



A Scale to Measure the Attitude of Farmers Towards Farming

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ABSTRACT

A scale was developed to measure the attitude of farmers towards farming based on Likert's method of summated rating. A tentative list of seventy three (73) statements each expressing the attitude of farmers towards farming was collected and edited in the light of the informal criteria suggested by Thurstone and Chave, Likert and Edward. These statements were framed such that they expressed the positive or negative attitude. The respondents were asked to indicate their degree of agreement or disagreement with each statement on a three point continuum ranging from most relevant to not relevant. The score of each individual item on the scale was calculated by summing up the weights of the individual items. Based on the total scores obtained, the respondents were arranged in descending order. The top 25 per cent of the respondents with their total scores were considered as the high group and the bottom 25 per cent as the low group, so that these two groups provide criterion groups in terms of evaluating the individual statements as suggested by Edwards (1957). In order to find out the discriminating index for each item, 't' value was calculated using the formula and procedure given by Edwards. The scale so developed finally consists of twenty five (25) statements (thirteen positive and twelve negative).

Key words : Attitude, Farming, Reliability, Validity.

Attitude is an important psychological determinant of the behaviour of an individual. It is an organized predisposition to think, feel and perceive and behave towards a cognitive object. An object may be any symbol, phrase, slogan, person, institution, idea towards which people can differ with respect to positive or negative effect. Attitude in this study was operationalized as the degree of positive or negative feeling of farmers towards farming. A statement is anything that is said about a cognitive object. Accordingly, the present study was undertaken with the following specific objectives:

1. To develop a scale to measure the attitude of farmers towards farming.
2. To standardize the scale constructed to measure the attitude of farmers towards farming.

MATERIAL AND METHODS

For measuring the attitude, different types of scales developed by Thurstone, Likert and several others differ markedly in type and method of construction, but the objective in every case was to assign an individual a position along a quantitative scale.

In this study, attitude of farmers towards farming was measured using the Likert's method of summated rating because of following reasons.

- a) Hall (1934) had indicated that the Likert type of scales with fewer statements will give high reliability coefficients.
- b) No judges are required to rank the items as in case of Thurstone's scale. This saves time, labour, and money and also simplifies the procedure.
- c) It is relatively simple and easier than equal appearing interval scale which have been claimed by Likert (1932) and supported by Hall (1934).
- d) The item on a Likert scale provide data of the individual about the specific issue covered by the single item as well as total score on the attitude dimension being studied.

The statements expressing the attitude of farmers towards farming were collected from available literature, in consultation with the specialists in the field of Extension and they were edited on the basis of criteria suggested by Thurstone and Chave (1929), Likert (1932) and Edward (1957). These statements were given to 48 judges.

The judges were asked to indicate the degree of relevancy with each statement on a three

point continuum ranging from most relevant to not relevant. The scoring pattern adopted was a score of 3 was given to most relevant response, 2 to relevant response and 1 to not relevant response, for a positive statement and for negative statement, the scoring pattern was reversed viz., ‘most relevant’ response with 1 weight, ‘relevant’ with 2 and ‘not relevant’ with 3 weights in that order. Their responses were recorded and total score for each respondent was arrived by summing up the scores on all the statements.

Based on the total scores obtained, the respondents were arranged in descending order. The top 25 per cent of the respondents with their total scores were considered as the high group and the bottom 25 per cent as the low group, so as these two groups provide criterion groups in terms of evaluating the individual statements as suggested by Edwards (1957). Thus, out of 48 respondents to whom the items were administered for the item analysis, 12 respondents with highest scores and 12 respondents with lowest scores were used as criterion groups to evaluate individual items.

The critical ratio, the ‘t’ value which is a measure of the extent to which a given statement differentiates between the high and low groups of respondents for each statement was calculated by using the formula suggested by Edwards (1957).

$$‘t’ = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{\sum (X_H - \bar{X}_H)^2 + \sum (X_L - \bar{X}_L)^2}{n(n-1)}}$$

Where,

$$\sum (X_H - \bar{X}_H)^2 = “\bar{X}_H^2 - (\sum X_H)^2”$$

$$\sum (X_L - \bar{X}_L)^2 = “\bar{X}_L^2 - (\sum X_L)^2”$$

\bar{X}_H = The mean score on a given statement for the high group

\bar{X}_L = The mean score on a given statement for the low group

$\sum X_H^2$ = Sum of squares of the individual score on a given statement for high group

$\sum X_L^2$ = Sum of squares of the individual score on a given statement for low group

$\sum X_H$ = Summation of scores on a given statement for high group

$\sum X_L$ = Summation of scores on a given statement for low group

n = Number of respondents for in each group

Σ = Summation

RESULTS AND DISCUSSION

Seventy three statements each expressing the attitude of farmers towards farming were collected from available literature, in consultation with the specialists in the field of Extension. The statements were edited. Out of seventy three statements, sixty statements were retained after editing. These statements were administered to 48 judges and the respondents were asked to indicate their degree of relevancy with each statement on a three point continuum ranging from most relevant to not relevant.

Selection of Attitude statements for final scale

After computing the ‘t’ value for all the items, twenty five (25) statements comprising of thirteen positive and twelve negative statements with t value equal to or greater than 1.75 were finally selected and included in the attitude scale as shown in Table 1.

Validity of the scale

As the content of the attitude thoroughly covered the entire universe of the farmers with special emphasis on farming through literature consultation and expert opinion, it was assumed that present scale satisfied the content validity.

Reliability of the scale

Test-retest method was used to find out the reliability. In this method, the scale was administered to 48 respondents of the out side sample area of the study with an interval of 15 days. The scores obtained from two testings were correlated and the correlation coefficient was 0.889 indicating that the attitude scale was highly suitable for administration.

To conclude, a scale was developed and standardized to measure the attitude of farmers

Table 1. Scale developed for measuring the attitude of farmers towards farming.

S.No	Attitude statement	't' value
1	I feel proud to be in the farming.	2.548
2*	It is very difficult to do farming now a days because it is not profitable.	1.772
3	My family will have a better quality of life in farming compared to other occupations	2.028
4*	Farming is meant for only large families with more family labour	2.648
5	Farming is very much affected by spurious supply of inputs.	2.569
6*	I feel that investing in farming is of no use.	3.316
7	Farming provides sustainable livelihood to the farmers.	2.378
8*	Agriculture is gambled with monsoons.	3.540
9	Farming has become more expensive because the costs of inputs have been increased.	3.540
10	I don't want to leave my field as barren land for any reason, I am prepared to take challenge and continue farming	1.989
11	Farming is our right given by our ancestors	2.442
12*	Farming requires more capital investment.	2.529
13*	Farming alone will not prosper the farmers.	2.755
14	I believe farming more a way of life than as a business	3.00
15*	Farming still remained as a subsistence business	2.253
16*	I will quit farming if I am given a choice.	2.783
17	Farming will be profitable if farmers are organized in groups.	2.152
18	Farming does not require regular observation and concentration.	2.783
19*	Farming cannot be done without adequate credit support.	2.601
20*	Farming is an inferior activity looked down by everyone	2.338
21*	Farming is affected by self centered interests of politicians	2.648
22*	Liberalization, privatization and globalization are adversely affecting the farming	2.378
23	Farming is affected by consumer preferences	2.757
24	I would like to do farming, even if price premiums are not available	2.378
25	Modern farming practices are more useful in farming.	1.865

(*) indicates negative statement

towards farming. The scale was found to be valid as well as reliable. The present study would enable the researchers to measure the attitude of farmers towards farming. The attitude scale can further be used with little or no modifications elsewhere where similar situations prevail.

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