

Communication Fidelity of Farm Information

S. BALASUBRAMANIAM¹ and A. JOHN KNIGHT²

A study of communication fidelity and the factors associated with it will be very useful for improving the communication efforts of the extension personnel. With this view, this study has been undertaken in Thondamuthur block of Coimbatore district. The findings indicate that to achieve a high communication fidelity, the farmers knowledge, attitude and adoption of high yielding varieties have to be increased. Since the six selected factors play an important role in the prediction of communication fidelity, these factors have to be taken care of and they deserve immediate attention by the extension personnel and others.

The full yield potential of high yielding varieties can be exploited only when they are grown with the package of practices recommended by the scientists and as such every minute detail has to be communicated to the farmers. This needs an effective communication strategy for proper and speedy dissemination of information to the farmers. Berlo (1960) defined communication fidelity as the faithful performance of the communication process by all of its elements—communicator, message, channel and receiver. The faithful performance, in this sense, means the effectiveness of the communication process. Thus, it can be explained as the extent of desirable changes in receiver's behaviour as a result of communication. According to Jha (1968), communication fidelity was operationalised as amount of knowledge gained, kind of attitude formed and extent of adoption, each for a unit of communication sensitivity as a result of communication of the

messages. In practice, quite often a break down in the communication process does occur reducing the fidelity—the effectiveness of the process. So, the problems pertaining to communication need to be probed in order that the efforts of all those engaged in the dissemination of innovations bear fruits.

The specific objectives of the study were, (i) To determine the communication fidelity with reference to high yielding varieties of paddy. (ii) To determine the degree of association between communication fidelity and each of the selected factors contributing to communication fidelity, (iii) To determine the contribution of the selected factors in explaining the variation in communication fidelity.

MATERIALS AND METHODS

The study was conducted in Thondamuthur block of Coimbatore

¹ 1-2: Department of Agricultural Extension, Tamil Nadu Agricultural University Coimbatore-641003.

district. By adopting multistage proportionate sampling 80 rice growers were selected from 5 villages. Then, the respondents were individually interviewed by the researcher with the interview schedule.

In order to measure communication fidelity, package of practices recommended for the cultivation of high yielding varieties of paddy were selected as the messages. Then, by using the fidelity index, the communication fidelity scores of the respondents were calculated. Six variables were selected based on past work for determining the degree of association with and the contribution towards communication fidelity. The six variables were (i) Communicator's degree of contact with the receiver (X_1), (ii) Language compatibility of communicator with that of receiver (X_2), (iii) Profitability of message (X_3), (iv) Frequency of the use of channel (X_4), (v)

Socio-economic status of receiver (X_5) and (vi) Receiver's past experience with communicator's message (X_6). These variables were measured by using different rating scales and the points on the scale varied from factor to factor.

RESULTS AND DISCUSSION

The communication fidelity was calculated by using the fidelity index and the distribution of farmers on communication fidelity is presented in Table I.

It is evident from Table I that among 80 farmers interviewed 50 per cent were in high communication fidelity group while the remaining 50 per cent were in low communication fidelity group category. Thus, the distribution indicated that farmers were equally divided on communication fidelity scores.

TABAE I. Distribution of farmers on communication fidelity

Category	Communication fidelity score	Row frequencies	Cumulative frequencies	Row frequencies in %	Cumulative frequencies in %
Low communication fidelity group (up to 65)	26-35	1	1	1.25	1.25
	36-45	16	17	20.00	21.25
	46-55	16	33	20.00	41.25
	56-65	7	40	8.75	50.00
High Communication fidelity group (above 65)	66-75	10	50	12.50	62.50
	76-85	13	63	16.25	78.75
	86-95	17	80	21.25	100.00

Mean = 65 Possible score range = 0 to 100 Actual score range = 32 to 93

Since, 50 per cent of the respondents belonged to low communication fidelity group it could be inferred that these farmers might have secured low scores on knowledge test, attitude test, adoption test and communication sensitivity test. So, the communication efforts of the extension agency in the study area have to be vigorously intensified to increase the farmer's knowledge, attitude and adoption of high yielding varieties of paddy.

In order to find out the degree of association between communication fidelity and each one of the selected factors, zero-order correlation coefficients were computed between the scores on communication fidelity and that of selected variables. Table II gives the coefficient of correlation between the communication fidelity and the selected factors.

A perusal of Table II indicates that there was a highly significant and positive association between communication fidelity and each one of the above six factors.

To find out the contribution of these six factors towards communication fidelity, multiple regression and multiple correlation techniques were used.

It is evident from Table III that partial regression coefficients of communicator's degree of contact with receiver (b_1), profitability of message (b_2), frequency of the use of channel (b_3) and socioeconomic status of receiver (b_4) were significantly contri-

TABLE II. Zero order correlation coefficients between dependent (Y) and independent variables (X_1, X_2, \dots, X_6).

Independent variable	Symbol	Dependent variable (y) (Communication fidelity)
X_1 -Communicator's degree of contact with receiver	r_{X_1Y}	0.7312**
X_2 -Language compatibility of communicator with that of receiver	r_{X_2Y}	0.7337**
X_3 -Profitability of message	r_{X_3Y}	0.7653**
X_4 -Frequency of the use of channel	r_{X_4Y}	0.7534**
X_5 -Socio-economic status of receiver	r_{X_5Y}	0.5758**
X_6 -Receiver's past experience with communicator's message	r_{X_6Y}	0.7264**

** - Significant at 0.01 levels of probability.

TABLE III. Coefficients of partial regression with six independent variables

	Coefficients of partial regression	Standard error of regression coefficients	Calculated values of 't'
b_1	6.3822	2.6991	2.3646*
b_2	10.5840	5.6986	1.8573 N.S.
b_3	7.3544	1.0403	7.0695**
b_4	1.5009	0.2285	6.5685**
b_5	0.2846	0.0901	3.1572**
b_6	-4.6844	5.4800	0.8548 N.S.

** = Significant at 0.01 level of probability at 73 degrees of freedom

N. S. = Not significant at 0.05 level of probability at 73 degrees of freedom

buting to the prediction of communication fidelity while the partial regression coefficients of language compatibility of communicator with that of receiver (b_2) and receiver's past experience with communicator's message (b_6) were not significantly contributing to the variation in communication fidelity.

Then the multiple correlation coefficient (R) and the coefficient of multiple determination (R^2) were worked out. The coefficient of multiple correlation with the six independent variables was found to be 0.9576 and the coefficient of multiple determination (R^2) was found to be 0.9171. R^2 was also tested for its significance by 'F' test. Thus, it can be concluded that the six factors (X_1 to X_6) when functioned jointly had contributed significantly (91 per cent) towards the

variation in communication fidelity. If these factors are taken care of and made favourable, a communicator can expect his communication to have high fidelity.

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