Indian Journal of Extension Education
Vol. 53, No. 4, 2017 (140-143)

Standardized Scale to Measure Attitude of Beneficiary Farmers towards *Rastriya Krishi Vikash Yojana*

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ABSTRACT

Due to non-availability of a proper scale for measuring the attitude of beneficiary farmers towards RKVY it was thought necessary to construct a attitude scale for measuring the attitude of beneficiary farmers towards RKVY. Keeping this in view, an attempt has been made to develop a scale for measuring the attitude of beneficiary farmers towards RKVY. Method of summated rating technique was used for construction of attitude scale for beneficiary farmers towards RKVY. Finely twenty six statements were selected from thirty eight statements for which "t" values were worked out.

Keywords: Beneficiary Farmers, Attitude Scale, RKVY.

INTRODUCTION

The National Development Council (NDC), in its meeting held on 29th May, 2007 resolved that a special additional central assistance scheme, *Rastriya Krishi Vikash Yojana* (RKVY) be launched. The NDC resolved that agricultural development strategies must be reoriented to meet the needs of farmers and called upon the Central and State governments to evolve a strategy to rejuvenate agriculture. The NDC reaffirmed its commitment to achieve 4 per cent annual growth in the agricultural sector during the 11th five year plan. The resolution with respect to the additional central assistance scheme reads as below:

Introduce a new additional central assistance scheme to incentivize States to draw up plans for their agriculture sector more comprehensively, taking agro-climatic conditions, natural resource issues and technology into account, and integrating livestock, poultry and fisheries more fully. This involved a new scheme for Additional Central Assistance to State Plans, administered by the Union Ministry of Agriculture over and above its existing Centrally Sponsored schemes, to supplement the State-specific strategies including special schemes for beneficiaries of land reforms. The newly created National Rainfed Area Authority will on request assist states in planning for rainfed areas.

The Department of Agriculture, in compliance of the above resolution and in consultation with the Planning Commission, has prepared the guidelines for the RKVY scheme, i. e. to be known as National Agriculture Development Programme (NADP).

The scheme seeks to provide the States and Territories of India with the autonomy to draw up plans for increased public investment in agriculture by incorporating information on local requirements, geographical/climatic conditions, available natural resources/ technology and cropping patterns in their districts so as to significantly increase the productivity of agriculture and its allied sectors and eventually maximize the returns of farmers in agriculture and its allied sectors. Looking to the importance and even after implementation of this scheme, it is high time to measure the attitude of beneficiary farmers about RKVY. Therefore, an attitude scale is constructed to measure the attitude of beneficiary farmers.

METODOLOGY

Attitude in the present study was defined as the degree of positive or negative feelings, opinion, belief and action associated with the RKVY programme for wheat and maize production technologies, where people can differ in varying degrees.

There are several techniques available for constructing attitude scale but all of them are not equally useful for the present study. While looking into the need

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of present study and effectiveness of the available techniques of constructing scales Likert's summated rating scale was considered most appropriate, as it requires less number of items and no judges to start with. It is relatively less time consuming as compared to other techniques. The steps followed for scale construction are as follows:

(a) Collection of items

The first step in the construction of attitude scale was to obtain statements reflecting the views about the beneficiary farmers of RKVY. Hence, the statements were collected based on review of literature, books, journals, discussions with experts as well as office bearers related with the RKVY programme and field functionaries.

(b) Editing of items

The statements were carefully edited following the criteria given by Likert (1932) and Edwards (1957). The statements which were ambiguous, irrelevant and not conforming to the suggested criteria were deleted. At this stage, the number of statements got reduced to 34. Again the statements were rewritten in the light of comments of experts. After editing, the total number of statements left were 34, it was ensured that equal number of positive and negative statements were selected.

(c) Item Analysis

For item analysis, the items were first administered to a proportionate random sample of 32 farmers of the study area. These were those who were not included into targeted respondents. The responses from them were elicited on a five point continuum. *Viz.* strongly agree (SA), agree (A), undecided (UD), disagree (DA) and strongly disagree (SDA), If the item was positive (Favourable to the subject under study), SA, A, UD, DA and SDA were given the numerical values of 5, 4, 3, 2 and 1, respectively. Reverse scores were assigned for negative statements. The score for each individual on the scale was computed by summating the weights of individual's item response.

Considering the total score earned by the each respondent, they were arranged in descending order. Then, 25 per cent of the subject with the highest total score and also 25 per cent of the subjects with the lowest total score were selected. These two groups provided the criterion groups as "high" and "low" groups to evaluate the individual item. The "t- value" for each item was worked out by the formula given by Edwards (1957).

$$t = \frac{\bar{X}_H - \bar{X}_L}{\sqrt{\frac{\Sigma(X_H - \bar{X}_H)^2 + \Sigma (X_L - \bar{X}_L)^2}{n\,(n-1)}}}$$

Where :

$$\Sigma (X_H - \bar{X}_H)^2 = \Sigma X_H^2 - \frac{(\Sigma X_H)^2}{n}$$

and $$\Sigma (X_L - \bar{X}_L)^2 = \Sigma X_L^2 - \frac{(\Sigma X_L)^2}{n}$$

where,

ΣX_H^2 = Sum of the squares of the individual scores in the high groups.

ΣX_L^2 = Sum of the squares of the individual scores in low groups.

X_H = The mean score on a given statement for the high group.

X_L = The mean score on a given statement for the low group.

n = Number of subjects (respondents) in each group.

The 't' value is a measure of the extent to which a given item differentiates between the high group from the low group.

(d) Final selection

The items having 't' value greater than 1.75 were selected for inclusion in the final format of the scale. Through this procedure, 26 items retained and included in final format of attitude scale.

(e) Reliability of test

According to Kerlinger (1973) "Reliability is the accuracy and precision of measurement." The format of the scale consisting 26 items was split into two equal halves on the basis of odd & even numbers of items and was administered to 32 farmers of RKVY programme. Thus, two sets of scores were obtained and then scores were correlated with each other. The correlation coefficient for two sets of scores was 0.86. Thus, it inferred that product moment correlation coefficient produces reliability coefficient of split half the test. This coefficient underestimates the reliability of the full length scale which

provides a larger sample of the content domain and also tends to produce a wider range of scores, both of which have the effect of raising the reliability estimate. Hence, the above coefficient needs to be corrected to give the stepped- up reliability of the whole measure or to give the reliability of the full length test. The correction factor used for full length reliability coefficient according to Spearman Brown prophecy formula is as under;

Spearman-Brown prophecy formula:

$$r_{tt} = \frac{2\ r^{1}/_{2}\ ^{1}/_{11}}{1 + r\ ½\ \ ^{1}/_{11}}$$

Where,

r_{tt} = The reliability coefficient of the whole test.

$r\ ½\ ^{1}/_{11}$ = The reliability coefficient of the half test.

The equation may also be written as follows:

$$\text{Reliability of the whole test} = \frac{2 \text{ x reliability of the half test}}{1 + \text{reliability of the half test}}$$

The value of r_{tt} came to be 0.92 indicating reliability of the scale.

(f) Validity of the scale

To test the validity of the scale, content and paired 't' test for validity of the tool were examined. The process used was same as in validity of involvement test. The result of paired 't' test, which was greater than critical value at the 0.05 level of significance ('t'-value 2.52). Thus, test was found to be significant at 0.05 level of significance and used in the study as valid tool.

(g) Administration

The attitude scale was incorporated in the final format of the interview schedule for administration to the sampled respondents' of RKVY. The scale consisted of 26 items, out of which 13 were positive and 13 were negative. The scale for administration was provided with five response categories viz. "strongly agree" "agree" "undecided", "disagree" and 'strongly disagree". with scores 5, 4, 3, 2 and 1 for positive statements and reverse for the negative statements. The statements selected for attitude scale are given in table 1.

Table 1: Statements selected for attitude scale

S.No.	Statement	"t" value
1.	I can go for any agricultural operations with the help of RKVY (+)	2.58
2.	My economic condition does not improve due to RKVY (-)	4.09
3.	Only big farmers are getting benefits from RKVY (+)	2.34
4.	Many farmers have not availed RKVY benefits due to lack of proper publicity (-)	6.77
5.	Benefit under RKVY are reaching the concerned target group (+)	2.96
6.	RKVY helps to improve economic condition of the rural people. (+)	3.73
7.	RKVY is nothing but the source of livelihood of farmers (-)	3.55
8.	Sufficient seed minikits are not provided to the farmers under RKVY (-)	9.84
9.	There is a little of work one and more of its propaganda made in the RKVY (-)	3.55
10.	RKVY personnel properly and timely visit the farmers field (+)	2.69
11.	There is active participation of AAOs/extension workers in conducting demonstrations (+)	4.56
12.	Extension workers are not aware of the methodology of conducting demonstration (-)	2.26
13.	Good number of demonstrations and farm trials under RKVY has helped to established local proof of the new technology (+)	4.34
14.	RKVY has nothing new to offer for better extension work (-)	2.43
15.	RKVY is an innovative scheme (+)	5.75
16.	Adoption of recommended new technology is not possible for the poor farmers (-)	3.43
17.	Adoption of new agricultural technology of cereal crops provided under RKVY being simple, any farmer can practice it without much difficulty (+)	1.79
18.	RKVY Provide economically viable technology (+)	2.22
19.	The technology are not viable to the poor farmers (-)	3.77
20.	Agricultural implements provided under RKVY are useful (+)	7.35
21.	The crop production reduced due to the project activities (-)	2.07
22.	RKVY provides services and advice to the farmers (+)	4.90
23.	RKVY is less helpful to increase the agricultural production of farmers (-)	3.30
24.	There is no change in farming due to RKVY (-)	5.00
25.	Productivity of cereal crops variety provided under RKVY is high as compared to traditional variety (+)	3.35
26.	The fertilizer and chemical for plant protection not provided timely under RKVY (-)	2.50

CONCLUSION

It can be concluded that total 26 statements were finally selected through "t" value, which was significant. It was assumed that developed scale was reliable and valid for measuring the attitude of beneficiary farmers towards RKVY and hence, it was administered for its final use.

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