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Relationship of Profile Characteristics of Rice Farmers with their Constraints in Rice Production in Nellore District of Andhra Pradesh

Agriculture

KEYWORDS : Correlation, Profile Characteristics and Constraints in rice production

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ABSTRACT

This paper describes the Relationship of profile characteristics of Rice farmers with their constraints in rice production in Nellore District of Andhra Pradesh. The data was collected from a sample of 120 Rice farmers by following ex-post-facto research design. The Correlation analysis study between the profile characteristics and constrains faced by them revealed that the variables like education, training undergone, credit orientation, social participation, mass media exposure, extension contact and scientific orientation were having negative and significant relation with constraints faced by the rice farmers. Risk orientation had positive and significant relation with constraints faced, where as age, farming experience, farm size, economic motivation, management orientation and innovativeness had non significant relationship with constraints faced by the rice farmers.

INTRODUCTION

Rice has shaped the cultures, diets and economies of millions of people. Rice cultivation is one of the most important developments in history. Rice is the staple food of nearly 65 per cent of the total population in India. Rice is the Principal food crop cultivated throughout the state providing food for its growing population, fodder to the cattle and employment to the rural masses. Any decline in its hectarage and production will have a perceivable impact on the state's economy and food security. In Andhra Pradesh area under rice mostly depends on the monsoon pattern and availability of water in reservoirs. Area under rice was high during 2008-09 (43.87 l.ha) and lowest is in 2002-03 (28.22 l.ha). There is no scope for increasing area under rice and rice area is replaced by some profitable dry crops due to insufficient water. Statistics on area and production of rice clearly revealed the existence of wide fluctuations in both aspects of area and production based on the availability of water resources. In the context of food security, such wide fluctuations in area and production are not desirable to meet the future rice requirements of the increasing population. The possible reason for such variations was due to numerous constraints faced by the rice farmers. The study area, Nellore is famous for its paddy fields, thereby deriving its name from "Nell". Nell + Oru (Nel in Tamil indicates Paddy and ooru is town in both Telugu and Tamil. In view of the above scenario, the present study was conducted with the main objective of studying the profile characteristics of rice farmers.

MATERIAL AND METHODS

Ex-post facto research design was used in the present investigation. The study was conducted in Nellore district of Andhra Pradesh which occupies 8th place in cultivating rice in the state. Out of the 46 mandals in Nellore district, 4 rice growing mandals have been purposively selected and 2 rice growing villages were selected from each mandal at random, thus making a total of 8 villages for the study. Among the rice farmers 15 farmers from each village were selected thus making a total of 120 farmers for the study. An interview schedule was developed for the study and pretested in non sample area. The data was collected using standardized interview schedule by personal interview method. The data was organized, tabulated and classified using manifold, qualitative and quantitative classification and subjected to statistical tests. The statistical tools that were used for analyzing data include mean, standard deviation, correlation and multiple regression.

RESULTS AND DISCUSSION

Relationship of profile characteristics of farmers with their constraints in rice production were presented in Table-1

Age Vs Constraints faced by rice farmers

From Table-1 it is evident that computed coefficient of correlation value (r = -0.0738NS) was found negatively and non-significantly related with constraints faced by the rice farmers. Hence the null hypothesis was accepted and empirical hypothesis was rejected. Therefore it was seen that age was not a factor that decide the constraints in rice farming at the same time had no effect on constraints faced by the farmers. Farmers relatively of all categories may have come in contact with friends, neighbours, relatives, extension agencies or others to seek solutions to their farming problems. The interpersonal contacts among the farmers have greater chances to discuss their problems and they may get solutions for their problems. These findings are in agreement with results of Swami (2006) and Rahman (2007).

Education Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation (r= -0.7116**) between education and constraints faced by rice farmers was negatively and significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was negative and significant relationship between education and constraints faced by the rice farmers. This might be due to the reason that as the education enhances the knowledge level of the farmers and helps to acquire latest technical know how about rice farming . Education helps them to find out the cause and effect of the specific constraints and enable them to address the constraints efficiently. These findings are in agreement with results of Khan (2007), Vijay Kumar (2008) and Arathy Balaksrishnan (2011).

Farming experience Vs Constraints faced by the rice farmers

From Table-1 it was evident that coefficient of correlation (r= 0.0245NS) between farming experience and constraints faced by rice farmers was non significantly related. Hence the null hypothesis was accepted and the empirical hypothesis was rejected, and it was concluded that there was non significant relationship between farming experience and constraints faced by

rice farmers. The majority of the farmers involved in the rice farming were middle to old aged as the experience increases they will be more confident enough to experiment better technology. However young aged farmers entering in to the farming are more inclined towards the latest technical know how. This might be the reason for the non significant relationship between the variables. These findings are in agreement with results of Arathy Balaksrishnan (2011).

Farm size Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation (r= -0.0318NS) between farm size and constraints faced by rice farmers was found negatively and non-significantly related. Hence the null hypothesis was accepted and the empirical hypothesis was rejected, and it was concluded that there was negative and non significant relationship between farm size and constraints faced by rice farmers. Farmers with relatively all category farmers may have come in contact with friends, neighbours, relatives, extension agencies or others to seek solutions to their farming problems. Through these interpersonal contacts, farmers obtain greater chances to discuss their problems and gain knowledge of solutions already tried and tested by other farmers.

Training undergone Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation value(r= -0.2560**) between training undergone and constraints faced by rice farmers was negative and significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was negative and significant relationship between training undergone and constraints faced by the rice farmers. The possible reason for this might be that the farmers who have undergone more number of trainings related to specific subjects will have more knowledge and exposure related to that particular aspect. It was seen that big farmers those having more farm size and receiving better yield from rice farming had high levels of training undergone than marginal farmers. As it is difficult for the marginal farmers to meet a living only through rice farming, they are involving in other income earning activities which makes difficult for them to attend regular training sessions. These findings are in agreement with the results of Arathy Balaksrishnan (2011).

Table-1: Relationship of profile characteristics of farmers with their constraints in rice production (n=120)

S.No	Variable	Independent variables	Correlation coefficients ('r'value)
1.	X_1	Age	-0.0738 NS
2.	X_2	Education	-0.7116 **
3.	X_3	Farming experience	0.0245 NS
4.	X_4	Farm size	-0.0318NS
5.	X_5	Training undergone	-0.2560**
6.	X_6	Credit orientation	-0.5321 **
7.	X_7	Social participation	-0.1807*
8.	X_8	Mass media Exposure	-0.3273**
9.	X_9	Extension contact	-0.2643 **
10.	X_{10}	Economic motivation	0.0054 NS
11.	X_{11}	Scientific orientation	-0.5320**
12.	X_{12}	Management orientation	-0.0075NS
13.	X_{13}	Innovativeness	0.0834NS
14.	X_{14}	Risk orientation	0.1872*

* **:** Significant at 0.05 level of probability

** **:** Significant at 0.01 level of probability

NS**:** Non-significant

Credit orientation Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation value (r = -0.5321**) between credit orientation and constraints faced by the respondents was negative and significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was negative and significant relationship between credit orientation and constraints faced by rice farmers. The possible reason for this might be that as the farmer is more financially sound than he can handle any sort of crisis to overcome the constraints places where Department of Agriculture or concerned authorities are given credit support to farmers at the grass root level, constraints are comparatively less. These findings are in agreement with the results of Swami (2006) and Arathy Balaksrishnan (2011).

Social participation Vs Constraints faced by rice farmers

An overview of the Table-1 reveals that coefficient of correlation value (r= -0.1807*) between social participation and constraints faced by the respondents was negative and significantly related. Hence, the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was negative and significant relationship between social participation and constraints faced by rice farmers. The possible reason for this might be that increased social participation of farmers provides more chances of getting exposed to different sources and ideas related to agriculture and provides better opportunity to have interpersonal interactions which will help in easy adoption of technologies and also to tackle the constraints. These findings are in agreement with the results of Vijaya kumar (2008) and Arathy Balaksrishnan (2011).

Mass media exposure Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation value (r= -0.3273**) between mass media exposure and constraints faced by rice farmers was negatively and significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was negative and significant relationship between mass media exposure and constraints faced by rice farmers. The possible reason for this might be that generally mass media creates awareness. Mass media exposure will enable farmers to find out solutions for particular constraints. Farmers who had good levels of mass media exposure had less constraints.

Extension contact Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation value (r= -0.2643**) between extension contact and constraints faced by the respondents was negatively and significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was negative and significant relationship between extension contact and constraints faced by the rice farmers. Majority of the respondents were middle aged and medium farmers. They are generally neglected by extension services, but some of them may come in contact with, extension agencies by virtue of their own initiative. These farmers are directly or indirectly exposed to agricultural technology and able to more easily overcome barriers in adopting new technology in farming. This is the reason why increasing extension contact reduces the problems of medium and small scale farmers in addressing their specific constraints. These findings are in agreement with the results of Bhuyian (2002) and Arathy Balaksrishnan (2011).

Economic motivation Vs Constraints faced by rice farmers

From Table-1 it was evident that coefficient of correlation value (r= 0.0054) between economic motivation and constraints faced by rice farmers was non significantly related. Hence the null hypothesis was accepted and the empirical hypothesis was rejected, and it was concluded that there was non significant relationship between economic motivation and constraints faced by the rice farmers. It might be due to the reason that every farmer involved in the farming activity will expect higher yield and returns. It was seen that middle and old aged farmers who were having years of experience not considering farming as a way of earning money but as their way of sustenance. These

findings are in agreement with the findings of Khan (2007), Vijaya kumar (2008) and Arathy Balaksrishnan (2011).

Scientific orientation Vs Constraints faced by rice farmers
From Table-1 it was evident that coefficient of correlation value (r= -0.5320**) between scientific orientation and the constraints faced by the respondents was negatively and significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was a negative and significant relationship between the scientific orientation and constraints faced by rice farmers. Farmers having more scientific orientation will always search for new and advanced production technologies and have keen observation power to find out the cause effect relationship in any constraint situation. These findings are in agreement with the results of Khan (2007), and Arathy Balaksrishnan (2011).

Management orientation Vs Constraints faced by rice farmers
From Table-1 it was evident that coefficient of correlation value (r= -0.0075NS) between management orientation and the constraints faced by the respondents was negatively and non significantly related. Hence the null hypothesis was accepted and the empirical hypothesis was rejected, and it was concluded that there was negative and non significant relationship between management orientation and constraints faced by the rice farmers.

Innovativeness Vs Constraints faced by rice farmers
From Table-1 it was evident that coefficient of correlation value (r= 0.0834NS) between innovativeness and the constraints faced by the respondents was non significantly related. Hence the null hypothesis was accepted and the empirical hypothesis was rejected, and it was concluded that there was non significant relationship between innovativeness and constraints faced by rice farmers.

Risk orientation Vs Constraints faced by rice farmers
From Table-1 it was evident that coefficient of correlation value (r= 0.1872*) between risk orientation and constraints faced by rice farmers was significantly related. Hence the null hypothesis was rejected and the empirical hypothesis was accepted, and it was concluded that there was positive and significant relationship between risk orientation and constraints faced by rice farmers. Risk taking is the ability to take the right decision during the constraints. The farmers who are able to take calculated risks during constraints, will gain better results. At the same time it was seen that many farmers were taking risks due to peer pressure or demanding situations. These findings are in agreement with the findings of Thiyagarajan (2011) and Ashok (2012).

CONCLUSION
Correlation analysis revealed that the variables like education, training undergone, credit orientation, social participation, mass media exposure, extension contact and scientific orientation were having negative and significant relation with constraints faced by the rice farmers. Risk orientation had positive and significant relationship with constraints faced by the rice farmers, whereas age, farming experience, farm size, economic motivation, management orientation and innovativeness had non significant relationship with constraints faced by the rice farmers.

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