Interpersonal Communication Efficiency in Group Farming

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Effective communication of improved technology is one of the most important factors for agricultural development. Being predominantly agricultural in nature, Kerala economy can not anticipate a bright future, unless significant breakthrough is achieved in agricultural production. One of the major reasons which made the modern scientific methods uneconomical is the marginalisation of holdings. So as a viable solution, Group Farming approach for rice cultivation was introduced in 1989 through the Krishi Bhavans of every panchayat in the state.

Group Farming approach which has been accepted as a new extension model in Kerala, has proved to be successful in significantly reducing the cost of cultivation in rice along with increasing the production and productivity of our fields. This model has an added advantage of helping the marginal farmers to adopt improved cultivation practices which were not easily feasible for them on individual basis. Experiences and observations indicated that the informal interpersonal communication network that is existing among the members of Group Farming committee is

significantly contributing to the diffusion of location specific and problem oriented improved agricultural technology, which helps to make the decisions more collective and democratic. It was therefore decided to make a study on the Interpersonal Communication Behaviour Efficiency (IPCBE) of Group Farming committee members to get a useful insight on the feasibility of using the interpersonal communication network in the transfer of technology process.

Katz and Lazarsfeld (1955) were the pioneers who introduced the concept of personal influence in the communication process. Berlo (1960) found that effective communication behaviour is one of the functions of individual's attitude towards interpersonal relations. The major barrier in interpersonal communication as Rogers (1973) suggested is the very natural tendency to judge, to evaluate and to approve or disapprove the statement of other persons or groups. Murthy and Singh (1974) opined that interpersonal relations depend on the efficiency of communication. The detailed study of interpersonal communication pattern in the client system conducted by Ambastha and Singh (1974) revealed the

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operationalisation of concepts and measurements of technology in terms of information input pattern and information output pattern.

It is accepted from the past studies of human behaviour that the interpersonal communication behaviour is a multivariate phenomenon explained by a wide spectrum of personal and psychological factors. These factors are so indirectly associated with each other that they should not be viewed as separate entities for the study. Hence a wholistic view of all these contributing factors, only would give a clear picture of the interactional implication of the process of Interpersonal Communication Behaviour. The identified sub-dimensions of IPCBE were: Communication Skill, Competence, Empathy, Authenticity, Interpersonal trust, Consistency, Positiveness, Reciprocity and Rationality

METHODOLOGY

The study was conducted in four districts in Kerala having maximum area under paddy with Intensive Programme for Rice Development (IPRD) in operation. The districts were Palakkad, Thrissur, Ernakulam and Alappuzha. From each of these districts one block each with maximum area under rice cultivation was identified. From each of the selected blocks, two Group Farming Committees were randomly selected and from each committee, 30 members were identified as respondents using simple random sampling procedures. Thus, in total, 240 respondents from among the members of Group Farming Committees were selected as sample for the study.

Considering the identified nine sub-dimensions, interpersonal communication efficiency was operationally defined as the degree to which a farmer is efficient to communicate with other farmers, with adequate skills of communication, competence, empathy, authenticity, interpersonal trust, consistency,

positiveness, reciprocity and rationality. The nine sub-dimensions of IPCBE were subjected to relevancy rating by a sample of scientists and extension personnel. This was done to ascertain whether all the nine dimensions were equally applicable to the IPCBE or not. The relevancy rating revealed that all the nine sub-dimensions were relevant in the case of IPCBE.

The judges were further requested to assign weightage for each dimension in the range of 0 to 100, based on the importance they attached to each sub-dimension in such a manner as to get a total of 100 for all the identified relevant sub-dimensions. They were asked to consider the importance of each sub-dimension in relation to interpersonal communication behaviour efficiency while assigning the weightage to each sub-dimension. The scores obtained by particular sub-dimension were added up and was divided by the number of judges to arrive at the weightage for a particular sub-dimension. This procedure was carried out in the case of all the identified relevant sub-dimensions. These sub-dimensions along with their weightages thus obtained are furnished in Table 1.

Table 1:

Sl.No.	Sub-dimensions	Weightage
1.	Communication skill	2.4
2.	Competence	1.3
3.	Empathy	1.0
4.	Authenticity	0.8
5.	Interpersonal trust	1.2
6.	Consistency	0.7
7.	Positiveness	0.8
8.	Reciprocity	0.9
9.	Rationality	0.9
		10.0

The actual score for each sub - dimension was obtained by scale product method, i.e., by multiplying its raw score with its weightage. The total score of Interpersonal Communication Behaviour Efficiency Index (IPCBEI) for an individual was obtained by adding the individual scores of each component together.

For the computation of the IPCBEI the scores obtained for each of the above mentioned sub-dimensions were first made uniform and multiplied by the corresponding weightage assigned to each as given in Table 1. These scores were then added up to get the IPCBEI of each respondent.

It was also ensured that all the sub-dimensions identified as components of IPCBE were of high significance on the basis of the coefficient of agreement in judges rating and the statistical evidence from the dependent variable i.e., IPCBE was ascertained for its content validity as evidenced from the rating scores.

1. **Operational definitions of sub-dimensions:** Communication skill is the composite of skills in reception, processing, expression and feedback.

a. **Reception skill:** is the capability and easiness of the farmer in listening and picking up messages from another farmer in an interpersonal communication situation.

b. **Processing skill:** is the ability of the respondent to process an information. It was measured in terms of three specific components viz., translation, interpretation and extrapolation. The skill in translation is defined as the degree to which a farmer can give meanings to the message he received from the 'other farmer' in an interpersonal communication situation. The skill of interpretation is the degree to which a farmer can record these ideas in a new configuration based on the already available mental images and identify the interrelationships of these ideas in an interpersonal communication situation. Skill of extrapolation is defined as the degree to which a farmer can visualise or predict the implications of an idea received from another farmer in his own conditions and life situations.

c. **Expression skill:** is operationally defined as the capability of the farmer in expressing the technical information connected with paddy group farming into a meaningful message of simple words with clarity, conviction and continuity in dyadic communication situation.

d. **Feedback orientation:** is the degree to which a farmer is interested in getting responses from the fellow farmer in a general interpersonal communication situation.

2. **Competence:** is operationally defined as the level of confidence upon himself on his perceived level of knowledge in different operations in Group Farming, its practical experience and application abilities.

3. **Empathy:** is the degree to which the respondent is able to make out other person's feelings and thereby understands it as he feels.

4. **Authenticity:** refers to genuineness of communicator while he delivers a massage to the communicatee in an interpersonal communication situation.

5. **Interpersonal trust:** was operationally defined as the degree to which the communicator trusts the other farmers as well as the faith other farmers have in him, as perceived by the communicator.

6. **Consistency:** is the degree to which the communicator shows stability, firmness and assertiveness in opinion formation, thought and action.

7. Positiveness: is operationally defined as the quality of the communicator of being positive towards self, towards others and also towards communication context.

8. Reciprocity: refers to the mutual regard and responsiveness that a communicator shows to a communicatee in a general interpersonal communication situation in terms of giving praise and recognition, admitting mistakes and giving and taking criticisms.

9. Rationality: is operationally defined as the quality or the state of the respondent of being logical and his acceptability of reasonableness in an interpersonal communication situation as perceived by the respondent.

All these sub-dimensions were measured by a set of inventories containing appropriate questions arranged in a three - point continuum of always, sometimes and never with scoring pattern 2, 1 and 0 for positive and vice-versa for negative questions.

FINDINGS AND DISCUSSIONS

The distribution of respondents based on the IPCBE is shown in Table 2 and the distribution based in sub-dimensions in Table 3.

The result in Table 2 showed distinctly that 58.58 per cent of the respondents were in high category for the dependent variable IPCBE. Since the observed value of normal deviate (Z = 4.608) obtained was significant, it led to the conclusion that there is significant variation in IPCBE among the two categories of members of Group Farming committees. The probable reason for justification of these finding can be explained based on the 'Trait factor theory of personality' put forth by Allport (1937). The theory postulates that traits are common to many individuals and vary in absolute amounts between individuals. They are

relatively stable and exert fairly universal effects on behaviour regardless of environmental situations.

Table 2: Distribution of respondents based on the interpersonal communication behaviour efficiency (n=240)

Sl.No.	Category	Range	Frequency	Per cent	Z value
1.	Low	<68.69	97	40.42	
2.	High	68.69 and above	143	59.58	4.608**

**Significant at 1% level of significance

IPCBE is a trait of personality, as it is the accumulation of skills and orientations acquired from the past life experiences.

It has been established unequivocally that the process of technology transfer in paddy Group Farming is mainly through word - of - mouth communication in a face to face interaction. As the paddy cultivation encountered several constraints and the area under paddy began to dwindle season after season, farmers naturally became fully conscious about the necessity of keeping good interpersonal relationship with the other farmers to reduce the cost of cultivation and thereby to achieve maximum yield.

Since all the operations of Group Farming have to be accomplished with full co-operation and coordination of all the members of Group Farming committee, it brought about adequate interaction among the members and thereby majority of respondents possessed good interpersonal communication behaviour efficiency. This is the possible explanation for majority of farmers in higher category of IPCBE.

Similarly results in Table 3 also showed the majority of respondents in the high category with regard to the sub-dimensions namely communication skill, empathy, interpersonal trust,

Table 3: Distribution of respondents based on the identified sub-dimensions of interpersonal communication behaviour efficiency (n=240)

Variable	Sub-dimensions	Category	Range	Frequency	Per cent
1.	Communication skill	Low	<6.48	101	42.08
		High	6.48 and above	139	57.92
2.	Competence	Low	<6.10	123	51.25
		High	6.10 and above	117	48.75
3.	Empathy	Low	<6.50	108	45.00
		High	6.5 and above	132	55.00
4.	Authenticity	Low	<7.34	124	51.67
		High	7.34 and above	116	48.33
5.	Interpersonal trust	Low	<7.07	83	34.58
		High	7.07 and above	157	65.42
6.	Consistency	Low	<7.98	83	34.58
		High	7.98 and above	157	65.42
7.	Positiveness	Low	<7.45	75	31.25
		High	7.45 and above	165	68.75
8.	Reciprocity	Low	<7.59	87	36.25
		High	7.59 and above	153	63.75
9.	Rationality	Low	<6.59	75	31.25
		High	6.59 and above	165	68.75

consistency, positiveness, reciprocity and rationality whereas, the majority of respondents was found in the lower category with regard to the sub-dimensions competence and authenticity.

The step down regression analysis was carried initially. All nine sub-dimensions were included. Next step, 4 sub-dimensions such as communication skill, empathy, interpersonal trust and competence with highest t value were selected and analysed (Table 4). The value of R^2 was 0.938 which means that 93.80% variation of IPCBE was

Table 4: Results of step down regression analysis of IPCBE with the selected sub-dimensions (n=240)

Variable No.	Characteristic	Regression Coefficient coefficient	Standard partial Regression	't' value
1.	Communication skill	3.3722	0.44125	18.127**
2.	Competence	1.9327	0.25411	11.862**
3.	Empathy	1.4220	0.29504	14.453**
4.	Interpersonal trust	1.5407	0.21912	11.699**

Intercept = 14.895321; R^2 = 0.938;   F = 885.17**;   **Significant at 1% level of significance

explained by these sub-dimensions.

In any human behaviour, the performance skills are equally or more important than the competence for such an act. This has already been explained by Devito (1978). While discussing the process of communication, Berlo (1960) also supported this with a mention of additional requirements for the source such as positive attitude, empathy etc. Interpersonal trust was highlighted as an important attribute for fidelity in communication which in turn enhance credibility of sources as well (Applebaum, 1973).

CONCLUSIONS

The study emphatically disclosed the deep rooted influence of interpersonal communication network among the farmer folk as influenced by their communication skills, competence, empathy, interpersonal trust, authenticity, consistency, positiveness, reciprocity and rationality. As indicated by the Group Farming experience of Kerala, the transfer of agricultural technology skill has to be channellised through group mobilization and interpersonal networks, the success of which calls for empowering the clients with the above personality traits. The implication of this, warrants the need to inextricably dovetail human resource development dimensions along with technological options.

REFERENCES

Allport, G.W. (1937). *Personality.* Henry Holt, New York. p 43-44.

Ambastha, C.K. and Singh, K.N. (1978). Interpersonal Communication Pattern in Client System - A Path Analysis. *Ind. J. Extn. Edn.* 14:(1&2) 9-16.

Applebaum, R.I., Anatol W.E.K., Hays, R.E. Jancon, O.W., Porter, E.R. and Mandel, E.J. (1973). *Fundamental Concepts in Human Communication.* Canfedd Press, San Francisco. p 33-57.

Berlo, D.K. (1960). *The Process of Communication*, Holt, Rinehart and Winston, New York. p 23-71.

Devito, J. (1978). *Communicology*. Harper and Row Publishers, New York. p 49-85.

Katz, E. and Lazarsfeld, P.F. (1955). *Personal Influence*. Glencoe, Free Press, New York.

Murthy, A.S. and Singh, S.N. (1974). *Communication Behaviour of Farmers*. New Heights, Delhi. p 41-70.

Rogers, E.M. (1973). Mass Media and Interpersonal Communication. In *Handbook of Communication*. Fool, I.S., Frey, F.W., Schramm, W., Maccoby, N. and Parker, E.D. (Eds). Rand Mc Nelly College Publishing Co., Chicago. p 211-249.