

Original Research Article

Personal, Socio-economic, Psychological and Communication Characteristics of the Paddy Growers

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ABSTRACT

The present study was conducted during 2014-15 in Tungabhadra project area of Raichur district in Karnataka state to assess the Personal, Socio-economic, Psychological and Communication Characteristics of the paddy growers regarding improved production technologies. One hundred and eighty paddy growers from Manvi and Sindhanurtalukas were interviewed using a pre-tested interview schedule. It was found that most of the paddy growers interviewed were of middle age, having large holdings and belonging to medium levels of socio-economic, psychological and communication characteristics. The study on socio-economic characteristics revealed that, that 35.56 per cent of the respondents belonged to high annual income level followed by medium (35.00%), and 29.44 per cent of them belonged to low annual income category. The study also focus on the psychological characteristics of paddy growers, the results reveals that, 43.89 per cent of the paddy growers had medium scientific orientation whereas, 31.67 and 24.44 per cent of them had high and low level of scientific orientation respectively. Scientific orientation is the orientation of farmer to adopt new technologies in a scientific way. However, in case of Innovative proneness revealed that, 39.44 per cent of the respondents had medium Innovative proneness whereas 36.67 and 23.89 per cent of respondents belonged to high and low innovative proneness category respectively. Innovativeness plays a greater role in the individuals' personality. The person with higher innovativeness can do things rapidly and more precisely than others. This also may be attributed to the fact that majority of the respondents had high schooling and pre university/diploma. Generally, higher the formal education level, more favorable will be the attitude towards innovations. In such conditions, respondents try to seek more information and try out new ideas and technologies within their budget and limits and also farmer who are prone to innovations will try to gather information regarding the new technology from various aspects, they wanted to learn new ways of farming, improved production technologies and adopt those technologies at faster rate with maximum accuracy.

Keywords

Socio-economic,
Psychological,
Communication,
Adoption,
Innovative
proneness, Paddy
Growers,
Improved
Production
Technologies

Introduction

Paddy (*Oryza sativa* L.) is one of the important cereal crops of the world and forms the staple food for more than 50 per cent of the global population. The United Nations General assembly, in a resolution

declared the year of 2004 as the "International Year of Rice", which had tremendous significance to food security. It was very eloquently upheld the need to heighten awareness about the role of rice in

alleviating poverty and malnutrition. In Asia, India has the largest area under the rice accounting for 28.5 per cent of the global rice area. The top three producers of rice are China (29% of world production), India (21% of world production) and Indonesia (8.3% of world production). World trade figures are very different, as only about 5-6 per cent of rice produced is traded internationally. The largest three exporting countries are Thailand (30% of world export), Vietnam (14% of world exports) and United States (9% of world exports), while the largest three importers are Philippines (6% of world imports), Indonesia (5% of world imports) and Bangladesh (4% of world imports) (Anon. 2013a). Rice is grown in our country under four major ecosystems *viz.*, irrigated (21.0 m ha), rainfed lowland (14 m ha), rainfed upland (6 m ha) and flood prone (3 m ha). More than half of rice area (55%) is rainfed and distribution wise 80 per cent of the rainfed rice areas are in eastern India, making its cultivation vulnerable to vagaries of monsoon (Anon., 2013). A large number of technologies have been generated in paddy cultivation but the farmers are not adopting to the full extent. Therefore, the gap between the recommendations of package of production by the scientist and actual use by the farmers still exists even in irrigated situations.

There is substantial technological gap in paddy cultivation in respect of use of seed rate, spacing, fertilizer, plant protection measures, organic manure etc by the farmers. It has been observed in the field that there are farmers who are aware of the improved production technologies and have adopted the same on their fields. It is also found that there are farmers who are lagging behind in the adoption of improved production technologies. Hence the present study is carried out with the following

specific objective: To assess the Personal, Socio-economic, Psychological and Communication Characteristics of the paddy growers regarding Improved Production technologies

Materials and Methods

The present study was conducted purposively in Raichur district which falls under Tungabhadra Project (TBP) area of Karnataka state during 2014-15. Out of the five taluks of the district, Sindhanur and Manvi taluks were selected for the study. A list of all the paddy growing villages in Manvi and Sindhanur talukas were prepared with the help of concerned Assistant Director of Agriculture (ADA) Department of Agriculture. From the selected taluks, six villages were selected in each taluk in consultation with the ADAs of Sindhanur and Manvi taluks taking into account the highest area under paddy cultivation. In each selected village, list of paddy cultivating farmers during 2013-2014 was prepared. From each selected village, five marginal farmers, five small farmers and five big farmers were randomly selected for the study. Thus the total sample constitutes 180 paddy farmers comprising of 60 marginal farmers, 60 small farmers and 60 big farmers from 12 villages of two taluks in Raichur district.

Results and Discussion

Personal, Socio-economic, Communication and Psychological characteristics of Paddy Growers towards Improved Production Technologies

Age

The data presented in Table 1 indicates that majority of the respondents (82.00%) belonged to middle age group. Whereas,

14.00 per cent each of them belonged to old age and four per cent of them belonged to young age. Usually, the farmers of middle aged are enthusiastic having more responsibility and are more efficient than the younger and older farmers. Further, respondents between 31 to 50 years of age group have more physical vigour and also more responsibility towards family than the young farmers. These reasons could be influenced the majority of the respondents to know and adopt the improved production technologies. The results are in line with the research findings reported by Arun (1993) and Nagadev & Venkataramaiah (2007).

Education

Education is one of the important factor that influence the knowledge of individuals. It is clear from the data presented in the Table 1 that nearly half of the paddy growers (58.33%) had middle school to high school education. The results also revealed that 33.33 per cent had up to primary education and 8.34 per cent of them had PUC and Graduation level of education. The importance of formal and higher education for one's development in present day's competitive world is realized by the parents. Many educational programmes are undertaken by the government to create awareness about the need of education in life and the parents are influenced by them to send their children to schools and colleges. And also presence of the good schools and colleges in their vicinity and availability of good transportation facility might have encouraged the youth to pursue education. Similar findings were reported by Patil (2005).

Farming experience

The data in Table 1 indicated that, 53.89 and 42.22 per cent of the respondents had

farming experience of more than 17 years and 9 to 16 years, respectively. On the other hand 3.89 per cent were having less than 8 years of farming experience. This may be due to fact that as the farming experience of paddy growers is more, their perception towards improved production technologies will be more favourable and also another reason that as the study area is potential area of paddy and most of the farmers were getting benefits from these crops and most of farmers have used various improved production technologies which are suitable for paddy cultivation. Since other farmers also may be convinced by the progressive farmers about the advantages of improved production technologies which are suitable for cultivating the paddy crop and this may be reason that farmers bearing more experience in improved production technologies used for cultivation of crops. The results are in line with the findings of Natikar (2001) and Binkadakatti (2008).

Annual income

Table 1 reveals that 35.56 per cent of the respondents belonged to high annual income level followed by medium (35.00%) and 29.44 per cent of them belonged to low annual income category. The possible reason may be that the large land holdings coupled with taking up two crops in a year. Both Kharif and Summer crops are taken up by the farmers and few farmers of the area are highly skillful and are engaged in seed production of paddy. All these factors might have favorably influenced the respondents to obtain better income. These results were in line with the results of Nayak (2007).

Land holding

It is observed from the Table 1 that 43.33 per cent of respondents belonged to big land holders category followed by 36.67 per cent

were marginal farmers and 20.00 per cent of them belonged to small farmers. The study area has more plain land and in such lands large holdings are common unlike in hilly and coastal zones. Sunil Kumar (2004) reported similar findings.

Livestock possession

With respect to livestock possessed by respondents, it was observed from the Table 1 that 40.00 per cent of the respondents had medium livestock possession whereas, 32.78 and 27.22 per cent of them had low and high level of livestock possession, respectively.

All the respondents were having bullock, Buffalo, cow and poultry respectively. Only less number of them was maintaining sheep/goat.

The reason for non or low possession of sheep and poultry birds may be due to the fact that they have problems in maintenance of sheep and poultry birds and they have only back yard poultry that too with local poultry breed. These results were in line with the results of Nagaraj (2012)

Material possession

The data in the Table 1 revealed that regard to material possession, 38.33 per cent of the respondents had low material possession, followed by 37.78 and 23.89 per cent of respondents' belonging to medium and high material possession, respectively.

With respect to material possessed by respondents, all the respondents possessed sprayer, pickaxe, kurpis, sickle and spade. tractor, cage wheel, MB plough, cultivator, puddler, power tiller and harrow. A least number of the respondents had possessed paddy transplanter and cono-weeder. The reason for non or low possession of

conoweeder and paddy transplanter may be attributed to the fact that special skill is required for operation and cost of equipment is high (> 4 lakh) and non-availability of equipment in local area. These results are in line with the results of Nagaraj (2012).

Productivity

It can be observed from the Table 1 that 73.33 per cent of the paddy growers had medium crop productivity, whereas, 23.89 and 2.78 per cent each of them had high and low level of crop productivity.

The use of improved production technologies like use of improved varieties, seed treatment and effective use of resources provided in the area to the farmers and provided much needed technical know-how, facilitated to timely supply of inputs, proper adoption of plant protection measures, fertilizer application, and soil and water conservation practices, effective use of resources provided in area etc., contributed to higher yields.

These results were in line with the results of Kanherikar (1985).

Adoption of improved production technologies

Overall adoption level of farmers

The results presented in Table 1 reveals that more than half of the respondents (50.56%) belonged to medium adoption category, while 29.44 and 20.00 per cent of respondents belonged to high and low adoption categories, respectively.

High level of knowledge (37.78%) on improved production technologies of paddy certainly influenced the adoption levels of the respondents.

Table.1 Personal, Socio-economic, Communication and Psychological characteristics of Paddy Growers towards Improved Production Technologies

(n=180)

Sl. No.	Characteristics	Category	Paddy growers		Mean	Standard deviation
			Number	Per cent		
I. Personal variables						
1	Age	Young	07	4.00	46.48	6.32
		Middle	148	82.00		
		Old	25	14.00		
2	Education	Up to primary	60	33.33	1.96	1.35
		Middle to High school	105	58.33		
		PUC & Graduate	15	8.34		
3	Farming experience	Up to 8 Years	7	3.89	35.59	8.56
		9 to 16 years	76	42.22		
		17 and above	97	53.89		
II. Socio-economic variables						
4	Annual income (Rs)	Low	53	29.44	62220.34	28942.58
		Medium	63	35.00		
		High	64	35.56		
5	Land holding	Marginal farmers	66	36.67	6.37	5.66
		Small farmers	36	20.00		
		Big farmers	78	43.33		
6	Livestock possession	Low	59	32.78	8.76	3.39
		Medium	72	40.00		
		High	49	27.22		
7	Material possession	Low	69	38.33	17.87	8.34
		Medium	68	37.78		
		High	43	23.89		
8	Productivity	Low	5	2.78	80.24	11.50
		Medium	132	73.33		
		High	43	23.89		
9	Adoption of improved production technologies	Low	36	20.00	40.25	2.06
		Medium	91	50.56		
		High	53	29.44		
III. Psychological variables						
10	Achievement motivation	Low	47	26.11	7.07	1.14
		Medium	72	40.00		
		High	61	33.89		
Contid...						
11	Risk orientation	Low	103	57.22	2.56	1.03
		Medium	35	19.44		
		High	42	23.33		

12	Innovative proneness	Low	43	23.89	17.83	3.52
		Medium	71	39.44		
		High	66	36.67		
13	Scientific orientation	Low	44	24.44	7.69	1.26
		Medium	79	43.89		
		High	57	31.67		
IV. Communication variables						
14	Mass media participation	Low	52	28.89	5.80	2.27
		Medium	92	51.11		
		High	36	20.00		
15	Cosmopolitaness	Low	28	15.56	14.81	2.19
		Medium	103	57.22		
		High	49	27.22		
16	Participation in Training	No training	85	47.22	0.77	0.87
		One day training	58	32.22		
		Two days training	34	18.89		
		More than two days training	3	1.67		
17	Extension contact	Low	51	28.33	13.71	2.60
		Medium	70	38.89		
		High	59	32.78		
18	Extension participation	Low	40	22.20	10.64	3.32
		Medium	90	50.00		
		High	50	27.80		

Knowledge level coupled with resource availability could be the reasons for medium level of adoption of improved production technologies. Majority of the respondents in the present study were educated, with high income and big land holdings. These must have contributed for higher adoption of improved production technologies as 29.44 per cent of them had high adoption level and 50.56 per cent had medium adoption level, together contributing for equal to eighty per cent. The findings of the study were in accordance with the findings of Raghavendra (2005) and Reddy (2006).

Achievement motivation

With regard to achievement motivation, Table 1 revealed that 40.00 per cent of the respondents had medium level of

achievement motivation, followed by 33.89 and 26.11 per cent of respondents belonged to high and low level achievement motivation categories, respectively. Achievement motivation is the value associated with an individual who drives him/her to excel or do well in an assignment he undertakes. Achievement motivation helps an individual to decide and complete the tasks in a certain direction which in turn helps in achieving the desired results. Improved production technologies by paddy growers in the study were found to have medium level of achievement motivation. This is reflected in their adoption of improved production technologies in paddy to achieve higher economic performance and obtain sustainable yield. Assured canal irrigation facility could also be one of the reason for farmers having medium level of

achievement motivation. The findings were in conformity with the results of the studies conducted by Nagesh (2005) and Maraddi (2006).

Risk orientation

With regard to risk orientation, more than half (57.22%) of the respondents had low risk orientation, followed by 23.33 and 19.44 per cent of respondents belonged to high and medium risk orientation categories, respectively (Table 1). The individuals will be very critical and cautious in understanding different aspects of technology. There is tendency in farmers to take risk based on their income level, land holding and other resources. Risk taking varies with personal and socio economic status of the individuals and also one fifth of the respondents were illiterate. These could have contributed for the findings of the present study similar result was reported by Vijaykumar (2001) and Chandramouli (2005).

Innovative proneness

The data in Table 1 reveals that 39.44 per cent of the paddy growers had medium level of innovative proneness, whereas, 36.67 per cent each of them had high and 23.89 per cent of them had low level of innovative proneness.

Innovativeness plays a greater role in the individuals' personality. The person with higher innovativeness can do things rapidly and more precisely than others. This also may be attributed to the fact that majority of the respondents had high schooling and pre university/diploma. Generally, higher the formal education level, more favorable will be the attitude towards innovations. In such conditions, respondents try to seek more information and try out new ideas and

technologies within their budget and limits and also farmer who are prone to innovations will try to gather information regarding the new technology from various aspects, they wanted to learn new ways of farming, improved production technologies and adopt those technologies at faster rate with maximum accuracy. Similar findings were reported by Lavanya (2010) and Raksha (2012).

Scientific orientation

The data in Table 1 reveals that 43.89 per cent of the paddy growers had medium level of scientific orientation whereas, 31.67 and 24.44 per cent of them had high and low level of scientific orientation, respectively. Scientific orientation is the orientation of farmer to adopt new improved production technologies in a scientific way. The problem of soil salinity is severe in study area. This fact has prompted the respondents to adopt scientific usage of irrigation to reduce the problem of soil salinity. The findings of the result are similar to the findings of Palaniswamy & Sriram (2001) and Nagaraja (2002).

Mass media participation

Table 1 reveals that 51.11 per cent of the respondents had medium level of mass media participation followed by low (28.89%) and high (20.0%) categories.

Farmers in present days are more accessible to the mass media such as television, radio, newspapers and farm magazines. They have the habit of reading newspaper and farm magazines, listening to radio programmes and watching television for agricultural programmes. Medium level of mass media utilization explains respondents are very much dependent on mass media not only as a source of news and information, but also

as a source of entertainment and leisure. They read the newspaper in kirani stores and in neighbours house if available. In general, the mass media raises the awareness level among the farmers. Mass media helps to update the latest developments which are a good sign which speaks about the interest of the farmers. The other reason may be that this is because of poor financial status, illiteracy and lack of interest of the respondents. The finding of this study was supported by the results of study conducted by Meti (1998), Moulasab (2004) and Bhanu (2006).

Cosmopolitaness

Table 1 reveals that majority of the paddy growers (57.22%) had medium level of cosmopolitaness followed by high (27.22%) and low (15.56%) levels. This may be due to fact that majority of farmers had frequent contacts with individuals outside their social system. This would provide an opportunity for interpersonal communication with people outside their social system. Thus, they are more likely to get clue regarding improved production technologies. In the words of Merton (1968), "the cosmopolitans have extra local interest, whereas the locals are more immediately concerned with direct interpersonal relations. On one end it is to read more about the great world outside, while the other to act on the little world inside". The finding of this study was supported by the results of study conducted by Hiremath (2000).

Participation in training

It is understandable from Table 1 that considerable number of the paddy growers (47.22%) have not attended any training programme. 32.22 per cent of the paddy growers have attended one day training followed by two days training programme

(18.89%). It is also found that 1.67 per cent of paddy growers have undergone more than two days training programme. This is because of the low literacy level of the respondents and lack of interest of the respondents. Most of the respondents are very poor socially, culturally and literally. The results were similar to Shashikala (1990).

Extension contact

With respect to extension contact, it is evident from the Table 1 that, majority of the respondents (38.89%) belonged to medium extension contact category and only 32.78 per cent of respondents were noticed in high extension contact categories followed by low extension contact (28.33%). The possibility of getting information from informal sources, non-availability of extension workers at time of farmers call may be the possible reasons for the situation. In view of this concerned extension agencies should take utmost measures to strengthen extension workers and their capacity building for solving the problems of farmers. This result is in line with the results of Hanchinal (1999).

Extension participation

It is evident from Table 1 that half of the (50.00%) of paddy growers had medium level of extension participation, while 27.80 per cent of the respondents had high level of extension participation and 22.20 per cent of them had low level of extension participation. The reason may be that the participation in the extension activities provides opportunities for contrived experiences and sources of improved agricultural production technologies prevailing in the region or locality. The results obtained may be due to eagerness of respondents in solving their problems with

extension workers, also the interest in extension activities to gather recent information and to learn about practical utility of the new improved production technology from extension workers. The finding is in line with the findings reported by Shailaja (1990) and Bhanu (2006).

The results revealed that education, economic orientation, extension contact, extension participation, mass media exposure, achievement motivation, management orientation and innovativeness of paddy growers had a positive and significant relationship with their perception and extent of knowledge. Better perception and comprehension could be observed among better educated than others who will have a good economic orientation for a paddy crop. Their active participation with extension agents and activities with the help of mass media like radio, television, newspapers etc. will enhance their knowledge and adoption of improved production technologies. It also requires adoption of new ideas and scientific practices for the successful management improved paddy production technologies.

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