

RESEARCH ARTICLE :

Analysis of entrepreneurial behaviour among vegetable growers at Bonli block of Sawai Madhopur district in Rajasthan

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SUMMARY : Entrepreneurial behaviour of a farmer is influenced by several factors. The study was conducted purposively in Bonli block of Sawai madhopur district. The total of 200 vegetable growers were formed the sample for the study. The primary data were collected through personal interview method with the help of pre-tested interview schedule which was prepared on the basis of objectives of investigation and variables. The statistical tests and procedures were used for analyzing the data with the help of statistical tools like- mean, S.D., percentage and Karl Pearson's co-efficient of correlation, multiple correlation and regression analysis were used for analysis of data. Majority of the respondents (61.00%) had medium level of entrepreneurial behaviour. All the 13 selected attributes of vegetable growers, were found positive and significant relationship with entrepreneurial behaviour of vegetable growers except age, caste and mass media exposure. The major constraints expressed by vegetable growers were fluctuations in the market price (87.50%).

KEY WORDS :

Entrepreneurial behaviour, Vegetable growers, Market orientation

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BACKGROUND AND OBJECTIVES

Agriculture and farming have long been recognized as potent source of rural economy, food security, economic growth and development (FAO, 2011). Rural development is more than ever before linked to entrepreneurship. Institutions and individuals promoting rural development now see entrepreneurship as a strategic development intervention that could accelerate the rural development process. Further, more institutions and individuals seem to agree on the urgent

need to promote rural enterprises; development agencies see rural entrepreneurship as an enormous employment potential; politicians see it as the key strategy to prevent rural unrest; farmers see it as an instrument for improving farm earnings; and women see it as an employment possibility near their homes which provides autonomy, independence and a reduced need for social support. To all these groups, however, the entrepreneurship stands as a vehicle to improve the quality of life for individuals, families and communities and to

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sustain a healthy economy and environment. Since vegetable cultivation is a capital intensive and risky, a vegetable grower needs to possess the ability to take risk, innovativeness, imitative and capacity to marshal resources in order to run the enterprise successfully. These characteristics enable them to decide and accept to adopt appropriate scientific farming methods. Entrepreneurial behaviour is influenced by individual, situational, psychological, social and experiential factors (Rao and De, 2009). Indian farmers are growing vegetable from a long time as a part of tradition and India ranks next to China in area and production. There are three major components of support system of vegetable production *i.e.* i) extension and training ii) marketing and iii) input supply. Performance of vegetable growing business depends on support of these three factors. There is a need to catalyze the process in order to strengthen demand and supply chain. Now it has been realized that vertical increase in production and productivity is possible through inoculation of the entrepreneurial qualities among the farming communities in general. Entrepreneurial behaviour is a preference for innovation and a change in existing institutions and the status quo. An entrepreneur undertakes the risk of organizing production and launching a new business venture. Generally, the entrepreneur is considered as a person who initiates, organizes the activities, manages and controls the affairs of business unit combining the factors of production to supply goods and services. Farmers deciding to take particular crop or use scientific methods to grow crops also exhibit entrepreneurial behaviour. Keeping the above facts in view, the present study has been designed to analyze the entrepreneurial behaviour of vegetable growers. The following specific objectives have been formulated for the study.

- To study the attributes of vegetable growers.
- To determine the entrepreneurial behaviour of vegetable growers.
- To analyze the relationship between attributes of vegetable growers and their entrepreneurial behaviour.
- To enlist the problems of vegetable growers.

RESOURCES AND METHODS

The study was conducted purposively in Bonli block of Sawai madhopur district of Rajasthan. There are 182 villages in this block, for present study 10 villages were

selected randomly and then 20 vegetable growers from each village were selected randomly as respondents. The data were collected through semi structured pretested interview schedule. The respondents were interviewed individually by the investigator. The term entrepreneurial behaviour has been operationalized as a composite skill, the resultant of mix of many qualities and traits. The entrepreneurial behaviour of the respondents was studied using the scale developed by Chaudhari *et al.* (2006) comprising nine dimensions *viz.*, innovativeness, achievement motivation, decision making ability, risk – orientation, co-ordination ability, planning ability, information seeking behaviour, cosmopolitaness, self-confidence. Based on entrepreneurial behaviour score, the respondents were then classified into three groups *viz.*, low, medium and high on the basis of Mean \pm S.D. Secondary data were collected from records and statistical office. Statistical tools like- mean, S.D., percentage and Karl Pearson's co-efficient of correlation and multiple regression analysis were used for analysis of data.

OBSERVATIONS AND ANALYSIS

The results obtained from the present study as well as discussions have been summarized under following heads:

Profile and entrepreneurial behaviour of vegetable growers :

The data in Table 1 show that most of the respondents (61.00%) belonged to middle age group and higher percentage (34.00%) of vegetable growers educated upto middle school level followed by 32.50 per cent of the respondents had education up to primary level. Majority of the beneficiary respondents (45.50%) belonged to other backward caste (OBC), followed by SC/ST category (28.50%) and more than half of vegetable growers (42.50%) had high level of farming experience (above 10 years) in cropping. The data in Table 1 indicate that maximum (28.50%) vegetable growers possessed upto 2.1 to 5 ha. of land. The data exhibited the distribution of vegetable growers according to their occupation. The data show that most of the (70.00%) respondents engaged only in agriculture, followed dairy farming+agriculture. Majority (43.00%) of the vegetable growers had low level of annual income. The perusal of data indicates that majority (50.50%) of the respondents

Table 1 : Profile of the vegetable growers

Sr. No.	Traits	Category	Frequency	Percentage	Mean	S.D.
1.	Age	Young (below 35 yrs)	40	20.00	2.48	0.82
		Middle (35-55 yrs)	122	61.00		
		Old (above 55 yrs)	38	19.00		
2.	Education	Illiterate	20	10.00	1.63	1.19
		Upto primary	65	32.50		
		Upto middle	68	34.00		
		High School	26	13.00		
		Higher sec. and above	21	10.50		
3.	Caste	General	52	26.00	2.13	0.72
		OBC	91	45.50		
		SC/ST	57	28.50		
4.	Farming experience	Low (below 5 yrs)	51	25.50	2.31	0.96
		Medium (5-10 yrs)	64	32.00		
		High (above 10 yrs)	85	42.50		
5.	Annual income	Low (<0.94)	86	43.00	1.80	0.86
		Medium (0.94-2.66)	68	34.00		
		High (>2.66)	46	23.00		
6.	Land holding	Marginal (upto 1 ha.)	56	28.00	2.19	1.41
		Small (1.1 to 2 ha.)	41	20.50		
		Medium (2.1 to 5 ha.)	57	28.50		
		Large (above 5.1 ha.)	46	23.00		
7.	Occupation	Agriculture	140	70.00	1.87	0.74
		Agriculture +Dairy farming	33	16.50		
		Agriculture + Dairy farming other	27	13.50		
8.	Extension contact	Low (<1.51)	66	33.00	1.86	0.35
		Medium (1.51-2.21)	98	49.00		
		High (>2.21)	36	18.00		
9.	Mass media participation	Low (<1.66)	67	33.50	1.82	0.16
		Medium (1.66-1.98)	101	50.50		
		High (>1.98)	32	16.00		
10.	Market orientation	Low (<12.0)	28	14.00	2.09	0.76
		Medium (12.0-20.12)	125	62.50		
		High (>20.12)	47	23.50		
11.	Economic motivation	Low (<2.76)	47	23.50	2.91	0.15
		Medium (2.76-3.06)	124	62.00		
		High (>3.06)	29	14.50		
12.	Scientific orientation	Low (<4.94)	42	21.00	7.37	2.43
		Medium (4.94-9.8)	142	71.00		
		High (>9.8)	16	08.00		
13.	Knowledge about vegetable production	Low (< 1.65)	26	13.00	2.07	0.42
		Medium (1.65-2.49)	134	67.00		
		High (>2.07)	40	20.00		

had medium level of mass media participation and the majority 49.00 per cent of respondents was from medium category of extension contact. The majority of vegetable growers (71.00%) had medium level of scientific orientation. The perusal of data indicates that majority (62.50%) of the respondents had medium level of market orientation and the majority 62.00 per

cent of respondents was from medium category of economic motivation. Majority 67.00 per cent of the vegetable growers had medium knowledge level about vegetable production while 20.00 per cent had high knowledge level. Almost similar findings were reported by Chaudhari (2006); Badodiya *et al.* (2010); Shah *et al.* (2010) and Patel *et al.* (2014).

Table 2 : Distribution of vegetable growers farmers based on components of entrepreneurial behaviour				(n=200)	
Component	No.	%	Mean	S.D.	
Innovativeness					
Low (<8.74 score)	30	15.00	14.81	6.07	
Medium (8.74-20.8 score)	123	61.50			
High (>20.88 score)	47	23.50			
Achievement motivation					
Low (<1.24 score)	55	27.50	2.51	1.26	
Medium (1.24-3.7)	96	48.00			
High (>3.77 score)	32	24.50			
Decision making ability					
Low (<3.02 score)	52	26.00	7.1	4.08	
Medium (3.02-11.18 score)	110	55.00			
High (>11.18 score)	38	19.00			
Risk orientation					
Low (<3.02 score)	50	25.00	6.01	2.99	
Medium (3.02-9.0 score)	107	53.50			
High (>9.0 score)	43	21.50			
Co-ordinating ability					
Low (<2.59 score)	30	15.00	5.00	2.41	
Medium (2.59-7.41 score)	138	69.00			
High (>7.41 score)	32	16.00			
Planning ability					
Low (<1.30 score)	52	26.00	2.61	1.30	
Medium (1.3-3.9 score)	95	47.50			
High (>3.91 score)	53	26.50			
Info. seeking behaviour					
Low (<11.5 score)	30	15.00	15.5	3.9	
Medium (11.5-19.4 score)	134	67.00			
High (>19.4 score)	36	18.00			
Cosmopolitaness					
Low (<3.1 score)	50	25.00	5.75	2.63	
Medium (3.11-8.3 score)	120	60.00			
High (>8.3 score)	30	15.00			
Self-confidence					
Low (<2.2 score)	45	22.50	3.48	1.20	
Medium (2.2-4.6 score)	110	55.00			
High (>4.6 score)	45	22.50			

Entrepreneurial characteristics of vegetable growers :

The entrepreneurial behaviour of vegetable growers comprised nine components, such as, innovativeness, achievement motivation, decision making ability, risk orientation, co-ordinating ability, planning ability, information seeking, cosmopolitaness and self-confidence. Data collected in this regard have been furnished in Table 2.

Innovativeness :

It could be observed from the Table 2 that, majority of (61.50%) vegetable growers had medium level of innovativeness, whereas 23.50 per cent of vegetable growers belonged to high innovativeness and 15.00 per cent of vegetable growers belonged to low innovativeness category.

Achievement motivation :

It is apparent from the Table 2 that majority (48.00%) of the vegetable growers had medium achievement motivation, whereas 27.50 per cent the vegetable growers belonged to low and 24.50 per cent had high achievement motivation category.

Decision making ability :

The data show that majority (55.00%) of the vegetable growers had medium decision making ability, whereas 26.00 per cent of vegetable growers had low and 19.00 per cent had high decision making ability.

Risk orientation :

It is evident from Table 2 that majority (53.50%) of the vegetable growers had medium risk orientation, whereas, one fourth (25.00%) had low and 21.50 per cent of vegetable growers had high risk orientation.

Co-ordinating ability :

It could be inferred that majority of the (69.00%) vegetable growers had medium coordinating ability whereas, 16.00 per cent had high and 15.00 per cent of vegetable growers had low co-ordinating ability.

Planning ability :

It could be seen from Table 2 that majority (47.50%) of vegetable growers had medium planning ability followed by high (26.50%) and low (26.00%).

Information seeking behaviour :

Majority (67.00%) of the vegetable growers had

Category	No.	%	Mean	S.D.
Low (<58.51)	43	21.50	72.19	13.68
Medium (58.51-85.87)	122	61.00		
High (>85.87)	35	17.50		

Characteristics	"r" value	"t" value
Age	0.121 ^{NS}	1.861
Education	0.334 ^{**}	4.961
Farming experience	0.274 [*]	3.853
Caste	-0.070 ^{NS}	1.125
Occupation	0.345 [*]	5.135
Land holding	0.326 [*]	4.779
Extension contact	0.230 [*]	3.172
Annual income	0.279 [*]	4.038
Mass media participation	0.017 ^{NS}	0.227
Economic motivation	0.219 [*]	3.297
Market orientation	0.226 [*]	3.121
Scientific orientation	0.221 [*]	3.069
Knowledge of improved dairy management practices	0.673 ^{**}	12.689

* and ** indicate significance of values at P=0.05 and 0.01, respectively

NS= Non-significant

medium information seeking behaviour whereas, 18.00 per cent had high and only 15.00 per cent of the vegetable growers had low information seeking behaviour.

Cosmopolitaness :

It is evident from Table 2, that majority of (60.00%) vegetable growers had medium level of cosmopolitaness,. Whereas, 25.00 per cent of vegetable growers had low and only 15.00 per cent of vegetable growers had high level of cosmopolitaness.

Self-confidence :

Majority (55.00%) of vegetable growers had medium self-confidence whereas, 22.50 per cent of vegetable growers had both high and low level of self-confidence.

Overall entrepreneurial behaviour of vegetable growers:

Entrepreneurial behaviour was operationally defined as a process of action an entrepreneur under taken to establish his enterprise. It is a composite skill, the resultant of mix of many qualities and traits. On the basis of entrepreneurial score obtained by vegetable growers were grouped in three categories *i.e.* low, medium and high and their frequency distribution is given in Table 3. Among the sample of respondents the mean score entrepreneurial behaviour was 72.19. The measure of standard deviation was 13.68 indicating lower dispersion among score.

The frequency distribution of respondents on entrepreneurial behaviour appeared to fall in normal distribution with nearly 61.00 per cent respondents had medium level of entrepreneurial behaviour, whereas, 21.50 per cent respondents had low level of entrepreneurial behaviour and 17.50 per cent respondents had high level of entrepreneurial behaviour. Similar findings were also reported by Nishi *et al.* (2010); Badodiya *et al.* (2010); Shah *et al.* (2010) and Patel *et al.* (2014).

Correlation and regression analysis :

The co-efficient of correlation of each of the socio-personal characteristics with their entrepreneurial behaviour of vegetable growers has been furnished in Table 4. It could be revealed from Table 4 that socio-personal variables *viz.*, education and farming experience, showed positive and significant relationship at 0.01 level of probability, whereas remaining two variables namely

age and caste did not establish any significant relationship with entrepreneurial behaviour. The co-efficient of correlation of each of the socio-economic characteristics with their entrepreneurial behaviour of vegetable growers has been furnished in Table 4. It could be revealed that land holding, occupation, annual income showed positive and significant relationship with entrepreneurial behaviour at 0.01 level of probability. The correlation co-efficient of each of the communicational characteristics of vegetable growers with their entrepreneurial behaviour has been furnished in. It could be revealed that among two independent variables, *viz.*, extension contact showed positive and significant relationship with entrepreneurial behaviour at 0.01 level of probability whereas mass media participation had no significant relation with entrepreneurial behaviour.

The correlation co-efficient of each of the psychological characteristics of vegetable growers with their entrepreneurial behaviour has been furnished in Table 4. It could be revealed from Table 4 that among four independent variables of all variables namely economic motivation, market orientation, scientific orientation and knowledge of improved vegetable production practices showed positive and significant relationship with entrepreneurial behaviour at 0.01 level of probability. The result is in conformity with the findings of Badodiya *et al.* (2010); Tekale *et al.* (2013) and Patel *et al.* (2014).

Multiple regression analysis of predictor variables with their entrepreneurial behaviour :

The multiple regression analysis was carried out to

Table 5 : Multiple regression analysis of predictor variables with their entrepreneurial behaviour

Characteristics	Regression co-efficient "b"
Age	0.13
Education	-0.03
Farming experience	0.03
Caste	-0.003
Land holding	0.43
Occupation	0.018
Annual income	0.05
Mass media participation	0.13
Economic motivation	0.34
Extension contact	0.52
Market orientation	1.85
Scientific orientation	0.03
Knowledge about vegetable production	0.55

find out the extent of influence of each variable towards the entrepreneurial behaviour of vegetable growers and the data are presented in Table 5. The perusal of data revealed that out of thirteen variables taken for analysis of regression, six variables namely age, occupation, annual income, mass media participation, extension contact and knowledge about vegetable production were found to have significant contribution to the entrepreneurial behaviour of vegetable growers. Table 5 also shows that the co-efficient of determination R^2 was 0.956 which indicates that 95.00 per cent variation in the entrepreneurial behaviour of vegetable growers was explained by thirteen independent variables which were selected for study.

Constraints faced by vegetable growers :

It is detected from the data that the major constraint expressed by vegetable growers were fluctuations in the market price was the major problem (87.50%), followed by lack of market information and high commission charges (77.50%) and lack of processing facilities (67.50%) and faulty system of weighing (57.50%), delayed cash payment (51.25%), difficult loan procedure (51.15%), high cost of transportation (45.00%), absence of storage facilities (43.33%), followed by markets are far away (30.00%) and no grading facilities (21.66%). Almost similar findings were reported by Patel *et al.* (2014).

Conclusion :

The study revealed that majority 61.00 per cent respondents had medium level of entrepreneurial behaviour about vegetable growing. The entrepreneurial behaviour was positively and significantly related with education, farming experience, land holding, occupation, annual income, extension contact, economic motivation, market orientation, scientific orientation and knowledge of improved vegetable production practices and found to have positive and significant relationship with entrepreneurial behaviour. Co-efficient of determination

R^2 was 0.956 which indicates that 95.00 per cent variation in the entrepreneurial behaviour of vegetable growers was explained by thirteen independent variables which were selected for study. The major constraints expressed by vegetable growers were fluctuations in the market price (87.50%), followed by lack of market information and high commission charges (77.50%) and lack of processing facilities (67.50%) and faulty system of weighing (57.50%), delayed cash payment (51.25%) and difficult loan procedure (51.15%). These factors can be taken care of by the implementing agencies in the state while selecting the beneficiaries for entrepreneurship development programmes.

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