

Role Of Mass Media And Social Participation In Creation Of Scientific Temperament And Adoption Of Technology In Rural Society

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Abstract: The Indian prosperity is mainly influenced by agricultural growth. It is clear from its production that Indian farmers are facing ups and down in their business. Agricultural scientists and technology experts are doing their best efforts to increase the agricultural production but lack of awareness plays important role in opting new technology and techniques. Efforts has been made to assess the role of mass media exposure and social participation in canvassing scientific temperament and adoptional pattern of technology among farmers of Bundelkhand region. It has found that greater exposure of mass media and social participation are key factors in adopting new technologies and to making scientific temperament for best result in agriculture.

Key words: Mass Media, Social Participation, Scientific Attitude, Adoption, Motivation.

Introduction: Attitudes are learned predispositions to respond in a favorable or unfavorable manner to a particular person or object. These attitudes may range from highly positive to extremely negative. It has three components affect, behavior and cognition. The affect component encompasses our positive or negative emotions about something, the behavior deals a predisposition or intention to act in a particular manner believes and finally, the cognition refers to the believes and thoughts we hold about the object. To such thinking efforts have been made to assess the people. Scientific attitudes of rural people in relation to adoption of technology in domains of agriculture, education, health, recreation, small industry and domestic. Government of India is doing it's best effort to develop rural sector through various schemes and plans but fruitful results are still awaiting. What are the major causes behind it? A few investigators say that schemes are not need based while few explain that people of rural areas have lower level of achievement motivation. It has been observed that for limited period our agricultural growth raised but after few years it shows declination. Perhaps these external causes do not affect rural peoples to accept change whereas self-motivation is an important aspect of development. Adoption of technology which provides new vision to uplift people is not independent factor but it depends on several other factors and directed by attitude and self-sufficiency. It is also important that one person who feels self-sufficient but having no attitude, is also an obstacle in development but the person whose background is very rich shows positive attitude towards an object, can opt easily that thing. Thus attitude is a very crucial and key predisposition of adoption which is formed by various sources. Among these sources, exposure to mass media and social participation have heavy weight. Media exposure in the form of communication of news information on agriculture and related matters, propaganda and entertainment have become highly institutionalized.

The extent of coverage of mass media like radio, television, newspapers, magazines and other printed materials varies with general Level technological advancement and with the level of education, radio, news - paper and more recently the television are considered important in disseminating information on change in rural society. Interviews with experts, demonstration of new practices on television recreation home forums and the like appear to have high interest value. Several studies have focused the importance of mass media in adoption pattern.

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In a study of farmers in Bihar (Chauhan, Sinha & Mehta, 1978) it was noted that television had an impact on the peasants' intention to act among on the message and it was more effective among farmers who had a higher need to excel in farming. As compared to the big farmers, small farmers were better disposed to accept farm technology telecast. Singh and Shankaraih (1973) compared communication process in progressive and traditional villages in Delhi. In general both types of villages showed preference for upward vertical communication. Santhanam, Sastry and Vijay Kumar (1982) found that the members of social better mass media contact, awareness of and contact organizations had better mass media contact, awareness of and contact with officials and non- officials and accessibility to social facilities in the village.

So for as the scientific attitude is concerned, very few studies are available in this field but the study done by Sangle (1984) is very useful and beneficial for the future. He has found in his study that the use of technology increased with the increase in UL minimum. which is the level of scientific orientation. In addition, certain minimum level of scientific orientation among farmers was found, which is necessary for increasing the use of technology in the farming communities. Against above background the present study was formulated to examine the role of mass media and social participation in creation of scientific temperament and adoption trend of technology in rural society. The following hypotheses were formulated for the study.

Hypotheses:

1. The villagers having greater exposure to mass media and social participation will be more scientific oriented than their counterparts.
2. The exposure of mass media and social participation will be more positively related to scientific attitude and adoption pattern of technology.
3. The villagers having more scientific attitude will be better adopters of technology than those having lower level of scientific temperament.
4. Exposure to mass media and social participation, and scientific attitude will contribute significant variance to the adoption of technology.

Methodology: Two villages have selected for the study. These two villages, one is situated in Chitrakoot, Madhya Pradesh and another is in Chitrakoot, Uttar Pradesh. Both villages Kamata (M.P.) and Khohi (U.P.) are very nearer and situated at the border of M.P. and U.P. The main occupation and source of livelihood of villagers in both the villages are agriculture and small business. The Population of both villages is predominantly Hindu. Technological advancement is better in the villages.

Sample - A sample of 100 male were drawn from two villages. Fifty were from Kamata and fifty from Khohi. Their age ranged between 30 to 65 years. They represented different castes and socio-economic levels. Maximum respondents were literate and few were highly educated.

Measures:

- **Exposure to mass media and social participation-** This was an inventory developed by Tiwari (1986). It consists of 21 items, 4 items were of yes, no type, 9 items had 3 alternatives and rest items involved 4 points scales. The total scores for exposure to mass media ranged from 0 to 42. The test retest reliability of this measure has been found .69, for exposure to mass media and social participation.

- **Scientific Attitude Scale** - A liker type attitude scale towards scientific activities developed in the department of psychology: Bhopal University, Bhopal was used, It consists of 22 statements on which the respondent has to give a rating of agreement on a 3 point scale. The items are simply worded and have negative as well as positive structure.
- **Adoption of Technology** - The responses were required on 3 point scale. On this measure a score of 1 was given if a respondent showed desire to adopt the technology related to different areas of life, a score of 2 was given if he had seen instrument /machines /gadgets /equipment's using by others and a score of 3 was given, if he himself has adopted. Procedure After being convinced the selected measures, i.e., exposure to mass media and social participation inventory, scientific attitude scale were administered individually. Finally the adoption scale was administered.

Findings and Interpretations: After scoring the inventory related to mass media and social participation, two groups had been formed, i.e., greater exposure group and lower exposure group. This categorization has been made on the basis of average score of inventory ranged 0 to 42 The respondents who have scored above than 21 have categorized in greater exposure selected in group and subjects who have got the score below 21 have selected in lower exposure group. After categorization, the scores on scientific attitude scale have been noted according to respondent's level and differences have been calculated. Table 1 presents the result.

Table 1: Means Standard deviation and 't' value of scores on scientific attitude scale

Groups	Mean	SD	't' (98)
Greater exposure group	58.64	2.53	33.85 ^{xx}
Lower exposure group	31.22	5.14	

xx $p < .01$. It is clear from the above table that both groups differed significantly in their scientific attitude. The respondents belonging to greater exposure group displayed significantly more positive scientific attitude than the respondents of lower exposure group. This pattern indicates that there is greater optimism among the respondents from greater media exposure group and they adopt scientific attitude more than their counterparts from the less exposure group.

Table -2: Adoptional pattern of various types of technologies by greater exposure group and lower exposure groups

Area of technology	Greater exposure group		Lower exposure group		t (98)
	M	SD	M	SD	
Agriculture	36.90	3.20	30.67	2.91	10.21 ^{xx}
Education	9.80	2.86	5.90	2.06	7.96 ^{xx}
Industry	17.34	3.37	15.06	2.64	3.78 ^{xx}
Health	10.64	4.38	7.54	3.26	4.03 ^{xx}
Recreation	13.04	2.90	8.22	2.33	9.09 ^{xx}
Domestic	23.00	6.16	14.74	2.99	8.74 ^{xx}

xx $p < .01$. Table 2 indicates that adoption of technology was greater in the respondents of greater exposure to mass media and social participation group than lower exposure group. Similar results were found in various sub areas

for adoption of technology. So for as correlation analysis is concerned it has been noted that mass media exposure was significantly positively related to scientific attitude for both the groups. Its values were obtained 31 and 27 respectively. Similarly the scientific attitude was significantly positively related to adoption of technology found for the greater exposure group and its coefficient was found .39 while non-significant but positive correlation was found for the lower exposure group and its coefficient was calculated .16.

Table 3: Results of Stepwise Multiple Regression analysis for both the groups

Greater exposure group				
Predictor variable	Criterion variable	Variable Explained	F	df
Mass media exposure	Scientific attitude	13.61	7.58 ^{xx}	1,48
Mass media	Adoption of technology	35.59	12.99 ^{xx}	1,48
Lower exposure group				
Mass media exposure	Scientific attitude	5.97	3.21	1,48
Mass media	Adoption of technology	4.86	2.98	1,48

xx $p < .01$. It is clear from table 3 that mass media exposure and social participation was the important significant predictor in explaining scientific attitude and adoption of technology for greater exposure group while its role for lower exposure group was not significant but positive trend has been observed. In the context of prevailing mode of development there is almost complete dependence of rural peoples on governmental agencies for information about agriculture and related activities. The technology used by rural peoples is largely determined by the extent to which peoples keep themselves well informed about the new technology regarding principles and practices. Agricultural information is given through personal cosmopolite, mass media and different channels of communication.

The findings revealed significant scientific attitude in greater exposure group. It is expected that one who has greater contact with the outside world has greater exposure to mass media. To a greater extent the extent of exposure depends on the educational level and motivation of villagers. Chaudhary and Prasad (1974) have noted that villagers related to developed settings participated more in the activities categories of information sources at all the stages of adoption. On the basis of findings it can be concluded that scientific temperament is must for adoption of technology and scientific attitude may be created from various sources and agencies for betterment of rural life.

References:

- Chauhan, K.N.K, Sinha, B.P. & Mehta, P. (1978). Effects of T.V. and its combinations on farmer's attitude towards modern farm technology, *National Labour Institute*, **4**, 7-12
- Chaudhary, B.N. & Prasad, C. (1974). A comparative study of a progressive and a backward village. *Indian Journal of Social Work*, **34**, 315-322.
- Prasad, R. (1971). Benefit cost analysis of Sakhaupa Pump Canal district Mirzapur, *Indian Dissertation Abstract*, **2**, No. 1, 1974.
- Sangle, G.K. (1984). Technological growth and rural change, New Delhi, Metropolitan Book Com. Pvt. Ltd.

- Santhanam, M.L., Sastry, C.Y. & Vijay Kumar, S. (1982). Human factor in people's participation, *Journal of Rural Development*, **1**, 770-837.
- Singh, K.N. & Shaukaraih (1972). Socio-economic status and its influence on communication in a progressive and traditional village, *Journal of Behavioural Science and Community Development*, **17**, 65-69.
- Tiwari, P.S.N. (1986). Motivational Correlates of Change Proneness among farmers, *Indian Journal of Community Guidance Service*, **3**, 49-58.

