

Perception of the Farmers about Transfer of Technology System in North Gujarat

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ABSTRACT

The present study was conducted in two randomly selected districts of North Gujarat namely, Mehsana and Patan. From each district two talukas and from each taluka three villages were selected randomly. Thus, total twelve village from six talukas were selected randomly. From each village ten farmers were selected at random, making a sample of 120 farmers. For measurement of perception a scale was developed using the data revealed that majority of the farmers (62.50 %) perceived the present Transfer of Technology system as useful. Five characteristics namely, reading habit, training received, innovativeness, economic motivation and mass media exposure established positively significant relationship with the farmers' perception towards present transfer of technology system. All the nine selected variables explained 44.79 % variation in farmers' perception toward Transfer of Technology system.

Keywords : Perception, Transfer of Technology, Correlation co-efficient, Multiple regression

INTRODUCTION

At present, various transfer of technology programmes are being implemented by State and Central Government, Non-Government Organization, State Agricultural Universities and Private agencies. Increase in agriculture production would have to be necessarily obtained by appropriate agricultural technology and its speedy transfer to the farmers through efficient transfer of technology system. To meet this emerging issue, it is worth necessary to have a strong and efficient transfer of technology system. The success or failure of the transfer of technology programmes depends upon how far its clients perceived the same. Therefore, to understand the usefulness of present transfer of technology system for its beneficiaries, the study entitled “ perception of the farmers about transfer of technology system in North Gujarat” was undertaken.

OBJECTIVE

The present study was conceived with a general objective to measure “Perception of the farmers about transfer of technology system in North Gujarat”

METHODOLOGY

The present study was conducted in North Gujarat region of Gujarat State, because this region falls under the jurisdiction of Sardarkrushinagar Dantiwada Agricultural University, Sardarkrushinagar. The ex-post-facto research design was adopted to collect the data. Out of 6 districts under North Gujarat region of Gujarat State consisted two districts viz.; Mehsana and Patan. were selected randomly. Three talukas from each district and two villages from each taluka were selected using simple random sampling method. For the standardized scales to measure perception of the farmers about transfer of technology system in North Gujarat region of Gujarat State. For constructing the scale, resorted the methodology suggested by Likert (1932) with slight modification in the procedure.

Initially, 38 statements covering the entire universe of content were collected. These statements were then edited according to the 14 criteria laid down by Edward (1957). In all, 36 statements were selected. A set of these statements were then handed over to the 120 judges with request to give their judgments by assigning proper rating to each

statement. Out of these, 80 responses were received. These judges were asked to respond to each statement on the five-point continuum i.e. 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree'. The scoring pattern was 5, 4, 3, 2 and 1 for positive and 1, 2, 3, 4 and 5 for negative statements, respectively. Finally 't' value for each statement

was calculated and 29 statements were selected.

RESULTS AND DISCUSSION

The facts and findings derived after analyzing the data have been presented under the following sub heads:

Personal characteristics of the farmers

Table 1 : Personal characteristics of the farmers

n=120

Sr. No.	Characteristics	Category	Number	Per cent
1	Age	1 Young (Up to 35 years)	10	08.33
		2 Middle (In betn 35 to 50 years)	47	39.17
		3 Old (Above 50 years)	63	52.50
2	Education	1 Illiterate	01	00.83
		2 Primary education	30	25.00
		3 Secondary education	43	35.83
		4 Higher secondary education	26	21.67
		5 College and above	20	16.67
3	Reading habit	1 No reading habit	06	05.00
		2 Read one literature only	54	45.00
		3 Read two literature	33	27.50
		4 Read more than two literatures	27	22.50
4	Training received	1 No training	54	45.00
		2 One-two trainings	37	30.83
		3 More than two trainings	29	24.17
5	Annual income	1 Low (Upto 68000 Rs)	12	10.00
		2 Medium (In betn 68001 to 172000 Rs)	96	80.00
		3 High (Above 172000 Rs)	12	10.00
6	land holding	Marginal (Up to 1.00 ha)	19	15.84
		Small (In betn 1.01 to 2.00 ha)	34	28.33
		Medium (In betn 2.01 to 4.00 ha)	40	33.33
		Large (More than 4.00 ha)	27	22.50
7	Innovativeness	1 Low innovativeness (1 score)	36	30.00
		2 Medium innovativeness (2 score)	48	40.00
		3 High innovativeness (3 score)	36	30.00
8	Economic motivation	1 Low (Up to 14 score)	35	29.17
		2 Medium (In betn 15 to 16 score)	71	59.17
		3 High (Above 16 score)	14	11.66
9	Mass media exposure	1 Low mass media exposure (Up to 22 score)	16	13.33
		2 Medium mass media exposure (In betn 23 to 28 score)	79	65.83
		3 High mass media exposure (Above 28 score)	25	20.84

It can be observed from Table 1 that majority of the farmers (52.50 %) were in the old age group followed by middle age group(39.17 %). Maximum no of the respondents were found to have secondary education (35.83 %) followed by those with primary education(25.00 %) and higher secondary education(21.67 %). In case of their reading habit, 45.00 per cent of the farmers read only one publication, whereas 27.50 and 22.50 per cent of them were reading two publications and more than two publications, respectively. So for training is concerned (45.00 %) farmers were untrained. Majority of them (80.00 %) had medium annual income. Maximum number of them (33.33 %) was in the medium land holding followed by small holding (28.33 %) group. Two out of five (40.00 %) farmers were found to have medium innovativeness. Little more than half (59.17 %) had medium economic motivation and majority (65.83 %) of them had medium level of mass media exposure.

Perception of the farmers

The data in this regards are presented in Table-2

Table 2: Perception of the farmers about usefulness of transfer of technology system n=120

Sr. No.	Category	Number	Per cent
1	Less useful (Up to 90 score)	29	24.17
2	Useful (In bet ⁿ 91 to 131 score)	75	62.50
3	More useful (Above 131 score)	16	13.33

It can be seen from Table 2 that 62.50 per cent of the farmers perceived the transfer of technology system as useful whereas, 24.17 percent of them perceived the transfer of technology system as less useful and only 13.33 per cent farmers perceived it as more useful.

Relational analysis

Zero order Correlation

With a view to find out the relationship between the independent variables and level of perception (dependent variable) about usefulness of TOT system, the correlation co-efficient ('r' value) was calculated.Zero order correlation are given in Table 3.

Table 3: Correlation co-efficient of selected independent variables with farmers' perception about transfer of technology system

n=120

Sr. No.	Characteristics	'r' value
I. Personal		
1	Age (X ₁)	0.0494 NS
2	Education (X ₂)	0.1025NS
3	Reading habit (X ₃)	0.3068**
4	Training received (X ₄)	0.3329**
II. Socio-economic		
5	Annual income (X ₅)	0.1016 NS
6	Size of land holding (X ₆)	0.1013 NS
III. Psychological		
7	Innovativeness (X ₇)	0.2927**
8	Economic motivation (X ₈)	0.3786**
IV. Communication		
9	Mass media exposure (X ₉)	0.4769**

* = Significant at 0.05 level of significance

**= Significant at 0.01 level of significance

NS= Non significant

Based on the coefficient of correlations, five independent variables viz.; reading habit (0.3068), training received (0.3329), innovativeness (0.2927), economic motivation (0.3786), and mass media exposure (0.4769) were found having significant and positive relationship with farmers' perception about usefulness of transfer of technology system at 0.01 level of significance. Whereas; age, education, annual income and size of land holding were failed to establish any significant relationship with farmers' perception about usefulness of transfer of technology system.

Multiple regression analysis

In multiple regression analysis, all the 9 independent variables were fitted to explain the variation in farmer's perception about usefulness of transfer of technology system. The results are presented in Table 4.

Table 4: Multiple regression analysis of the selected independent variables with farmers' perception about TOT system n=120

Sr. No.	Variables	Regression Co-efficient (b)	S.E.of "b"	'z' value
I Personal characteristics				
1	Age (X_1)	-0.1011	0.1479	-0.683
2	Education (X_2)	-1.9402	1.7512	-0.908
3	Reading habit (X_3)	1.8783	2.0438	0.919
4	Training received (X_4)	-0.3398	1.6829	-0.202
II Socio-economic characteristics				
5	Annual income (X_5)	-0.00013	0.000326	-0.407
6	Size of land holding (X_6)	-0.2264	0.4810	-0.471
III Psychological characteristics				
7	Innovativeness (X_8)	5.0883	2.3603	2.156**
8	Economic motivation (X_{10})	2.8190	1.1961	2.357**
IV Communication characteristics				
9	Mass media exposure (X_{12})	2.0233	0.6263	3.230**

* = Significant at 0.05 level (0.983) of significance ** = Significant at 0.01 level (1.985) of significance $R^2 = 0.4479$

All the independent variables mentioned in Table- 4 explained as much as 44.79 per cent of total variation in the farmer's perception about usefulness of transfer of technology system. The unexplained variation of 55.21 per cent may be due to the factors outside the scope of the study.

It can also be revealed that the "z" values of three variables *i.e.* Innovativeness (2.156), economic motivation (2.357) and mass media exposure (3.230) were significant at 0.01 level of significance. These three variables significantly contributed in explaining the variation in farmer's perception about the usefulness of transfer of technology system.

Remaining variables have failed to contribute significantly in farmer's perception about the usefulness of present transfer of technology system.

CONCLUSION

Majority of the farmers (62.50 %) perceived the present transfer of technology system as useful and it is sad to note that only 13.33 per cent farmers perceived the transfer of technology system as more useful. Eight variables namely, innovativeness, risk orientation, economic motivation, achievement motivation, mass media exposure, reading habit, training received and extension participation were found having significant and positive relationships with the perception about usefulness of transfer of technology system.

IMPLICATIONS

On the basis of present study, following implications are made for improvement in present transfer of technology system:

- 1 The developed scales may be administered to any categories of farmers with due modification to measure their perception about usefulness of present transfer of technology system.
- 2 The study suggested that due weightage shall be given

to such characteristics *viz.*; age, education, reading habit, interpersonal communication, mass media exposure and extension participation while selecting the contact farmers.

- 3 The characteristics of farmers *viz.*; The extension organizations shall give due importance to develop the communication skill of the farmers by organizing different extension activities frequently and encourage them to participate in the same which help farmers to make their positive perception about usefulness of transfer of technology system.
- 4 The important shortfalls faced by most of the farmers may be responsible for low or medium level of perception about usefulness of transfer of technology system. Hence, it is worth necessary to consider their shortfalls in future transfer of technology programme planning and try to minimize these shortfalls. This will help in changing the farmers' perception about usefulness of transfer of technology system.

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