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Influence of socio- psychological variables on communication behavior among the cotton growers- An Ex-Post-Facto study

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ABSTRACT

A study was conducted in Kurnool district of Andhra Pradesh with the objective of studying the socio- psychological profile among the cotton growers and their influence on communication behavior, with a sample size of 120 respondents. Ex-post-facto research design was followed. The results showed that, in Kurnool district, all the selected independent variables put together explained about 60. 08 per cent of variation in communication behavior among the cotton growers was from education, mass media exposure, and extension contact, these positively and significantly contributed and the F value (13.84) was also found to be significant at 0.01 level of probability. The cotton grower having more extension contacts and mass media exposure they may gain more knowledge than the average members of the community. These findings draw attention to researchers and policy makers for the introduction of new methods in mass media. Since the farming community is proactive, the government has to initiate broad based approach to enhance the information technology infrastructure at the farmer's door steps to facilitate them with respect to timely information reach as well as better transfer of technology.

Key words: Communication behavior, Ex-post-facto study, Socio-psychological variables.

INTRODUCTION

Cotton is one of the most important fiber and cash crop of India and plays a dominant role in the industrial and agricultural economy of the country. It provides the basic raw material (cotton fiber) to cotton textile industry. Cotton in India provides direct livelihood to 6 million farmers and about 40-50 million people are employed in cotton trade and its processing. The Indian textile industry contributes around 4 per cent to country's gross domestic product (GDP), 14 per cent to industrial production and 13 per cent to total export earnings (*www.ibef.org*). In 2016, the total global production of cotton was around 103.17 million bales. India, China and the United States were the largest producers, responsible for more than the half of the world's total production volume. The total global supply of cotton, stocks included, stood at approximately 238.57 million bales in 2016 (Anonymous, 2016). However, Communication behavior of farmers can be defined as the extent to which they expose themselves to various information sources for getting information as well as passing on the information to the users (such as family members, friends, relatives, neighbors and others) through the process of evaluation, storage and transformation. It is also essential to know how farmers get farm information from extension personnel and researchers, what sources they use for getting information, how they evaluate the received technology and after getting information, to what extent the farmer act upon. Under stan ding a cross-section of the farmers in their various groups or categories with respect to their communication behavior is a fundamental pre-requisite to rapid transfer of technology. Therefore, communication behavior of the growers is the key to adoption of agricultural technologies in India. It is also essential to know how farmers socio-psychological characters influencing the communication behavior. The Socio-psychological characteristics deals with the factors that lead the farmers to behave in a given way in the presence of others, and it is concerned with the way these feelings, thoughts, intensions and goals are constructed and how such psychological factors, in turn, influence our interactions with others. It includes the variables such as extension contacts, mass media exposure, risk preference and innovativeness of the cotton growers. Keeping this in view, the present study was taken up to study the Influence of socio- psychological variables on communication behavior among the cotton growers.

MATERIALS AND METHODS

The present study was conducted during the year 2015-16 by the following Ex-Post-Facto research design. The investigation was carried out in Kurnool district of Andhra Pradesh which was purposively selected as it stands first in area and production of cotton. Out of 54 mandals, three mandals namely Adoni, Pattikonda and Nandyal were purposively selected based on highest production and productivity. From each selected mandals, four villages were

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selected by following simple random sampling procedure. From each selected village 10 cotton growers were selected from each village randomly (12×10=120) and a total 120 growers comprised the total sample. The variables were quantified by taking the frequency and percentage of respondents falling under a given statement. The structured interview schedule was developed and was pre-tested on non-sampled respondents. The interview was conducted personally by the investigator with the farmers individually. The data thus collected were processed, tabulated and analyzed by using frequency, percentages and mean weight score. The main objectives of this study were to identify the existing relationship between independent socio-psychological variables and dependent variable like communication behavior.

RESULTS AND DISCUSSION

Socio-psychological variables among the cotton growers

Age: It is clear from Table 1, that most (48.33%) of the cotton growers belonged to middle age category followed by old (28.33%) and young age (23.33%) categories respectively.

Meddle age farmers dominated the sample as they were most enthusiastic towards the farming and old aged growers were less energetic, look after supporting activities of agriculture like taking care of household works and care of cattle. Young agers are not interested on agricultural works, so they are likely to prefer other jobs than agriculture (i.e. carpenter works, truck driving, auto driving, industries, IT sector etc.). Naik (2006), Santhi (2006) and Kirti *et al.* (2016) have depicted similar results in their studies.

Education: It is evident from the Table 1, that (33.33%) of the respondents studied up to primary school, followed by middle school (23.33%), high school (16.67%), interm ediate (13.33%), illiterate (8.33%), and lastly, Graduation & above (5.00%). This is because with the change in their society from traditional to modern one, education is more formal and systematically organised. And in most modern society it becomes compulsory.

The possible reason for the above distribution might be that, as education was gaining importance for the past three decades and brought out awareness among the farming community. Majority of the growers were found under middle to old age category. This could have been the possible reason because non-availability of education facilities during their time of education. Naik (2006), Drulson (2011) and Aparna *et al.* (2014) also more or less found similar results in their research.

Nature of Family: Table 1, reveal that out of the 120 growers, (78.33%) belonged to the nuclear family and (21.67%) belonged to the joint family.

The reason could be that their family might be separated after marriage and followed by fragmentation of the land holding. Drulson (2011), Dambazau *et al.* (2015) and Kiran (2016) also found similar results.

Size of land holding: The respondents were classified into different categories as mentioned in the methodology. The data in Table 1, depicts that the 41.67 per cent of the respondents have medium size of land holding, followed by 20.84 per cent had semi-medium, small (19.17%), marginal (9.16%) and large (9.16%) growers.

The possible reason might be that in the recent times most of the families are of nuclear system and joint family system is gradually fading away. This resulted in fragmentation of land among the family members.

Farming experience: From Table 1, it is evident that out of the 120 growers, 35.00 per cent of the growers had above 20 years farming experience, followed by 29.16 per cent had 14 to 20 years, 28.33 per cent had 8 to 14 years and 7.50 per cent had 2 to 8 years farming experience.

This might be due to the fact that majority of the growers belonged to middle and old age categories. Hence, most of the growers falling under high farming experience.

Socio-economic status: The Table 1 shows that majority of the cotton growers (69.16%) was found in the medium category, followed by high (16.67%) and low (14.16%) category respectively.

This might be due to the fact that most of the cotton growers in the study area had medium and semi-medium landholdings.

Annual income: Annual income is the earnings of the farm family from all sources in a year. Table-1 revealed that nearly half of the respondents (46.67%) belonged to high income group followed by medium income groups (37.50%), and only (15.83%) of the respondents belonged to low income group.

It indicates that economic background of the respondents was strong. The reason might be that in addition to agriculture, they have other sources of income (i.e. cast occupation, sheep rearing, business etc.)

Extension contact: It can be observed from Table.1 that highest score was associated with medium extension contact (70.00%) followed by low (17.50%) and high (12.50%) extension contact category.

The possible reason for the medium level of extension contact could be that majority of the respondents were lured by the subsidies and other govt. schemes. A sizable portion of them who lie in first two of the adopter categories were keen in keeping touch with department officials and they had high level of extension contact. The possible reasons attributed for low level of extension contact may be due to the extension offices are far away from the farmer's home and lack of field visits by extension personal.

Table 1: Socio-psychological variables among the cotton growers. **Total (n=120)**

Variable	Category	Frequency	Percentage
Age	Young age (up to 35 years)	28	23.33
	Middle age (36 to 50 years)	58	48.33
	Old age (above 50 years)	34	28.33
	Total	**120**	**100.00**
Education	Illiterate	10	8.33
	Primary school (up to class 5th)	40	33.33
	Middle school (up to class 8th)	28	23.33
	High school (up to class 10th)	20	16.67
	Intermediate (up to class 12th)	16	13.33
	Graduation & above	06	5.00
	Total	**120**	**100.00**
Nature of Family	Nuclear family	94	78.33
	Joint family	26	21.67
	Total	**120**	**100.00**
Size of land holding	Marginal growers (up to 1 ha)	11	9.16
	Small growers (1.1 to 2 ha)	23	19.17
	Semi-medium growers(2.1to4 ha)	25	20.84
	Medium growers (4.1 to 10 ha)	50	41.67
	Large growers (above 10 ha)	11	9.16
	Total	**120**	**100.00**
Farming experience	2 to 8 years	09	7.50
	8 to 14 years	34	28.33
	14 to 20 years	35	29.16
	Above 20 years	42	35.00
	Total	**120**	**100.00**
Socio-economic status	Low SES	17	14.16
	Medium SES	83	69.16
	High SES	20	16.67
	Total	**120**	**100.00**
Annual income	Low (50,000 to 70,000)	19	15.83
	Medium (71,000-1,50,000)	45	37.50
	High (above 1,50,000)	56	46.67
	Total	**120**	**100.00**
Extension contact	Low Extension contact	21	17.50
	Medium Extension contact	84	70.00
	High Extension contact	15	12.50
	Total	**120**	**100.00**
Mass-media exposure	Low mass-media exposure	10	8.33
	Medium mass-media exposure	88	73.33
	High mass-media exposure	22	18.33
	Total	**120**	**100.00**
Risk preference	Low risk preference	06	05.00
	Medium risk preference	94	78.33
	High risk preference	20	16.67
	Total	**120**	**100.00**
Innovativeness	Low Innovativeness	05	4.17
	Medium Innovativeness	111	92.50
	High Innovativeness	04	3.33
	Total	**120**	**100.00**
Sources of information	Low	09	7.50
	Medium	100	83.33
	High	11	9.16
	Total	**120**	**100.00**

Mass-media exposure: It was observed from the Table 1, that majority of farmers (73.33%) had medium mass-media exposure, followed by high (18.33%) and low (8.33%) mass media exposure.

This trend might be due to the fact that majority of the respondents were medium growers with primary level of education. Though almost every household possessed television, they were frequently watching familiar agriculture related programs on television (i.e. annadhatha, paadipanttalu etc.). Majority of respondents were educated up to high school level of education with meagre facilities of exposure to farm magazines and agricultural related newspapers this also the reason for this trend.

Risk preference: It is evident from the Table 1, that the whole sample 78.33 per cent of the respondents belonged to medium category followed by high category (16.67%) and low category (5.00 %) of risk preference.

The possible reason for this would be that, the individual with high farming experience, medium landholding, medium socio-economic statues and high income might have were ready to face the risk while adopting technology and decision making for cotton cultivation.

Innovativeness: It is evident from Table1, that majority of the growers were (92.50%) had medium innovativeness followed by 4.17 per cent of growers having low innovativeness; whereas only 3.33 per cent of the growers having high innovativeness.

This is because the majority of the farmers were having primary to medium level of education and high level of farming experience. This was creating curios and little interest on the latest developments of cotton crop. Another fact that most of the growers were eager to increase production as well as productivity so they are ready to adopt new ideas and technologies with respect to cotton cultivation.

Sources of information (cosmopolite and localite): It refers to the use of information sources both from outside and within the community for collecting agricultural information by the farmers.

Table 1, indicates that majority of the farmer were medium user (83.33%) of information sources, followed by high user (9.16%) of information sources and (7.50%) were low user of information source. The possible reasons attributed for medium and high use of source of information may be due to that medium mass media exposer, good transportation facilities and increase of the concerned development authority of the area regarding agriculture field.

• Influence of the independent variables towards the communication behavior among the cotton growers

Regression analysis was carried out. The significant'R^2' value of 0.608 depicted that all the selected 12 independent variables put together explained about 60.80 per cent variation in the communication behavior among the cotton growers and the F value (13.84) was also found to significant at 0.01 level of probability. The multiple regression analysis presented in Table 2, reveals that the independent variables *viz*. education, extension contact and mass media exposure are positively and significantly contributed to the most of the variation in communication behavior among the cotton growers. The cotton growers with high education tend to have wide knowledge about various enterprises that can be taken up. They might be also getting much information on various sources like print media and even internet on the subject of assistance, success stories of other growers as well as new initiatives of cotton crop. The cotton grower who having more extension contacts and mass media exposure they may gain more knowledge than the average members of the community. Hence, they directly influence the communication behavior of the growers.

Table 2: Influence of the independent variables towards the communication behavior.

Variables	't' value
Age	1.663
Education	5.163**
Nature of family	-1.394
Size of landholding	0.513
Farming experience	1.564
Socio-economic statues	-0.436
Annual income	0.705
Extension contact	3.288**
Mass-media exposure	4.484**
Risk preference	-1.038
Innovativeness	-0.146
Sources of information	1.863

*Significant at 5% level of probability,
**Significant at 1% level of probability
R^2 = 0.608, F=13.84

CONCLUSION

It can be summed up as, the variables such as educational status, mass media exposure, extension contact, were found to act as a critical variables in influencing the communication behavior of the cotton growers.Therefore, it may be concluded that there was a need for the policy makers and administrators should take care while designing awareness programs with respect to utilization of ICT tools *viz*., internet and agricultural based web sites, mobile apps and making easy accessible of these sources at village level to make communication behaviour effective for precise farming in this era. Since the farming community is proactive, the government has to initiate Multi-dimensional approach to enhance the information technology infrastructure at the farmer's door steps and to facilitate them with timely information reach as well as better transfer of technology.

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