



## Determinants of Women's Participation in Dairy Training Programmes in Tamil Nadu

### KEYWORDS

Dairy farm women, Determinants, Training programmes, binary logistic regression, Tamil Nadu

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### ABSTRACT

The importance of training to dairy farm women is progressively realised all over the world. Therefore, it is essential to equip the dairy farm women with the needed knowledge and skills. A study was undertaken with an objective to analyse the determinants of participation of dairy women farmers in institutional training programmes. Three districts in Tamil Nadu viz., Villupuram, Salem and Tiruvannamalai were selected based on the highest livestock population. A total of 180 sample respondents, 30 trainees and 30 non-trainees of institutional training programmes involved in dairy farming were randomly selected from each of the selected districts and surveyed with a well-structured pre-tested interview schedule. Binary logistic regression analysis was used to find out the determinants of women's participation in training programmes. The results showed cumulative empowerment score, family size and membership in local women organization were the factors positively influencing the participation of women dairy farmers in training programmes. The variables cumulative constraint score, age and livestock holding were found to negatively influence the participation in training programmes.

### INTRODUCTION

Livestock sector plays an important role in Indian economy and is an important sub-sector of Indian agriculture. Livestock has been one of the sectors in India where female work participation in terms of managing and caring the animals is high. Besides other household works and farming activities, women have extensive involvement in animal husbandry and dairy activities. Almost 95 per cent of the work related to dairy farming is done by women alone (Devi et al., 2008). Women participate mostly in nonfinancial activities and there is a need to educate farm women about scientific management practices for increasing livestock production (Kathiriya et al., 2013). The major constraints faced by women involved in livestock farming are lack of knowledge about recommended practices of animal husbandry and lack of proper training on animal husbandry to inculcate the required knowledge. Training plays a significant role in assisting women livestock farmers in identifying their challenges and in understanding of how training could impact on their lives and activities. However, women face significant barriers in accessing training as a result of low literacy levels, domestic obligations and gender biasness of training that is targeted primarily at men.

### METHODOLOGY

The study was carried out in Villupuram, Salem and Tiruvannamalai districts of Tamil Nadu. A total of 180 sample respondents, 90 trainees and 90 non-trainees of training programmes involved in dairy farming were selected from the selected districts and surveyed with a well-structured pre-tested interview schedule. The data was analysed by binary logistic regression analysis to analyze the determinants of women's participation in dairy training programmes.

The following binary logistic regression model was used as postulated by Panda (2009).

$$\ln(p_i / (1 - p_i)) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} + \beta_{11} X_{11} + \beta_{12} X_{12}$$

where,

$p_i$  = Probability of participation

$(1 - p_i)$  = Probability of non-participation

$\beta_0$  = Constant term

$\beta_j$  = Regression coefficients

$X_i$  = Determinant factors

### RESULTS AND DISCUSSION

Among the 12 variables presumed to be influencing participation in training programmes, 6 factors viz., cumulative empowerment score, cumulative constraint score, age, family size, livestock holding and membership in local women organization were found to be statistically significant and the remaining factors were statistically non-significant ( $p > 0.05$ ). Among the significant variables, the variables viz., cumulative empowerment score ( $P < 0.01$ ), family size ( $P < 0.01$ ) and membership in local women organization ( $P < 0.01$ ) were the factors positively influencing the participation of women dairy farmers in training programmes. The variables cumulative constraint score ( $P < 0.05$ ), age ( $P < 0.05$ ) and livestock holding ( $P < 0.05$ ) were found to negatively influence the participation in training programmes.

Increase in the cumulative empowerment score, family size and membership in local women organization had a positive relationship with the participation in training programmes. The results are accordance with the findings of Soltani et al. (2011) who found that the family size had a positive influence on the participation of women in training programmes. The training programmes had improved the empowerment of the women dairy farmers which tended them to participate in training programmes. The members of local women organization will have more contact with the society and they were aware of the training programmes and participated in training programmes.

Age, cumulative constraint score and livestock holding tended to have a negative influence on the participation in training programmes. The results are contradictory with the results of Soltani et al. (2011) who found that age had a significant and positive association with rural women participation in extension

training programmes. As the size of livestock holding increased, dairy farm women spent more time in management of animals and hence they did not have time to participate in training programmes. As the intensity of constraints increased, the willingness of women dairy farmers in participation of training programmes decreased.

Education and experience level had no significant relationship with the participation of women farmers in dairy training programmes. This is in agreement with the results of Adesiji et al. (2013), Rehman et al. (2013) and Temesgen et al. (2015) who concluded that farming experience and level of education had no significant relationship with the attitude of women farmers towards extension training programmes.

The odds ratio associated with each variable indicated the likelihood of participation of women dairy farmers in training programmes. The likelihood of women dairy farmer's participation in training increased by 4.74 times and 29.31 times with each unit increase in cumulative empowerment score and family size respectively. The likelihood of participation in training programmes increased at 123.39 times if they had membership in local women organization. Participation of women dairy farmers in training programmes increased by 1.70 times with a unit decline in cumulative constraint score. With each unit of increase in age and livestock holding, the likelihood of participation in training programmes declined by 25 per cent and 56 per cent respectively.

**CONCLUSION**

Women's involvement in dairy farming activities is of significant importance. Training plays a significant role in assisting women livestock farmers in identifying their challenges and in understanding of how training could impact on their lives and activities. Membership in women organization was found to be a factor influencing the participation of women in training programmes. Hence, the existing women's groups in the villages should be motivated and strengthened to increase women access to extension services.

**Table I Definition of variables expected to influence the participation of women in dairy training programmes**

Variables	Definition
X <sub>1</sub>	Cumulative empowerment score
X <sub>2</sub>	Cumulative Constraint score
X <sub>3</sub>	Age in number of years
X <sub>4</sub>	Education in number of years of formal education
X <sub>5</sub>	Occupation of the women member (1 = Livestock, 2 = Others)
X <sub>6</sub>	Family size in numbers
X <sub>7</sub>	Land holding in acres (1 = Landless, 2 = Others)
X <sub>8</sub>	Livestock holding in units
X <sub>9</sub>	Experience in years
X <sub>10</sub>	Membership in local women organization
X <sub>11</sub>	Nearness to training centre (1 = near 2 = far)
X <sub>12</sub>	Information seeking behaviour (1 = Lowest, 2 = Highest)

**Table II Determinants of participation of women dairy farmers in training programmes – Results of the logistic regression analysis**

Dependent variable	Participating status (1 = Participation, 0 = Non-participation)			
	Independent variables	Coefficient estimate (S.E)	Wald Statistic	p value
Cumulative empowerment score	1.556** (0.505)	9.512	0.002	4.742
Cumulative constraint score	-0.535* (0.238)	5.059	0.024	1.707
Age	-0.294* (0.149)	3.869	0.049	0.745
Education	0.101 (0.224)	0.205	0.651	1.107
Primary Occupation	-2.768 (2.500)	1.226	0.268	0.063
Family Size	3.378* (1.304)	6.714	0.012	29.313
Land holding	1.356 (2.287)	0.351	0.553	3.880
Livestock holding	-0.821* (0.390)	4.440	0.035	0.440
Experience	0.062 (0.107)	0.337	0.562	1.064
Membership in local women organization	4.815* (1.968)	5.988	0.014	123.394
Nearness to training centre	0.820 (1.501)	0.03	0.956	1.086
Information seeking behavior	2.719 (1.416)	3.686	0.055	15.165
Constant	-58.978** (21.565)	7.480	0.006	0.000
Model Chi – square	221.136**			
Log likelihood	-28.397			
*	Significant at five per cent level			
**	Significant at one per cent level			

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