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To study the profile and entrepreneurial behavior of tomato growers in Panagar block of Jabalpur District (M.P.)

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Abstract

Entrepreneurship is the central force of economic activity and prime mover of development and most needed component for the development. This finding of the study may help the administrators and policy makers to know the entrepreneurial behaviour of farmers, the relationship between socio-economic characteristic with entrepreneurial behaviour and reasons for practicing tomato cultivation and help in further investigations on entrepreneurial behaviour of tomato growers. The study reveals that the majority of (79.16%) tomato growers were middle age group to young age, acquired the majority (59.17%) from up to primary level to higher education, (73.34%) having small to marginal size of land holding, and tomato growers were having 0.501 to 1 ha area, (55.83%) they had medium annual income, they had (37.50%) 3-4 bullocks. the (52.50%) tomato growers had medium to high scientific orientation, the half of tomato growers were having medium economic motivation, (51.67%) they had medium extension contact, and had (53.33%) respondent utilized medium information sources, they had majority(79.17%) medium to high level of Knowledge, and having medium (48.33%) adoption level and the higher percentage of tomato growers had (41.67%) medium entrepreneurial behavior. The mean score of entrepreneurial behavior of tomato growers having Self-confidence, Risk taking ability, Feedback usage, high Knowledge ability are higher mean score than the overall mean and having less mean score Persuasibility, Persistence Achievement Motivation Hope of success Innovativeness and Manageability.

Keywords: Entrepreneurial Behavior, Entrepreneurial Attributes, Tomato Growers.

Introduction

Entrepreneurship is the process of identifying and utilizing available opportunities and resources to convert an idea into the form of a product or service to market. Entrepreneurial behavior is the package of personality characteristics and environmental factors related to dynamic agent of change for transforming physical, natural and human resources into corresponding production possibilities. Entrepreneur is the central force of economic activity and prime mover of development. He is a person who initiates, organizes, manages and controls the affairs of an enterprise that combines the factors of production to supply goods and services in any sector. Entrepreneurial behaviour, therefore is to be regarded as the most needed components for the development. Tomato assumes a noteworthy job in human sustenance. Tomato natural product contains Water 93.1%, Protein 1.9%, Fat 0.3g, Fiber 0.7%, Carbohydrates 3.6%, Calorie 23, Vitamin A 320 I.U., Vitamin B1 0.07mg, Vitamin B2 0.01mg, Vitamin C 31mg, Calcium 20mg, Phosphorus 36mg and iron 0.8mg. Tomato is essential wellspring of lycopene (a cell reinforcement), ascorbic corrosive and β -carotene and esteemed for their shading and flavor. It is an adaptable vegetable for culinary purposes. Ready new tomato natural products are devoured crisp as servings of mixed greens, cooked vegetable and prepared items, for example, puree, glue, powder, ketchup, sauce, squeeze and canned entire organic products. Unripe green natural products are utilized for arrangement of pickles and chutney. The mash and squeeze of the tomato natural product is absorbable, gentle hors d'oeuvre as an advertiser of gastric secretion and blood purifier. It is utilized for the patients of bronchitis. All round advancement of horticulture is conceivable just with compelling abuse of innovative conduct abilities just as material assets. Our nation is rare of material assets yet plenitude of resources. Subsequently, by distinguishing people in all fragments of populace, who have the essential innovative conduct abilities, all round improvement can be accomplished. The total area under cultivation of tomato India is 893.7 thousand ha and production is around 19166.7 thousand tons. And Jabalpur tomato is planted an area 70.2 (00 Ha), it has production of 2177 (000 Mt). (All India and State Wise Area and Production of Vegetables Annual report 2014-2015, govt. deta).

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Material

A. Research design used for the study: The present study is based on the exploratory design of social research to measure the entrepreneurial behaviour of vegetable growers.

B. Locale of study: Jabalpur district comprises of 7 block namely Jabalpur, Kundam, Majholi, Panagar, Patan, Shahpura, Sihora. Out of which Panagar block was selected purposively for the study because this block had maximum area under vegetable crops.

C. Selection of farmers as respondents: A list of tomato growers of each selected villages were prepared with the help of RAEO and other officials. From each selected villages about 20 tomato growers was selected by using simple random sampling method. Hence, the total number of selected tomato growers were 120.

D. Measurement of entrepreneurial attributes: Entrepreneurial attributes of tomato growers was measured with the help of self-developed. The scale comprises of sub scales of ten entrepreneurial attributes, namely risk taking, hope of success, persuasability, manageability, self-confidence, knowledge ability, persistence, feedback usage, innovativeness, and achievement motivation. Each subscale of ten entrepreneurial attributes consists of five statements. Thus in all, the entrepreneurial attributes self-assessment scale had

total 50 statements. It was measured on five point continuum such as 'most agree, agree, undecided, disagree and 'most disagree with weightage of 5,4,3,2 and 1. The maximum and minimum score ranged between 1 to 250 on ten attributes whereas it is ranged between 1 to 25 on each sub scale, respectively. Based on scores obtained under each sub scale for each attribute, the tomato growers were grouped into three categories ranging from low to high by using the mean and rank scores as measures of check.

E. Entrepreneurial behavior Operational definition: Entrepreneurial behavior of tomato growers is operationally defined as cumulative outcome of ten components/attributes namely risk taking, hope of success, persuasability, manageability, self-confidence, knowledge ability, persistence, feedback usage, innovativeness, and achievement motivation. Measurement of entrepreneurial behaviour: Entrepreneurial behaviour was measured with the help of entrepreneurial behavior index by addition of scores of ten entrepreneurial attributes namely risk taking, hope of success, persuasability, manageability, self-confidence, knowledge ability, persistence, feedback usage, innovativeness, and achievement motivation. The total obtained score was converted into the entrepreneurial behaviour index. The minimum and maximum score ranged between 1 and 250 respectively.

The entrepreneurial behaviour index was calculated by the following formula:

$$\text{Entrepreneurial behaviour index} = \frac{\text{Sum of obtained score on ten entrepreneurial attributes} \times 100}{(\text{EBI}) \text{ Maximum obtainable score on ten entrepreneurial attributes}}$$

Entrepreneurial Entre preneurialble behaviour levels	Index range
Low	Up 50 to 117
Medium	118 to 184
High	Above 185

On the basis of Mean and rank score of the distribution, the respondents were categorised into three categories namely low, medium and high by using mean and rank as below.

G. Collection and analysis of data: The interview schedule was constructed in accordance with the study objectives and it was used for data collection. The respondents were contacted either at farm or home and the information in the interview schedule was collected. The information obtained from 120 tomato growers was taken for analysis.

Results and Discussion

Observations and analysis

The main purpose of the present investigation was to study the entrepreneurial behaviour of tomato growers in panagar region of Madhya Pradesh. Entrepreneurial behavior of tomato growers has been extensively studied in terms of risk taking hope of success, persistence, feed back usage, self-confidence, knowledge ability, persuasion ability, manageability, innovativeness and achievement motivation. study the profile of tomato growers The majority (79.16%) of tomato growers were middle age group to young age. 59.17%, of tomato growers were having education from up to primary level to higher education. 73.34% of the tomato growers had small to marginal size of land holding. 50.00% of tomato growers were 0.501 to 1 ha area. 50.00% of tomato growers had medium material possession. The 50.00% tomato growers

had medium to high participation in social activities. The majority 55.83% of tomato growers had medium annual income. 37.50% tomato growers had 3-4 bullocks. The higher percentage is half of tomato growers were having medium economic motivation. 52.50% of tomato growers had medium scientific orientation. The majority 79.17% of tomato growers had medium to high level of Knowledge. 53.33% of tomato growers had utilized medium information sources. 51.67% of tomato growers had medium extension contact. The higher percentage (41.67%) of the tomato growers were having the medium entrepreneurial behavior.

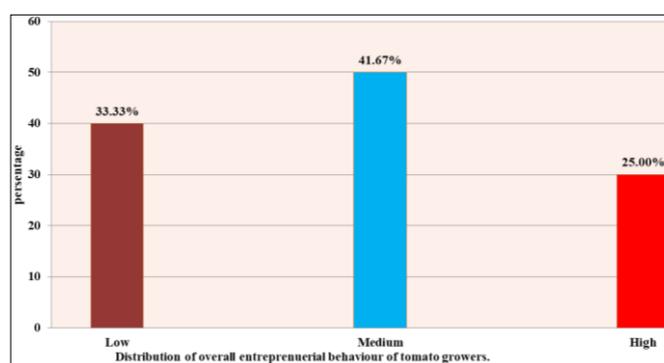


Fig 1: Distribution of the Overall Entrepreneurial behaviour of tomato growers (N=120)

Table 1: Distribution of the tomato growers according to their socio- economic profile. (N=120)

S. No.	Categories	Frequency	Percentage
Age			
1.	Young (Up to 35 years)	45	37.50
2.	Middle (36 to 55 years)	50	41.66
3.	Old age (above 55 years)	25	20.84
Education level			
1.	Illiterate	10	08.33
2.	Primary school	31	25.84
3.	Middle school	23	19.16
4.	Higher education	40	33.33
5.	College level	16	13.33
Size of Land holding			
1.	Marginal farmers (up to 1ha)	38	31.67
2.	Small farmers (1.01 to 2 ha)	50	41.67
3.	Medium farmers (2.01 to 4 ha)	20	16.66
4.	Large farmers (more than 4 ha)	12	10.00
Area under tomato crop			
1.	up to 0.5 ha	40	33.33
2.	0.501 to 1 ha	60	50.00
3.	1.01 to 1.5 ha	20	16.67
Material possession			
1.	Low (up to 5 score)	25	20.83
2.	Medium (6-10 score)	60	50.00
3.	High (11-15 score)	35	29.17
Social participation			
1.	Low (up to 5 score)	60	50.00
2.	Medium (6-10 score)	40	33.33
3.	High (11-15 score)	20	16.67
Annual income			
1.	Low (Rs Up to 1,00,000)	38	31.67
2.	Medium(Rs.1,00,001 to 2,00,000)	67	55.83
3.	High (Rs. More than 2,00,000)	15	12.50
Farm power			
1.	No draught animal	8	06.66
2.	1-2 bullocks	41	34.17
3.	3-4 bullocks	45	37.50
3	Tractor	26	21.67
Economic motivation			
1.	Low (up to 8 score)	41	34.17
2.	Medium (9-16 score)	60	50.00
3.	High (17-30 score)	19	15.83
Scientific orientation			
1.	Low (up to 8 score)	41	34.17
2.	Medium (9-16 score)	63	52.50
3.	High (17-30 score)	16	13.33
Level of Knowledge			
1	Low (up to 25 score)	25	20.83
2	Medium (26-50 score)	39	32.50
3	High (51-75 score)	56	46.67
Adoption Level			
1	Low (up to 25 score)	30	25.00
2	Medium (26-50 score)	58	48.33
3	High (51-75 score)	32	26.67
Information Sources utilization			
1.	Low (up to 3 score)	18	15.00
2.	Medium(4-7 score)	64	53.33
3.	High (8-10 score)	38	31.67
Extension contact			
1.	Low (Up to 5 score)	42	35.00
2.	Medium (6-10 score)	62	51.67
3.	High (11-15 score)	16	13.33

I. Profile of respondents /Entrepreneurial attribute: In order to have an in-depth understanding of the entrepreneurial behaviour, the data with respect to various entrepreneurial attributes of the respondents have been furnished in Table 2.

i. Risk taking: More than majority (54.17%) of respondents were moderate risk takers. About 18.33 per cent of the respondents were low risk takers whereas 27.50 per cent of respondents were high risk takers. Clearly shown that entrepreneurs are calculative and moderate risk takers as

against the myth that entrepreneurs are high risk takers. Past studies of McClland (1961), Devi (1986) and Murali (1997)^[4] have clearly shown that entrepreneurs are calculative and moderate risk takers as against the myth that entrepreneurs are high risk takers. The studies conducted by Timmons (1998)^[9], Yadav (1998)^[10] and Taneja and Gupta (2001)^[8], who reported that for any enterprise to succeed an entrepreneur must possess risk taking capacity, but at moderate level.

ii. Hope of success: 58.33% of respondents had medium level of hope of success. While 12.50 per cent of respondents had high level, 29.17 per cent had low level of hope of success. The study conducted by Palmurugan *et al.* (2008)^[5] has clearly indicated that entrepreneurs have medium to high hope of success than fear of failure.

iii. Persistence: Majority (41.17%) of respondents had medium level of persistence. While 37.50 per cent of respondents had low level, 20.83per cent had high level of persistence. Past studies guide that entrepreneur tend to persist in the face of difficulties or obstacles. Failure does not easily discourage them; rather they carry on with more enthusiasm and self confidence. The study conducted by Palmurugan *et al.* (2008)^[5] has found that entrepreneurs have medium to high level of persistence.

iv. Feedback usage: The ability to seek and use feedback on one's performance and decisions is an important quality of entrepreneurs. Medium level of feedback usage was found among majority (56.67%) of respondents followed by high (12.50%) and low (30.83%) levels of feedback usage. The study conducted by Palmurugan *et al.* (2008)^[5] has clearly indicated that entrepreneurs have medium to high level of feedback usage.

v. Self confidence: It is one of the major attributes which an entrepreneur must possess for running enterprise. It could be seen from the data in Table 2 that nearly three fourth (64.17%) per cent of the respondents were reported in medium confidence level, followed by 20.83per cent respondents who had low level of self-confidence. Very few respondents (15.00%) had observed in high category of self-confidence. The probable reason might be for such findings might be that agricultural enterprise is totally dependent on natural environment, further there is no control of the producer on market prices of their agricultural produce. The study conducted by Palmurugan *et al.* (2008)^[5] observed that majority of entrepreneurs had medium to high level of self-confidence.

vi. Knowledgeability: Findings with regards to knowledge ability, it was observed that above two third of the respondents (56.67%) were in high level of knowledge about technical and management aspects of their venture medium

level of knowledge ability was found in 30.83per cent followed by 12.50 per cent respondents who had low level of knowledgeability. They also expressed an urge to gain good knowledge of market and also production technology is most important before starting their enterprise and tended to produce only those tomato which were found to consumer acceptance. Entrepreneurship in tomato cultivation required a keen sense of the market, exploitation of opportunities and willingness to adapt to environment for which knowledge is essential. Study done by Aiyadurai (1999) also suggested that an entrepreneur must be knowledgeable about his/her enterprise for better results.

vii. Manageability: Majority (64.17%) of respondents had low level of manageability. About 26.67per cent of the respondents belonged to medium manageability category. Very few respondents (09.16%) had observed in high level management category. It could be inferred that only 09.16per cent of respondents were found having high level of manageability, focusing that the respondents lacked the basic managerial skills for running the enterprise. They were required to learn to delegate some responsibilities to others is a very important attribute of successful entrepreneur.

viii. Persuasibility: The overall analysis of data revealed that 65.83per cent of respondents scored medium, whereas low and high level of persuasibility scored by 19.17 and 15.00 per cent of respondents respectively. As the entrepreneur could not express themselves very convincingly to others, resulting in gaining less profit after marketing products.

ix. Innovativeness: Seethalakshami (1999), described innovativeness as an important entrepreneurial attributes. It could be seen that majority (46.67%) of the respondents belonged to high degree of innovativeness followed by 38.33per cent respondents in medium category and 15.00per cent of them were observed in the low category of innovativeness. It could be inferred that majority (85.00%) of the respondents had high to medium level of innovativeness. This might be due to mass media exposure and high literacy rate. It is also true that innovatively oriented farmers always incline to use innovative methods in farming and have a favourable perception towards innovations, which leads vegetable growers to develop their entrepreneurial behaviour.

x. Achievement motivation: More than three fourth (65.83%) of the respondents were observed in medium category of achievement motivation followed by 25.84per cent of them were observed in high category of achievement motivation and only 08.33per cent of respondents who were in low category of achievement motivation. It could be indicated that all human beings always try to gain something more and more in life.

Table 2: Distribution of the entrepreneurial dimensions of tomato growers (N=120)

S. No	Dimensions	Categories (scores)	Frequency	Percentage
1	Risk taking ability	Low (5 to 12)	22	18.33
		Medium (13-19)	65	54.17
		High (20-25)	33	27.50
2	Hope of success	Low (5 to 12)	35	29.17
		Medium (13-19)	70	58.33
		High (20-25)	15	12.50
3	Persistence	Low (5 to 12)	45	37.50
		Medium (13-19)	50	41.17

		High (20-25)	25	20.83
4	Feedback usage	Low (5 to 12)	37	30.83
		Medium (13-19)	68	56.67
		High (20-25)	15	12.50
5	Self confidence	Low (5 to 12)	25	20.83
		Medium (13-19)	77	64.17
		High (20-25)	18	15.00
6	Knowledge ability	Low (5 to 12)	15	12.50
		Medium (13-19)	37	30.83
		High (20-25)	68	56.67
7	Manageability	Low (5 to 12)	77	64.17
		Medium (13-19)	32	26.67
		High (20-25)	11	09.16
8	Persuasibility	Low (5 to 12)	23	19.17
		Medium (13-19)	79	65.83
		High (20-25)	18	15.00
9	Innovativeness	Low (5 to 12)	56	46.67
		Medium (13-19)	46	38.33
		High (20-25)	18	15.00
	Achievement motivation	Low (5 to 12)	31	25.84
10		Medium (13-19)	79	65.83
		High (20-25)	10	08.33

II. Entrepreneurial behaviour: Data regarding present entrepreneurial behaviour level of the respondents in Table 3 revealed that 41.67 per cent of the respondents had “medium” entrepreneurial behaviour index, while (33.33%) and (25.00%) respondents “high” and “low” entrepreneurial behavior index respectively.

The overall entrepreneurial behaviour index of respondents was 79.69 indicating their medium entrepreneurial behaviour. It could be inferred that 75.00 per cent of the respondents possessed medium to high level of entrepreneurial behavior. It could be discerned from these results, by and large, the tomato growers has fairly good entrepreneurial behaviour. This might be due to their better score on almost all dimensions/attributes namely risk taking, hope of success, persuasibility, manageability, self-confidence, knowledge ability, persistence, feedback usage, innovativeness, and achievement motivation selected to measure entrepreneurial behaviour. Secondly, such better score on almost all the dimensions of the tomato growers might have helped them in managing their enterprises more efficiently and profitably. When these findings looked in the context of the vegetable production activities lead to conclude that vegetable growers might have been efficiently managing the operations related to cultivation and marketing of the produce.

Table 3: indicates the mean scores obtained by tomato growers regarding their entrepreneurial dimensions.

S. No.	Entrepreneurial Dimensions	Mean	Rank
1	Risk taking ability	16.89	II
2	Hope of success	14.87	VIII
3	Persistence	15.30	VI
4	Feedback usage	16.10	III
5	Self confidence	15.84	IV
6	Knowledge ability	18.30	I
7	Manageability	13.18	X
8	Persuasibility	15.48	V
9	Innovativeness	14.63	IX
10	Achievement motivation	14.98	VII
	Overall mean	15.56	

It is clear depicted in the Table that the mean score of various dimensions of entrepreneurial behavior ranged from 13.18 to 18.30 mean score. The entrepreneurial dimension of tomato growers having Knowledge ability, Risk taking ability,

Feedback usage, Self-confidence were high then the overall mean. The entrepreneurial dimensions which have less mean score than the overall mean were Persuasibility, Persistence, Achievement motivation, Hope of success, Innovativeness and Manageability. Thus, it can be concluded that more important entrepreneurial dimensions of tomato growers were- Self confidence, Feedback usage, Persuasibility, Knowledge ability, Risk taking. While the less important entrepreneurial dimensions of the tomato growers were achievement motivation, persistence, manageability, hope of success, persuasibility, innovativeness.

Conclusions

Findings of the study clearly revealed that majority of the respondents were found in medium level with respect to all profile of tomato grower accept level of knowledge and education level is high entrepreneurial behavior indicators namely Education level, Age, Land holding, Area under tomato crop, Material possession, Social participation, Annual income, Farm power, Economic motivation, Scientific orientation, Level of Knowledge, Adoption Level, Sources utilization, Extension contact. Entrepreneurial dimensions can be concluded that more important entrepreneurial dimensions of tomato growers were- Self-confidence, Feedback usage, Persuasibility, Knowledge ability, Risk taking. While the less important entrepreneurial dimensions of the tomato growers were achievement motivation, persistence, manageability, hope of success, persuasibility, innovativeness.

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