ATTITUDE TOWARDS SCIENTIFIC LIVESTOCK TECHNOLOGIES : A MULTI-STAKEHOLDER ANALYSIS IN UTTAR PRADESH, INDIA

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ABSTRACT

An ex-post-facto exploratory study was conducted to assess the attitude of multi-stakeholders towards livestock technologies developed by scientists in Uttar Pradesh state of India. The study reveals that attitude of scientists and Extension experts were more favorable towards the livestock technologies while the attitude of farmers was less favourable towards the livestock technologies developed by the scientists. The study also indicated that attitude of farmers towards livestock technologies was found to be significantly correlated with education and decision making ability of the farmers. The study concluded that, there is a need to generate and disseminate technologies based on the demands of livestock farmers for an effective diffusion and adoption of technologies leading to improved quality and productivity in livestock sector.

KEY WORDS : Livestock technologies, Attitude, Scientists, Veterinary officers, India

INTRODUCTION

The outcome of any new knowledge or technology development can be appreciated if it is diffused and adopted effectively by farmers in field conditions. Although various livestock technologies are generated with heavy investments from public and private sources, most of the research results and recommended innovations concerning livestock sector have remained confined to the four walls of laboratories and libraries. This indicates that there is poor diffusion and adoption of livestock technologies to the field conditions (Melesse et al., 2013; Rathod et al., 2014). In this context, it is high time to realize that, these technologies must be relevant and appropriate to field conditions for an effective diffusion and adoption through an effective linkage of research-extension-SDAH officers and farmers. Since, it is also observed that, majority of the technologies developed by scientists are irrelevant and inappropriate for field conditions (Chambers and Ghildyal, 1985), an attempt was made to assess the attitude of multi-stakeholders towards livestock technologies developed by scientists in Uttar Pradesh state of India.

MATERIALS AND METHODS

An ex-post facto and exploratory study was conducted in Bareilly District of Uttar Pradesh to assess the attitude of multi-stakeholders towards livestock technologies developed by scientists using an attitude scale of Ogunsumi and Omobolanle (2011) with suitable modifications through interview schedule and questionnaire. The respondents responded on a three point scale of 'agree', 'undecided', and 'disagree' with the assigned scores of 3, 2 and 1 for positive statements and vice-versa for negative statements. The minimum and maximum possible scores were 20 and 60 respectively. The study included 90 farmers in Bareilly District, 20 research scientists of Indian Veterinary Research Institute, Izatnagar, 10 Extensionists and 10 Veterinary officers of Uttar Pradesh to make a total sample size of 130 respondents. Further, based on mean and SD the attitude of stakeholders has been categorized into low, medium and high favorability towards the technologies. The study also analyzed the factors affecting attitude of farmers towards the livestock technologies in the study area. The information collected through personal interview was statistically analyzed

using the tools like frequency, percentage, mean, SD, correlation and regression coefficients and one-way ANOVA.

RESULTS AND DISCUSSION

Based on mean and SD, the multi-stakeholders were categorized into low, medium and high favorability. Table 1 depicts that majority of the stakeholders viz. farmers (66.67%), and all other professionals (60.0% each), were in the medium favourable category. This was followed by low favourable attitude of farmers (18.89%) and scientists (25.0 %) which indicates that these respondents had poor response towards the livestock technologies. The Table also indicates that 30.0 per cent of the veterinary officers had high favourability while 20.0 per cent each of extension experts were in the category of low and high favourability towards the livestock technologies. In order to draw a clear difference among the attitude of the stakeholders, the attitude categories were further classified based on the total attitude scores using equal intervals method.

Table 1. Attitude of multi-stakeholders towards livestock technologies developed by scientists

Favourability	Farmers (90)		Scientists (20)		Extension (10)		Vet Officers (10)	
	f	%	f	%	f	%	f	%
Low	17	18.89	05	25.0	02	20.0	01	10.0
Medium	60	66.67	12	60.0	06	60.0	06	60.0
High	13	14.44	03	15.0	02	20.0	03	30.0
Total	90	100.0	20	100.0	10	100.0	10	100.0
Mean	31.17		46.55		46.10		44.20	
SD	5.17		4.28		2.99		4.41	

Table 2. Favourability of Multi-stakeholders towards livestock technologies developed (Score categories)

Score Categories	Farmers (90)		Scientists (20)		Extension (10)		Vet Officers (10)	
	f	%	f	%	f	%	f	%
20-30	40	44.44	0	0	0	0	0	0
31-40	45	50.0	02	10.0	0	0	02	20.0
41-50	05	5.56	15	75.0	10	100.0	08	80.0
51-60	0	0	03	15.0	0	0	0	0
Total	**90**	**100.0**	**20**	**100.0**	**10**	**100.0**	**10**	**100.0**

Table 2 depicted that majority of the farmers belong to very poor (20-30) and poor (30-40) attitude score to the tune of 44.44 per cent and 50.0 per cent respectively which indicates that farmers had very low favorable attitude towards the livestock technologies. Further, majority of the other professionals viz. scientists (75 %), extension experts (100%) and veterinary officers (80%) were categorized in the 41-50 score categories. This indicates that majority of the professionals had high

Table 3. Relation between socio-economic and personal characters with Attitude towards livestock technologies

Sl. No	Independent Variables	Corr. Coeff (r)	Reg. Coeff. (b)	SE	p-Value
X_1	Age	0.034	0.036	0.036	0.311
X_2	Education	0.444**	2.604	0.639	0**
X_3	Occupation	0.028	0.736	0.376	0.054
X_4	Land	0.076	0.119	0.15	0.43
X_5	Livestock	-0.202	-0.122	0.142	0.394
X_6	Income (K)	-0.047	-0.001	0.009	0.938
X_7	Participation	0.028	0.093	0.687	0.893
X_8	Distance	0.049	0.047	0.086	0.59
X_9	Decision Making Behaviour	0.227*	0.492	0.191	0.012*
X_{10}	Scientific Orientation	0.133	0.742	0.445	0.1
X_{11}	Economic Orientation	-0.009	-0.766	0.514	0.14
X_{12}	Risk Orientation	-0.076	-1.038	0.585	0.08
X_{13}	Information seeking behaviour	0.068	0.381	0.453	0.404
Multiple R: 0.587		R Square:0.344		Goodness of fit: 34.4 %	

** Significant @ 5 % level of significance* ** * Significant @ 1 % level of significance*

favourable attitude towards the livestock technologies compared to attitude of farmers which may be due to various reasons like socio-psychological & personal factors of farmers, poor support mechanism and low or poor attributes of technology itself leading to poor adoption of livestock technologies. It was also interesting to note that 15 per cent of the scientists were in 51-60 score category which indicates that there is a need for strong linkages among all the stakeholders for effective generation and transfer of livestock technologies to the field conditions. In a similar instance, The Asian Development Bank (ADB, 1993) study on policies and strategies for livestock improvement in developing countries concluded that the primary reason for policy failure was promotion of inappropriate technologies. Hence, the researchers and extension agencies must be made aware about farmers' perception and priorities before developing a technology and contemplating field based programmes.

A comparison of all the professionals (ANOVA) depicted that there was no significant difference (p value-0.327) among the professionals with regards to their attitude towards the livestock technologies which may be due to their similar socio-economic and professional status. Further, Table 3 indicates that attitude of livestock owners was found to be significantly correlated with education and decision making ability of the farmers. The coefficient of determination (R-square= 0.34) was explained by 13 variables to the extent of 34.4 per cent in this model.

CONCLUSION

The study reported that attitude of scientists and Extension experts were more favorable towards the livestock technologies while the attitude of farmers was less favourable towards the livestock technologies developed by the scientists. The study also indicated that attitude of farmers towards livestock technologies was found to be significantly correlated with education and decision making ability of the farmers. The study concluded that, there is a need to generate and disseminate technologies based on the demands of livestock farmers for an effective diffusion and adoption of technologies leading to improved quality and productivity in livestock sector.

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