

ASSESSMENT OF ENTREPRENEURIAL DYNAMICS AMONG POTATO GROWERS**Ajay Rai¹, Parvez Rajan² and Seema Naberia³**

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ABSTRACT

It is one of the major tuber crops of the world. It is a wholesome food and consumed by all sections of the people. It is also becoming an important source of rural employment and income for growing population. An ex-post-facto research was conducted in Chhindwara district in Madhya Pradesh based on highest production of potato crop. From the Chhindwara block 4 villages (Chargaon, Jamuniya, Gangai, Dungariya) were selected for the study on the basis of the maximum area under potato crop. The total 105 respondents were selected by using proportionate random sampling at 40 per cent of total potato growers. The findings revealed that the highest proportion of respondents (42.86%) belonged to the middle-age group and 35.23% had attained higher secondary education. Farming emerged as the predominant occupation, engaging 58.12% of respondents. Regarding family structure, 38.10% belonged to large-sized families, while 45.84% possessed medium-sized land holdings. Almost half of the respondents (46.67%) cultivated a medium-sized area under potato crop. More than half (54.28%) had 6–10 years of potato cultivation experience. Concerning economic status, 40.00% reported medium annual income, and 37.14% had medium annual income specifically from potato cultivation. In terms of extension participation, 39.04% exhibited medium participation, while 38.09% had medium information-seeking behaviour. A medium level of scientific orientation was observed among 46.66% of respondents, whereas 41.92% had low economic motivation. The overall entrepreneurial behaviour of the potato growers was observed to be at a medium level among the majority of the respondents.

Keywords: entrepreneurial behaviour, potato growers

INTRODUCTION

Potato (*Solanum tuberosum* L.) is native of the High Andes in South America and it was first introduced in India at the end of the sixteenth or the beginning of the seventeenth century. Potato is one of the important tuber crops in India. Importance of potato as vegetable in human diet has been well recognized. Potato is a high yielding and short duration crop. Due to high protein-calories ratio and short vegetative cycle, potatoes yield substantially more (Raval et al., 2021). The top eight potato growing states are U.P., Bihar, West Bengal, Punjab, Karnataka, Assam, Gujarat, and Madhya Pradesh. Among all these states, Madhya Pradesh is the VIII largest producer of potato covering 1973 thousand hectares area with production of 41555 thousand metric tones and productivity 21.1 mt/ha. On the other hand, district Chhindwara ranks first in Madhya Pradesh.

The development of any nation depends primarily on the important role played by entrepreneurs (Somtiya et al., 2024). Entrepreneurship is very crucial for the overall social change and advancement of the society (Vinaya et al., 2019; Patel et al., 2023; Ekhande et al., 2023). Entrepreneurial behaviour is very much necessary to the farmers to meet challenges of technological changes and growing demands

of the society. Farmers should develop the entrepreneurial qualities for betterment of their farming and livelihood. (Fayaz et al., 2016). To address this situation, the emphasis is on enabling farmers to increase their level of competitiveness, to produce for an identified market and seeking new market opportunities that offer higher levels of income (Chaudhary and Chauhan, 2016).

On the other hand, there are gluts in market for such producers and farmers realized low or un- remunerative prices. After the opening up to the Indian economy and entry of many domestic and multinational players in to agribusiness sector, contract farming which was restricted, largely, to seed production earlier, spread to perishable produce and has now become the dominant and growing mode of raw material production (Desai et al., 2022). Development as well as strengthening of small and micro enterprises especially in agricultural and allied agricultural sectors in rural areas and promoting agri entrepreneurs is important to tackle the present agriculture situation (Khandave et al., 2022).

OBJECTIVES

- (1) To study the socio-economic profile of potato growers
- (2) To assess the entrepreneurial behaviour of potato

growers

- (3) To analyze the relationship between profile and entrepreneurial behaviour of potato growers

per cent of the total growers from each village were selected by using proportionate random sampling technique. Thus, a total sample of 105 potato growers was selected for the study.

METHODOLOGY

The present study was conducted in the Chhindwara district of Madhya Pradesh, purposively because of higher area and production of potato crop. The selected block consists of 132 villages, out of which four villages namely Chargaon, Jamuniya, Gangai and Dungariya were selected purposively based on the maximum area under potato cultivation. A list of potato growers was prepared from each selected village with the help of RAEs. From this list, 40

This study employs ex post facto research designs to assess the entrepreneurial behaviour of potato growers. A survey was employed as the research strategy in the present study. A structured interview schedule was developed to collect relevant data regarding socio-economic, psychological and communicational characteristics with special emphasis on entrepreneurial behaviour. Data were analyzed using statistical tools such as percentage, frequency, mean and correlation coefficient. The analysis was done by using SPSS software to process the data.

RESULTS AND DISCUSSION

Table1: Distribution of the potato growers according to their socio-economic profile

(n=103)

Sr. No.	Personal profile	Categories	Frequency	Percentage
1	Age	Young age (up to 35 years)	25	23.80
		Middle age (36 to 55 years)	45	42.86
		Old age (Above 55 years)	35	33.34
2	Education	Illiterate	00	00.00
		Up to primary	08	07.63
		Middle	23	21.90
		High school	29	27.61
		Higher secondary	37	35.23
		College level	08	07.63
3	Occupation	Farming	61	58.12
		Farming + labour	12	11.42
		Farming + caste occupation	15	14.28
		Farming + business	10	09.52
		Farming + shop	07	06.66
		Farming + service	61	58.12
4	Size of family	Small size (up to 4 members)	29	27.61
		Medium size (5 to 8 members)	36	34.29
		Large size (>8 members)	40	38.10
5	Land holding	Marginal (up to 1 ha)	09	08.57
		Small (1.01 to 2 ha)	40	38.09
		Medium (2.01 to 3 ha)	45	42.85
		Large (3.01 to 4 ha)	11	10.49
6	Area under potato crop	Small (Up to 2 ha)	38	36.19
		Medium (2.01 to 3 ha)	49	46.67
		Large (above 3 ha)	18	17.14
7	Experience of potato cultivation	Low (Up to 5 years)	33	31.44
		Medium (06 to 10 years)	57	54.28
		High (Above 10 years)	15	14.28
8	Annual income	Low (up to ₹ 1,50,000/-)	38	36.19
		Medium (₹ 1,50,001- ₹ 3,00,000/-)	42	40.00
		High (above ₹ 3,00,001)	25	23.81

Sr. No.	Personal profile	Categories	Frequency	Percentage
9	Annual income from potato cultivation	Low (up to ₹ 80,000/-)	29	27.63
		Medium (₹ 80,001- ₹ 1,60,000/-)	39	37.14
		High (above ₹ 1,60,001)	37	35.23
10	Extension Participation	Low (Up to 8 score)	33	31.42
		Medium (9 to 16 score)	41	39.04
		High (17 to 24 score)	31	29.54
11	Information seeking behaviour	Low (Up to 3 score)	27	25.72
		Medium (4 to 7 score)	40	38.09
		High (8 to 10 score)	38	36.19
12	Scientific Orientation	Low (6- 14 score)	24	22.85
		Medium (15-22 score)	49	46.66
		High (23 - 30 score)	32	30.49
13	Economic motivation	Low (6- 18 score)	44	41.92
		Medium (19-30 score)	36	34.28
		High (31 - 42 score)	25	23.80

The data in Table 1 indicate that 42.86% of potato growers are in the middle age group (36 to 55 years). The findings suggest that individuals under 35 years of age were the most interested in the cultivating the potato crop, followed by those over 55 years. This indicates that the farming is particularly popular among middle age group. This finding consistent with the research of Raina et al. (2016).

Higher percentage 35.23% was found to have education up to higher secondary school. This might be because majority of the growers belonged to middle age group. There were mainly belonged to high schools, higher secondary schools in the selected villages during the period of their age of getting education. This finding is similar to the findings of Raina et al. (2016).

The majority 58.12% of the farmers were solely engaged with farming as main occupation. This finding is supported by and Kumar et.al. (2022).

Higher percentages of potato growers (38.10%) were belonged to large size family. This finding finds the support of Dwivedi (2013).

A higher percentage of growers 42.85% were found having medium sized land. Most of them previously had higher land holdings. Even after the distribution of land into their generations, the pattern of higher land holdings can be observed in the area. The finding is in line with Bourah et al. (2015).

Most of the growers 46.67% belonged having medium area under potato crop. This may be because most of the growers in the area had medium land holding. As well as potato is a season crop and suitable to the climate of selected villages, most of the growers uses their complete land holding for potato cultivation instead of combining it with some other crop. This finding is similar to the findings of Gurjar et al.

(2017).

More than half of the farmers, 54.28% were having 06 to 10 years of experience of potato cultivation. This is might be due to majority of respondents belonged to medium age group. This finding is supported by Kankate et al. (2018).

Around 40.00% of potato growers had a medium income level, the possible reason of this finding is some of the growers do not have multiple sources of income which boosted their annual income as supported by Bourah et al (2015).

Highest proportion of potato growers 37.14% had a medium annual income from potato cultivation and 39.04% reported medium level of participation in extension activities; potentially the reason might be the growers had less involvement in the extension activities performed by the extension personnel and also due to a lack of training facilities. This is supported by Gurjar et al. (2017), Bourah et al (2015).

Around 38.09% of potato growers reported medium seeking behaviour, education level of rural farmers only up to middle school level less familiarity of farmers with magazines, newspapers and internet etc. might be the major reasons behind medium level of information seeking behaviour, as supported by Kumar et al. (2014).

In terms of scientific orientation, 46.66% of potato growers had a medium level of orientation, the possible reason might be the good qualifications as well as the perfect decision-making ability. This finding is supported by Gurjar et al (2017).

In terms of economic motivation higher percentage of potato growers 41.92% have a low-economic motivation. The reason behind this might be that the higher percentage of growers was educated only up to higher secondary school

level and performing the farming practices as source of their livelihood instead of taking agriculture as a business venture. This is supported by Fartyal and Rathore (2014).

Table 2: Distribution of potato growers according to their entrepreneurial behaviour

(n=105)

Sr. No.	Entrepreneurial behaviour	Categories		
		Low (up to 11)	Medium (12-18)	High (19-25)
1	Risk taking ability	15 (14.28)	53 (50.49)	37 (35.23)
2	Hope of success	25 (23.82)	33 (31.42)	47 (44.76)
3	Persistence	27 (25.71)	48 (45.71)	30 (28.58)
4	Feedback usage	29 (27.62)	47 (44.76)	29 (27.62)
5	Self confidence	15 (14.28)	31 (29.53)	59 (56.19)
6	Knowledge ability	14 (13.34)	34 (32.38)	57 (54.28)
7	Manageability	19 (18.09)	60 (57.14)	26 (24.77)
8	Persuasibility	10 (09.54)	50 (47.61)	45 (42.85)
9	Innovativeness	21 (20.00)	30 (28.57)	54 (51.43)
10	Achievement motivation	14 (13.34)	42 (40.00)	49 (46.66)

(Figures in parenthesis indicate percentage)

Table 2 indicated that, the risk taking ability of the total potato growers, about half (50.49%) of potato growers were medium risk takers followed by 35.23 percent high risk takers while only 14.28 per cent were taking low risk.

Regarding the hope of success out of total potato grower’s higher percentage (44.76%) medium score in this dimension followed by 31.42 per cent obtained medium score and 23.82 per cent were obtained low score.

In result of dimension persistence results revealed that higher percentage (45.71%) of growers had medium degree of persistence followed by 28.58 per cent had high degree and 25.71 per cent of the growers were had low level in persistence.

Regarding feedback usage dimension about half of the growers (44.76%) scored medium level followed by low category were 27.62 per cent and those with high feedback usage were 27.62 per cent of the growers.

About self confidence analysis revealed that higher percentage (56.19%) of the potato growers had high level of self confidence followed by 29.53 per cent were found medium in their self confidence and 14.28 per cent had low self confidence.

Regarding the knowledge ability result showed that more than half of the growers (54.28%) were in high knowledge ability followed by 32.38 per cent found medium in their knowledge ability and 13.34 per cent had low knowledge ability.

In dimension, manageability results revealed that half of the growers (54.14%) had medium level of managing

ability while 24.77 per cent recorded high and only 18.09 per cent were low level in manageability.

Regarding persuasibility higher percentage (47.61%) of the growers had medium level of persuasibility followed by 42.85 per cent scored high ability of persuasive and only 09.54 per cent were low in the persuasibility attributes.

About innovativeness data revealed that half of total growers (51.43%) were found to be high in this dimension, while 28.57 per cent were medium and only 20.00 per cent were low in the innovativeness attributes.

In achievement motivation higher percentage of growers (46.66%) had medium level. While about 40.00 per cent scored medium level in achievement motivation and only 13.34 per cent were low in achievement motivation. The findings is in line with Tikariah and Soni, 2018.

Table 3: Distribution of the potato growers based on their overall entrepreneurial behaviour

(n=105)

Sr. No.	Categories	Frequency	Percentage
1	Low (up to 117)	34	32.38
2	Medium (118 to 184)	43	40.96
3	High (185 to 250)	28	26.66

The Table 3 shows that the higher percentages 40.96% of the potato growers were having the medium entrepreneurial behaviour. This is supported by Gurjar et al. (2017); Tikariha and Soni. (2018); Pandey et al. (2025); Singh et al. (2024).

Table 4: Relationship between independent variables and entrepreneurial behaviour of potato growers

(n=105)

Sr. No.	Independent variables	Correlation coefficient
X ₁	Age	0.340*
X ₂	Education	0.028 ^{NS}
X ₃	Occupation	0.327*
X ₄	Size of family	0.049 ^{NS}
X ₅	Land holding	0.344**
X ₆	Area under potato crop	0.498*
X ₇	Experience of potato cultivation	0.248*
X ₈	Annual income	0.449*
X ₉	Annual income from potato cultivation	0.386**
X ₁₀	Extension participation	0.290*
X ₁₁	Information seeking behaviour	0.612**
X ₁₂	Scientific orientation	0.456*
X ₁₃	Economic motivation	0.034 ^{NS}

**Significant at 0.01 probability level

*Significant at 0.05 probability level

Table 4 indicated that, the correlation coefficient between the profile and their entrepreneurial behaviour, data reveals that at the 0.05 level of probability, the entrepreneurial behaviour had a positive and significant relationship with age ($r=0.340$), occupation ($r=0.327$), area under potato crop ($r=0.498$), experience of potato cultivation ($r=0.248$), annual income ($r=0.449$), extension participation ($r=0.290$), scientific orientation ($r=0.456$) was found significant, whereas the land holding ($r=0.344$) annual income from potato cultivation ($r=0.386$), information seeking behaviour ($r=0.612$) were found significant relationship with the entrepreneurial behaviour of potato growers at 0.01 level of probability and education ($r=0.028$), size of family ($r=0.049$), as well economic motivation ($r=0.034$) found to be non significant relationship the entrepreneurial behaviour of potato growers.

CONCLUSION

It can be concluded from the above findings that, majority of the potato growers under the study were found to be middle-aged, educated up to high school level, possessing medium farming experience, small to semi-medium landholding size, and medium level of annual income. Most of the respondents had medium level of extension contact, mass media exposure, economic motivation, risk orientation, decision-making ability, and scientific orientation. The entrepreneurial behaviour has ten different dimension which

showed the result such as 50.49 percent potato growers had medium risk taking ability, 44.76 percent potato growers had high level of hope of success, 45.71 percent potato growers had medium level of persistence, 44.76 percent potato growers had medium level of feedback usage, 56.19 percent potato growers had high level of self confidence, 54.28 percent potato growers had high level of knowledge ability, 57.14 percent potato growers had medium level of manageability, 47.61 percent potato growers had medium level of persuasibility, 51.43 percent potato growers had high level of innovativeness and 46.66 percent potato growers had high level of achievement motivation. The overall entrepreneurial behaviour of the potato growers was observed to be at a medium level among the majority of the respondents. The findings of correlation coefficient revealed age, occupation, area under potato crop, land holding, experience of potato cultivation, annual income, annual income from potato cultivation, extension participation, scientific orientation and information seeking behaviour was found significant with the entrepreneurial behaviour of potato growers. While, education, size of family and economic motivation was found non-significant with the entrepreneurial behaviour of potato growers.

RECOMMENDATIONS

- The findings of the study would help planners, researchers, and extension personnel to focus on strengthening the entrepreneurial capabilities of potato growers by improving their access to extension services, market linkages, and awareness regarding innovative practices.
- The entrepreneurial behaviour of the potato growers was found to be significantly influenced by their socio-economic, psychological and communicational characteristics. Therefore, efforts should be made by the concerned organizations to enhance these characteristics through capacity-building programmes, training and effective extension approaches.

CONFLICT OF INTEREST

We, the authors, declare that there are no conflicts of interest related to this research paper.

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