

Relationship between personal, socio-economic and psychological characteristics of dairy farmers and their entrepreneurial behavior

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ABSTRACT

The study was conducted in Latur district of Maharashtra where two Tehsils, four villages from each Tehsil and fifteen dairy farmers from each village were selected through multistage random sampling thus making a total sample of 120 respondents. Collected data were classified, tabulated and analyzed by using statistical methods like frequency, percentage, mean, standard deviation, correlation coefficient and multiple regression. The findings pertaining to the relationship of selected personal, socio-economic and psychological characteristics of dairy farmers with their entrepreneurial behaviour revealed that independent variables namely dairy farming experience, education, land holding, annual income, herd size, extension contact, social participation, use of sources of information and market orientation had positive and highly significant whereas occupation and family size of the dairy farmers had non-significant correlation with entrepreneurial behaviour of the respondents.

Keywords: Relationship; entrepreneurship; behaviour; dairy farmers; personal characteristics

INTRODUCTION

The entrepreneurs are key persons of any country for promoting economic growth and technological change. Dairy enterprise next to agriculture not only provides continuous income and improves dietary standards of family but also supplements the income and reduces unemployment of a large number of the rural people. India owns the largest livestock

population in the world accounting for nearly 57 per cent of the world buffalo population and 16 per cent of the cattle population. India continues to be the largest producer of milk in the world.

The activity of an individual to decide adopting certain enterprises to make profit is regarded as entrepreneurial behaviour. The future progress of dairy farmers in the country depends on the

entrepreneurial behaviour of them. In a heterogeneous and stratified society like India it is not adequately realized that the characteristics which distinguish entrepreneurship may not be because of its different strata. Therefore the entrepreneurial activity in a particular section of the population has to be considered. Presently the development of dairy farmers is the primary concern of the country.

The present study was mainly confined to dairy farmers who had undertaken dairying as one of the subsidiary enterprises which had been providing additional income and also employment to the rural people and playing a vital role in improving their socio-economic conditions and providing ample opportunities to improve their standard of living. Entrepreneurship behaviour is the central force of economic activity and most needed component for the development. The findings of this study may help the administrators, policy makers and extension personnel to know the relationship between personal characteristics of dairy farmers with their entrepreneurial behaviour which would help them to come out with the suitable policies and programmes for entrepreneurship development and organizing suitable extension activities based on entrepreneurial behaviour. The study would also help in further investigations on entrepreneurial behaviour of dairy farmers.

The present study is a maiden attempt which will generate information and sufficient avenues to integrate the dairy farmers with mainstream of development and also provide sufficient research information in the area of human resource development by considering entrepreneurial competencies. It could throw light on personal characteristics of dairy farmers. The results will be useful to all those concerned for developing strategies to increase livestock possession, profit and facilitate for better social impact of dairying on concerned dairy farmers.

METHODOLOGY

The study was conducted in Latur district of Maharashtra where two Tehsils, four villages from each Tehsil and fifteen dairy farmers from each village through multistage random sampling were selected thus making a total sample of 120 respondents. The data were collected with the help of pre-designed interview schedule by contacting the sample dairy farmers personally from December 2011 to January 2012.

The statistical tests used in the present study for analysis of data are given below:

Frequency and percentage: Frequency and percentage were used for making simple comparisons. The frequency of the

particular category was multiplied by 100 and divided by total number of dairy farmers in that particular category to get percentage.

Mean: Mean of sample was calculated by summing all the individual scores and dividing it by number of cases as per the following formula:

$$\bar{X} = \frac{\Sigma X}{N}$$

where X = Arithmetic mean, ΣX = Sum of respondents' score, N = Number of cases

Standard deviation: Standard deviation was calculated using the following formula:

$$\text{Standard deviation } (\sigma) = \frac{\sqrt{N \Sigma X^2 - (\Sigma X)^2}}{N}$$

Where ΣX^2 = Sum of squares of 'X' series, $(\Sigma X)^2$ = Square of summation of 'X' series, N = Number of dairy farmers

Karl Pearson's coefficient of correlation: This technique was used to find out the relationship between two variables. Following formula was used for computation of 'r' values:

$$r = \frac{\sum XY - \frac{(\sum X)(\sum Y)}{n}}{\sqrt{\frac{[(\sum X^2 - (\sum X)^2)]}{n} \times \frac{[(\sum Y^2 - (\sum Y)^2)]}{n}}}$$

where n = Number of observations, r = Coefficient of correlation, X = Score of independent variables, Y = Score of dependent variable

The data were analyzed to know the combined effect of all the independent variables in explaining the variation in the dependent variable and the influence of independent variables was found out by using the following equation:

$$Y = a + b_1 x_1 + b_2 x_2 + \dots + b_n x_n + \mu$$

where Y = Dependent variable, x_1 = Independent variable, b_1 = Partial regression coefficient, a = Constant, n = Total number of variables, μ = Error terms

Testing the significance of 'r': After computing 'r' its significance was tested by Student's 't' test using following formula:

$$t = \frac{r}{\sqrt{1-r^2}} \times \sqrt{n-2}$$

where t = Student's 't' value, n = Number of respondents, r = Correlation coefficient

Collected data were classified, tabulated and analyzed by using above statistical techniques. The information collected from the dairy farmers with the help of the personal interview schedule was processed by making primary and secondary tables. The data of qualitative nature were converted into quantitative form and computation of score was done.

RESULTS and DISCUSSION

Relationship between personal, socio-economic and psychological characteristics of dairy farmers and their entrepreneurial behaviour

The data on coefficient of correlation of each personal characteristic variable with entrepreneurial behaviour of dairy farmers have been furnished in

Table 1. It can be observed that amongst independent variables all eleven variables viz dairy farming experience, education, family size, land holding, occupation, annual income, herd size, extension contact, market orientation, social participation and use of sources of information were positive and had highly significant relationship with their entrepreneurial behaviour. Longer dairy farming experience allows efficient management under differing situations or contexts. Increase in experience of an individual helps in minimizing the expenditure required to manage the dairy enterprise and ultimately results in increase in income level. The finding is supported by the work of Mundhwa and Padheria (1998), Reddy and Reddi (2005) and Chaudhari (2006).

Education broadens the vision of an individual. The educated persons develop more access to extension agencies, mass media and development organizations, they have decision making ability, cosmopolitanism and inclination to the use of innovations by taking the high risk. Thus these factors help an individual to manage his enterprise. Hence education was the influencing factor for entrepreneurial behaviour of dairy farmers. The finding is in accordance with the findings of Murali and Jhamtani (2003), Subramanyeswari et al (2007) and Chaudhari (2006). The size of family plays an important role for taking a rational decision regarding adoption of innovation.

Table 1. Relationship between personal, socio-economic and psychological characteristics of dairy farmers and their entrepreneurial behavior

Variable	Correlation coefficient (r)	Calculated 't' value
Dairy farming experience	0.044	0.478*
Education	0.353	4.097*
Family size	0.241	2.696*
Land holding	0.405	4.810*
Occupation	0.192	2.124*
Annual income	0.403	6.253*
Herd size	0.499	6.507*
Extension contact	0.514	7.833*
Market orientation	0.585	5.704*
Social participation	0.465	6.421*
Use of sources of information	0.465	6.253*

*Significant at 0.01 level of probability

This might be due to more interest of the family members in the dairy enterprise. The finding is supported by the observations of Mundhwa and Padheria (1998) and Chaudhari (2006). Land holding provides the economic base for the farmers to practice new agricultural technologies. Land holding also provides regulated impetus to make optimum utilization of resources on farm through efficient decision making to apply new ideas for achieving maximum profits. This finding is supported by the work of Subramanyeswari et al (2007), Nagesha (2005) and Nagesh (2006).

Occupation and annual income of the dairy farmers showed positive and highly significant correlation with their entrepreneurial behavior. A large majority

of dairy farmers were engaged in agriculture along with dairying. Hence less variation in their occupation might be the reason for significant relationship. The similar findings were reported by Anitha (2004). Annual income provides the economic base for the farmer. This could be due to positive and high risk taking ability, decision making ability and achievement motivation. This finding is in congruence with the findings of Pandya (1996), Nagesha (2005) and Chaudhari (2006). The farmers having more number of milch animals (herd size) get more income and automatically they have more or good entrepreneurial behavior. The findings of Mundhwa and Padheria (1998) and Chaudhari (2006) are in congruence with these results. More extension contact of the respondents with different people

helps in increasing information seeking behavior, cosmopoliteness and other entrepreneurial behavior factors. The above result is in congruence with the findings of Nomeshkumar and Narayanswamy (2000) and Pandeti (2005).

The dairy farmers were medium cosmopolite as a result they were more interested to know current market information, market trend, demand and supply of milk products. Hence better market orientation was the influencing factor for entrepreneurial behaviour as compared to lower market orientation of dairy farmers. This observation is supported by the work of Patil et al

(1999) and Chaudhari (2006). Better social participation of the respondents would have enabled them to contact various sources of information for increasing the knowledge about management of their enterprise development. This finding is supported by Pandeti (2005) and Hajare (2010). While talking of sources of information of the respondents the interest of the respondents in collecting more information about dairy enterprise and their management for getting more benefit could be the reason for positive and highly significant relationship with entrepreneurship. The finding of Hajare (2010) supports this observation.

Table 2. Multiple regression analysis between personal, socio-economic and psychological characteristics of dairy farmers and their entrepreneurial behavior

Variables	Regression	Standard error coefficient (B)	't' value (SE)
Dairy farming experience	0.010	0.034	0.276*
Education	0.040	0.076	0.524**
Family size	0.088	0.067	1.327**
Land holding	-0.107	0.107	-0.997 NS
Occupation	-0.171	0.187	-0.913 NS
Annual income	0.022	0.104	0.209**
Herd size	0.017	0.085	0.196*
Extension contact	-0.052	0.060	-0.874 NS
Market orientation	0.061	0.082	0.741 NS
Social participation	0.003	0.027	0.128 NS
Use of sources of information	-0.045	0.026	-1.729 NS

R²= 0.992, F= 1.047, *Significant at 0.05 level of probability, **Significant at 0.01 level of probability, NS= non-significant

Multiple regression analysis

It can be observed from Table 2 that co-efficient of determination (R²) of the independent variables was 0.992. It means that 99.20 per cent of the total variation in the entrepreneurial behaviour of dairy farmers was explained by the 11 selected independent variables.

CONCLUSION

The findings pertaining to the entrepreneurial behaviour revealed that amongst independent variables of dairy farmers all eleven variables viz dairy farming experience, education, family size, land holding, occupation, annual income, herd size, extension contact, market orientation, social participation and use of sources of information had positive and highly significant relationship with their entrepreneurial behaviour. Selected independent variables of the respondents have explained variation in entrepreneurial behaviour to the extent of 99.20 per cent.

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