Analysis of Dimensions Involved in the Adoption of Improved Fish Curing Practices

Earlier studies have shown comparative adoption of improved fish curing practices in a small and large village (Balasubramaniam & Kaul, 1982) and have also presented the various correlates of such adoption (Kaul & Balasubramaniam, 1982). The present study involves an analysis of the dimensions involved in this adoption.

The adoption of eight improved practices is considered here (Table 1). The adoption data were tabulated as adopted or not adopted for 110 fish curers. The data were subjected to Guttman's scalogram analysis (Guttman, 1950; Edwards, 1957). The calculated p values, are given in Table 1.

The total error involved is 322 and the coefficient of reproducibility worked out to 0.632. Thus we may conclude that we have

Table 1. *p values of scalogram analysis*

Improved practices	P values
1. Use of quality fish	0.91
2. Use of correct salt to fish ratio	0.68
3. Keeping the floor and tanks clean	0.26
4. Use of good potable water	0.25
5. Use of table/clean floor	0.10
6. Use of disinfectants and detergents	0
7. Use of chemical preservatives	0
8. Use of improved packing materials	0

Table 2. *2 x 2 frequency table of adopters and non-adopters*

Improved practices		2		3		4		5		6		7		8	
		0	1	0	1	0	1	0	1	0	1	0	1	0	1
1. Use of quality fish	0	6	4	2	8	8	2	8	2	10	—	10	—	10	—
	1	29	71	80	20	73	27	91	9	100	—	100	—	100	—
2. Use of correct salt to fish ratio	0			23	12	32	3	33	2	35	—	35	—	35	—
	1			59	16	49	26	66	9	75	—	75	—	75	—
3. Keeping the floor and tanks clean	0					66	16	75	7	82	—	82	—	82	—
	1					15	13	24	4	28	—	28	—	28	—
4. Use of good potable water	0							79	2	81	—	81	—	81	—
	1							20	9	29	—	29	—	29	—
5. Use of table/ clean floor	0									99	—	99	—	99	—
	1									11	—	11	—	11	—
6 Use of disinfectants and detergents	0											110	—	110	—
	1											—	—	—	—
7. Use of chemical preservatives	0													110	—
	1													—	—
8. Use of improved packing materials			—		—		—		—		—		—		—

0 = Non-adopters; 1 = Adopters

Table 3. *Chi-square values computed from Table 2*

Improved practices	2	3	4	5
1. Use of quality fish	2.72NS	14.23**	0.01NS	0.31NS
2. Use of correct salt to fish ratio		2.10NS	7.10**	0.47NS
3. Keeping the floor and tanks clean			7.80**	0.26NS
4. Use of good potable water				16.3**
5. Use of table/clean floor	—	—	—	—

** – Significant at 1% level
NS – Not significant

a quasi-scale. The reason for this was investigated with the help of chi-square analysis. Table 2 shows the frequencies of adopters and non-adopters of various improved practices tabulated in 2 x 2 frequency table. The chi-square values were computed for the first five practices and these are presented in Table 3. The chi-square values for the remaining three practices could not be worked out because there were no adopters for these. The results of Table 3 show significant chi-square values between the various practices in a linked manner, so that unidimensionality tends to be reflected. This supports the results achieved by scalogram analysis. In fact, reproducibility might have been greater if a few adopters of the remaining three practices could be located.

References

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

Edwards, A. L. (1957) *Techniques of Attitude Scale Construction.* Appleton-Century-Crofts, New York

Guttman, L. (1950) *The Problem of Attitude and Opinion Measurement.* In *Measurement and Prediction,* S. A. Stouffer *et al.* Princeton University Press, Princeton, N J.

Kaul, P. N. & Balasubramaniam, S. (1982) *Proc. Symp. Harvest and Post-Harvest Technol. Fish.* Soc. Fish. Tech. (India) Cochin, 1982 (In press)

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