

RISK ATTITUDE OF INSURED AND NON-INSURED DAIRY FARMERS: A COMPARATIVE ANALYSIS

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Received 28-8-2015

Accepted 20-1-2016

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ABSTRACT

The present study was conducted to know the farmers attitude towards different sources of risk. Two hundred and forty cattle and buffalo owners were selected randomly from Gorakhpur district of Uttar Pradesh consisting 120 dairy farmers who had insured at least one cattle or buffalo from their herd and another 120 dairy farmers who had never insured their dairy animals. Findings showed that there were important differences in farmers' risk attitudes. Attitude to risk affects farmers' decision in input utilization and technology adoption. Programs and policies for farmers would deliver better results if these incorporate farmers' risk attitude, risk sources and its relationships with socio-economic and geographical locations.

KEYWORDS : Risk attitude, Dairy farmers, Insurance, Cattle and buffalo

INTRODUCTION

Investment decisions in agriculture and livestock production are affected by risks like drought, erratic monsoon rains, flooding, crop pests and livestock diseases, sickness or death of plough animals, human illness and income fluctuations. Farmers are the most direct and primary victims who face the consequences of livestock risks (Skees and Enkh, 2002). Presence of such risk tends to induce livestock owners to become risk averse and reluctant to adopt new technologies. The problem of low livestock production is linked to farmers' risk attitude in the adoption of newer technologies. Thus, a risk taking farmer may face a situation which includes at least some loss in farming (Hardaker *et al.*, 2004). Risk reduces incentives for investment and economic growth (Arrow, 1964; 1996). Although various studies were carried out in other countries on risk behavior of farmers in different sectors of agriculture and allied areas (Ahsan and Roth, 2010; Roslan *et al.*, 2012; Bihan *et al.*, 2013) but the literature available on risk attitude of dairy farmers in Indian scenario is scant.

MATERIALS AND METHODS

A total of 120 dairy farmers, who owned at least 2 milch animals were randomly selected from each of these two groups (Group 1 who had insured & Group II who had not insured at least one animal), making the ultimate sample of 240 cattle and buffalo owners in Gorakhpur district of Uttar Pradesh.

An attitude scale comprising of 35 items or statements was prepared (Table 1). Farmer's responses to each of the statement were measured on a 5-point continuum, which has been reported as a suitable method to measure risk attitude of an individual (Chattopadhyay, 1963; Bhattacharya, 1993). The statements were framed in such a manner that a strong agreement (score 5) with the statement implied that the dairy farmer was not willing to adopt the risk management tool for that statement (denoting risk taking attitude). On the other hand, strong disagreement (score 1) implied a risk aversion attitude of dairy farmer. In between the two extremes, disagreement (score of 2), undecided/neutral (Score of 3) and agreement (score of 4) were included as alternative responses. Thus, a lower total for the respondent is then hypothesized to correspond to higher degree of risk aversion. Some statements were positive and while some were negative to avoid response bias

(Bardhan and Tewari, 2007). All the respondents were personally interviewed in the local language i.e. Hindi.

RESULTS AND DISCUSSION

Risk attitude of non insured dairy animal owners: The non-insured dairy animal owners were disinclined towards future contract for dairying, bank loan for dairy, any life insurance policy, training for dairy enterprise, investment for expansion of dairy business and supervision of dairy business with documentation. Statement 1 was positively worded, thus, agreement with this statement implied that the dairy farmers were inclined to try new method of dairy farming. The dairy farmers' were undecided about risk management tools like other sources of income is necessary for the survival of their family, use of readymade mixture and its importance in nutrition, importance of hay and silage, importance of advice from government, NGO and extension agency.

Risk attitude of insured dairy animal owners: The statement 1 and 11 were positively worded indicating that insured dairy animal owners were inclined towards new method of dairying and willing to take loan for the expansion of dairy. The high score for the above statements showed that insured dairy farmers were not risk averse for the above aspects of dairying. The statements with scores lower than the neutral score (i.e. 3) indicate inclination of farmers' towards adoption of the risk management tools. Risk attitude deals with decision-makers' interpretation of the content of the risk and how much they like or dislike the risk (risk seeking and risk aversion) (Pennings *et al.*, 2002). Risk analysis is needed to take into account the negative effects. Thus, programs and policies for farmers should incorporate farmers' risk behavior, risk sources and its relationships with socio-economic and geographical locations (Bishu, 2014). Government should strengthen adult and continuing education and different extension programs in the rural areas to teach and create awareness for farmers about new schemes such as livestock insurance.

Table: Distribution of dairy animal farmers risk attitude (non-insured, insured and entire dairy farmers)

Statement	Non-insured		Insured		Pooled	
	Ave. score	SD	Ave. score	SD	Ave. score	SD
1. I try new method in dairy farming (+)	3.33	0.49	3.20	0.43	3.27	0.45
2. I do not involve in other business expect dairying(-)	2.60	0.16	2.83	0.30	2.71	0.21
3. I never vaccinate my Animals(-)	2.42	0.13	2.26	0.20	2.31	0.14
4. I never consult for any one for dairying (-)	2.69	0.32	2.48	0.28	2.58	0.29
5. My animals are low Producers (+)	2.60	0.29	2.83	0.41	2.71	0.34
6. My animals are not resistant to diseases (-)	3.68	0.69	3.98	0.88	3.83	0.78

7. I never have enough cash for bad situation (-)	2.79	0.34	2.86	0.32	2.83	0.28
8. Only I am interested in dairying from my family (+)	2.60	0.21	2.73	0.33	2.66	0.27
9. I never do any future contract for my dairying (-)	3.31	0.52	3.14	0.48	3.23	0.50
10. I use modern equipments for dairying (+)	2.48	0.34	2.54	0.51	2.51	0.41
11. I take bank loan for expansion of dairying (+)	2.34	0.36	3.15	0.48	2.75	0.36
12. I do not start dairying with bank loan (-)	3.58	0.68	2.60	0.46	3.09	0.55
13. I do not produces milk with low cost (-)	2.79	0.28	2.40	0.18	2.60	0.20
14. I do not have any life insurance policy (-)	3.38	0.53	2.96	0.36	3.17	0.43
15. I have enough land for fodder production (+)	2.73	0.38	2.62	0.24	2.67	0.31
16. I never received any training for dairy enterprise (-)	3.84	0.88	4.08	1.15	3.96	1.01
17. I never treat my animals with veterinarians (-)	2.38	0.23	2.13	0.12	2.26	0.16
18. I am always ready to invest in crossbred (+)	2.78	0.30	2.58	0.27	2.68	0.28
19. I never invest for expansion of dairy business (-)	2.94	0.48	3.13	0.52	3.04	0.48
20. Other sources of income is not necessary for survival of my family (-)	3.08	0.50	3.37	0.50	3.22	0.47
21. I allow my animals for grazing(+)	3.42	0.73	3.05	0.43	3.23	0.58
22. I never practice hygienic measures for good quality of milk production (-)	2.13	0.17	1.98	0.16	2.05	0.14
23. My animals never get good bedding (-)	2.47	0.24	2.01	0.21	2.24	0.20

24. I never store feed and fodder for lean season (-)	2.74	0.35	2.70	0.39	2.72	0.36
25. I never give adequate concentrate and green fodder to pregnant and lactating animals (-)	2.24	0.17	2.15	0.19	2.20	0.17
26. I never supervise dairy production with documentation (-)	3.46	0.60	3.57	0.84	3.51	0.71
27. I never use or sell manure as fertilizer (-)	2.19	0.24	2.57	0.35	2.38	0.28
28. I never use readymade concentrate mixture for animals (-)	2.95	0.42	2.58	0.27	2.76	0.34
29. I never make hay and silage for animals (-)	3.67	0.78	3.48	0.65	3.58	0.71
30. I never use high quality of semen for AI (-)	2.00	0.36	1.92	0.22	1.96	0.27
31. I never take advise from Govt./ NGO/extension agency Etc (-)	3.28	0.61	2.50	0.20	2.89	0.40
32. I never sold milk lower to production cost (-)	3.40	0.64	3.39	0.58	3.40	0.61
33. I demand high prize at scarcity period. (+)	2.80	0.40	2.70	0.29	2.75	0.34
34. I never use new technology for fodder production and fodder treatment. (-)	3.24	0.63	3.15	0.61	3.20	0.62
35. I never listen/see any dairy related programme on mass media (-)	3.16	0.61	2.93	0.40	3.04	0.50

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