

SOURCES OF INFORMATION IN ADOPTION PROCESS OF LIVESTOCK INNOVATIONS: A CASE OF T&D PIG BREED IN INDIA

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ABSTRACT

'T&D' pig, as an innovation being diffused for adoption by the farmers through different channels under different schemes towards varying degree of its acceptance by the different categories of farmers. The authors studied the source of information utilized by pig farmers in adoption of livestock innovation, taking a case of a new pig breed ('T&D') - an innovation. Survey was conducted over 260 pig farmers across the four states of India viz. Jharkhand, West Bengal, Chhattisgarh and Bihar. Study revealed that the majority of the respondents (85.4%) received information on 'T&D' pigs from relatives and 81.7 per cent respondents received information from fellow farmers under personal localities channel, followed by the neighbour (75.8%), village leader (60.8%) and friends (61.25%) under personal localities channel. Whereas, Agricultural University/KVK (47.5%), DAH officials (49.2%), Gram Sewak (60.8%) and pig grower society (14.2%) were the sources of information under personal cosmopolite channel through which pig farmers received information about 'T&D' pigs in the study area. In general, cosmopolite channels are relatively more important at the knowledge stage and localize channels are relatively more important at the persuasion stage. This paper elaborates the sources of information utilized in adoption process of a newly developed livestock breed in tribal prominent states of India.

INTRODUCTION

Pig husbandry in India has been considered as an occupation for scheduled tribes and other economically backward classes, status regarding livestock ownership at national level suggests that pig production is an economic activity dominated by marginal and smallholders (NSSO, 2003). Among various systems of rearing, local/indigenous pigs constitute the bulk of the pig population in India with poor growth rate and productivity and are reared under extensive or scavenging system and to a lesser extent in a semi-intensive system under subsistence farming, with few or no inputs. An important development in livestock production system including piggery has been the introduction of high-producing exotic germplasm to improve the productivity of indigenous stock (Birthal and Taneja, 2006). A plethora of studies have highlighted the impact and consequences of crossbreeding in dairy sector (Rao et al., 1995; Patil, 2006) but very little attention has

been paid to cross breeding in pig husbandry. Therefore, realizing the critical importance of pig cross breeding programme, the present study was conducted in Eastern India to highlight the adoption status of T&D pig innovation on pig farming community. The scientists of the Department of Animal Genetics & Breeding, Birsa Agricultural University, Ranchi evolved a new breed of black coloured pig named 'T&D' by crossing exotic pig "Tamworth" and "Local Pig" (*Desi*) which is more remunerative due to its black colour (auspicious), faster growth, better reproductive performance, disease resistance and better adaptability at farmers' door. The profitability of 'T&D' breeds over traditional breeds has been established in several earlier studies (Verma, 2003; Mahto, 2008). Further, it is considered as appropriate, and is being promoted in Jharkhand and other parts of the country. 'T&D' pig, therefore, is an innovation being diffused for adoption by the farmers through different channels under different schemes

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towards varying degree of its acceptance by different categories of farmers. Source of information play pivotal role in adoption process of new innovations in the communities.

The adoption process of livestock technologies depends primarily on access to information and on the willingness and ability of farmers to use information channels available to them. Information plays very significant role in creating awareness and interest regarding improved technologies among the people. Farmers' exposure to outside social system may affect adoption of livestock technologies. In other words, it is assumed to influence access to information on improved farming practices as compared to the other members of the group. It is a type of activity orientation, general value orientation dealing with the modality of human activity. Its importance has increased much because of the programme of planned change for promotion of innovations. Personal localite channels are important in traditional social system. They are the local leaders and local people who belong to the receiver's own social system. Local leaders play a vital role in adoption of new ideas in their social set-up. It is believed that the tribal farmers are organically more integrated to their local leaders or pradhan for their decision making process. Thus, they are key personnel to diffusion and adoption of new livestock technology and innovations in tribal dominant societies. Thus, this paper explains the utilization pattern of various information channel by the pig farmers of Eastern India in adoption process of 'T&D' pig innovation.

RESEARCH METHODOLOGY

The study employed purposive and multistage random sampling technique to select the ultimate sampling units. 'T&D' pig was developed at Birsa Agricultural University, Ranchi, Jharkhand in 1989 and gradually spread within Jharkhand state and in its adjoining states, viz. West Bengal, Bihar and Chhattisgarh. Thus, these four states were selected purposely for the study. The latitude and longitude depicted districts were selected based on highest concentration of pig farmers. Most of the farmers in the selected regions were tribals and pork consumption was comparably very high among these communities. Surveys for the study purposely targeted farmers who were engaged in pig husbandry for a

minimum period of 5 years. A semi-structured interview schedule was administered to 60 randomly selected farmers in each state, thus, making a sample size of 240 farmers.

RESULTS AND DISCUSSION

The sources of information utilized by the pig farmers in the adoption process of 'T&D' pig innovation are presented in the Table 1. It is indicated that pig farmers of Jharkhand received information about 'T&D' pigs through neighbour (68.30%), relatives (81.70%), village leader (58.30%), fellow farmer (83.30%) and friends (51.70%) under the personal localities channel, whereas, Agricultural University/KVK personnel (78.30%), DAH officials (46.70%), Gram sevak (53.30%) and pig grower society (56.70%) were the formal sources of information through which pig farmers received information in Jharkhand state. Table further shows that the pig farmers of West Bengal received information about 'T&D' pig through fellow farmers (86.70%), relatives (85.00%), neighbour (78.30%), village leader (70.00%) and friends (60.00%) under personal localities channel. However, they also received information from DAH officials (41.70%), Gram sevak (63.30%) and Agricultural University/KVK (66.70%) under the personal cosmopolite channel. The Table also reveals that the pig farmers of Chhattisgarh state received information on 'T&D' pigs from relatives (91.70%), fellow farmers (80.00%), neighbour (75.00%), friends (70.00%) and village leader (50.00%) under personal localities channel. Whereas, Gram sevak (60.00%), DAH officials (58.30%) and Agricultural University/KVK (16.70%) were formal Sources of information utilized under cosmopolites channel in Chhattisgarh state for obtaining information on 'T&D' pigs. Pig farmers of Bihar received information on 'T&D' pig through relatives (83.30%), neighbours (81.70%), fellow farmer (76.70%), villager leader (65.00%) and friends (63.30%) under the personal localities channel. Whereas, DAH officials (50.00%), Gram sevak (66.70%) and Agricultural University/KVK (28.30%) were formal sources of information utilized under cosmopolites channel in Bihar state for obtaining information on 'T&D' pigs.

The pooled data from all the eastern states of India under study revealed that the majority of respondents (85.40%) received information on 'T&D'

pigs from relatives and 81.7 per cent respondents received information from fellow farmers under personal localities channel, followed by the neighbour (75.80%), village leader (60.80%) and friends (61.25%) under personal localities channel. Whereas, Agricultural University/KVK (47.50%), DAH officials

(49.20%), Gram sewak (60.80%) and Pig Grower Society (14.20%) were the source of information under personal cosmopolite channel through which pig farmers received information about 'T&D' pigs in the study area.

Table 1: Distribution of the respondents according to their source of information for 'T&D' pig innovation n=240

Sl. no.	Source	Jharkhand (n=60)		West Bengal (n=60)		Chhattisgarh (n=60)		Bihar (n=60)		Pooled (n=240)	
		Used	Not used	Used	Not used	Used	Not used	Used	Not used	Used	Not used
Personal localite channel											
1.	Neighbour	41(68.3)	19(31.7)	47(78.3)	13(21.7)	45(75.0)	15(25.0)	49(81.7)	11(18.3)	182(75.8)	58(24.2)
2.	Relatives	49(81.7)	11(18.3)	51(85.0)	9(15.0)	55(91.7)	5(8.3)	50(83.3)	10(16.7)	205(85.4)	35(14.6)
3.	Village leader	35(58.3)	25(41.7)	42(70.0)	18(30.0)	30(50.0)	30(50.0)	39(65.0)	21(35.0)	146(60.8)	94(39.1)
4.	Fellow farmer	50(83.3)	10(16.7)	52(86.7)	8(13.3)	48(80.0)	12(20)	46(76.7)	14(23.3)	196(81.7)	44(18.3)
5.	Friends	31(51.7)	29(48.3)	36(60.0)	24(40.0)	42(70.0)	18(30.0)	38(63.3)	22(36.7)	147(61.25)	93(38.75)
Personal cosmopolite channel											
1.	Agriculture University /KVK personnel	47(78.3)	3(21.7)	40(66.7)	20(33.3)	10(16.7)	50(83.3)	17(28.3)	43(71.7)	114(47.5)	126(52.5)
2.	DAH officials	28(46.7)	32(53.3)	25(41.7)	35(58.3)	35(58.3)	25(41.7)	30(50.0)	30(50.0)	118(49.2)	122(50.8)
3.	Gram sewak	32(53.3)	28(46.7)	38(63.3)	22(36.7)	36(60.0)	24(40.0)	40(66.7)	20(33.3)	146(60.8)	94(39.2)
4.	Pig grower society	34(56.7)	26(43.3)	0(0)	0(0)	0(0)	0(0)	0(0)	0(0)	34(14.2)	206(85.8)

Figures in parenthesis indicate percentage

CONCLUSION

Study concluded that the majority of the pig farmers received information on 'T&D' pigs from relatives and fellow farmers under personal localities channel, followed by the neighbor, village leader and friends under personal localities channel. Whereas, Agricultural University/KVK, DAH officials, Gram Sewak and pig grower society were the sources of information under personal cosmopolite channel through which pig farmers received information about 'T&D' pigs in the study area. In general, cosmopolite channels are relatively more important at the knowledge stage and localize channels are relatively more important at the persuasion stage. Cosmopolite communication channel are those linking an individual with source outside the social system.

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