



# ENTREPRENEURIAL BEHAVIOUR OF OFF SEASON CUCUMBER GROWERS: AN ANALYSIS

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## Abstract

Cucumber farmers in Nagaland state of India ventured out economically by cultivating off-season cucumber through their innovativeness. The present study was conducted to analyze the entrepreneurial behaviour of the cucumber growers and its association with socio-economic characteristics. Ongpangkong (South) RD block under Mokokchung district was purposively selected. A total number of 100 respondents from 3 villages were selected using proportionate random sampling procedure. The study revealed that majority (72%) of the respondents had medium level of achievement motivation, innovativeness (71%) and planning orientation (62%). Majority (91%) of them had medium level of risk orientation, management orientation (84%), marketing orientation (81%) and decision making ability (78%). It was also found that majority (67%) of them had medium level of entrepreneurial behaviour. Variables age, education, size of land holding under agriculture and experience in off-season cucumber cultivation had significant association with the entrepreneurial behaviour of the respondents. The study concluded that organizing awareness and motivation programmes on entrepreneurship development shall be helpful in increasing the productivity and profitability of the cucumber farmers.

**Key words :** Off-season cucumber farmers, Entrepreneurial behaviour, Correlates.

## Introduction

Cucumber (*Cucumis sativus* L.) belonging to the family of Cucurbitaceae is one of the oldest vegetable crop grown widely throughout India as well as tropical and sub-tropical parts of the world. The cucumber is a nutritious crop as its edible portion contains 96.3 per cent water, 2.7 per cent carbohydrates, 0.4 per cent protein, 0.1 per cent fat and 0.4 per cent mineral matters. It is also a good source of Vitamin B and C (Singh *et al.*, 2004). It is known for its versatile uses *viz.*, medicinal, edible and industrial uses. Cucumber is a warm season crop and cannot tolerate even slightly lower temperature. According to Food and Agriculture Organization Corporate Statistical Database (2017), the total production in the world was 83,753,861 metric tonnes where China leads in production (64,824,643 tonnes). India is ranked 27<sup>th</sup> in the world with a total production of 161,564 tonnes. According to Horticultural Statistics at a glance (2017), cucumber is grown in more than 20 states and Union Territories of India. Important cucumber growing states

are Bihar, Haryana, Orissa, Punjab, Rajasthan and Uttar Pradesh. Nagaland, one of the eight states of the north east region is blessed with agro climatic condition and soil suitable for agriculture. Nagaland is also one of the states where cucumber is grown in all the districts. The total area and production of cucumber in the state accounted for 714 ha and 21617 metric tonnes with Mokokchung district leading in area (280 ha) as well as a total production of 18070 MT during 2016- 17 (Anonymous, 2017). Not only is normal cucumber grown in this state but off- season cucumber is also grown which is widely in high demand.

Entrepreneurship development is based on the assumption that entrepreneurs are not only born but can also be created. Entrepreneurs can be perceived as change agents who adopt a relatively new line of economic activity deviating from their traditional occupation for their livelihood. Schumpeter (1950) defined entrepreneur as a person who is willing and able to convert a new idea or invention into a successful innovation. With the increase in population in our country and decrease in material

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resources, it is important to educate the people especially the farmers to develop the skills to establish their own enterprise, generate income and sustain their own livelihood.

The off-season cucumber farmers have a lot of potential to venture out economically as the farmers through their innovativeness have introduced the idea of off-season cultivation. Although, there exists a great potential of cucumber cultivation in the state, the volume of production is very limited. Therefore, the present study was carried out with the following objectives: to find out the socio-economic characteristics of the cucumber growers, entrepreneurial attributes of the cucumber growers and association of socio-economic characteristics with the entrepreneurial behaviour of the cucumber growers.

### Materials and Methods

The present study was conducted in Mokokchung district of Nagaland by following ex-post facto research design. Ongpangkong (South) RD block was selected purposively. There are nine villages under this RD block out of which three off-season cucumber growing villages viz., Aliba, Chungtia and Kinunger were purposively selected. A sample size of 100 respondents was selected from the selected villages by following proportionate random sampling procedure. The socio-economic variables selected for the study were age, family size, education, size of the total land holding under agriculture, size of the total land holding under off season cucumber cultivation, annual income, income from off season cucumber cultivation, training exposure, experience in off season cucumber cultivation and information sources utilization.

### Results and Discussion

#### Socio-economic characteristics of the respondents

Table 1 revealed that majority (64 %) of the respondents belonged to age group between 36- 60 years. Majority (84%) of the respondents had family size of 3-7 members. Forty two per cent (42%) of the respondents had an educational qualification upto primary school. Majority (74%) of the respondents had an area of 1.44 – 4.02 acres under agriculture and ninety three per cent (93%) of them had an area of 0.04 – 0.34 acres under off- season cucumber cultivation. It was also found that majority (87%) of the respondents had medium level of experience (5-15 years) in off- season cucumber cultivation. The study further envisaged that majority (69%) of the respondents had medium level of annual income from agriculture and seventy-three (73%) per

cent of the respondents had medium level of income from off-season cultivation.

#### Entrepreneurial attributes of the respondents

Entrepreneurial behaviour of the respondents were analyze by including the entrepreneurial attributes viz., innovativeness, achievement motivation, risk orientation, decision making ability, management orientation, planning orientation and marketing orientation. Following observations were made from (Table 2 and Fig. 1).

##### Innovativeness

Majority (71%) of the respondents had medium level of innovativeness. The ability and interest of the respondents to experiment and develop ideas into skills might be the reason for the medium level of innovativeness of the respondents. This finding was in line with the findings of Sidaram *et al.*, (2010).

##### Achievement motivation

Seventy two per cent (72%) of the respondents had medium level of achievement motivation. This might be due to their desire or need to increase or improve their economic condition. The result was in accordance with the findings of Kumar *et al.*, (2003) and Modi *et al.*, (2013). The finding was also in line with the findings of Gaikwad and Lalhriatpuii (2018) who found that majority of the respondents (69.17%) had medium level of achievement motivation.

##### Risk orientation

Majority (91%) of the respondents had medium level of risk orientation. It was found that the individuals with more farming experience, higher education, better income and better land holdings had medium risk orientation. The level of risk orientation of an individual depends upon the personal, psychological and socio-economic characteristics. So, it might be due to these factors that the farmers were able to take risks. These findings were in accordance with the findings of Shreekant and Jahagirdar (2017) and Kolgane *et al.*, (2018).

##### Decision making ability

In case of decision making ability, majority (78%) of the respondents had medium level of decision making ability. This might be due to their medium annual income and medium land holdings. Similar trends have been reported by Jha (2012) and Boruah *et al.*, (2015).

##### Management orientation

It was also found that majority (84%) of them had medium level of management orientation, which might be due to the reason that the respondents had medium level of achievement motivation. The finding was in

**Table 1:** Socio- economic characteristics of the respondents.

N= 100

Sl. No.	Attributes	Category	Frequency	%	
1.	Age	Less than 36 years	21	21	Mean = 47.96 SD=11.72
		36-60 years	64	64	
		More than 60 years	15	15	
2.	Family size	Small (Less than 3)	11	11	Mean = 4.84 SD=1.84
		Medium (3-7)	84	84	
		Large (More than 7)	05	05	
3.	Education	Illiterate	02	02	
		Primary	05	05	
		Middle	35	35	
		Highschool	42	42	
		PU	07	07	
		Graduate	09	09	
4.	Land holdings under agriculture	Less than 1.44 acres	12	12	Mean = 2.72 SD=1.29
		1.44 – 4.02 acres	74	74	
		More than 4.02 acres	14	14	
5.	Land holdings under off-season cucumber cultivation	Less than 0.04 acres	00	00	Mean = 0.15 SD=0.19
		0.04 – 0.34 acres	93	93	
		More than 0.34 acres	07	07	
6.	Level of experience	Low (Less than 5 years)	05	05	Mean = 7.71 SD=2.26
		Medium (5-15 years)	87	87	
		High (More than 15years)	08	08	
7.	Income from agriculture	Less than Rs. 50745	12	12	Mean = 76080 SD=25334.6
		Rs.50745- Rs.101414	69	69	
		More than Rs.101414	19	19	
8.	Income from off-season cucumber cultivation	Less than ? . 9823	13	13	Mean = 20690 SD=10817
		? . 9823- ? . 31507	73	73	
		More than □ . 31507	14	14	

conformity with the findings of Mohapatra and Sahu (2012).

### Planning orientation

More than half (62%) of them had medium level of planning orientation. The respondents having medium level of decision making ability is believed to be one of the factors for exhibiting medium level of planning orientation.

### Market orientation

It was revealed that majority (81%) of the respondents had medium level of market orientation. The probable reason might be that the cucumbers available during the off-season are in high demand and therefore, it can be sold off easily. The finding was in line with the findings of Sharma *et al.*, (2014).

### Entrepreneurial behaviour of the respondents

Table 3 revealed that majority (67%) of the respondents had medium level of entrepreneurial

behaviour followed by low (18%) and high (15%) level of entrepreneurial behaviour respectively. This might be due to medium level of innovativeness, achievement motivation, risk orientation, decision making ability, management orientation, planning orientation and marketing orientation of the respondents. These findings were in agreement with findings of Boruah *et al.*, (2015), Gaikwad and Lalhriatpuii (2018), Wanole *et al.*, (2018).

### Association between independent variables and entrepreneurial behaviour of the respondents

Table 4 revealed that independent variables age, education, size of land holding under agriculture, experience in off season cucumber and attitude had significant association with the entrepreneurial behaviour of the respondents. Independent variables age and experience of off-season cucumber growing farmers had negative and significant association with their entrepreneurial behaviour at 1% level of probability. This

**Table 2:** Entrepreneurial attributes of the respondents.

N= 100

Sl. No.	Attributes	Category	Frequency	%	
1.	Innovativeness	Low	09	09	Mean= 11.04 SD =2.55
		Medium	71	71	
		High	20	20	
2.	Achievement motivation	Low	05	05	Mean= 15.01 SD =2.30
		Medium	72	72	
		High	23	23	
3.	Risk orientation	Low	09	09	Mean =16.93 SD =1.50
		Medium	91	91	
		High	00	00	
4.	Decision making ability	Low	12	12	Mean = 8.99 SD =1.99
		Medium	78	78	
		High	10	10	
5.	Management orientation	Low	01	01	Mean = 12.52 SD =0.95
		Medium	84	84	
		High	15	15	
6.	Planning orientation	Low	17	17	Mean = 11.46 SD =1.46
		Medium	62	62	
		High	21	21	
7.	Market orientation	Low	12	12	Mean = 12.02 SD =1.14
		Medium	81	81	
		High	07	07	

**Table 3:** Entrepreneurial behaviour of the respondents.

N=100

Sl. No.	Level	Frequency	%	
1.	Low	18	18	Mean = 75.29 SD = 5.36
2.	Medium	67	67	
3.	High	15	15	
	Total	100	100	

inferred that the entrepreneurial behaviour of the respondents were higher in respondents who were young. Similar findings were observed by Tamilselvi and Sudhakar (2010).

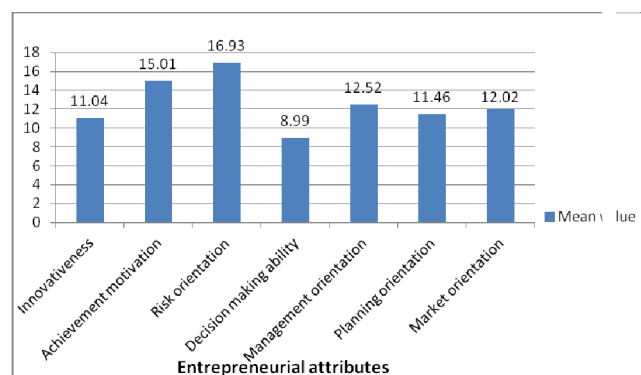
The independent variable - size of land holding under agriculture had positive and significant relationship with the entrepreneurial behaviour of the respondents at 1% level of probability. This means that the respondents having larger size of land holding will tend to have higher level of entrepreneurial behaviour. This finding was in conformity with the findings of Patel *et al.*, (2014), Boruah *et al.*, (2015). It was also found that the independent variables- education and attitude had positive and significant association with the entrepreneurial behaviour of the respondents at 5% level of probability. It may be inferred that respondents having higher education and attitude exhibited higher level of entrepreneurial behaviour.

This may be due to the fact that higher education made them more open to innovations, change in attitude and acceptance of improved knowledge. Similar findings with regard to education and experience were observed by Mehta and Sonawane (2011) and Malivad (2016) who found that education had positive and significant relationship with entrepreneurial behaviour of the respondents.

### Relationship between predictor variables and entrepreneurial behaviour of the respondents

Table 5 revealed that the predictor variable age had negative and significant association with the entrepreneurial behaviour of farmers at 1% level of probability. The predictor variable size of total land holding under agriculture had positive and significant association

at 1% level of probability and the variable experience in off-season cucumber cultivation had negative and significant association at 5% level of probability. The squared R value (0.5015) was found to be significant, which indicates that the predictor variables age, size of total land holding under agriculture and experience in off-season cucumber cultivation jointly contributed a variation of 50.15 per cent in the entrepreneurial behaviour of the cucumber growers. It may therefore be inferred that the predictor variables age, size of total land holding under agriculture and experience in off-season cucumber cultivation were important in explaining the entrepreneurial behaviour of off-season cucumber cultivators.

**Fig. 1:** Entrepreneurial attributes of the respondents.

**Table 4:** Correlates between independent variables and entrepreneurial behaviour of the respondents.

Sl. No.	Independent variables	Coefficient of correlation (r)
1.	Age	-0.464**
2.	Family size	-0.049 <sup>NS</sup>
3.	Education	0.223*
4.	Size of land holding under agriculture	0.427 **
5.	Size of land holding under off-season cucumber cultivation	0.003 <sup>NS</sup>
6.	Annual income	-0.090 <sup>NS</sup>
7.	Income from off-season cucumber cultivation	-0.045 <sup>NS</sup>
8.	Experience in off-season cucumber cultivation	-0.356**

\*\* Significant at 1% level of probability

\* Significant at 5% level of probability

<sup>NS</sup>- Non significant.**Table 5:** Multiple regression analysis of the predictor variables with the entrepreneurial behaviour of the respondents.

Sl. No.	Variables	Regression coefficient (b)	SE (b)	't' values
1.	Age	-0.146	0.026	-5.61 **
2.	Size of total land holding under agriculture	1.5	0.219	6.85**
3.	Experience in off-season cucumber cultivation	-0.333	0.133	-2.50*

a= 79.521\*\* F= 23.90\*\* R<sup>2</sup>= 0.501

\*\* Significant at 1% level of probability\* Significant at 5% level of probability

## Conclusion

It may be concluded from the study that, most of the respondents had medium level of age group, family size, income, land holding under agriculture and off-season cucumber, income from agriculture and off-season cucumber and year of experience under off-season cucumber cultivation. Nearly half of the respondents had education upto high school level. In case of entrepreneurial attributes, majority of the respondents had medium level of innovativeness, achievement motivation, risk orientation, decision making ability, management orientation, planning orientation and marketing orientation. Majority of the respondents had medium level of entrepreneurial behaviour. The independent variables age, size of total land holding under agriculture and experience in off-season cucumber cultivation were found important in explaining the entrepreneurial behaviour of the respondents. Thus, the off- season cucumber growers needs to be motivated and importance of entrepreneurship development should be imparted to them to develop their entrepreneurial attributes and entrepreneurial behaviour from medium level to high level for promoting cucumber based enterprises thereby providing assured income and profit to the farmers.

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