

## Original Research Article

### **Association between socio personal, psychological and communicational attributes of NHM flower grower beneficiaries and their adoption behaviour**

#### **Abstract**

India has an ancient heritage of floriculture, Still 98.5% of flowers are grown under open cultivation and hardly 1.5% flowers are grown under greenhouse. The 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 Ujjain district of Madhya Pradesh in the year 2016-2017. Ujjain district is one of the important flower growing districts and hence, it is considered under National Horticultural Mission (NHM) programme by taking 120 flower growers. Out of total 25 villages, 4 villages were selected as random sampling methodology and data was collected taken by conducting using interview schedule. Adoption behavior of flower growers, in present study, refers to the extent of improved flower production technology and practices adopted by the flower growers under NHM programme on their farm as per the recommendations. To measure the level of adoption behaviour, 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, knowledge level of the flower growers were found to be positively and significantly associated with their adoption behavior of improved flower production technologies. Hence the study is suggested it is concluded that there is a need to promote the flower cultivation for better livelihood of the flower growers.

**Keywords** -NHM, Adoption, Floricultural products, Flower cultivation, Marketing behaviour, Communication.

#### **Introduction**

India has a long tradition of floriculture. The commercial activity of production and marketing of floriculture products is also a source of gainful and quality employment to scores of people. Farmer involved into floriculture get very high entrepreneurial opportunities but, so far has found that rose and marigold are the main cash crops that involves farmers at great number .The present study will be taken in M.P. in Ujjain rural areas where the women are engaged in harvesting of Roses and Marigolds. These two flowers- Rose and Marigold are very much in demand in M.P. Harvesting of these is a very drudgery prone activity for the rural women because Rose thorns make them bleed from their hands and over all body and their dress get torn. At the time of harvesting of Marigold, women feel pain in their backbone, thighs, and legs, neck etc. because bending during harvesting causes pain. These are major drudgeries of harvesting the Rose and Marigold for these rural women. It is also important to take attention regarding 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. In this respect NHM is more responsive for development of horticulture particularly floriculture. Under NHM

programme efforts was made to develop and promote new varieties, inputs and management practices for promotion of floriculture also. It is essential that such programme 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. Looking at the importance of flower production in Ujjain district, the personnel of NHM programme provided various extension programmes and facilities for its development. The programme has completed many years; hence, it was felt appropriate to know the adoption behavior of flower growers under NHM.

With this in the mind this study was carried out to investigate the adoption behaviour of flower growers regarding improved packages of practices and their association between personal, psychological and social economic characteristics of flower grower. This study was very much beneficial for the economic development of the Indian agriculture.

### **Material and Methods**

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

$$\text{Adoption index} = \frac{\text{Sum of the adoption scores obtained by respondent}}{\text{Sum of obtainable adoption score}} \times 100$$

### **Result & discussion**

In order to study the relationship as influencing factors as socio personal, psychological and communication attributes of flower growers on their adoption behaviour, the values of  $X^2$  were calculated for individual independent variable in relation to dependent variable as follows.

**Table: 1 Association between attributes of beneficiaries and their adoption behaviour.**

S.No.	Variable	$\chi^2$ 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*

#### **Association between Age and Adoption behaviour**

The calculated Chi-square value 8.3 N.S. was found to be non-significant. This leads to the acceptance of null hypothesis No: 1. Hence, it may be concluded that age had no influence on level of adoption behavior of rose and marigold cultivation practices.

#### **Association between Education and Adoption behaviour**

The calculated Chi-square value 13.4322\* at 0.05 per cent level with 4 degree of freedom was found to be significant. This leads to the rejection of null hypothesis as **H1 is accepted**. Hence, it may be concluded that education had influence on level of adoption. Hence, the conclusion can be drawn that there was significant association between education level of the growers and their adoption behavior of rose and marigold cultivation practices.

#### **Association between Caste/social category and Adoption behaviour**

The calculated Chi-square value 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 **caste/social category** had no influence on level of adoption behavior of rose and marigold cultivation practices.

#### **Association between Annual incomes and Adoption behaviour**

The calculated Chi-square value 19.9222 at 0.05 per cent level with 4 degree 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 had influence on level of adoption. Hence, the conclusion can be drawn that there was significant association between annual income of the flower growers and their adoption behavior of rose and marigold cultivation practices.

**Association between Source of irrigation and adoption behaviour:**

The calculated Chi-square value 18.8521\* at 0.05 per cent level with 4 degree of freedom was found to be significant. This leads to the rejection of null hypothesis by accepting H1. Hence, it may be concluded that source of irrigation had influence on level of adoption

**Association between Farm mechanization and adoption behaviour:** The calculated Chi-square value 16.272\* at 0.05 per cent level with 4 degree of freedom was found to be significant. This leads to the rejection of null hypothesis and alternate hypothesis is accepted. Hence, it may be concluded that farm mechanization had influence on level of adoption.

**Association between Marketing behavior and adoption behaviour:** The calculated Chi-square value 12.7101\* at 0.05 per cent level with 4 degree of freedom was found to be significant. This leads to the rejection of null hypothesis as H1 is accepted. Hence, it may be concluded that marketing behavior had influence on level of adoption.

**Association between Vase life and adoption behaviour:** The calculated Chi-square value 8.0 N.S. was found to be non-significant. This leads to the acceptance of null hypothesis by rejecting alternate hypothesis. Hence, it may be concluded that vase life had no influence on level of adoption.

**Association between Information seeking behavior and adoption behaviour:**

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

**Association between Mass media communication and adoption behaviour:**

The calculated Chi-square value 13.5043\* at 0.05 per cent level with 4 degree of freedom was found to be significant. This leads to the rejection of null hypothesis by accepting H1. Hence, it may be concluded that mass media communication had influence on level of adoption of flower growers.

**Association between Risk taking ability and adoption behaviour:**

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

**Association between Knowledge level and adoption behaviour:**

The calculated Chi-square value 10.4\* at 5 per cent level with 4 degree of freedom was found to be significant. This leads to the rejection of null hypothesis by accepting alternate hypothesis. Hence, it may be concluded that knowledge level had influence on level of adoption.

**Conclusion:final conclusion must be added here**

**References:**

B.K.Singh. et. al.(2010).Adoption of commercial cut flower production technology in Meerut.Indian Res.J.Ext.10(1)50.

NimishaSuryavanshi.et.al.(2014). Rose and marigold flower harvester and their income.IOSRJ.ofagri.and veterinary science.vol.7(5).

RizwanManzoor(2013).et.al.Economic of fowericulture in Pakistan:a case study of Lahore market.Pakistan economic and social review.vol.119(2)pp-87-102.

Dr.B.Mathvianan(2013).A study on rose marketing pattern in Hosurtaluk.J.of excusive management science.vol.2(2275-5684).

ManjhiPooja (2014). A Study on Adoption Behavior of Flower Growers and their Level of Economic Inspiration under NHM in Indore District (M.P). M.Sc.(Agri) Thesis submitted to RVKSS University of Agricultural, Gwalior.

NimishaSuryavanshiRaziaParvez (2014).Production of rose and marigold flower in Allahabad city. Research J. and forestry science.Vol.2(9),1-3.

Bhushan,Bharat; Malik,J.S.; Narwal,R.S. and Sharma, Rakesh (2010). Factors responsible for the adoption of Scientific Technological Practices (STPs). Indian J. Agric. Res. 44(4):306–310.

Jarve, Chandan (2011). An analytical study on impact of NHM among the beneficiaries in Khargone district (M.P.). M.Sc. (Ag.) Thesis submitted to RajmataVijayarajeScindiaKrishiVishwaVidyalaya, Gwalior (M.P.).

Karthikeyan,C. and Chandrakandan,K. (2000). Enumerate the socioeconomic characteristics of 108 potential growers identified from intensive floriculture areas suited for production of cut flowers. Madras Agricultural Journal. 87(7&9):500-503.s

Kumar,K. (2001). Entrepreneurial behaviour of floriculture farmers in Ranga Reddy district of Andhra Pradesh. M.Sc. (Agri.) Thesis, Acharya N. G. Ranga Agricultural University, Hyderabad.

Mamathalakshmi,N. and Nagabhushanam,K. (2011). Adoption behaviour of flower growers. Mysore Journal of Agricultural Sciences. 45(2):403-406.

Mankar,D.M.; Nirban,A.J. and Jangam,P.V. (1996). Knowledge level of villagers about medicinal plants. Maharashtra J. Extn.Edu. 14(1)167-168.

UNDER PEER REVIEW