



Agri-Entrepreneurial Behaviour of King Chilli Growers Under Dimapur District, Nagaland

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DOI: 10.47856/ijaast.2021.v08i10.017

Abstract: The present study was conducted with the objective to find out the socio economic profile, agri-entrepreneurial behaviour and attitude of king chilli growers in Dimapur district of Nagaland and find out the constraints faced by the respondents and to obtain their suggestions. A total of one hundred twenty farmers were selected from 4 villages using proportionate random sampling procedure. Data was collected by using interview method using pre-structure D interview schedule and analyzed using appropriate statistical tools. The study revealed that majority of the respondents belonged to middle aged group, had medium level of annual income with medium size of land holding. Majority of them had medium year of farming experience and medium level of extension contact. On analyzing the entrepreneurial behaviour level, highest number of respondents i.e. 65.83% were having medium level of entrepreneurial behaviour followed by 25 % having high and 9.16% having low levels. In respect of correlation analysis between entrepreneurial behaviour level and socio- economic profile of respondents it shows that annual income, extension contact, mass media exposure and social contact are positively significant. Whereas, age, education, family type, family size, type of house, land holding, and farming experience are non-significant. In respect of the correlation analysis, the annual income, extension contact, mass media exposure and social contact were positively significant at 0.05 % level related to attitude of the people whereas age, education, family type, family size, type of house, land holding, and farming experience were found to be non-significantly related to attitude of the respondents towards king chilli production respectively.

Keywords: Agri-entrepreneurial behaviour, king chilli growers, Nagaland.



Introduction

In the Northeastern states of India, one of the most popular spices grown is the king chilli (*C. chinense*). It is grown in the state of Manipur, Assam and Nagaland. King chilli which contains more capsaicin (3-5%) as compared to any other Indian chilli is a traditional food item of the people of Nagaland and believed to be the original home (**Baruah *et al.*, 2014**).

Naga King chilli (*Capsicum chinense* Jacquin) belongs to the genus *Capsicum* of Solanaceae or nightshade family. Naga King chilli has been considered as the world's hottest chilli and entered in "Guinness book of world records" (measuring 855,000 scoville units), beating the "Mexican red savana habaneros" (5, 77,000 scoville units) (**Shetalu, 2010**). The State Government of Nagaland also got the patent rights of Naga King chilli and got Geographical indication in the year 2008 **from Government of India under Registration and Protection Act, 1999**. Demand of Naga King chilli is very high both in domestic and outside market, earlier the State Agriculture Department had tied up marketing linkage with Imperial Tobacco Company (ITC), Spices Limited, Spices Board of India and recently with the International Competence Centre for Organic Agriculture (ICCOA) Bangalore for marketing of dried Naga King chilli outside the state.

King chilli is grown in almost all the districts of the state Nagaland. The area under king chilli cultivation has increased tremendously from 600 ha in 2012-2013 to 1385 ha in 2015-2016 with a total production of 2500 MT and 7739 MT respectively (**Statistical Handbook of Nagaland, 2015**). It has been reported that production of king Chilli is increased every year in north-eastern India (**Meetei *et al.*, 2016**).

Traditionally in Nagaland, Naga King chilli are grown in burned bamboo soils while jhumming and also in kitchen gardens with some organic manures such as FYM, poultry droppings, etc. King chilli is highly perishable non-climatic crop can be grown all the types of soil, but a deep loose soil is preferred. Good quality king chilli can be produced under clay loam soil (**Borgohain and Devi, 2007**). The soil should be rich in organic matter with of pH 5.5-6.0 The high foothill conditions with high nitrogen available of the region are suitable for the cultivation and production of a extensive range of capsicum crops including king chilli (**Rongsennungla *et al.*, 2012; Sharma, 2014**).

Naga King chilli has great potential for value addition as supplement or complementary thereby; as in oleoresin (for treatment of rheumatic disorders), tonic and carminative action, pain balm, prickly heat powders, essential oil (for aroma therapy), capsaicin, capsanthin, its chemical



constituents are in use in pharmaceutical and food industry as natural colouring etc; which has gained much importance in global market besides using as dried, flakes or ground powder products.

Material and Methods

The present study was conducted in Niuland block of Dimapur district of Nagaland. A total number of 120 respondents from 4 villages were selected using proportionate random sampling procedure

Data was collected with the help of pre-structured interview schedule. The descriptive survey research design was followed to conduct the present research study.

The socio-economic variables selected for the study were age, education, family type, family size, type of house, annual income, land holding, farm experience, extension contact, mass media exposure and social contact.

The study was undertaken under the following objectives.

- i. To assess the socio-economic profile of the respondents
- ii. To analyse the agri-entrepreneurial behaviour of King chilli growers

Results and Discussion

Table 1 revealed that majority (68.33%) of respondents belonged to middle age group of 36-55 years. Most of (43.33%) of respondents were found to be illiterate. It was found that (70.83%) of the respondents were having nuclear family. Majority (76.66%) of the respondents belonged to family size of upto 5 members. Majority (43.33%) of the respondents were having semi-cemented house. It was also found that (63.33%) of the respondents were having annual income between 60,000-80,000 rupees. Maximum number of the respondents (59.16%) had land size between 1 to 2 ha. Majority (63.33%) of the respondents were having farming experience between 10-20 years.

It was found that (52.5%) of the respondents were having medium level of extension contact. It was also found that (61.5%) of respondents watch television on a daily basis, (27.5%) of the



respondents read the newspaper, (21.66%) sometimes read magazine and only (5.83%) of the respondents listen to the radio. Majority of (88.33%) of respondents were frequently interacting with friends, (80.83%) frequently interacted with relatives, (63.33%) with neighbours and frequently (25%) interact with progressive farmers.

Table 1. Socio-economic profile of the respondents

S.no	Independent Variables	Category	Frequency	Percentage
1.	Age	Young (20-35)	18	15
		Middle Age (36-55)	82	68.33
		Old (Above 55)	20	16.66
2.	Education	Illiterate	52	43.33
		Primary school	30	25
		High School	23	19.16
		Secondary School	13	10.83
		Graduation	2	1.66
3	Family type	Nuclear	85	70.83
		Joint	35	29.16
4	Family size	Upto 5 members	92	76.66
		More than 5 members	28	23.33



5	Type of house	Hut	39	32.35	
		Semi-cemented	52	43.33	
		Cemented	29	24.16	
6	Annual Income	Low (40,000- 56,000)	35	29.16	
		Medium (57,000- 73,000)	58	48.33	
		High (74,000- 90,000)	27	22.5	
7	Land Holding	Less than 1 ha	48	40	
		1-2 ha	71	59.16	
		More than 2 ha	01	0.83	
8	Farming experience	Below 10 years	21	17.5	
		10-20 years	76	63.33	
		Above 20 years	23	19.16	
9	Extension contact	Low	42	35	
		Medium	63	52.5	
		High	15	12.5	
10	Mass media exposure	Radio	Daily	7	5.83
			Sometimes	99	82.5
			Never	14	11.66



		Television	Daily	74	61.5
			Sometimes	46	38.33
			Never	0	0
		Newspaper	Daily	33	27.5
			Sometimes	87	72.5
			Never	0	0
		Magazines	Daily	0	0
			Sometimes	26	21.66
			Never	94	78.33
11	Social contact	Neighbour	Always	76	63.33
			Sometimes	44	36.66
			Never	0	0
		Friends	Always	106	88.33
			Sometimes	14	11.66
			Never	0	0
		Relatives	Always	97	80.83
			Sometimes	23	19.16
			Never	0	0
		Progressive farmer	Always	30	25
			Sometimes	81	67.5
			Never	9	7.5

2. Entrepreneurial behaviour of the respondents.

The results presented in table 2 revealed that maximum no. of 75 per cent of the respondents have medium level of innovativeness, 85.83 per cent of the respondents had medium level of achievement motivation, 73.33 per cent of the respondents had medium level of risk taking



ability, 66.66 per cent of the level of respondents towards entrepreneurial intentions and 84.16 per cent of the respondents had medium level of entrepreneurial competencies.

Table 2:-Distribution of the respondents according to their entrepreneurial behaviour

S.no	Entrepreneurial attributes	Level	Frequency	Percentage
1.	Innovativeness	Low	30	25
		Medium	90	75
		High	nil	nil
2.	Achievement motivation	Low	13	10.83
		Medium	103	85.83
		High	4	3.33
3	Risk taking ability	Low	14	11.66
		Medium	88	73.33
		High	18	15
4	Entrepreneurial competencies	Low	6	5
		Medium	80	66.66
		High	34	28.33
5	Entrepreneurial intentions	Low	19	15.83
		Medium	101	84.16
		High	nil	nil



Table 3: Distribution of the respondents based on their level of entrepreneurial behaviour

S. no	Category	Frequency	Percentage
1	Low	11	9.16
2	Medium	79	65.84
3	High	30	25
	Total	120	100

Table 3 revealed that a majority of 65.83% of the respondents were having medium level of entrepreneurial behaviour, followed by 25% of the respondents having low level of entrepreneurial behaviour and 9.16% of the respondents having high level of entrepreneurial behaviour.

Similar findings were reported by **Tsubentula Jamir (2020)**

3. Association of independent variable with the adoption of recommended practices of off season cucumber cultivation.

Table 4: Association of independent variables with the adoption of recommended practices of off season cucumber cultivation

S.No	Variables	Pearson's correlation coefficient
1	Age	0.030 NS
2	Education	0.004 NS
3	Family type	-0.012 NS
4	Family size	0.009 NS
5	Type of house	0.154 NS
6	Annual income	0.201*



7	Land holding	0.031
8	Farming experience	0.017 NS
9	Extension contact	0.391*
10	Mass media exposure	0.429*
11	Social contact	0.724*

* = Significant at $p = 0.05\%$, NS= Non Significant

The result of correlation analysis in above table 4 revealed the significance and non-significance of the socio- economic profile of the people and their entrepreneurial behaviour.

The finding indicates that annual income, extension contact, mass media exposure, and social contact are significantly associated with the entrepreneurial behaviour of the. Whereas age, education, family type, family size, type of house, land holding, and farming experience had non-significant correlation with the entrepreneurial behaviour of the respondents.

Similar findings were reported by **Somvanshi *et al.*, (2016)**.

Conclusion

It is therefore concluded from the study that majority of the respondents were middle aged and mostly were illiterate. Most of the respondents had a nuclear family and majority had up to 5 members in the family and most of them lived in semi-cemented house. Majority of the respondents had farming experiences of between 10-20 years. A large number of the respondents had medium level of income. Most of the respondents had medium level of extension contact.

The input on the entrepreneurial behaviour showed that the respondents had medium level of entrepreneurial behaviour. The major constraints faced by the people were high price fluctuation in market, lack of transportation facilities and lack of godowns/warehouse for proper storage of king chilli. Some suggestions were given by the respondents to overcome some of the constraints such as transport facilities should be made more available and accessible, market information should be made available, proper storage facilities , technical advise and training to be provided, and proper marketing facility should be made available.



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