

IMPACT OF DIFFICULTIES ON ENTREPRENEURIAL BEHAVIOUR OF FARMERS FOR VEGETABLE PRODUCTION AND MARKETING IN ARUNACHAL PRADESH

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Abstract: This study was conducted in Ziro, Lower Subansiri district of Arunachal Pradesh during 2020 – 23 to explore the entrepreneurial behavior and challenges faced by the vegetable growers. Farmers faced numerous challenges viz. high labor costs, lack of pest and disease management knowledge, and high transportation charges were universal issues. Additionally, 91.11% faced low credit facility constraints, 82.77% had poor financial status, and 90.56% struggled to procure essential inputs. Manures were costly and scarce for 81.66%, fertilizers were unavailable on time for 79.44%, and 65.56% faced irregular electricity supply. Labor shortages during peak periods affected 98.33% of respondents, and 75.55% cited a lack of skilled labor. High initial costs were a problem for 94.44%, while 58.89% lacked knowledge of proper cultivation practices. Storage issues affected 68.33%, spoilage during transportation 52.22%, lack of market knowledge 45.00%, and exploitation by middlemen 37.22%. A positive relationship was found between entrepreneurial behavior and factors like age, education, family size, landholding, income, training, mass media participation, extension contact, and scientific orientation.

Introduction

Vegetables are very essential component of human diet. Consumption of vegetables provides all the required key nutrients, vitamins, dietary fibers etc for a healthy body functioning. Apart from the health benefits, vegetable crops provide an important source of income for the small and marginal farmers of our country.

India has endowed with favourable climatic condition for vegetables production, thus vegetables are grown in every part of our country under varied agro-climatic and soil conditions in plains as well as in hilly regions. At present, India produces about 70 different varieties of leafy fruity and starchy tuber varieties of vegetables. More than 40 kinds of vegetables belonging to different groups namely solanaceous, cucurbitaceous, leguminous, cruciferous (Cole crops) root crops and leafy vegetables are grown in India in tropical, subtropical and temperate regions. Important vegetables grown in India are tomato, onion, brinjal, cabbage, cauliflower, okra, peas

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etc. Vegetable crops provide an important source of income for the small and marginal farmers of our country.

Arunachal Pradesh, the Land of Rising Sun has vast potential for development of horticulture for growing a wide range of tropical, sub-tropical and temperate fruits and vegetables including off season vegetables, spices, aromatic and medicinal plants due to its undulating topography and varied agro-climatic conditions. Indigenous and major vegetables grown in the state are sweet potatoes, mustard, brinjal, ginger, chili, pumpkin, cucumber, local cowpea, cauliflower, tomato, cabbage, turmeric, cardamom etc. Agri-horti sector plays a vital role in socio-economic development as well as in employment generation for rural people especially to small and marginal farmers of Arunachal Pradesh by providing income round the year from vegetable produce. Hence, there is a huge scope for entrepreneurship development in vegetable cultivation in the state.

Therefore, the study has been undertaken with the objectives to study the impact of difficulties on entrepreneurial behaviour of farmers for vegetable production and marketing in arunachal Pradesh.

Methodology

The study was conducted in Lower Subansiri district of Arunachal Pradesh during the year 2020-23. Lower Subansiri district has been purposively selected for the study because of high vegetable cultivation and production. One circle i.e Ziro circle has been selected and from Ziro circle 9 villages were selected based on highest area, production, and productivity of the vegetables. Then 20 farmers were selected from each village by using random sampling procedure. Thus, forming total sample size of 180 respondents. The data was collected by personal interview method. And the analysis was done using frequency, percentage and Karl Pearson's simple correlation test.

Results and Discussion

A) Constraints faced by the vegetable growers.

The data presented in Table 1 indicate the constraints faced by the vegetable growers.

1. Financial Constraints

Most of the respondents reported low credit facility (91.11%) and Poor financial status (82.77%). Money matters a lot in everyone's life. It is difficult for respondents with low financial status to purchase the required inputs for their vegetable cultivation. The result is in consonance

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with the results of Shilpa Karate (2019) and Ritik Gupta (2022).

2. Input Constraints

Regarding input constraint Seeds, manures/chemicals, tools and implements are not easily procured (90.55%), Manures are costly and not easily available (81.66%), non-availability of fertilizer at required time (79.44%) and irregular supply of electricity (65.55%) were reported.

Cost of fertilizers, manures, plant protection chemicals, growth regulator etc. is increasing day by day. Thus, purchasing inputs required for cultivating vegetables becomes hard for vegetable growers. The findings are in agreement with the findings of Nagesh (2006), Rai *et al.* (2014), Murry and Lalrautsangi (2020).

3. Labour Constraints

Regarding constraints related to labour, cent per cent of the respondents quoted high cost of labour as the major constraints followed by scanty labour during peak period of cultivation (98.33%) and lack of skilled labour (75.55%).

Scarcity of labour is increasing day by day in the agricultural sector due to the migration of working force from rural to urban areas either in search of employment or due to educational matter. This causes rise of labour cost. Lack of skilled labours, scanty labour during peak period of cultivation viz; land preparation and harvesting are also causing problems for vegetable growers. The results are in confirmity with the findings of Chahal and Kataria (2010), Murry and Lalrautsangi (2020).

4. Technical Constraints

Cent percent of the respondents expressed lack of knowledge about pest and disease management as their major technical constraint, which was followed by high initial cost (94.44%) and lack of knowledge about proper cultivation practices (58.88%). Non-availability of required skilled labours and lack of competency in field extension personnel resulted in perception of this problem. The findings are in agreement with the findings of Thorat G. N. (2005), Murry and Lalrautsangi (2020).

5. Marketing Constraints

The major marketing constraint perceived by the vegetable growers was high transportation charge (100%) followed by lack of storage (68.33%), spoilage during transportation (52.22%), lack of market knowledge (45.00%) and exploitation by middlemen (37.22%).

Vegetables are perishable in nature, many times when the production of vegetable is

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abundant and sufficient domestic market is not available for sale of vegetables, farmers have to bear heavy financial losses. Lack of storage facility and spoilage during transportation was another important marketing constraint expressed by the respondents. This was due to non-availability of systematic transport facilities. Even the transportation charges were also perceived as high by the farmers. This situation further aggravated by exploitation of middlemen, who deceive farmers by not paying even the basic cost of cultivation. The results are in agreement with the findings of Waman and Patil (2000), Azad *et al.* (2014) and Rai *et al.* (2014).

B) Relationship between socio - personal profile of vegetable growers with their entrepreneurial behaviour

Based on the data represented in table 2, that age, education, family size, land holding, annual family income, training received, mass media participation, extension contact, extension participation and scientific orientation were positively and significantly correlated with entrepreneurial behaviour, whereas occupation found to be negatively non – significant.

Age of farmers was positively and significantly correlated with their entrepreneurial behavior. As we grow older we became more mature and surrounded by many responsibilities thus making us more enthusiastic and willing to work harder to become financially sound and independent, work efficiency and physical strength also increases as we get older. These might be the probable reason.

Education of farmers was positively and significantly correlated with their entrepreneurial behaviour. Education helps the farmers to get more information and thereby broaden and sharpen their mental horizon. It helps in their socio-psychological development. Education also helps in making decision more precisely and managing various aspects viz,

planning, production and marketing aspect more efficiently. The result is in consonance with the results of Savitha *et al.* (2009) and Shilpa Karate (2019).

Occupation was found non-significant and negatively correlated with their entrepreneurial behavior. This might be due to majority of respondents were engaged in agricultural activities. Hence less variation in their occupation might be the one of the main reasons for non-significant relationship. Similar findings were reported by Sabale *et al.* (2014).

Land holding of farmers was positively and significantly correlated with their entrepreneurial behaviour. Land holding provides the economic base for the farmer to practice new agricultural technologies. It helps them in optimum utilization of farm resources through efficient

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decision making and applying new ideas for achieving maximum profits. Further, it helps the farmer to bear risk and uncertainty. Farmers with large size of land holding have leadership ability. The results are in confirmity with Nagesh (2006), Savitha *et al.* (2009).

Annual family income of farmers was positively and significantly correlated with their entrepreneurial behaviour. Annual family income provides the economic base for the farmer hence; farmers with higher annual family income have higher purchasing power and motivated to try new technologies for improving their income and standard of living. Farmers with high annual family income can normally bear risk and uncertainty in adopting new ideas. The results are agreed with the reports of Subramanyeshwari and Veeraraghavareddy (2003), Nagesh (2006) and Savitha *et al.* (2009).

Training Received was found positively and significantly correlated with their entrepreneurial behaviour. Through training programmes farmers get to know various useful knowledge which in turn helps them in enhancing their skills and boost their confidence level.

Mass media participation of farmers was found positively and significantly correlated with their entrepreneurial behaviour. Mass media is the huge source of opportunities for farmers, it can motivate the farmers to try or adopt new farm practices, it provides valuable information which helps farmers to know their chances of success. It also provides information on agricultural practices and thus creates an interest in the farmer to seek more information regarding a particular cultivation practice. The results are in consonance with the results of Nagesh (2006).

Extension contact of farmers was positively and significantly correlated with their entrepreneurial behaviour. It means that extension contact plays an important role in disbursing knowledge and solving problems of vegetable growers. Frequent contacts with different extension personnel like private agency, NGO's, village level worker, Agricultural Officers etc. have more and better knowledge regarding improved cultivation of vegetables. The results of study were in agreement with the studies reported by Thyagarajan and Vasanthakumar, J. (2000), Shilpa Karate (2019) and Ritik Gupta (2022).

Extension participation of farmers was positively and significantly correlated with their entrepreneurial behaviour. Extension participation helps farmers to get various information. Extension activities conducted in the area have direct effect on knowledge gained about improved agricultural practices. It also helps the farmers to adopt new agricultural practices earlier than others in their social system. The findings are found similar with the results of Nomesk Kumar *et al.* (2000) and Nagesh (2006).

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Scientific orientation of farmers is positively and significantly correlated with their entrepreneurial behaviour. Respondents having higher scientific orientation would try and interested to gather more information, which could be applied at the field level, thus increasing their production. The results are similar with the results of Nagesh (2006) and Ritik Gupta (2022).

Conclusion

In conclusion, this study highlighted the difficulties on Entrepreneurial behaviour of farmers for vegetable production and marketing in Arunachal Pradesh. The findings revealed they face significant structural and knowledge-based constraints such as high labor costs, lack of pest and disease management knowledge, high transportation charges, low credit facility, poor financial status, struggled to procure essential inputs, costly and scarcity of manures, unavailability of fertilizers on time, irregular electricity supply, Labor shortages during peak periods, lack of skilled labor, High initial costs, lacked knowledge of proper cultivation practices, Storage issues, spoilage during transportation, lack of market knowledge, and exploitation by middlemen. Addressing these issues through targeted training, financial support, market access, and infrastructure improvements could greatly enhance their productivity and profitability.

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Table 1: Constraints faced by the Vegetable Growers

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Sl. No.	Constraints	Frequency	Percentage
(A)	Financial		
1.	Poor financial status	149	82.78
2.	Low Credit Facility	171	91.11
(B)	Input		
1.	Manures are costly and not easily available	147	81.67
2.	Seeds, manures/chemicals, tools and implements are not easily procured	176	90.56
3.	Non-availability of fertilizer at required time	160	79.44
4.	Irregular supply of electricity	128	65.56
(C)	Labour		
1.	High labour cost	180	100
2.	Scanty Labour during peak period of cultivation	177	98.33
3.	Lack of Skilled labours	159	75.55
(D)	Technical		
1.	High incidence of pests and diseases	180	100
2.	High Initial Cost	170	94.44
3.	Lack of knowledge about proper cultivation practices	120	58.89
(E)	Marketing		
1.	High transportation charges	180	100
2.	Spoilage during transportation	89	52.22
3.	Lack of market knowledge	71	45
4.	Lack of storage unit/space	123	68.33
5.	Exploitation by middlemen	46	37.22

*Multiple Response Obtained

Table 2: Correlation coefficient between Socio - Personal profile and Entrepreneurial behaviour

Sl. No.	Independent variables	Correlation coefficient ('r' value)
1.	Age	0.657**
2.	Education	0.428**
3.	Occupation	- 0.158 ^{NS}
4.	Family Size	1.000**
5.	Land Holding	0.737**
6.	Annual Family Income	0.764**
7.	Training Received	0.258**
8.	Mass Media Participation	0.976**
9.	Extension Contact	0.866**
10.	Extension Participation	0.991**
11.	Scientific Orientation	0.918**

** : Significant at 0.01 probability level, NS: Non-significant