



A Study on Association of Profile Characteristics with Entrepreneurial Behaviour of Commercial Floriculture Nursery Owners in Kadiyam

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Study on association of profile characteristics with entrepreneurial behaviour of commercial floriculture nursery owners aimed to bring out a strategy for the policymakers and implementing agencies for entrepreneurship development in the study area. The present investigation was carried out at Kadiyam Mandal in East Godavari District of Andhra Pradesh. The present study revealed that the independent variables viz., education, land holding, experience in nursery business, training undergone, annual turnover, marketing pattern, credit acquisition and utilization, mass media exposure, material possession, social participation, extension contact, and level of aspiration have close association with entrepreneurial behaviour of commercial floriculture nursery owners. All the selected fourteen independent variables put together explained about 69.90 percent variation in the entrepreneurial behaviour of nursery owners. The partial regression coefficients implied that annual turnover, credit acquisition and utilization, land holding, material possession and education were the most important variables contributing to most of the variation in the entrepreneurial behaviour of nursery owners. Hence it is concluded that the policy makers and planners need to take up need-based efforts that help in improving those characteristics which contribute to the development of the entrepreneurial behaviour of nursery owners.

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1. INTRODUCTION

Kadiyam nurseries located in the coastal area under Kadiyam Mandal of East Godavari district, on the banks of river Godavari were the brand value and sky-high of the floriculture nursery industry in Andhra with long-lasting history of 100 years having a combination of small, medium and large nurseries spread over 1555 hectares of land with a wide variety of indoor, outdoor, seasonal, ornamentals, medicinal, fruit crops, etc. ranging from 5 -rupees to thousands of rupees and providing employment more than 50,000 people directly or indirectly. Growth and development of floriculture nurseries in Kadiyam is not an individual effort, but it is an effort of all the stakeholders involved in its bloom, primarily the floriculture nursery owners. Entrepreneurial behaviour as a holistic entity was found to be one of the root cause for the growth and development of the nurseries in Kadiyam by helping the nursery owners to follow their goals, decisions, and activities for the realization of their ultimate vision. Having such antiquity and global attention in the international market [1], its success has not been properly documented with empirical evidence. But it deserves such investigation, as the success factors can be emulated in the areas for further expansion and diversification and also to pinpoint the stumbling blocks, where the nursery owners and budding entrepreneurs can refine, reform and restructure their functioning towards progress and growth of their nurseries. Hence it is the need of the hour to find out the profile characteristics of nursery owners and the relationship between profile characteristics with their entrepreneurial behaviour so that need-based efforts can be taken up in improving those characteristics which contribute to the development of the entrepreneurial behaviour of nursery owners.

2. METHODOLOGY

The study was conducted in the year 2018-19 and Ex-Post-Facto research design was followed in the present investigation. Kadiyam Mandal of East Godavari district in Andhra Pradesh is purposively selected for the study as the locale is nationally and internationally known for commercial floriculture nurseries and was dominant with more area under floriculture. Three villages with highest number and area under commercial floriculture nurseries namely

Kadiyam, Vemagiri and Veeravaram were purposively selected for the study and later 120 nursery owners were selected randomly from the selected three villages in proportion to the number of nurseries in each village (see Table 1). An interview schedule was prepared for data collection. Statistical techniques like Arithmetic mean, Standard deviation, Frequencies and percentage were used. Pearson’s correlation coefficient was carried out to find out the relationship between independent and dependent variables (see 2.1). Multiple linear regression analysis was also carried out to find out functional relationship between independent variables and entrepreneurial behaviour of commercial floriculture nursery owners (see 2.2). Statistical Package for Social Sciences (SPSS) version 16 was used for data analysis.

2.1 Pearson’s Correlation Coefficient (r)

This test was used to study the relationship between the scores of selected profile characteristics and the entrepreneurial behaviour of commercial floriculture nursery owners. It measures the degree of relationship between the two sets of variables.

2.2 Multiple Linear Regression Analysis

Multiple linear regression analysis was used to study the effect of independent variables on dependent variables. The following multiple linear regression equation was fitted to the data having 14 parameters.

$$Y = a + b_1X_1 + b_2X_2 + \dots + b_{14}X_{14}$$

Where, Y = Dependent variable
 X₁ to X₁₄ = Independent variables
 a = intercept or constant
 b_i's = partial regression coefficients.

$$b_i = b_1, b_2, \dots, b_{14}$$

3. RESULTS AND DISCUSSION

Data from Table 2 reveal that majority of the nursery owners were in middle age, completed high school education, small farmers, had a medium level of experience in nursery business, training not undergone, medium family size, annual turnover less than 50 lakhs, medium mass media exposure, medium material

Table 1. Selection of nursery owners under the study area

Locale of the study	Name of the selected villages	Total number of nursery owners	No. of nursery owners selected
Kadiyam mandal	Kadiyam	764	80
	Vemagiri	209	22
	Veeravaram	175	18
Total		1148	120

possession, medium social participation, low level of extension contact, medium level of aspiration. Further it was also observed that major source of credit was from the commercial banks followed by its major utilization in nursery business itself. It was also revealed that majority of the nursery owners were marketing their plants to the local customers, local traders and other nurseries in Kadiyam.

3.1 Coefficient of Correlation between Profile of Commercial Floriculture Nursery Owners and Entrepreneurial Behaviour

In order to study the nature of relationship between the profile characteristics of commercial floriculture nursery owners and their entrepreneurial behaviour, correlation co-efficient were computed and the values are presented in Table 3. From Table 3, it is evident that amongst independent variables of nursery owners, twelve variables viz., education, land holding, experience in nursery business, training undergone, annual turnover, marketing pattern, credit acquisition and utilization, mass media exposure, material possession, social participation, extension contact, level of aspiration had positive and significant relationship with entrepreneurial behaviour. Whereas, profile characteristics such as family size had a positive and non-significant relationship with the entrepreneurial behaviour of nursery owners and age had a negative and non-significant relationship with entrepreneurial behaviour of nursery owners.

3.1.1 Age Vs Entrepreneurial Behaviour

Results from Table 3 show that there was a negative and non-significant relationship between age and entrepreneurial behaviour of nursery owners. Usually nursery owners who are more diligent and enthusiastic will effectively run a nursery business irrespective of their age due

to their exposure to diversified entrepreneurial episodes. The nursery owners irrespective of age might have been motivated towards entrepreneurial behaviour because of high profits in nursery business. The above finding is in line with the findings of Gaikwad and Lalhriatpui [2], Shewale [3] and Swati et al. [4].

3.1.2 Education vs Entrepreneurial Behaviour

Table 3 also shows that there was a positive and significant relationship between education and entrepreneurial behaviour of nursery owners. Education broadens the vision of a nursery owner. Nursery owners with high educational qualification might be strong enough to take the right decision at the right time by utilizing their intellectual potential derived through their education and might be so careful in their actions due to high cognitive behaviour. On the other side, illiterate and low educated nursery owners might be lacking such rational thinking which in turn resulted in poor entrepreneurial behaviour. Hence, the above trend was noticed. The above finding is in line with the findings of Gaikwad and Lalhriatpui [2], Raghunath [5], Swati et al. [4], Thakare [6] and Wadekar [7].

3.1.3 Land Holding Vs Entrepreneurial Behaviour

From Table 3, it is inferred that there was a positive and significant relationship between land holding and entrepreneurial behaviour of nursery owners. Usually nursery owners with large land holding might have more opportunities and potentialities to try and adopt new types and different technological innovations in the nursery. As a result, it is quite possible that nursery owners with large land holding might have keen interest to know about new practices and be more receptive to such ideas, and thus leading to better innovativeness which in turn reflects on their entrepreneurial behaviour. Similar findings were reported by Raghunath [5], Thakare [6], and Wadekar [7].

Table 2. Selected profile characteristics of commercial floriculture nursery owners

S. No	Category	Respondents (n=120)	
		Frequency	Percentage
1	Age		
	Young age (upto 35 years)	24	20.00
	Middle age (36-58 years)	73	60.83
	Old age (above 58 years)	23	19.17
2	Education		
	Illiterate	10	08.33
	Can read and write only	12	10.00
	Primary school	17	14.17
	High school	56	46.67
	Intermediate	6	05.00
	Graduate	16	13.33
	Post Graduate	3	02.50
3	Land holding		
	Marginal (Up to 2.5 acres)	36	30.00
	Small (2.5 to 5 acres)	48	40.00
	Semi-medium (5 to 7.5 acres)	13	10.83
	Medium (7.5 to 10 acres)	5	04.17
	Large (>10 acres)	18	15.00
4	Experience in nursery business [Mean: 22.9, S.D:11.86]		
	Low experience	19	15.83
	Medium experience	81	67.50
	High experience	20	16.67
5	Training undergone		
	Training undergone	38	31.67
	Training not undergone	82	68.33
6.	Family size		
	Small (1 to 4 members)	7	05.83
	Medium (4 to 6 members)	77	64.17
	Large (6 to 9 members)	31	25.83
	Very large (> 9 members)	5	04.17
7	Annual turnover		

S. No	Category	Respondents (n=120)	
		Frequency	Percentage
	Low annual turnover (> 50 lakhs)	109	90.83
	Medium annual turnover (50lakhs-1 crore)	6	05.00
	High annual turnover (> 1 crore)	5	04.17
8	Marketing pattern		
	Local customers	120	100.00
	Local traders	120	100.00
	Other nurseries in Kadiyam	120	100.00
	Agents of other states	99	82.50
	Direct export to outside the state and country	6	05.00
9	Credit acquisition and utilization		
	Credit acquisition source		
	Fellow nursery owners/ relatives	22	18.33
	Commercial banks	87	72.50
	Non- borrowers	11	09.17
	Credit utilization		
	Nursery Business	103	85.83
	Other than nursery business	17	14.17
10	Mass media exposure [Mean: 14.01, S.D: 2.09]		
	Low mass media exposure	15	12.50
	Medium mass media exposure	97	80.83
	High mass media exposure	8	06.67
11	Material possession [Mean: 21.74,S.D: 3.64]		
	Low material possession	23	19.17
	Medium material possession	79	65.83
	High material possession	18	15.00
12	Social participation [Mean: 2.75,S.D: 1.04]		
	Low social participation	8	06.67
	Medium social participation	102	85.00
	High Social participation	10	08.33
13	Extension contact [Mean: 15.86,S.D: 3.87]		
	Low Extension contact	56	46.67
	Medium Extension contact	45	37.50
	High Extension contact	19	15.83

S. No	Category	Respondents (n=120)	
		Frequency	Percentage
14	Level of aspiration [Mean: 17.27,S.D: 2.31]		
	Low Level of aspiration	13	10.83
	Medium Level of aspiration	89	74.17
	High Level of aspiration	18	15.00

3.1.4 Experience in Nursery Business Vs Entrepreneurial Behaviour

Furthermore, results show that there was a positive and significant relationship between experience in nursery business and entrepreneurial behaviour of nursery owners. Experience was the hidden secret and cause for better entrepreneurial behaviour of an individual and usually a nursery owner with more experience might have better decision making ability and management of the nursery business with good management policies which in turn reflect on entrepreneurial behaviour. This finding is in agreement with results of Raghunath [5], Shewale [3] and Swati et al. [4].

3.1.5 Training Undergone Vs Entrepreneurial Behaviour

Moreover, there was a positive and significant relationship between training undergone and entrepreneurial behaviour of nursery owners. Training on different aspects of nursery business might have supported the nursery owners in getting hand holding support to run the business to build their achievement motivation. The training also might have exposed the nursery owners in production, marketing and finance related issues of business. Further the training also might have given the opportunity to interact with successful nursery owners, which in turn developed their entrepreneurial behaviour. The above finding is in line with the findings of Deepthi [8] and Raghunath [5].

3.1.6 Family Size Vs Entrepreneurial Behaviour

Also, there was a positive and non-significant relationship between family size and entrepreneurial behaviour of nursery owners. They might be a chance of a nursery owner playing an important role for taking a rational decision regarding adoption of innovation rather than his entire family. Further lack of coordination between the members of large family to undertake unified entrepreneurial adventure might have led to above trend of non-significant relationship between family size and entrepreneurial behaviour. The above finding is in line with the findings of Kaushal [9] and Wadekar [7].

3.1.7 Annual Turnover Vs Entrepreneurial Behaviour

In addition, there was a positive and significant relationship between annual turnover and

entrepreneurial behaviour of nursery owners. A strong credit support from the commercial banks might have inspired them to take the risk in business, as well as developing self-confidence among the nursery owners. The annual turnover through the nursery business also might have a great impact on entrepreneurial behaviour. On the other side, the nursery owners with low annual turnover might be compromising themselves with the existing position and not thinking towards the development of their business. Similar findings were reported by Neha [10], Raghunath [5], Swati et al. [4] and Wadekar [7].

3.1.8 Marketing Pattern Vs Entrepreneurial Behaviour

Table 3 shows that, there was a positive and significant relationship between marketing pattern and entrepreneurial behaviour of nursery owners. Exploring the opportunities is the key for the success of any entrepreneur. Being the entrepreneurs, the nursery owners might be thinking towards deriving high profits from their business. In that direction, they might be exploring best platforms for the sale of their plants. Some plants with different qualities sold at different platforms might be projecting exemplary returns. The nursery owners with highest entrepreneurial behaviour might be always exploring export opportunities of their plants or tapping the other states in India to realize better returns. On the other side, small size nursery owners might content themselves with the local sale of the plants and enjoy with the limited returns desired for their nursery.

3.1.9 Credit Acquisition and Utilization Vs Entrepreneurial Behaviour

Furthermore, results show that there was a positive and significant relationship between credit acquisition and utilization and entrepreneurial behaviour of nursery owners. Capital is the lifeblood of any business. Without any exception, every entrepreneur appeals the financial institutions towards credit so that they can realize their dreams of success. At the same time they also might be so precise in utilizing the credit acquired to run the business. The nursery owners might be so smart in acquisition and utilization of the credit with a lot of perseverance. On the other side poor credit acquisition and utilization can be attributed to their low level of entrepreneurial behaviour in terms of their poor decision making, achievement motivation, critical thinking etc.

3.1.10 Mass Media Exposure Vs Entrepreneurial Behaviour

Further, Table 3 show that there was a positive and significant relationship between mass media exposure and entrepreneurial behaviour of nursery owners. Mass media could be one of the best sources of locating the demand driven creative opportunities and innovations in the nursery business. The nursery owners might be so keen in recognizing their areas of development through different mass media. On the other side, poor mass media exposure might have lessened the vision of the nursery owners and always made them be timid without any growth. The above finding is in line with the findings of Gaikwad and Lalhriatpuii [2], Nagesh [11], Neha [10] and Thakare [6].

3.1.11 Material Possession Vs Entrepreneurial Behaviour

Table 3, in addition shows that there was a positive and significant relationship between material possession and entrepreneurial behaviour of nursery owners. Converting raw material into goods is the prime activity of the entrepreneurs to get lucrative profit. During this process, they have to explore the ways and means to transform the raw material into goods. In this context, they always search for innovative methods in their business transactions which involves up-to-date automation of the business. The nursery owners with high entrepreneurial behaviour might be so keen in bringing innovations in different machinery which are meeting the demands of the society. On the other side, the nursery owners with low entrepreneurial behaviour might be continuing with old and traditional equipment or material due to financial and psychological constraints. Similar findings were reported by Chaurasiya et al. [12] and Deepthi [8].

3.1.12 Social Participation Vs Entrepreneurial Behaviour

From Table 3, it is inferred that there was a positive and significant relationship between social participation and entrepreneurial behaviour of nursery owners. Greater social participation might have enriched the nursery owners with good leadership abilities and communication skills which will be the base for effective management of the nursery business. On the other side, the low social participation might have put them under isolation leading to poor social network which is essential for entrepreneurial

development. This could be the possible reason for the above trend. The aforementioned is in line with the findings of, Raghunath [5], Shewale [3] and Thakare [6].

3.1.13 Extension Contact Vs Entrepreneurial Behaviour

Moreover, Table 3 shows that there was a positive and significant relationship between extension contact and entrepreneurial behaviour of nursery owners. Obtaining multi-dimensional expert opinions in all the walks of entrepreneurial life will broaden the entrepreneurial culture. Nursery owners with high extension contact might be regularly approaching the extension personnel in different fields of their domain and might be regularly updating and conceptualizing the innovative ideas and execute them in their business. Hence, the above trend was noticed. This finding of the study was in agreement with the findings of Neha [10].

3.1.14 Level Of Aspiration Vs Entrepreneurial Behaviour

From Table 3, it is inferred that there was a positive and significant relationship between level of aspiration and entrepreneurial behaviour of nursery owners. This might be due to the fact that, higher the level of aspiration of the nursery owners, greater the scope of working towards setting of goals in nursery business and better the exploitation of existing opportunities to reach those goals resulting in enhanced entrepreneurial behaviour. The above finding is in line with the findings of Pandey and De [13] and Prasad [14].

3.2 Combined Effect of all Independent Variables on Entrepreneurial Behaviour of Commercial Floriculture Nursery Owners

To determine the combined effect of all the selected independent variables in explaining variation in entrepreneurial behaviour of commercial floriculture nursery owners, Multiple Linear Regression analysis was carried out. The computed co-efficient of determination (R^2) value and partial regression co-efficient (b) values with their corresponding t-values were presented in Table 4.

The R^2 - value of 0.699 depicted that all the fourteen independent variables put together explained about 69.90 per cent variation in the entrepreneurial behaviour of nursery owners. Remaining 30.10 per cent was due to extraneous

Table 3. Relationship between profile characteristics and entrepreneurial behavior of commercial floriculture nursery owners

S. No.	Profile characteristics	Correlation co-efficient “r” value
1	Age	-0.025 ^{NS}
2	Education	0.311 ^{**}
3	Land holding	0.641 ^{**}
4	Experience in nursery business	0.259 ^{**}
5	Training undergone	0.389 ^{**}
6	Family size	0.151 ^{NS}
7	Annual turnover	0.629 ^{**}
8	Marketing pattern	0.497 ^{**}
9	Credit acquisition and utilization	0.389 ^{**}
10	Mass media exposure	0.466 ^{**}
11	Material possession	0.654 ^{**}
12	Social participation	0.483 ^{**}
13	Extension contact	0.346 ^{**}
14	Level of aspiration	0.461 ^{**}

(NS = Non- Significant, ** = significant at 0.01 level)

Table 4. Multiple linear regression analysis of the independent variables with entrepreneurial behaviour of commercial floriculture nursery owners

S. No.	Profile characteristics	Partial regression co-efficients (b)	Standard error	t-Value
1	Age	-0.078	0.040	-1.928 ^{NS}
2	Education	0.598	0.291	2.055 [*]
3	Land holding	1.078	0.376	2.867 ^{**}
4	Experience in nursery business	0.041	0.038	1.066 ^{NS}
5	Training undergone	1.685	0.971	1.736 ^{NS}
6	Family size	0.11	0.560	0.020 ^{NS}
7	Annual turnover	3.051	1.056	2.890 ^{**}
8	Marketing pattern	0.815	0.966	0.845 ^{NS}
9	Credit acquisition and utilization	2.144	0.863	2.484 ^{**}
10	Mass media exposure	0.027	0.208	0.130 ^{NS}
11	Material possession	0.306	0.139	2.206 [*]
12	Social participation	0.109	0.411	0.264 ^{NS}
13	Extension contact	0.170	0.119	1.428 ^{NS}
14	Level of aspiration	0.159	0.179	0.892 ^{NS}

(R² = 0.699, NS = Non- Significant, * = significant at 0.05 level, ** = significant at 0.01) level

factor effect. Hence, it could be stated that the profile characteristics selected to a large extent explained the variation in entrepreneurial behaviour of nursery owners. The partial regression coefficients presented in Table 4 further reveal that the independent variables viz. annual turnover, credit acquisition and utilization, land holding, material possession and education positively and significantly contributed to the most of the variation in entrepreneurial behaviour of nursery owners.

4. CONCLUSIONS

The above findings from the study augment the need for encouraging the nursery owners to be more educated, to more socially participate and

have greater extension contact and also there is a need for conducting more number of skill-oriented training or developmental programmes envisioned for the nursery owners and linking them to financial institutes for getting loans and also improving their marketing pattern. Also as the present era is of public private partnership the state agriculture universities and government agencies should develop linkage with private nursery owners and provide them the technical support to produce of quality planting material. Hence finally, there is every need of the policy makers and planners to take up need-based efforts that help in improving those characteristics which contribute to the development of the entrepreneurial behaviour of nursery owners.

CONSENT

As per international standard or university standard, respondents' written consent has been collected and preserved by the authors.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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