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RESEARCH ARTICLE

Attitude of Livestock Farmers Towards Use of ICT Tools

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ABSTRACT

The study was conceptualized in Thane district of Maharashtra to ascertain the attitude of livestock farmers. For this study, 120 livestock farmers are selected randomly as respondents. To measure the attitude of dairy entrepreneurs, Kumar and Ratnakar's scale (2011) with slight modification was used, the modified scale has 22 statements out of which 10 will be negative statements. The responses recorded on five-point continuum representing strongly agree, agree, undecided, disagree and strongly disagree with a score of 5,4,3,2 and 1 for positive statements and vice-versa for negative statements. Majority of farmers i.e. 51.67 per cent had favourable attitude towards the use of ICT tools, while 20.00 per cent and 28.33 per cent had less favourable and more favourable attitude respectively.

Key words: *Livestock farmers; Attitude; ICT tools; Information; Social media.*

The livestock sector plays an important role in Indian economy. Even more importantly, livestock provides a major source of supplementary income for a large majority of rural households and this sector is therefore, highly livelihood intensive and more importantly provides sustenance during drought and other natural calamities to rural families. Livestock is the single largest asset in rural India. Given India's agro climatic diversity, a large variety of livestock are available for power, milk, meat, eggs, wool etc. and thus ensuring additional income to the livestock farmers. About 75 per cent of the Indian rural households are keeping the livestock, out of which the poor farmers own nearly 80 percent of the livestock. Therefore, livestock and livelihood have an intimate relationship particularly in arid and semi-arid areas (*Warthi and Bhanotra, 2017*).

About 20.5 million people depend upon livestock for their livelihood. Livestock contributed 16 per cent to the income of small farm households as against an average of 14 per cent for all rural households. Livestock provides livelihood to two-third of rural community. It also provides employment to about 8.8 per cent of the population in India. Livestock sector contributes 4.11 per cent GDP and 25.6 per cent of total Agriculture GDP. Information and Communication Technology (ICT) tools have potential to change the economy of livestock, agriculture, and rural artisans in India ICT based information delivery to livestock sector can significantly improve the quality of decision-making in livestock farming system (Verma *et al.,* 2012).

METHODOLOGY

The present study was under taken in Thane district of Maharashtra. Thane district has the one of the highest number of literate livestock farmers in Maharashtra state and it is considered as one of the important districts of Konkan region of Maharashtra. The study area was selected keeping in view the availability of ICT tool using respondents and familiarity of the area.

Selection of respondents: The final stage of sampling process involved selection of respondents from each of the four blocks. From each block, five villages were selected randomly and from each village, six respondents were selected randomly there by, making a total 120 livestock farmers as respondents for the present study. Farmers who were using ICT tools, practicing livestock farming for 3 -5years and hadatleast3 milch animals was selected for present study.

Statistical analysis : To measure the attitude of dairy entrepreneurs, Kumar and Ratnakar's scale (2011) with slight modification was used, the modified

Table 1. Attitude of livestock farmers towards the use of ICT tools

Statements	SA	A	UD	DA	SDA
ICTs provide possible solutions to the present A.H. situation.	03 (02.50)	104 (86.66)	10 (08.34)	03 (02.50)	00 (0.00)
*ICTs cannot meet location specific needs of the farmers.	00 (0.00)	18 (15.00)	52 (43.34)	41 (34.16)	09 (07.50)
ICTs are potential tools to reach the needy farmers.	06 (05.00)	100 (83.34)	09 (07.50)	05 (04.16)	00 (0.00)
Farmer's feedback is fast through ICTs than traditional methods.	33 (27.50)	86 **(71.67)**	01 (00.83)	00 (0.00)	00 (0.00)
*Illiteracy will not deter farmers in availing ICT services.	20 (16.66)	82 (68.34)	10 (08.34)	05 (04.16)	03 (02.50)
*ICTs cannot deliver personalized information.	00 (0.00)	10 (08.34)	91 (75.83)	19 (15.83)	00 (0.00)
ICT based extension services assist the farmer in planning and decision making aspects in A.H.	06 (05.00)	103 (85.84)	05 (04.16)	06 (05.00)	00 (0.00)
*ICT services is a distant dream for resource poor farmers.	00 (0.00)	06 (05.00)	04 (03.34)	55 (45.83)	55 (45.83)
Farmers can get remunerative prices to their produce through ICT based market intelligence.	36 (30.00)	79 (65.83)	03 (02.50)	02 (01.67)	00 (0.00)
Expert advice makes the farmers enterprise/activities productive.	33 (27.50)	83 (69.17)	02 (01.67)	01 (0.83)	01 (0.83)
*All kinds of information exchange are possible only through ICTs.	03 (02.50)	02 (01.67)	12 (10.00)	84 (70.00)	19 (15.83)
Existing infrastructure of ICTs is not enough to meet the needs of the farming community Only resourceful farmers can get the benefit of the ICTs.	13 (10.83)	52 (43.34)	41 (34.16)	08 (06.67)	06 (05.00)
*Only resourceful farmers can get the benefit of the ICTs.	03 (02.50)	15 (12.50)	12 (10.00)	55 (45.84)	35 (29.16)
Access to information centre at village level is boon to the farming community.	13 (10.84)	92 (76.67)	11 (09.16)	03 (02.50)	01 (00.83)
Phone-in-live with scientists gives first-hand information about queries.	29 (24.17)	89 (74.17)	00 (00.00)	01 (00.83)	01 (00.83)
*ICTs alone would solve the problems of farmers.	01 (00.83)	22 (18.34)	15 (12.50)	61 (50.83)	21 (17.50)
ICT based disease outbreak warning system facilitate farmers to take preventive measures.	01 (00.83)	101 (84.17)	14 (11.67)	03 (02.50)	01 (00.83)
*ICT extension services avoid the personal extension contact.	00 (0.00)	10 (08.34)	55 (45.83)	53 (44.16)	02 (01.67)
ICTs based extension services provide new opportunity to build a skilled and knowledge community.	10 (08.33)	100 (83.34)	08 (06.67)	02 (01.66)	00 (0.00)
*ICT is a valuable tool, but it will never influence farmers' own decision making.	00 (0.00)	12 (10.00)	44 (36.67)	59 (49.17)	05 (04.16)
Weather forecasting through ICTs assists farmers in timely decisions.	32 (26.67)	87 (72.50)	01 (00.83)	00 (0.00)	00 (0.00)
*ICT based extension services are alternative to the present extension system.	00 (0.00)	00 (0.00)	20 (16.66)	88 (73.34)	12 (10.00)

(Note: Figures shown in parenthesis indicate percentage) *Negative statements
(SA: Strongly agree, A: Agree, UD: Undecided, DA: Disagree, SDA: Strongly disagree)

scale has 22 statement out of which 10 will be negative statements. The responses recorded on five-point continuum representing strongly agree, agree, undecided, disagree and strongly disagree with a score of 5,4,3,2 and 1 for positive statements and vice-versa for negative statements.. The attitude score of each respondent was calculated by summing the scores obtained on all the times the attitudes score on the scale ranges from 22 to 110. The highest score indicate the respondent had more favorable attitude towards ICT based extension services and vice versa.

RESULTS AND DISCUSSION

It is evident from Table no. 1 that 84.17 per cent of respondents were agreed that ICT based disease outbreak warning system facilitate farmers to take preventive measures, while only 0.83 per cent strongly agreed with the statement. Majority of livestock farmers i.e. 86.66 per cent agreed that ICTs provide possible solutions to the present animal husbandry situation, 85.84 per cent of respondents agreed that ICT based extension services assist the farmer in planning and decision making aspects in animal husbandry, 83.34 per cent of respondents agreed that ICTs were potential tools to reach the needy farmers and ICTs based extension services provide new opportunities to build a skilled and knowledgeable community. Majority of them i.e. 76.67 per cent agreed that access to information centre at village level is boon to the farming community, 74.17 per cent farmers agreed that phone-in live with scientists gives first-hand information about queries, 72.50 per cent farmers agreed that weather forecasting through ICTs assists farmers in timely decisions , 71.67 per cent farmers agreed that feedback was fast through ICTs than traditional methods, majority of respondents i.e. 69.17 per cent reported that expert advice make enterprise/activities productive, 65.83 per cent farmers agreed that they can get remunerative prices to their produce through ICT based market intelligence and 43.34 per cent livestock farmers agreed that existing infrastructure of ICTs is not enough to meet the needs of the farming community (Kabir,2015).

Majority of the respondents i.e. 75.83 per cent had no opinion on that ICTs cannot deliver personalized information, 45.83 per cent respondents had no opinion on that ICT based extension services avoid the personal extension contact and 43.34 per cent believed that ICTs cannot meet location specific needs of the livestock farmers (Khadda *et al.,*2012).

73.34 per cent were disagreed ICT based extension services are alternative to the present extension system, 50.83 per cents of livestock farmers were disagreed that ICTs alone would solve the problems of farmers, 49.17 per cent of livestock farmer were disagreed that ICT is a valuable tool, but it will never influence farmers own decision making and 45.84 per cent farmers disagreed that only resourceful farmers can get the benefit of the ICTs. 45.84 per cent were strongly disagreed that 'ICT services are a distant dream for resource poor farmers'(D'Silva*et al.,*2010).

CONCLUSION

The research contributes to assess role of ICT tools in entrepreneurial development of livestock farmers during COVID-19 and the attitude of livestock farmers towards use of ICT tools in Thane district of Maharashtra. The present study provides empirical evidence that ICT tools play a major role in development of entrepreneurial behavior of livestock farmers. Further, livestock farmers had favorable attitude towards the use of ICT tools, since it has been proven as effective tool for information dissemination. Government should step forward for better connectivity and accessibility of ICT tools to livestock farmers. Suitable steps maybe taken to strengthen the security and privacy issues related to digital service.

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