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Association between Socio Personal, Psychological and Communicational Attributes of NHM Flower Grower Beneficiaries and their Adoption Behaviour

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Authors' contributions

This work was carried out in collaboration between both authors. Both authors read and approved the final manuscript.

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ABSTRACT

India has an ancient heritage of floriculture, still, 98.5% of flowers are grown under open cultivation and hardly 1.5% of flowers are grown in a greenhouse. Commercial floriculture is now recognized as an important sector with the potential for generating employment and earning valuable foreign exchange. There has been tremendous growth in the demand and consumption of floriculture products in the last two decades. The research study was conducted in the Ujjain district of Madhya Pradesh in the year 2016-2017. Ujjain district is one of the important flower-growing districts and

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hence, it is considered under National Horticultural Mission (NHM) program by taking 120 flower growers. Out of the total of 25 villages, 4 villages were selected by random sampling method and data was collected by using an interview schedule. The adoption behavior of respondents, in the present study, refers to the extent of improved flower production technology and practices adopted by the respondents under the NHM program on their farm as per the recommendations. For measuring the level of adoption behaviour, an adoption index was developed which consisted of 14 practices. The Education level, annual income, source of irrigation, farm mechanization, marketing behavior, information-seeking behavior, mass media communication, risk-taking ability, and knowledge level of the flower growers were found to be positively and significantly associated with their adoption behavior of improved flower production technologies. Hence it is concluded that there is a need to promote flower cultivation for better livelihood of the flower growers.

Keywords: Adoption; flower cultivation; marketing behavior; communication.

1. INTRODUCTION

In India floriculture has a long tradition. The commercial activity of production and marketing of floriculture products is also a source of gainful and quality employment for scores of people. Farmer involved in floriculture get very high entrepreneurial opportunities but, so far has found that rose and marigold are the main cash crops that involve farmers in great numbers. The present study was held in M.P. in Ujjain rural areas where the women are engaged in the harvesting of Roses and Marigolds. Harvesting rose is a very drudgery-prone activity for rural women because rose thorns make them bleed from their hands and overall body and their dress get torn. During the harvesting of Marigold, women feel pain in their backbone, thighs, legs; neck, etc. because bending during harvesting causes pain. These are major drudgeries of harvesting the rose and marigolds for these rural women. It is also important to take attention to farming practices including floriculture change continually. Farmers build on their own experience and that of their locality to refine the way they manage their crops. Changes in natural conditions, resource availability, and market development also present challenges and opportunities to which farmers respond. In addition, farmers learn about new technologies from various organizations, programs, and projects dedicated to research, extension, or rural development.

NHM is more responsive to the development of horticulture particularly floriculture. NHM organizes programs to develop and promote new varieties, inputs, and management practices for the promotion of floriculture. It is essential that such programs be able to follow the results of their efforts and understand how the technologies they promote fit into the complex pattern of farming change in which all farmers participate.

This study was executed to investigate the adoption behaviour of flower growers regarding improved packages of practices and their association with the personal, psychological, and social-economical characteristics of flower growers. This study was advantageous for the economic development of Indian agriculture [1-6].

2. MATERIALS AND METHODS

This study was conducted in the Ujjain district of Madhya Pradesh by using an ex-post facto research design during 2016-17. Ujjain district is one of the important flower-growing districts and hence, is considered under National Horticultural Mission (NHM) program. Multi-stage sampling technique has been adopted for the selection of the sample for the study. There was a total of 4 development blocks in the Ujjain district. All 4 development blocks of the district come under the NHM for floriculture production out of which one block (Ujjain) had been selected randomly. A list of flower-growing villages in the Ujjain block was prepared with the help of “The Deputy Director of Horticulture”. From this list, 4 villages were selected randomly. The names of the villages are Undasa, Madhaopura, Narvar, and Chandesara. A village-wise list of flower growers under NHM growing rose and marigold was prepared. From the total flower growers of 4 selected villages 120 flower growers were selected randomly. To measure the level of adoption behaviour, an adoption index was developed which consisted of 14 practices. The level of adoption was considered always, partially, and sometimes. The weightage of 3, 2, and 1 is accordingly assigned. The total score obtained by the flower growers from all 14

Table 1. Association between attributes of beneficiaries and their adoption behavior

S. No.	Variable	χ^2 value	Association with adoption	Degree of freedom	Level of probability
1.	Age	8.3	Non significant	4 d.f.	0.05
2.	Education	13.4322	Significant	4 d.f.	0.05
3.	Caste	8.4	Non significant	4 d.f.	0.05
4.	Annual income	19.9222	Significant	4 d.f.	0.05
5.	Farm size	7.6	Non significant	4 d.f.	0.05
6.	Source of irrigation	18.8521	Significant	4 d.f.	0.05
7.	Farm mechanization	16.272	Significant	4 d.f.	0.05
8.	Marketing behavior	12.7101	Significant	4 d.f.	0.05
9.	Vase life	8.0	Non significant	4 d.f.	0.05
10.	Information seeking behavior	13.7572	Significant	4 d.f.	0.05
11.	Mass media communication	13.5043	Significant	4 d.f.	0.05
12.	Risk taking ability	11.3267	Significant	4 d.f.	0.05
13.	Knowledge level	10.4	Significant	4 d.f.	0.05

d. f. = Degree of freedom

practices was the adoption score of individual flower growers [7-12].

Adoption index = Sum of the adoption score obtained by respondent / Sum of obtainable adoption score ×100

3. RESULTS AND DISCUSSION

To study the relationship as influencing factors as socio-personal, psychological, and communication attributes of flower growers on their adoption behaviour, the values of X2 were calculated for the individual independent variable about the dependent variable as follows.

3.1 Association between Age and Adoption Behavior

The calculated Chi-square value of 8.3 was found to be non-significant. This leads, to the age did not influence the level of adoption behavior of rose and marigold cultivation practices.

3.2 Association between Education and Adoption Behavior

The calculated Chi-square value 13.4322* at 0.05 percent level with 4 degrees of freedom was found to be significant. Hence, it may be concluded that education influenced the level of adoption. Hence, the conclusion can be drawn that there was a significant association between the education level of the respondents and their adoption behavior of rose and marigold cultivation practices.

3.3 Association between Social Category and Adoption Behavior

The calculated Chi-square value of 8.4 N.S. was found to be non-significant. This leads to the acceptance of null hypothesis No: 3. Hence, it may be concluded that the social category did not influence the level of adoption behavior of rose and marigold cultivation practices.

3.4 Association between Annual Incomes and Adoption Behavior

The calculated Chi-square value 19.9222 at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of null hypothesis No: 4 Hence, it may be concluded that annual income influenced the level of adoption. Hence, the conclusion can be drawn that there was a significant association between the annual income of the flower growers and their adoption behavior of rose and marigold cultivation practices.

3.5 Association between Source of Irrigation and Adoption Behavior

The calculated Chi-square value 18.8521* at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of the null hypothesis by accepting H1. Hence, it may be concluded that the source of irrigation influenced level of adoption

3.6 Association between Farm Mechanization and Adoption Behavior

The calculated Chi-square value 16.272* at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of the null hypothesis and the alternate hypothesis is accepted. Hence, it may be concluded that farm mechanization influenced the level of adoption.

3.7 Association between Marketing Behavior and Adoption Behavior

The calculated Chi-square value 12.7101* at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of the null hypothesis as H1 is accepted. Hence, it may be concluded that marketing behavior influenced the level of adoption.

3.8 Association between Vase Life and Adoption Behavior

The calculated Chi-square value 8.0 N.S. was found to be non-significant. This leads to the acceptance of the null hypothesis by rejecting the alternate hypothesis. Hence, it may be concluded that vase life did not influence the level of adoption.

3.9 Association between Information Seeking Behavior and Adoption Behavior

The calculated Chi-square value 13.7572* at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of the null hypothesis by accepting the alternate hypothesis. Hence, it may be concluded that information-seeking behaviour influenced the level of adoption.

3.10 Association between Mass Media Communication and Adoption Behavior

The calculated Chi-square value 13.5043* at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection

of the null hypothesis by accepting H1. Hence, it may be concluded that mass media communication influenced the level of adoption of flower growers.

3.11 Association between Risk Taking Ability and Adoption Behavior

The calculated Chi-square value 11.3267* at 0.05 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of the null hypothesis as H1 is accepted. Hence, it may be concluded that risk-taking ability influenced the level of adoption of flower growers.

3.12 Association between Knowledge Level and Adoption Behavior

The calculated Chi-square value 10.4* at a 5 percent level with 4 degrees of freedom was found to be significant. This leads to the rejection of the null hypothesis by accepting the alternate hypothesis. Hence, it may be concluded that knowledge level influenced the level of adoption.

4. CONCLUSION

It may be concluded from the above results that caste, social category, marketing behaviour, and information-seeking behaviour did not influence the level of adoption behavior of rose and marigold cultivation practices whereas there was a significant association between education level, annual income, source of income, mass media communication, risk-taking abilities and knowledge level of the growers and their adoption behaviour of rose and marigold cultivation practices.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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