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Scale to Measure Farmers' Attitude Towards Primary Agricultural Credit Society

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ABSTRACT

A 26-item "Scale Product Method" type scale has been constructed and standardized to measure farmers' attitude towards 'Primary Agricultural Credit Society'. The split-half reliability Coef. = 0·76, and test-retest coef. = 0·87 are demonstrated.

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INTRODUCTION

The Primary Agricultural Credit Society aims at increase in food production by providing credits and other farm inputs to members. However, its success or failure depends largely upon members' (farmers') attitude towards it, that is, what farmers think and feel about their credit societies so far as borrowing credit from it is concerned. The type of attitude (negative or positive) they possess has a bearing on the future progress of credit society. The attitude of member farmers has to be taken into account in future course of action for strengthening the cooperative movement in general and primary agricultural credit society in particular.

MATERIALS AND METHODS

Construction of Attitude Scale

In the present study, an attempt has been made to develop a scale which can scientifically measure farmers' attitude towards Primary Agricultural Credit Society (P.A.C.S.). Among the techniques available for construction of scales, the Thurstone's Equal Appearing Interval Scale (1928) and the Likert's Summated Rating Scale (1932) are quite well known. But both the methods suffer from limitations, the first one in getting discriminating response and the second one in selection of items (statements). Thus, technique chosen to construct the attitude scale was of the "Scale Product Method" which combines the Thurstone's technique of Equal Appearing Interval Scale for selection of items and Likert's technique of summated rating for ascertaining the response on the scale as proposed by Eysenck and Crown (1949)[2].

The construction of an attitude scale involved following steps:

(a) *Item Collection:* As a first step in developing the scale, 55 attitudinal statements about P.A.C.S. were collected from relevant literature, experts in the field and P.A.C.S. office-bearers. The statements, thus, selected were edited on the basis of the criteria suggested by Thurstone and Chave (1929)[4], Wong (1932)[5], Likert (1932)[3], and Edward and Kilpatric (1948)[1].

(b) *Judge's Ratings of Attitudinal Statements:* In order to judge the degree of "unfavourableness-favourableness" of each statement on the 7 point equal appearing interval continuum a panel of 100 judges was selected. The letter of instructions was sent alongwith statements. The panel comprised academicians and specialists in Agricultural Economics, Extension Education and Cooperatives. The cooperative banking personnel and progressive graduate farmers of the area, personnally contacted by the researchers, also served as judges.

(c) *Determination of Scale Value:* The seven points of the rating scale were assigned scores ranging from 1 (for most unfavourable) to 7 (for most favourable). Then based on the judgement, the median value of the distribution, the scale value for the statement concerned (five items out of 55 were excluded in computing the scale values on the basis of suggestion made by judges) was calculated with the help of the formula:

$$S = L + \left(\frac{0{\cdot}50 - \varepsilon p_b}{p_w}\right) Xi$$

Where,

S = the median or scale value of the statement.

L = the lower limit of the interval in which the median falls.

ε_{pb} = the sum of the proportions below the interval in which the median falls.

p_w = the proportion within the interval in which the median falls.

i = the width of the interval and is assumed to be equal to 1.00

The inter-quartile range $Q = Q_3 - Q_1$ for each statement was also worked out for determinations of ambiguity involved in the statement.

RESULTS AND DISCUSSIONS

Final Selection of the Statements and the Scoring System:

When there was a good agreement among the judges in judging the degree of favourableness or unfavourableness of a statement, Q was small compared to the value obtained when there was a relatively little agreement among the judges. Only those items were selected whose median values were greater than the Q-values. However, when a few items had the same scale values, items having lowest Q-values were selected. Based on median and scale values 26 statements were finally selected to constitute the attitude scale.

Items of the scale were then randomly arranged to avoid response biases that might contribute to low reliability and detraction from the validity of the scale. Against each of 26 statements, there were five response columns representing a 5 point agree-disagree continuum as followed by Likert (1932)[3] in his summated Rating technique of attitude measurement. The points on the continuum were strongly agree, agree, undecided, disagree, and strongly disagree with weights of 5, 4, 3, 2 and 1 respectively for a favourable statement and with weights 1, 2, 3, 4 and 5 respectively for an unfavourable statement. The weights of Likert's technique and the scale values of Thurstone's technique were combined in form of a product and the total score for an individual was the sum of the product. The final format of the attitude scale appear in Appendix **I.**

APPENDIX I

Final Format of the Attitude Scale

Name of the respondent:...

You will probably agree with some of the following statements of opinion about the primary agricultural credit society, and disagree with others. Please indicate your own feeling about each of them as to how far do you agree with each of these statements. This is not your examination or an inspection. There are no right or wrong answers. It is a request for your own frank opinion.

Sr. No.	*Statement*	*Strongly*	*Agree*	*Undecided*	*Disagree*	*Strongly disagree*
1.	For economic development of the country, the Govt. should help in strengthening the PACS(6.3)	5	4	3	2	1
2.	The loan advance by the PACS saves farmers from the malpractices of money lenders (6·5)	5	4	3	2	1
3.	Inordinate delay in credit distribution leads to borrowing from other agencies at a higher interest rate (3·6)	1	2	3	4	5
4.	Advancing credit in kinds by the PACS leads to better utilization of credit in production purpose (6·4)	5	4	3	2	1
5.	Transport and storage facilities in the PACS facilitate getting remunerative price of the farm produce (4·8)	5	4	3	2	1
6.	In coordination with agricultural department and block officials, PACS can play a valuable role in dissemination of agricultural innovations (6·2)	5	4	3	2	1
7.	Borrowing credit is difficult when PACS's office headquarters is in some other villages (3·5)	1	2	3	4	5
8.	PACS does not give seeds in adequate quantity (3·4)	1	2	3	4	5
9.	PACS meant to help big landowners (2·0)	1	2	3	4	5
10.	Unhealthy tactics are used while electing the members of the managing committee of the PACS (3·7)	1	2	3	4	5
11.	PACS has increased the indebtedness of the rural people (3·00)	1	2	3	4	5
12.	PACS does not provide chemical fertilizers and pesticides in adequate quantity (3·1)	1	2	3	4	5

1	2	3	4	5	6	7
13.	Membership of the PACS is in practice open to all irrespective of socio-economic status (6·00)	5	4	3	2	1
14.	PACS breaks capitalistic system through democratic socialism (5·9)	5	4	3	2	1
15.	Negligence in recovery of dues results in delayed repayment (3·9)	1	2	3	4	5
16.	Loan of the PACS must be repayed as it is the moral obligation towards nation (6·6)	5	4	3	2	1
17.	If, one secretary is appointed for each PACS credit can be available at the right time (5·2)	5	4	3	2	1
18.	Investment on children's education is more important than repayment of PACS's loan (2·8)	1	2	3	4	5
19.	Office bearers of the PACS provide little technical know-how to the farmers (4·0)	1	2	3	4	5
20.	Terms and conditions for granting credit to the farmers by the PACS are quite reasonable (5·5)	5	4	3	2	1
21.	Getting the PACS registered is a tedious process (3·3)	1	2	3	4	5
22.	The secretary of the PACS is qualified for the job, he is required to perform (4.7)	5	4	3	2	1
23.	PACS gives credit at the right time (4.9)	5	4	3	2	1
24.	Low rate of interest is the unique feature of the PACS (5.4)	5	4	3	2	1
25.	PACS does not give seeds at the right time (3.2)	1	2	3	4	5
26.	Office bearers of the PACS put hindrance in getting loans/inputs (2.9)	1	2	3	4	5

Reliability of the Scale

The reliability of the scale constructed was tested in two ways:

(a) *Split-Half Technique:* The 26 statements were divided into two equal halves with 13 odd-numbered in one half and the 13 even-numbered statement in the other. These were administered to 30 respondents. Having obtained the two scores for each of the 30 respondents (which were not included in final sample), coefficient of correlation (reliability coefficient) between the two sets of scores was calculated ($r = +0{\cdot}767$) which was found to be significant at ·01 level. The reliability co-efficient indicated that internal consistency of the attitude scale constructed for the study was quite high.

(b) *Test-Retest Technique:* The 26 statements were administered twice to the same respondents at 15 days' interval. Thus, two sets of attitude scores, an estimate of stability of attitude measurement called the "stability co-efficient" was obtained ($r = +0{\cdot}874$) and found highly stable and dependable.

Reliability co-efficient was calculated by Rulon's formula:

$$r = 1 - \frac{\sigma^2 d}{\sigma^2 t}$$

Where,

r = Co-efficient of reliability

d = Difference between two half score of respondents.

$\sigma^2 d$ = variance of those differences.

$\sigma^2 t$ = variance of total scores.

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