farmers in the area, the first stage required the purposeful selection of four out of eight settlements. In the second step, 80 poultry producers were chosen at random from the District's. On a 4-point rating scale, respondents' use of ICTs was evaluated: never = 0, seldom = 1, occasionally = 2, and regularly = 3. Respondents were also asked to rate the accessibility of ICTs on a 4-point scale with not easy being equal to 0, moderately equal to 1, easy equal to 2, and extremely accessible equal to 3. Data analysis techniques included using frequency counts, percentages, Mean, and Pearson product moment correlation (PPMC).

Table 1 : distribution of respondents by socio-economic characteristics

ble	ency	ntage
Age		
less than 30	11	13.75
30-40	21	36.25
more than 40	48	60
Education		
No formal education	7	8.75
Primary education	14	17.5
Secondary Education	40	50
Graduation	19	23.75
Number of birds kept	47	58.75
less than 1000	23	28.75
1001-2000	10	12.5
2001-3000		
Income per annum		
less than 10000	5	6.25
100001-20000	45	56.25
20000-30000	30	37.5

Table 2. Distribution of respondents according to the types of ICT tools available in the area.

	Available		Not Available			
ools	ency	ntage	ency	ntage		
e phone	80	100	0	0	2.9	
	32	40	48	60	1.6	
sion	80	100	0	0	2.9	
et	60	75	20	25	2	
uter	30	37.5	50	62.5	1.4	
	25	31.25	55	68.75	0.42	

Table 3: Distribution of respondents by identified constraints to the use of ICTs

raints	ency (Percentage) of severity				
	s constraint	onstraint	constraint		ank
ical knowledge	07(89.2)	1 (9.2)	2 (1.7)	.88	st
ower supply	3 (56.7)	) (41.7)	2 (1.7)	.55	nd
uate access to ICTs	3 (35.8)	4 (53.3)	3 (10.8)	.25	rd
etwork reception	7 (22.5)	5 (55.0)	7 (22.5)	1	th
f physical access	3 (31.7)	4 (45.0)	8 (23.3)	.08	th
ost of ICTs	9 (32.5)	3 (52.5)	8 (15.0)	.18	th

Table 4: Result of Pearson correlation showing significant relationship between socio-economic characteristics of the respondents and level of use of ICTs

bles	lation	ue
		0.001
hold Size		0.002
me per annum		0

*Significant at 1% level

Discussion and results: Data presented in Table 1 revealed that 60% of the respondents have their ages ranged between more than 31- 40 years respectively. About 26 percent of the respondents have their age between 30-40 years and others (14%) were less than 30 years of age. This implies most of the poultry farmers sampled are in their productive age and this is expected to have a positive influence on their level of use of various information related to poultry

production. This implies an indication that they should be responsible and knowledgeable in the use of appropriate information retrieved from different ICT facilities in respect to poultry production. Most of the poultry farmers sampled are married and this shows that the farmers had opportunity of family labour for poultry farming.

Table 2 revealed the level of utilization of different ICT facilities among the respondents and Television and Mobile ranked 1st with weighted mean score of 2.9 among Six different ICT facilities available to the respondents in the area, follow by Radio (1.6) 2nd ,Television 3rd with WMS of (2.9). Computer and Internet were ranked 4th and 5th respectively. Other ICT facilities used by farmers include e-mail the least ICT used by the poultry farmers in the study area. This implies television, mobile and radios are the most often used ICTs by the respondents.

Table -3 revealed the identified constraints to the use of ICT facilities. Inadequate technical knowhow ranked 1st among other in terms of severity of constraints with WMS of 1.88 , follow by poor power supply with WMS of 1.55 and inadequate access to ICTs ranked. third with WMS of 1.25. Other constraints to use of ICTs are high cost of ICTs infrastructure, lack of physical access to some of the ICT facilities and poor network connectivity. This implies that poultry farmers are faced with certain constraints which affect the utilization of most of ICT facilities.

The summary of the Pearson correlation analysis that determined the association between several socioeconomic factors of the respondents and the degree of ICT facility use is presented in Table 4. According to the results Age (r=0.480; P 0.05), household size (r=0.437; P 0.05), annual income (r=0.46; P=0.000), and years of education (r=0.247; P 0.05') all showed positive and significant associations with the amount of ICT use. This suggests that all of the aforementioned factors have a significant impact on how frequently chicken producers in the study area use ICTs. That is, as poultry farmers get older, their use of ICTs increases, and as the number of households owned by farmers grows, there is a high likelihood that certain household members are familiar with ICT use. Once more, it becomes clear that there is a high tendency for use to rise as poultry producers' incomes rise. Perhaps there is a strong propensity to purchase ICT facilities as income rises.

Conclusion and Recommendations: The farmers with a formal education directly correlated with the utilisation of ICT. However the farmers still faces the basic problems like poor coverage, lack of electricity, high cost of ICT tools and insufficient knowledge of using ICT tools, which off course directly affect the use of ICT by the farmers. Hence proper power supply is needed to be maintained for the smooth running of system. Different sections need different type of steps to be taken. Poor network issue also a very big challenge efforts should be made by the service providers in the study area to improve farmers' access to Information Communication

Technologies. Efforts should be made to educate the farmers on the use of IT tools. Incorporating ICT into poultry farming can significantly improve productivity, reduce costs, enhance animal welfare, and improve overall farm management. However, it's essential for farmers to have the necessary skills and resources to implement and maintain these technologies effectively.

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