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Factors influencing dairy entrepreneurship among youth

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Abstract

The present study has been taken up with specific objectives to study the entrepreneurial behaviour of youth in dairying to know the influence of profile characteristics of Youth in relation to their entrepreneurial behaviour. A sample size of 220 respondents was selected. The correlation analysis indicated that education, dairy farming experience, social participation, land holding, livestock possession, milk production, milk sale, annual income, marketing behaviour, information seeking behaviour, knowledge on improved dairy farming practices had positive and significant relationship with entrepreneurial behaviour of youth in dairying while gender and family size had negative and significant relationship. The significant variation in entrepreneurial behaviour was explained by the independent variables covered under this study to the extent of 78.00 per cent, where social participation, knowledge on improved dairy farming practices, education, land holding, annual income, milk production, dairy farming experience, livestock possession and family size in the order of importance were the contributing factors.

Keywords: Entrepreneurial behaviour, dairy sector, business face

1. Introduction

India has a vision to become 5 trillion dollar economy by 2025 which will make Indian economy a global economic power house. To realize this vision the entrepreneurship in the country will play a crucial role as; entrepreneurs are always seen as national assets to a great extent. Entrepreneurs can change the way we live and work. Entrepreneurs experiment with the innovations based on the need and capture the market improve standard of living, change the outlook of the economy by improving wealth through their innovative entrepreneurial ventures. The present scenario the entrepreneurs can be springing up from different background and they are capable to run a business if they have a right idea. The reason for these changes in India is due the shift in policies of the government in providing environment ease for starting and running their enterprise successfully. The Government of India has launched various schemes to promote entrepreneurship in the country such as Start up India 2016, A Scheme for Promoting Innovation and Rural Entrepreneurship-ASPIRE, MUDRA Bank, Ministry of Skill Development and Entrepreneurship, New Gen IDEC etc.

Apart from schemes, today entrepreneurship education is imbibed into school curriculum, where CBSE has introduced a course on entrepreneurship in Eleventh and Twelfth standards which provides students entrepreneurial values, market survey, enterprise planning, resourcing and management. With introduction of entrepreneurship programs in school curriculum will enhance children's attributes and further develop awareness of entrepreneurial opportunities and skills to form entrepreneurial venture. Colleges and universities provide entrepreneurial programs to undergraduate and graduate students, including practicing and potential entrepreneurs outside the educational institutions.

Dairy industry is of enormous significance for country's development as vital linkages and synergies that it promotes between the two pillars of the economy, namely, industry and agriculture. With increasing demand by the growing population, higher income and more health consciousness, the slowdown in the growth of dairy industry needs critical attention.

Technology development in general in dairying has been in the focus, while the adoption of improved technologies has been ignored with less visibility of "business face". The 'business face' in dairying denotes the potentiality of being entrepreneurial in its sphere. Therefore, it is important to encourage dairy entrepreneurship in making it popular, profitable and capable of creating human potential towards overall progress of the society.

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India is well known as the ‘Oyster’ of the global dairy industry, with opportunities for entrepreneurs globally. With liberalization and globalization of dairy industry, private investments have increased quite significantly. The International Dairy industry is also highly protected through domestic support and export subsidies and does not provide an easy market access. A number of nontariff trade barriers (NTBs) are applied to deprive the developing countries such as India from sharing the markets of developed nations. As India is the highest milk producing nation, there is need to shift focus of Indian dairy sector to manage natural resources in a sustainable manner in order to meet growing milk demand and upgrade milk processing using innovative technologies so that it will increase acceptance of Indian dairy products in the global market.

As per reports of ILO, India has 66.00 per cent of its population (808 million) below the age of 35 which makes it a country with largest youth population. Employment opportunities are shrinking across the globe. For rural youth in particular, new business creation in the agriculture sector can present an important and viable opportunity to earn a decent living. World Bank (2007) [12] report states that the youth’s attitude towards farming is mostly negative as rural youth are already engaged in informal agriculture in some way, they may not see it as an attractive or viable career option given such obstacles as geographic isolation, unfriendly land use policies, poor infrastructure, high transport costs, and unavailable agricultural inputs. With the right investments to support entrepreneurs in agriculture, profitable careers could await India’s young population. In this context the present study is undertaken to study the factors influencing the dairy entrepreneurship among youth.

2. Material and Methods

The study was across the Telangana State across four agro-climatic zones in the state in the year 2016. The sampling procedure followed for the study was multi-stage stratified sampling scheme. 220 respondents were selected from 11 mandals and 20 respondents were selected from each mandal. The ex-post-facto research design was used in the study, as the manifestation of the variables presumably had already occurred and there was no scope for further manipulation. The data was collected through semi structured interview schedule. The data was subjected to correlation analysis and multiple linear regression analysis where the influence of profile characteristics on entrepreneurial behavior was observed.

2.1 Coefficient of Correlation

It is used to find out the relationship between the scores of dependent and independent variables using the following formula.

$$r = \frac{\Sigma xy - \frac{\Sigma(x)\Sigma(y)}{n}}{\sqrt{\left[\Sigma x^2 - \frac{(\Sigma x)^2}{n}\right] \left[\Sigma y^2 - \frac{(\Sigma y)^2}{n}\right]}}$$

Where,

r = Co-efficient of correlation between x and y

Σx = Sum of scores of variable x

Σy = Sum of scores of variable y

Σx² = Sum of squares of scores of variable x

Σy²=Sum of squares of scores of variable y

(Σx)² = Square of sum of variable x

(Σy)²= Square of sum of variable y

Σxy = Sum of product of variable x and y

n = sample size

2.2 Multiple Linear Regression Analysis

This statistical tool is used to study the combined or pooled effect of independent variables over dependent variables.

$$y = a + b_1 x_1 + b_2 x_2 + \dots + b_{14} x_{14}$$

a= constant

b₁, b₂, b₃..b_n = regression coefficients

x₁ to x₁₈ = independent variables selected for the study

y = dependent variable

The regression co-efficient were tested for its significance and following formula was used.

$$t_{(n-k-1)d.f} = \frac{b_i}{SE(b_i)}$$

Where,

n = number of observations

k = number of independent variables

SE = standard error

b_i = regression coefficient

t = test criterion for significance

2.2.1 Coefficient of Multiple Determination (R²)

$$R^2 = \frac{\text{Regression sum of squares (RSS)}}{\text{Total sum of squares (TSS)}}$$

Where,

$$RSS = b_1 \Sigma x_1 y + b_2 \Sigma x_2 y + \dots + b_{21} P \Sigma x_{21} y$$

$$TSS = \Sigma y^2$$

R² is always less than or equal to unity and expressed in percentage. It measures the extent of variation in dependent variable (y), explained by the independent variables (x_i) together.

This is further extended to stepwise analysis by which we can measure the variable, which are mainly contributing to the maximum variation through the elimination process. The significance of R² was tested using F-test.

2.2.2 Step wise Regression Analysis

The step wise regression analysis was taken up to finally select the minimum number of significant independent variables necessary which explain maximum variation in dependent variable entrepreneurial behaviour after accounting for inter relationships among independent variables. The increase in R² was tested for its significance at each step and stopped at step where the further increase in R² was not significant.

3. Results and Discussion

3.1 Correlation of entrepreneurial behaviour of youth in dairying with profile characteristics

In order to study the factors influencing entrepreneurial behaviour of youth in dairying, correlation coefficient (r) values were computed between profile characteristics and entrepreneurial behaviour of youth in dairying and are depicted in Table 1.

3.1.1 Gender: It is revealed from Table 1 that the gender had negative and significant relationship with entrepreneurial behaviour of youth in dairying. As the majority of respondents were male 75.45 per cent had medium level of entrepreneurial behaviour the gender had negative relationship with entrepreneurial behaviour. The results are supported by the findings of Porchezhiyan (2013)^[9].

3.1.2 Education: It was clear from Table 1 that there was positive and significant relationship between education and entrepreneurial behaviour of youth in dairying. Higher the education the better the individual ability by improving decision making, adopting new technologies and also adapt to any situation which is essential for an entrepreneur. The findings are in accordance with the findings of Murali and Jhamtani (2003)^[8], Hajong and Sharma (2010)^[4] and Aparna and Patel (2012)^[11].

3.1.3 Family size: From Table 1 it can be observed that family size had negative and significant relationship with entrepreneurial behaviour of youth in dairying which can be explained as small size of family decreases family expenditure and improves ability innovate, adapt, reduces risk, take decisions and has overall influence on entrepreneurial behaviour. The results are in contradictory to the results of Yadav *et al.* (2014)^[13] where family size was positive and significantly related with entrepreneurial behaviour.

3.1.4 Dairy farming experience: It is revealed from Table 1 that dairy farming experience had positive and significant relationship with the entrepreneurial behaviour of youth in dairying which indicates that as dairy farming experience increases entrepreneurial behaviour increases. Experience improves knowledge of individual which had influence on various dimensions of entrepreneurship. The results are not in accordance to the results of Reddy and Reddy (2005)^[10].

3.1.5 Social participation: From table 1 it is revealed that social participation in organizations such as dairy cooperatives, commodity interest groups, water users associations and rythu mitra groups had a significant relationship with the entrepreneurial behavior of youth in dairying, the reason might be it provides opportunities such as access to information, credit, inputs available through these organization and adopt suitable practices which would enable reduce cost of milk production and also check in exploitation by the middle men. The findings are in supported by the findings of Kiran *et al.*, (2012)^[6].

3.1.6 Land holding: Results from Table 1 reveal that land holding had a positive and significant relationship with entrepreneurial behaviour which indicates that it improves socio-economic status and enable access to more resources which improves entrepreneurial behaviour. The results are in accordance to that of Subrahmanyeswari *et al.*, (2007)^[11].

3.1.7 Livestock possession and milk production: It is revealed that from Table 1 livestock possession and milk

production had positive and significant relationship with entrepreneurial behaviour of youth in dairying as they are important factors for profit maximization which enables to adopt technologies and profitable methods and improve overall entrepreneurial behaviour. The results are supported by Kumar (2008)^[7] where herd size and milk production had positive and significant relationship with entrepreneurial behaviour.

3.1.8 Milk sale: It is revealed from Table 1 that milk sale had positive and significant relationship with entrepreneurial behaviour of youth in dairying. It indicates that milk sale increases entrepreneurial behaviour increases, with increased milk sale results in more income generation and increases the capacity of individual to take risk, innovate, value addition of milk, adapt and improve decision making. The results are in conformity to Kumar (2008)^[7].

3.1.9 Annual income: Results from table 1 indicate that annual income had positive and significant relationship with entrepreneurial behaviour which indicates that as annual income increases entrepreneurial behaviour increases. Annual income improves socio-economic status and also experiment, reduce risk through better access to information, extension personnel, improve decision making ability, management of resources, diversification of enterprise and adapt to changing situations. The findings are in accordance to that of Kiran *et al.*, (2012)^[6].

3.1.10 Market behaviour: From Table 1 correlation analysis indicate that market behaviour had positive and significant relationship with entrepreneurial behaviour. Availability of market for disposal of milk, transport facilities, input procurement, credit availability and price satisfaction were important factors which always have effect on individual to take dairying as a source of livelihood and enterprise. The results are in conformity to the findings of Kumar (2008)^[7].

3.1.11 Information seeking behaviour: It is revealed that from Table 1 that information seeking behaviour had a positive and significant relationship with entrepreneurial behaviour which indicates that information plays an important role in various stages of development of enterprise, from the stage of establishment to the stabilization. Hence, it could be inferred that information seeking behaviour enhances entrepreneurial behaviour.

3.1.12 Knowledge on improved dairy farming practices: From Table 1 it could be observed that knowledge had a positive and significant relationship with the entrepreneurial behaviour. Knowledge regarding improved dairy management practices has influence over various dimensions of entrepreneurial behaviour as it is important for starting, managing, experimenting new technologies, solving problems and adapting to situation. Hence overall it could be interpreted that knowledge plays an important role in entrepreneurship development. The results are in conformity with the findings of Kumar (2008)^[7] and Porchezhiyan (2013)^[9].

Table 1: Relationship between entrepreneurial behaviour of youth in dairying and profile characteristics

S. No	Variables	'r' value
1	Age	0.057NS
2	Gender	-0.150*
3	Education	0.254**
4	Family type	0.004NS
5	Family size	-0.163*
6	Dairy farming experience	0.382**
7	Social participation	0.400**
8	Training received	0.082NS
9	Land holding	0.188**
10	Livestock possession	0.384**
11	Milk production	0.141*
12	Milk consumption	0.014NS
13	Milk sale	0.119*
14	Annual income	0.290**
15	Market behavior	0.335**
16	Participation in extension methods	0.086NS
17	Information seeking behaviour	0.185**
18	Knowledge of improved dairy farming practices	0.585**

** Significant at the 0.01 level of significance * Significant at the 0.05 level of significance, NS- non significant

3.2 Prediction of independent variables contribution for maximum variation entrepreneurial behaviour of youth in dairying

Multiple linear (stepwise) regression analysis was carried out to assess/analyze the relative contribution of the 18 variables for the entrepreneurial behaviour of youth in dairying.

The value of the coefficient of multiple determination (R^2) as given in Table 2 indicated that the nine independent variable viz., education, family size, dairy farming experience, social participation, land holding, livestock possession, milk production, annual income, market behaviour and knowledge

on improved dairy farming practices put together could explain 78 percent of variation with F value 62.88 on the dependent variable entrepreneurial behaviour of youth in dairying.

The standardized regression coefficients revealed that among the nine independent variables the most significant contributing variables for variation were social participation, knowledge on scientific dairy farming practices and education respectively. The probable reason is these factors influence most significantly in establishing, sustaining and development of enterprises.

Table 2: Multiple linear regression analysis of selected variables of youth in dairying on entrepreneurial behaviour of youth in dairying

S. No	Independent variables	Unstandardized coefficients		Standardized coefficients (Beta)	't' value	Level of significance
		B	SE			
	Intercept	42.115	2.692		15.644	
X ₃	Education	1.864	0.222	0.781	8.384	0.000**
X ₅	Family size	-0.252	0.007	-0.121	-7.156	0.000**
X ₆	Dairy farming experience	0.641	0.595	0.322	6.637	0.000**
X ₇	Social participation	3.242	0.486	0.819	8.735	0.000**
X ₉	Land holding	1.302	0.578	0.641	9.801	0.000**
X ₁₀	Livestock possession	0.428	0.081	0.222	9.800	0.000**
X ₁₁	Milk production	0.712	0.712	0.134	5.936	0.000**
X ₁₄	Annual income	1.032	0.102	0.601	10.103	0.000**
X ₁₈	Knowledge on improved dairy farming practices	2.710	0.094	0.811	7.522	0.000**
$R^2 = 0.780$ $F = 62.88$						

Dependent Variable: Entrepreneurial Behaviour ** Significant at 0.01 level of significance
 R^2 - Coefficient of determination
 SE- Standard Error
 B value- Regression coefficient value
 Beta-Standardized regression coefficient

4. Conclusion

Youth from rural areas are migrating to urban areas for employment opportunities as agriculture trending to be non-remunerative occupation. There is need to retain youth in agriculture for which dairying promising option as it can provide employment all around year. Dairying is one of the potential alternative, for which youth may be encouraged and there is vast scope for dairying, as the demand of milk and dairy products is going to increase in future decades and emphasis is on quality milk production as they are more innovative and risk takers than the older generation. Hence,

certain variables showing positive and significant and also negative and significant relationship needed to be manipulated in order to enhance entrepreneurial behavior youth in dairying. The variables which are non-significant such as training received and extension participation must be made significant through involvement if stakeholders. From the study it can also be concluded that among overall independent variables nine variables contributed to 78.00% of entrepreneurial behaviour hence extension agencies must focus on these variables in order to improve entrepreneurial behaviour of youth in dairying.

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