

## ASSOCIATION BETWEEN PERSONAL PROFILE AND EXTENT OF ADOPTION REGARDING PADDY PRODUCTION TECHNOLOGY

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### ABSTRACT

*Rice, wheat, and maize are the three leading food crops in the world; together they directly supply more than 50% of all calories consumed by the entire human population. Rice provides 21% of global human per capita energy and 15% of per capita protein. Although rice protein ranks high in nutritional quality among cereals, protein content is modest. Rice also provides minerals, vitamins, and fiber, although all constituents except carbohydrates are reduced by milling. An ex-post facto research design was used in present investigation. The study was confined to all five talukas of Navsari district. The five villages from each taluka having highest area under Gurjari variety were identified. From each village 10 samples were randomly drawn. In this way, 50 respondents were selected from five talukas and thus, the sample size for the study comprised of 250 respondents. Fifteen independent and two dependent variables were taken for the study. The knowledge measured with the help of structured schedule and adoption scale was developed. The collected data were analyzed by using appropriate method of analysis viz., percentage, mean, rank, t value, standard deviation and correlation coefficient.*

**Keywords :** rice, independent, adoption.

### INTRODUCTION

Paddy is the major staple food for the people of Asian countries and two third of worlds. It is grown in 152 million hectares in the world and produces 586 million tons. The major growing countries are China, India, Indonesia, Bangladesh, Thailand, Japan, Pakistan, Burma and Brazil. (Anon. 2012-13). India stands first in area and second in production and consumption of rice next to China. The farmers of South Gujarat are growing drilled as well as transplanted paddy which covers 45 per cent area of Gujarat. The productivity of drilled paddy is about 1.2 tons / hectare and transplanted is about 2.2 to 2.5 tons / hectare. Navsari district has been considered as rice bowl of South Gujarat. It is cultivated in 42.5 thousand hectares and total production is 102.6 tones with 2410 kg / ha productivity (Anon., 2013). The challenges faced by countries as regard to paddy production is differs from one country to other in terms of population, their preference attached to the commodity as well as diet of household menu, natural endowment to increase production and the productivity. Considering all these, the annual production needs to be increased from 586 to 756 million metric tons by 2030.

### OBJECTIVE

To know the association between personal profile and extent of adoption regarding paddy production technology

### METHODOLOGY

For the present investigation, an ex-post facto research design was used. The study was confined to all five talukas of Navsari district. The five villages from each taluka having highest area under Gurjari variety were identified. The lists of paddy growers were obtained from each *talati-cum-mantri* and out of them the growers who were growing Gurjari variety since last five years were separated. A simple random sampling method was used to select the respondents for the present study. Form each village 10 sample was randomly drawn. In this way, 50 respondents were selected from five villages of one taluka. Thus, the sample size for the study comprised of 250 respondents. Fifteen independent and two dependent variables were taken for the study. The knowledge measured with the help of structured schedule and adoption scale was developed. The collected data were analyzed by using appropriate method of analysis viz., percentage, mean, rank, t value, standard deviation and correlation coefficient.

**RESULTS AND DISCUSSION**

The association between the personal profile of the Gurjari growers viz., age, education, occupation, innovativeness, risk orientation, scientific orientation, overall modernity, land holding, annual incomes, social participation, size of family, management orientation, economic motivation, farming experience, information input and processing behavior with **extent of adoption** were worked out by using coefficient of correlation. The findings are presented in Table 1

**Table 1: Association between personal profile and extent of adoption of Gurjari growers about paddy production technology n=250**

Sr. No.	Personal characteristics	'r' value
X <sub>1</sub>	Age	0.1618*
X <sub>2</sub>	Education	0.2146**
X <sub>3</sub>	Occupation	0.1748*
X <sub>4</sub>	Annual income	0.2030**
X <sub>5</sub>	Size of land holding	0.0348
X <sub>6</sub>	Social participation	0.0774
X <sub>7</sub>	Family size	0.1520*
X <sub>8</sub>	Economic motivation	0.0942
X <sub>9</sub>	Risk orientation	0.1493*
X <sub>10</sub>	Scientific orientation	0.0582
X <sub>11</sub>	Innovativeness	0.1642*
X <sub>12</sub>	Management orientation	0.0676
X <sub>13</sub>	Overall modernity	0.1652*
X <sub>14</sub>	Farming experience	0.2511**
X <sub>15</sub>	Information input and processing behavior	0.1626*

\* Significant at 0.05 level \*\* Significant at 0.01 level

**(1) Age and extent of adoption**

It is apparent from the data presented in the Table 1 that the calculated value of correlation coefficient (0.1618\*) was found positively significant at 0.05 level. It indicates that there was an association between age and extent of adoption of the Gurjari growers. The probable reason for this finding might be due to their middle age, length of farming experience and decision making ability.

**(2) Education and extent of adoption**

The data presented in table 1 shows that the calculated value of correlation coefficient (0.3295\*\*) was found positively and highly significant. It indicates that there was an association between education and extent of adoption of the Gurjari growers. Hence, null hypothesis (H<sub>0,2</sub>) was rejected. It might be due to the fact that the level of education on of farmers with inquisitive mind harvest the rich fruit of

research resulted in adoption of an innovation.

**(3) Occupation and extent of adoption**

Table 1 specify that the calculated value of correlation coefficient (0.1748\*) was found positively significant. It indicates that there was an association between occupation and extent of adoption of the Gurjari growers. This finding infers that the non availability of more alternative source of livelihood, their educational level, annual income and size of land holding compel them to agriculture and required adoption of paddy production technology.

**(4) Annual income and extent of adoption**

It is observed from the data presented in Table 1 that the calculated value of correlation coefficient (0.2030\*\*) was found positively and highly significant. It indicates that there was an association between annual income and extent of adoption of the Gurjari growers. This finding might be due to non availability of other alternative sources for livelihood, their educational level and size of land holding compel them to go for adoption of paddy production technology in study area.

**(5) Size of land holding and extent of adoption**

As reveal from data presented in table 1 that the calculated value of correlation coefficient (0.0348) was found non-significant. It indicates that there was no association between size of land holding and extent of adoption of the Gurjari growers.

**6 Social participation and extent of adoption**

On the basis of the data shown in table 1 specify that the calculated value of correlation coefficient (0.0774) was found non-significant. It indicates that there was no association between social participation and extent of adoption of the Gurjari growers.

**(7) Size of family and extent of adoption**

The data of in table 1 shows that the calculated value of correlation coefficient (0.1520\*) was found positively significant. It indicates that there was an association between size of family and extent of adoption of the Gurjari growers. This finding might be due to that the growers of study area were still following old age agrarian culture in cultivation of paddy crop.

### **(8) Economic motivation and extent of adoption**

The data depicted in table 1 specify that the calculated value of correlation coefficient (0.0942) was found non-significant. It indicates that there was no association between economic motivation and extent of adoption of the Gurjari growers.

### **(9) Risk orientation and extent of adoption**

From the table 1 it can be concluded that the value of correlation coefficient (0.1493\*) was found positively significant. It indicates that there was an association between risk orientation and extent of adoption of the Gurjari growers. This finding might be due to their young age and farming experience developed risk taking ability among the Gurjari growers.

### **(10) Scientific orientation and extent of adoption**

The data displayed in table 1 specify that the calculated value of correlation coefficient (0.0582) was found non-significant. It indicates that there was no association between scientific orientation and extent of adoption of the Gurjari growers.

### **(11) Innovativeness and extent of adoption**

The table 1 specify that the calculated value of correlation coefficient (0.1642\*) was found positively significant. It indicates that there was an association between innovativeness and extent of adoption of the Gurjari growers. This finding infers their unique nature of enterprise in which they engaged.

### **(12) Management orientation and extent of adoption**

The data shown in table 1 specify that the calculated value of correlation coefficient (0.0676) was found non-significant. It indicates that there was no association between management orientation and extent of adoption of the Gurjari growers.

### **(13) Overall modernity and extent of adoption**

A perusal of table 1 clears that the calculated value of correlation coefficient (0.1652\*) was found positively significant. It indicates that there was an association between overall modernity and extent of adoption of the Gurjari growers. This finding might be due to their family size and level of land holding of Gurjari growers.

### **(14) Farming Experience and extent of adoption**

It is clear from the table 1 that the calculated value of correlation coefficient (0.2511\*\*) was found positively and highly significant. It indicates that there was an association between farming experience and extent of adoption of the Gurjari growers. This might be due to their total land holding, hereditary occupation of Gurjari growers and non availability of other enterprise in nearby area.

### **(15) Information input processing behavior and extent of adoption**

The data presented in table 1 shows that the calculated value of correlation coefficient (0.1626\*) was found positively significant. It indicates that there was an association between information input and processing behavior and extent of adoption of the Gurjari growers. From the finding it can be concluded that information input processing behavior provide for de freezing of old behaviour and refreezing of new behaviour for application of innovations leading to their success resulted in contributing significant influence on adoption.

This finding is in conformity with the findings of Rahman (2002), Prakash *et al.* (2003), Bankar (2004), Mate (2005), Khalge *et al.* (2008), Bhosale (2010), Patil (2011), Chaudhari (2012), Vinaya *et al.*, (2013), Singh and Pandey (2013) and Gohil *et al.*, (2016).

## **CONCLUSION**

From the above discussion it can be concluded that age, occupation, family size, risk orientation, innovativeness, overall modernity and information input processing behavior of Gurjari growers found positive and significantly associated with their adoption of paddy production technology, whereas education, annual income, farming experience found positively and highly associated with their adoption of paddy production technology.

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