



## **Direct and Indirect Relationship of Farmers' Personal, Psychological and Communication Characteristics and Their Perceived Communication Effectiveness of Extensionists**

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### **ABSTRACT**

About forty two per cent of the farmers perceived that the communication effectiveness of extensionists was medium. Majority of the farmers were middle aged, functionally literate, small farmers, with high farming experience, untrained. Somewhat satisfied with extension services, had high innovativeness, high scientific orientation, high economic motivation, medium communicative initiative, high communicative responsiveness and low interaction with extensionists. Path analysis revealed that farmer-extensionists interaction and farming experience had the highest direct effect while communicative responsiveness and innovativeness had the highest total indirect effect on farmers perceived communication effectiveness.

**Key words :** Farmers, Extensionists

Communication is universally regarded as an essential social process, the means by which man achieves humanity and social relations. Communication is an instrument and product of development and technological advancement, a source as much as education, hence the question of access and participation, control and coordination assumes tremendous significance. Indian agriculture has heaved itself out of ruts of traditional farming based on customs and traditions has increasingly absorbed modern production technologies in stepping up productivity. The traditional agriculture is getting transformed into modern commercial enterprise. This has created an unprecedented upsurge in the demand for accurate, authentic and timely information on new farm technologies to needy farmers. To keep up this tempo of rapidly changing agriculture and to meet the future challenges in agricultural production of our country, there is an urgent need to motivate and energize such farmers.

Communication is effective when the stimulus as it was initiated and intended by the sender, corresponds by the receiver. Reddy and Appannaiah (1999) described principles of effective communication as simple language, proper medium of communication, no ambiguity, cordial atmosphere and right climate, adequacy of information, cooperation of personnel, follow up action, effective listening, consistency in communication, timeliness, be mindful and communicate for tomorrow as well as today.

The problems relating to modernization of Indian agriculture are onerous. It is a challenging task. The most important problem perhaps the most fundamental one is the lack of effective and efficient communication of research findings to the farmers through extension system. It is believed that through effective communication of the modern agricultural technology to farmers, they can be motivated, enthused and energized to accept, understand and act upon it. Hence, an urgent need was felt to analyze the farmers perceived communicative effectiveness of extensionists with the following specific objectives.

1. To measure farmers perceived communication effectiveness of extensionists.
2. To analyze personal, psychological and communication profile of farmers
3. To study direct and indirect effects of farmers' personal, psychological and communication characteristics on their perceived communication effectiveness of extensionists.

### **MATERIAL AND METHODS**

The study was carried out in Krishna-Godavari zone of Andhra Pradesh as it covers seven districts and diversity is more. A sample of 120 farmers out of 2, 453 farmers who frequently used to contact research stations, attend university Kisan Melas, field days, field trials, demonstrations and contact extensionists regularly were selected randomly by using simple random sampling method. To measure

Table 1. Distribution of farmers according to their perceived communication effectiveness of extensionists

Categorization of variable	Frequency	Percentage
Low	34	28.33
Medium	50	41.67
High	36	30.00

Mean : 50.02 SD: 9.79

farmers perceived communication effectiveness of extensionists, scale was constructed using Likert method of summated ratings. Communication effectiveness was operationalized in terms of comprehension, perceived validity and utility that a communication source may establish on the part of the receiver.

Structured schedules were used to analyze independent variables. The data was collected by personal interview method using structured schedules for farmers.

## RESULTS AND DISCUSSION

### Communication effectiveness of extensionists as perceived by farmers

The results regarding the communication effectiveness of extensionists as perceived by farmers are presented in Table 1.

Perusal of Table 1 indicated that almost forty two (41.67 %) per cent of the farmers perceived that the communication effectiveness of extensionists was medium. Nearly equal per cent (28.33 % and 30.00 %) of farmers perceived that extensionists communication effectiveness was low and high respectively. The probable reasons for this trend might be incompatible language in terms of complex scientific terms used by extensionists, untimely information, irregular contacts, irrelevant technologies and inadequate information given by extensionists.

To rectify the above mentioned problems it is needed that the extensionists should get timely advices from researchers and in turn extensionists need to disseminate that information to farmers at right time. Also extensionists need to provide farmers with accurate, relevant, continuous, complete and valuable information by using understandable, compatible and simple language.

### Personal characteristics (Table 2)

#### Age

It could be observed from the table that forty four per cent of farmers were in middle age (35 to 50 years) followed by 39.16 and 16.67 per cent in old age (above 50 years) and young age (below 35 years). This finding is in accordance with the outcome of Rao (1981), Rao (1987), Gopalan (1988), Athimuthu (1990), Pandya (1995), Prasad (1996), Jagannadaraju (1997) and Sambireddy (1997).

#### Education

Regarding the education of farmers 23.33 per cent were functionally literate. 20.83 per cent were illiterates, 19.16 per cent of them studied up to high school, 15.00 per cent had middle school education and 12.50 per cent studied up to primary school. Only 7.5 per cent had college education followed by 1.66 per cent with graduate degree. Majority of the farmers were functionally literate followed by illiterates. The reason for not proceeding with future education is due to financial problems of farmers. Non-availability of higher educational facilities in the villages, lack of awareness about importance of education could also be few other reasons. Similar findings were reported by Prasad (1996) and Jagannadaraju (1997).

#### Farm size

It was clear from table that almost forty seven per cent of farmers were small followed marginal (30.00 %) and big farmers (23.33%). This result was in accordance with the findings of Pandya (1995) and Sambireddy (1997).

#### Farming experience

Almost equal per cent (33.33 % and 37.50%) of farmers had low and high farming experience, followed by 29.17 per cent with medium farming experience. This shows that the respondents under study were cultivating lands since their young age.

#### Training

Majority (64.17) of farmers were untrained, remaining 35.83 per cent were trained during last five years. This might be due to improper planning and organization of training programmes on the part of research stations and extension institutes, besides lack of interest of the farmers. This calls for intensive efforts on the part of organizations to spell out the clear concept of training. This could enhance farmers to come forward for training in a systematic manner through media mix approach.

Table 2. Distribution of farmers according to their personal characteristics n = 120

S.No	Categorization of variables	Frequency	Percentage
1.	<b>Age</b>		
	Young (below 35 years)	20	16.67
	Middle (35 to 50 years)	53	44.17
	Old age (above 50 years)	47	39.16
2.	<b>Education</b>		
	Illiterate	25	20.83
	Functionally literate	28	23.33
	Primary school	15	12.50
	Middle school	18	15.00
	High school	23	19.16
	College	9	7.50
	Graduate	2	1.66
	Post-graduate	0	0.00
3.	<b>Farm size</b>		
	Marginal farmers (upto 2.5 acres)	36	30.00
	Small farmers (>2.5 acres to <5 acres)	56	46.67
	Big farmers(>5 acres)	28	23.33
4.	<b>Farming experience (Mean=29.64, SD=12/54)</b>		
	Low	40	33.33
	Medium	35	29.17
	High	45	37.50
5.	<b>Training</b>		
	Trained	43	35.83
	Untrained	77	64.17

Table 3. Distribution of farmers according to their personal characteristics n = 120

S.No	Categorization of variables	Frequency	Percentage
1.	<b>Client satisfaction</b>		
	Fully satisfied	6	5.00
	Some what satisfied	74	61.67
	Not satisfied	40	33.33
2.	<b>Innovativeness (Mean=7.78, SD=2.734)</b>		
	Low innovativeness	36	30.00
	Medium innovativeness	41	34.16
	high innovativeness	43	35.83
3.	<b>Scientific orientation (Mean=13.84, SD=2.93)</b>		
	Low	37	30.83
	Medium	40	33.33
	High	43	35.83
4.	<b>Economic motivation</b>		
	Low	39	32.50
	Medium	19	15.83
	High	62	51.67

**Psychological characteristics (Table 3)****Client satisfaction**

Majority (61.67 %) of the farmers were some what satisfied, followed by 33.33 per cent not satisfied and only 5.00 per cent were fully satisfied with extension services. This might be because of irregular contacts of extensionists with farmers as their area of coverage is very large.

**Innovativeness**

It was evident from the table that farmers were almost equally (30.00 %, 34.16 % and 35.83 %) distributed in low, medium and high innovativeness categories, respectively.

**Scientific orientation**

As in the case of innovativeness farmers were almost equally (30.83 %, 33.33% and 35.83 %) distributed in low, medium and high scientific orientation categories respectively.

With respect to innovativeness and scientific orientation of farmers almost equal per cent were distributed in medium and high categories. The probable reasons for this may be their increased awareness regarding the importance of scientific farming to improve their living standards and also because of the information resolution for dissemination of new agricultural technology.

**Economic motivation**

Majority (51.67 %) of farmers had high economic motivation followed by 32.50 per cent and 15.83 per cent with low and medium economic motivation, respectively. Above half of the farmers were having high economic motivation followed by low and medium groups. This might be quite natural as any human being would like to improve his living standards by improving financial conditions. Further, majority of the farmers belonged to small and marginal categories and their urge to become financially sound is very high.

**Communication characteristics (Table 4)****Communicative initiative**

Forty four per cent of farmers had medium communicative initiative followed by high (30.00 %) and low (25.83 %) communicative initiative. This might be because of their high innovativeness and scientific orientation besides their desire to acquire more information about new farming technologies.

Table 4. Distribution of farmers according to their communication characteristics.

Categorization of variables	Frequency	Percentage
<b>Communicative initiative</b> (Mean=8.05, SD=2.15)		
Low communicative initiative	31	25.83
Medium communicative initiative	53	44.17
High communicative initiative	36	30.00
<b>Communitative responsiveness</b> (Mean=6.01, SC=1.73)		
Low communicative responsiveness	41	34.17
Medium communicative responsiveness	35	29.17
High communicative responsiveness	44	36.66
<b>Farmer-Extensionist interaction</b> (Mean=9.33, SD=2.5)		
Low interaction	53	44.17
Medium interaction	32	26.67
High interaction	35	29.16

Table 5. Path coefficient analysis of personal, psychological and communication characteristics of farmers with their perceived communication effectiveness.

n = 120

Variable number	Independent variable	District effect	Rank	Total indirect effectRank	Rank	Large indirect effect channelized through
<b>Personal characteristics</b>						
1	Age	-0.2927	XII	0.0442	XI	0.2315( $X_4$ )
2	Education	0.1444	III	0.4447	VI	0.2490( $X_{12}$ )
3	Farm size	0.0377	X	0.1241	X	0.0474( $X_{12}$ )
4	Farming experience	0.2510	II	-0.5004	XII	0.0036( $X_3$ )
5	Training	0.0984	V	0.3007	X	0.1583( $X_{12}$ )
<b>Psychological characteristics</b>						
6	Client satisfaction	0.0103	XI	0.3726	VII	0.1585( $X_{12}$ )
7	Innovativeness	0.0612	VI	0.5035	II	0.2271( $X_{12}$ )
8	Scientific orientation	0.0444	VIII	0.4772	IV	0.2048( $X_{12}$ )
9	Economic motivation	0.0553	VII	0.4765	V	0.2208( $X_{12}$ )
<b>Communication characteristics</b>						
10	Communicative initiative	0.1094	IV	0.4974	III	0.2527( $X_{12}$ )
11	Communicative responsiveness	0.0393	X	0.5355	I	0.2416( $X_{12}$ )
12	Farmer-extensionist interaction	0.3767	I	0.3342	VIII	0.0734( $X_{10}$ )

### Communicative responsiveness

Almost equal per cent (34.17 % and 36.66%) of farmers were with low and high communicative responsiveness followed by 29.17 per cent with medium communicative responsiveness.

### Farmer-Extensionist interaction

Regarding this variable 44.17 per cent of farmers had low interaction followed by 26.67 per cent and 29.16 per cent with medium and high interaction with extensionists. Majority of farmers had low interaction with extensionists this is because of their inability to meet extensionists frequently due to lack of time and opportunities. Hence the government organizations need to emphasize the importance of regular interaction of extensionists with farmers.

### Path coefficient analysis of personal, psychological and communication characteristics of farmers with their perceived communication effectiveness of extensionists

Path analysis with farmers perceived communication effectiveness as dependent variable and selected twelve independent variables was carried out and the results obtained are presented in Table 5.

It was evident from Table 5 that the maximum direct effect was recorded by the variables  $X_{12}$  (farmer-extensionists interaction) followed by  $X_4$  (farming experience),  $X_2$  (education),  $X_{10}$  (communicative initiative),  $X_5$  (training),  $X_7$  (innovativeness),  $X_9$  (economic motivation),  $X_8$  (scientific orientation),  $X_{11}$  (communicative responsiveness),  $X_3$  (farm size),  $X_6$  (client satisfaction) and  $X_1$  (age) in that order on farmers perceived communication effectiveness of extensionists. The variable  $X_1$  (age) had negative effect. While remaining variables had positive direct effect on dependent variable.

In case of total indirect effect it could be inferred from the table that  $X_{11}$  (communicative responsiveness) followed by  $X_7$  (innovativeness),  $X_{10}$  (communicative initiative),  $X_8$  (scientific orientation),  $X_9$  (economic motivation),  $X_2$  (education),  $X_6$  (client satisfaction),  $X_{12}$  (farmer-extensionists interaction),  $X_5$  (training),  $X_3$  (farm size),  $X_1$  (age) and  $X_4$  (farming experience) had highest total indirect effect on farmers perceived communication effectiveness of extensionists in that order. Among 12 variables  $X_1$  (farming experience) was the only variable which had negative effect.

The ranks of the variables with regard to direct effect and indirect effects were not the same. But  $X_3$  (farm size) had the same rank as far as direct and

indirect effects were concerned.

It was also evident from the last column of the table that  $X_{12}$  (farmer-extensionists interaction) had the first largest indirect effect on nine variables namely  $X_2$ ,  $X_3$ ,  $X_5$ ,  $X_6$ ,  $X_7$ ,  $X_8$ ,  $X_9$ ,  $X_{10}$  and  $X_{11}$ , where as  $X_3$  (farm size) had its first largest effect on variable  $X_4$  (farming experience), and  $X_4$  (farming experience) had its first largest effect on variable  $X_1$  (age). Hence, this factor farmer-extensionists interaction need to be treated as crucial element in making communication more effective.

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