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Association between profile characteristics of the nursery owners and their crisis management practices

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Abstract

This study, conducted across Daund, Haveli and Maval tehsils of Pune District (50 nursery owners per tehsil), examines how nursery owners' profiles—age, education, experience, landholding, nursery area, income, social participation, extension contact, economic and risk orientation, and achievement motivation—relate to their crisis management practices. Correlation analysis shows strong, significant positive relationships for landholding, nursery area, annual income, and moderate but significant associations with education, economic orientation, achievement motivation, age, and experience. Social participation, extension contact, and risk orientation showed non-significant correlations. The findings emphasize that larger scale and financial stability, alongside cognitive and attitudinal qualities, are key drivers of effective crisis management.

Keywords: Profile of the nursery owners, correlation, association, crisis management practices

Introduction

In our country, the nursery business is the most recent and efficient sector of the agricultural sector in terms of both production and performance. For aesthetic, practical, and financial reasons, the industry incorporates the manufacture, propagation, growth, and selling of plants. The need for decorative plant cultivation in our nation has expanded due to growing environmental consciousness and the evolving socio-economic structures particularly in the last several years and the lands used for the cultivation of decorative plants doubled between 2002 and 2021. The sector's producing areas are made up of small, highly separated plots of land, just like in agriculture generally. These days, nursery businesses that cultivate, produce, and sell ornamental plants must create high-quality goods and services sustainably in accordance with standards, as well as follow specific plans and programmes, in succession, in a sustainable way, and with high efficiency. Earthquakes, floods, and other natural disasters have caused significant harm to the nursery industry in a number of ways nowadays. In this regard, every nursery firm needs to have crisis management and natural catastrophe risk management in existence and how the profile characteristics of the nursery owners effect on the management of the nursery business.

Methodology

The study was conducted in Daund, Haveli and Maval tehsil of Pune district in Maharashtra is randomly selected for the

study as the locale is nationally and internationally known for commercial nursery business. six villages were selected from each tehsil 2 villages. There are total 150 respondents were selected randomly from those six villages. An appropriate interview schedule was prepared for the data collection and statistical tools were percentage, frequency and Karl' Pearson's co efficient of correlation was carried out.

Results and Discussion

Profile of the nursery owners

The profile of the nursery owners includes personal, socio-economic, communicational and psychological characteristics of the nursery owners. they are age, education, experience, land holding, Land under nursery growing, annual income, social participation, extension contact, economic orientation, risk orientation and achievement motivation.

1. Age

The age distribution of nursery owners revealed that the nearly half (48.70 per cent) belonged to the middle-aged group, followed by young owners (39.30 per cent) and older (12.00 per cent). This indicates that nursery ownership is predominantly concentrated among middle-aged individuals, likely due to their experience and financial stability, while younger entrepreneurs also show significant participation, suggesting a growing interest in the sector.

Table 1: Profile characteristics of nursery owners in Pune district

Sl. No.	Category	Respondents (n=150)	
		Frequency	Percentage
1	Age		
	Young age (Up to 35 years)	59	39.33
	Middle age (36 to 55 years)	73	48.67
	Old age (56 years & above)	18	12.00
2	Education		
	Illiterate	14	09.33
	Primary (up to 8 th std)	38	19.33
	Secondary (9 th to 10 th)	46	30.67
	Higher Secondary (11 th to 12 th)/ Diploma	29	25.34
	Graduation	17	11.33
	Post-graduation	6	04.00
3	Experience in Nursery Growing		
	Low (Up to 24 years)	104	69.33
	Medium (25 to 45 years)	41	27.33
	High (46 and above)	05	03.34
4	Land holding		
	Marginal (Up to 1.00 ha)	32	21.33
	Small (1.01 to 2.00 ha.)	41	27.33
	Semi-Medium (2.01 to 4.00 ha)	43	28.67
	Medium (4.01 to 10.00 ha)	27	18.00
	Large (10.01 and above)	07	04.67
5	Land under nursery growing		
	Marginal (Up to 1.00 ha)	48	32.00
	Small (1.01 to 2.00 ha.)	58	38.67
	Medium (2.01 to 10.00 ha)	39	26.00
	Large (10.01 and above)	05	03.33
6	Annual income		
	Low (Up to ₹1,68,66,667/-)	118	78.67
	Medium (₹1,68,66,668/- to 3,34,33,333/-)	27	18.00
	High (₹3,34,33,334/- and above)	05	03.33
7	Social Participation		
	Low (Up to 7)	36	24.00
	Medium (8 to 11)	71	47.33
	High (12 and above)	43	28.67
8	Extension Contact		
	Low (Up to 10)	50	33.33
	Medium (11 to 16)	61	40.67
	High (17 and above)	39	26.00
9	Economic Orientation		
	Low (Up to 12)	40	26.66
	Medium (13 to 19)	58	38.67
	High (20 and above)	52	34.67
10	Risk Orientation		
	Low (Up to 12)	24	16.00
	Medium (13 to 19)	85	56.67
	High (20 and above)	41	27.33
11	Achievement Motivation		
	Low (Up to 12)	34	22.67
	Medium (13 to 19)	106	70.67
	High (20 and above)	10	06.66
12	Crisis management practices followed by nursery owners		
1	Low (Up to 26)	34	22.67
2	Medium (27 to 40)	70	46.66
3	High (41 and above)	46	30.67

2. Education

Educational attainment among nursery owners varied, with 30.67 per cent having completed secondary education, followed by higher secondary accounts 25.34 per cent.

Approximately one-fifth (19.33 per cent) had only primary education, while 11.33 per cent were completed their graduation 9.33 per cent respondents were illiterate followed by postgraduates were 4.00 per cent.

3. Experience in Nursery Growing

Experience levels showed that 69.33 per cent nursery owners had low experience, followed by 27.33 per cent had medium experience, and only 3.34 per cent had high experience.

4. Land holding

Landholding analysis classified owners into marginal (21.33 per cent), small (27.33 per cent), semi-medium (28.67 per cent), medium (18.00 per cent), and large (4.67 per cent) Category. Semi-medium and small farmers dominated, highlighting the prevalence of moderate-scale operations, likely influenced by land fragmentation and population pressures.

5. Land under nursery growing

The area dedicated to nursery production mirrored landholding trends, with small-scale cultivation being most common (38.67 per cent), followed by marginal (32.00 per cent) and medium (26.00 per cent) holdings. Large-scale nurseries were rare (3.33 per cent), reinforcing the smallholder dominance in the sector.

6. Annual Income

Income distribution revealed 78.67 per cent of owners earned low incomes, followed by 18 per cent were medium level income while only 3.33 per cent fell into the high-income level.

7. Social Participation

Social participation levels were moderate for most owners (47.33 per cent), with 28.67 per cent exhibiting high participation and 24.00 per cent showing low participation. This reflects a generally socially active community, though a quarter remain less engaged, possibly due to resource constraints or disinterest in collective activities.

8. Extension Contact

Extension contact was medium for 40.67 per cent of nursery owners, while 33.33 per cent had low extension contact and 26.00 per cent had high contact.

9. Economic Orientation

It was revealed that 38.67 per cent of nursery owners showing medium orientation, 34.67 per cent high orientation, and 26.66 per cent low orientation. The presence of both profit-driven and conservative owners suggests diverse business strategies within the sector.

10. Risk Orientation

Risk tolerance was medium for 56.67 per cent of owners, high for 27.33 per cent, and low for 16.00 per cent. This tripartite distribution indicates that while most adopt cautious innovation, a significant minority are either highly entrepreneurial or resistant to change, influencing their adaptability to market and climatic uncertainties.

11. Achievement Motivation

It was revealed that 70.67 per cent respondents were medium level of achievement motivation, with only 6.66 per cent exhibiting high achievement motivation and 22.67 per cent were low achievement motivation.

12. Crisis management practices followed by the nursery owners in Pune district

The study evaluated crisis management practices followed by nursery owners, categorizing them into low, medium and high levels. Results showed that 46.66 per cent of nursery owners demonstrated medium-level crisis management, while 30.67 per cent exhibited high level, indicating effective risk mitigation strategies. However, 22.67 per cent fell into the low-level category respectively.

Correlation between profile of the nursery owners and crisis management practices followed by them.

This study examines the relationship between the profiles of nursery owners and their crisis management practices. The selected profile characteristics include age, education, experience in nursery growing, landholding area under nursery growing, annual income, social participation, extension contact, economic orientation, risk orientation, and achievement motivation. The analysis aims to understand how these factors influence the crisis management strategies adopted by nursery owners.

Table 2: Correlation between profile of the nursery owners and crisis management practices followed by them.

Sl. No.	Independent variable	Correlation Coefficient (r)
1	Age	0.169**
2	Education	0.266**
3	Experience in nursery growing	0.164*
4	Landholding	0.673**
5	Area under nursery growing	0.723**
6	Annual income	0.712**
7	Social participation	0.114 ^{NS}
8	Extension contact	-0.125 ^{NS}
9	Economic orientation	0.233**
10	Risk orientation	-0.063 ^{NS}
11	Achievement motivation	0.193*

Correlation is significant at the 0.01 level

*Correlation is significant at the 0.05** level

NS = non-significant

1. Age Vs and Crisis management practices followed by nursery owners

r value was 0.169**, A weak but statistically significant positive correlation exists between the age of nursery owners and their crisis management practices. This suggests that older owners, possibly due to accumulated experience, tend to adopt slightly better crisis management strategies compared to younger ones.

2. Education Vs Crisis management practices followed by nursery owners

Education exhibits a moderately significant positive (r=0.266**) relationship with crisis management. Higher educational attainment likely enhances owners' problem-solving abilities, awareness of best practices, and adaptability in crisis situations.

3. Experience in Nursery Growing Vs Crisis management practices followed by nursery owners

Here r value was 0.164*, A low yet significant positive correlation indicates that owners with more years of experience in nursery management are marginally better at handling crises, possibly due to exposure to past challenges.

4. Landholding Vs Crisis management practices followed by nursery owners

r value was 0.673**, A strong positive correlation suggests that nursery owners with larger landholdings are significantly more effective in crisis management. Greater land resources may provide financial stability and flexibility in adopting mitigation measures.

5. Area Under Nursery Growing Vs crisis management practices followed by nursery owners

The strongest correlation (r = 0.723**) in the study indicates that a larger operational area under nursery cultivation is closely linked to better crisis management. This may be attributed to economies of scale, access to advanced technologies, and diversified risk management strategies.

6. Annual Income Vs crisis management practices followed by nursery owners

A very high positive correlation (r = 0.712**) implies that higher-income nursery owners are more likely to implement effective crisis management practices. Financial stability likely enables investment in resilient infrastructure, insurance, and contingency planning.

7. Social Participation Vs crisis management practices followed by nursery owners

Here r value is positive (r = 0.114^{NS}) but showing non-significant correlation suggests that even though they are may be not showing much interest spending time for social participation because of their busy schedule.

8. Extension Contact Vs crisis management practices followed by nursery owners

The non-significant negative correlation (r = -0.125^{NS}) indicates that frequent interaction with agricultural extension services does not significantly enhance crisis management, possibly due they may be failed to manage due to their carelessness.

9. Economic Orientation Vs crisis management practices followed by nursery owners

A moderately positive correlation (r = 0.233**) highlights that owners with a stronger profit-driven mindset are more proactive in crisis management, likely due to higher risk awareness and business-oriented decision-making.

10. Risk Orientation Vs crisis management practices followed by nursery owners

The negative correlation (r = -0.063^{NS}) relationship suggests that risk orientation and crisis management are non-significant to each other. This is may be due to because of their financial condition they may not be ready to take risk.

11. Achievement Motivation Vs crisis management practices followed by nursery owners

A weak but significant positive correlation ($r = 0.193^*$) indicates that owners with higher achievement motivation are slightly better at crisis management, possibly due to their goal-driven and proactive approach.

Conclusion

The study highlights that the profiles of nursery owners play a crucial role in shaping their business operations. Most owners are middle-aged, with secondary education level and low experience. Landholding and income levels are predominantly small-scale and low annual incomes. Psychological factors like economic orientation, risk orientation and achievement motivation showing medium level. These independent variables collectively influence how nursery owners manage challenges and adopt crisis mitigation strategies.

The correlation analysis between the nursery owners' profile and the crisis management practices they follow reveals several important relationships. Key factors such as area under nursery growing, annual income, and landholding show a strong and significant positive correlation. Similarly, variables like education, economic orientation, achievement motivation, age, and experience in nursery growing also show a positive and statistically significant relationship, though to a lesser extent. This suggests that higher education levels, financial awareness, motivation, and experience all contribute to improved crisis management. On the other hand, variables such as social participation, extension contact, and risk orientation they did not have significant association with crisis management practices followed by the nursery owners. The ability to handle crisis appears linked to factors like financial stability, experience, and education, reinforcing the importance of capacity-building initiatives for better resilience in the sector.

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