

Effect of Mass Media on the Adoption of Fish Curing

A. K. KESAVAN NAIR, P. N. KAUL and S. BALASUBRAMANIAM

Central Institute of Fisheries Technology, Cochin-682 029

A study of two factors with two-way classification shows that the main effect of newspaper subscription on the adoption of improved practices in fish curing is significant. The effect of radio ownership appears to be masked by newspaper subscription. The interaction between the two factors was not significant. The study confirms the importance of mass media in adoption.

Review of the work done in adoption of many different innovations (Rogers, 1962; Singh, 1981) shows the importance of mass media particularly at the awareness stage of adoption. Many correlational studies showing a positive relationship between media exposure and adoption of improved practices in fields other than fisheries, are now available (Sharma, 1966; Sharma & Kishore, 1970; Singh & Singh, 1970; Sharma & Nair, 1974; Pathak & Mazumdar, 1978; Shukla, 1980 and Sohi & Kherde, 1980). In the field of fisheries technology, Kaul & Balasubramaniam (1982) found that mass media exposure is related to the adoption of improved practices in fish curing and that radio ownership and newspaper subscription were related to each other. There is a need to examine relationship in depth and the present communication is a step in that direction.

Materials and Methods

The subjects for this study were 110 fish curers in a coastal area of Kerala. Adoption behaviour was measured in terms of adoption index following Sengupta (1967). Eight improved practices in fish curing were considered. The data were collected by the structured interview technique. Ownership of a radio and subscription to any newspaper were the independent variables studied. The analysis of the two-way classification with unequal numbers in cells was carried out as per Rao (1974). Greater details on methodology are described elsewhere (Balasubramaniam & Kaul, 1982; Kaul & Balasubramaniam, 1982; Balasubramaniam & Kaul, 1984).

Results and Discussion

The means and standard deviations of the adoption index are shown in Table 1. An examination of Table 1 shows sizeable differences among the means particularly between newspaper subscribers and non-subscribers and there is not much difference among the variances. Bartlett's test for homogeneity of variances did not show significant difference among the variances (Chi square = 3.59 with 3 d.f.). The analysis of

Table 1. Means and standard deviations of adoption indices in terms of a two-way classification

| | Radio owned | Radio not owned | Total |
|--------------------------|-------------|-----------------|-------|
| Newspaper subscribed | | | |
| Mean | 39.29 | 30.00 | 36.84 |
| S.D. | 11.87 | 18.96 | 14.11 |
| n | 14 | 5 | 19 |
| Newspaper not subscribed | | | |
| Mean | 29.41 | 24.83 | 25.69 |
| S.D. | 10.77 | 11.79 | 11.69 |
| n | 17 | 74 | 91 |
| Total | | | |
| Mean | 33.87 | 25.16 | 27.61 |
| S.D. | 12.16 | 12.26 | 12.79 |
| n | 31 | 79 | 110 |

Table 2. Analysis of variance (two-way classification)

| Source | D. F. | S. S. | S. S. | D. F. | Source |
|----------------------------|-------|------------|-----------|-------|----------------------------|
| Radio (ignoring newspaper) | 1 | 1692.5796 | 1961.9546 | 1 | Newspaper (ignoring radio) |
| Newspaper | 1 | 812.7115 | 543.3365 | 1 | Radio |
| Interaction | 1 | 57.9135 | 57.9135 | 1 | |
| Between cells | 3 | 2563.2046 | 2563.2046 | 3 | |
| Within cells | 106 | 15279.1249 | | | |
| Total | 109 | 17842.3295 | | | |

variance is presented in Table 2. The variance ratio for the main effect due to newspaper subscription yielded an F of 5.64 which is significant at the 5% level. The variance ratio for the main effect due to radio ownership yielded an F of 3.77 which was not significant at the 5% level (tabulated value of F at 1 and 106 d.f. = 3.94). This shows that the main effect of newspaper subscription was important in adoption index. The interaction showed an F of 0.40 which obviously is not significant; thus, the effect of one mass medium over different levels of the other do not show significant changes. Since the main effect due to radio ownership was not significant, further analysis was carried out.

The variations among radio owners and non-owners were examined ignoring the classification as per newspaper subscription, treating it as a one-way classification. The analysis of variance is presented in Table 3 which shows a significant value of F, leading to the conclusion that radio ownership differences exist but are not very prominent when the differences due to newspaper subscriptions are accounted for.

The results indicate that radio and newspapers as mass media are very important for the adoption of improved fish curing practices as has been found in the case of other innovations by the studies mentioned earlier. However, although the effect of newspaper subscription is very clear, the effect of radio ownership seems to be masked by newspaper subscription. There is no interaction between the two factors. These results may be interpreted in terms of the different contents of the messages available in the two types of mass media;

Table 3. Analysis of variance of radio ownership when the newspaper subscribers classification is ignored

| Source | D.F. | M.S. | Ratio |
|----------------------|------|-----------|-------|
| Between radio owners | 1 | 1692.5796 | 11.32 |
| Within radio owners | 108 | 149.5347 | |

this needs further research. Moreover, television programmes have also now become available in these areas and their effects also need to be investigated. The temporal causal effectiveness of the mass media *vis-a-vis* innovativeness also needs to be studied.

References

Balasubramaniam, S. & Kaul, P.N. (1982) *Indian J. Ext. Educ.*, 18, 45

Balasubramaniam, S. & Kaul, P.N. (1984) *Fish. Technol.*, 21, 34

Kaul, P.N. & Balasubramaniam, S. (1982) *Personal and Socio-Economic Correlates of Adoption of Improved Fish Curing Practices, Proc. Symp. on Harvest and Post-harvest Technology of Fish SOFT (I), Cochin, Nov. 1982*

Pathak, S. & Mazumdar, A.K. (1978) *Indian J. Ext. Educ.*, 14, 45

Rao, C.R. (1974) *Linear Statistical Inference and its Applications*. Wiley Eastern Pvt. Ltd., New Delhi

Rogers, E.M. (1962) *Diffusion of Innovations*. The Free Press of Glencoe, New York

- Sengupta, T. (1967) *Indian J. Ext. Educ.*, 3, 107
- Sharma, D.K. (1966) *Indian J. Ext. Educ.*, 2, 143
- Sharma, S. K. & Kishore, D. (1970) *Indian J. Ext. Educ.*, 6, 12
- Sharma, S.K. & Nair, G.T. (1974) *Indian J. Ext. Educ.*, 10, 30
- Shukla, S.R. (1980) *Indian J. Ext. Educ.* 16 55
- Singh, Y.P. (1981) *Problems in Transfer of Agricultural Technology*. In: *Management of Transfer of Farm Technology*, National Institute of Rural Development, Hyderabad, p. 49
- Singh, S.N. & Singh, K.N. (1970) *Indian J. Ext. Educ.*, 6, 39
- Sohi, J.S. & Kherde, R.L. (1980) *Indian J. Ext. Educ.*, 16, 84