

A Scale to Measure the Attitude of Beneficiaries and Non-beneficiaries of ARYA Project towards Poultry Farming

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ABSTRACT

Krishi Vigyan Kendra, Banswara will be the locale of the study because initially ARYA project was implemented through KVKs in 25 states of the country. In Rajasthan, Banswara is the only district in which this project was initiated. Under, ARYA project poultry farming is one of the major aspects chosen for the present study. With this context, the present study has been carried out to know the attitude of beneficiaries and non-beneficiaries of ARYA project towards poultry farming. For measuring attitude, a scale was developed in Likert method with 24 statements. 12 positive and 12 negative statements were selected from poultry farming technologies and framed accordingly. The statements were pretested and selected based on the 't' values from the item analysis. The attitude scale may be useful for policy makers and researcher working in the field of poultry farming.

Key words : Krishi Vigyan Kendra; ARYA project; Poultry farming;

In livelihood sector, poultry farming plays an important role in the food and nutritional security of the rural poor. In India, Poultry farming an important source of livelihood and a major occupation and symbol of economic status especially in Rajasthan (Jat and Yadav, 2012). Poultry rearing occupies a pivotal position to bring about rapid economic growth particularly benefiting weaker sections because of its low capital investment and assured quick return among all livestock based vocations. Poultry rearing, which is one of the most widely adopted livestock activities in the country, has the potential to emerge as a very good source of income and employment for the rural people.

On the other hand, Krishi Vigyan Kendra is a noble concept developed by ICAR to impart skills and need based vocational training to farmers, farm women, and rural youth for self-employment and entrepreneurship development. Among all, rural youth are the primary productive human resource of socio-economic development. There is a continuous increase in migration of rural youth to urban areas. Skill development of rural youth through training will help in improving their confidence levels and encourage them to pursue farming as a profession, generate additional employment

opportunities to mitigate under-employment and unemployment in rural areas. There is an urgent need to improve upon the quality of extension services so that farmers would be more content and satisfied (Rathod et al. 2012). For this, ICAR has selected KVK Banswara as one of the district among 25 districts for implementing ARYA project for providing vocational training in all areas of agriculture and allied sector. Poultry farming is also one of the major areas in which training is imparted to beneficiaries of this project.

The productivity of poultry farming under the prevailing traditional extensive production system is quite low. Low productivity is seen mainly because of feed scarcity and lack of adoption of improved technologies and management practices of poultry farming. One of the main reasons for low adoption is the attitude possessed by the farmers towards poultry farming practices. Prior research studies conducted by Kavithaa et al. (2014) has found mixed feelings as positive and negative attitude towards poultry farming as well as other livestock production technologies. Looking into the above facts, it was quiet important to know the attitude of beneficiaries and non-beneficiaries towards poultry farming under ARYA project.

METHODOLOGY

Attitude is an organized predisposition to think, feel, perceive and behave towards a referent or cognitive object (Kerlinger, 1995). Attitude in the present study is defined as “the degree of positive or negative feeling, opinion, belief and action associated with poultry farming technologies by the beneficiary and non-beneficiary farmers in Banswara district in which attitude of people can differ in varying degrees. For measuring the feeling, a scale has been developed. For constructing attitude scale, there are several techniques like summated rating scales, equal appearing scales and cumulative scales. While looking into the requirement of the study, Likert summated rating scale was selected as it requires less number of items and judges to start with. Comparatively it requires less time than the other techniques. It is a scale construction technique in which statements which can clearly distinguish favourable and unfavourable response of the individual about a particular object (Likert, 1932). The steps followed for scale construction are as follows Item collection from literature, relevancy tests, selection of items, Item analysis, Reliability test and Validity test. Relevant statistical tools and techniques such as mean, median, variance and t-test was used for item analysis. The critical ratio (t-value) for each item was worked out by the formula given by Edwards (1957) as follows:

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

Where :

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

and

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

Where,

$\sum X_H^2$ = Sum of the squares of the individual scores in the high groups

$\sum X_L^2$ = Sum of the squares of the individual scores in low groups

\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

n = Number of subjects 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.

RESULTS AND DISCUSSION

Collection of items : The initial step was to collect as many statements related with the poultry farming technologies. Hence, items were collected based on the review of literature, discussions with experts and informal interviews with the poultry farmers. A tentative list of 50 statements was drafted keeping in view the applicability of statements to the area of study.

Editing of items : The statements were carefully edited based on the criteria given by Likert (1932) and Edward (1957). Ambiguous, irrelevant and statements not conforming to the suggested criteria were deleted. At this stage, statements were reduced to 34.

Again the statements were rewritten in the light of comments of experts and arranged in positive and negative statements, alternatively. Hence, after editing 34 statements were retained for the study.

Selection of items : The statements were selected in such a way that they expressed the positive or negative attitude. In order to get a five point continuum, five alternative response category ranging from strongly agree to strongly disagree were assigned to each statement.

Item analysis : For item analysis, the items were first administered to a random sample of 40 farmers of study area. The responses from then were elicited on a five point continuum viz. Strongly agree (SA), Agree (A), Undecided (UD), Disagree (DA) and Strongly disagree (SDA). The numerical values assigned for each was 5,4,3,2 and 1 respectively for positive statements. The score for each individual on the scale was computed by summing the response of individuals’ item response.

Considering the total score obtained by each individual, these were arranged in the descending order. Then 25 per cent of the subjects 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 critical ratio (t-value) for each item was worked out (Table 1).

Final selection of items : The item having ‘t’ value greater than and equal to 1.75 were selected for the final format of the scale. By this procedure, 24 items retained and included in final format of attitude scale.

Reliability of test : The final format of 24 statements was split into two halves on the basis of odd and even number of items and it was administered to 30 randomly

selected farmers. The responses were rated on five point continuum viz. Strongly agree (SA), Agree (A), Undecided (UD), Disagree (DA) and Strongly disagree (SDA) having scores 5,4,3,2 and 1 respectively. Two sets of scores were obtained and these scores were correlated with each other. The correlation coefficient for two sets of score was 0.80. Thus, the product moment correlation coefficient produces reliability coefficient of the test. The correlation factor was applied to get the full reliability of the test.

Validity of the scale : Validity of an instrument refers to how well it measures what it is to be measured. It is

an important thing in the descriptive research. There are three types of validity i.e. criterion validity, content validity and construct validity.

To test the validity of the scale, content validity of the attitude scale was done. Content validity is basically a judgmental where items of the test are being studied and each item being weighed for its presumed representativeness of the universe (*Kerlinger,1995*). Content validity was assessed by asking 20 experts from concerned discipline of animal production. After the discussion with the panel, the questionnaire was reviewed and changes were made in line with the

Table 1. Attitude statements of item analysis with 't' values

Statements	t- value
Poultry farming is a profitable business in the area	6.39
Housing cost for poultry is too high	4.66
Poultry rearing provides good quality protein for the family members	2.61
Poultry farming does not provide gainful self-employment	2.91
Poultry farming can strengthen economic condition of the farmer	2.15
Poultry farming is highly sensitive to various diseases, so one should not adopt poultry from fear of disease	-0.74
Vaccination against Ranikhet disease is very crucial in poultry farming	3.73
Proper management skills are not required in poultry farming	2.18
Poultry meat and eggs have high demand among the people	2.48
Poultry farming is technical and challenging venture	-3.54
Balanced feeding is necessary to develop natural resistance in birds	3.07
One should not keep social taboos and irrelevant social restriction in mind while opening a poultry farm	2.67
Poultry rearing should be carried out on scientific lines from the beginning	-1.09
Poultry rearing requires high investment as compared to rearing other livestock	2.23
Good start in poultry farming gives good and quick return	1.97
Available resources are not utilized optimally in poultry farming	2.47
Poultry enterprise should be started after thorough deliberations and sound planning	3.04
Lack of healthcare services is not a major constraint	1.23
Small and marginal farmers can easily start poultry farming on a small scale	2.86
Seasonal variation does not affect poultry farming	1.07
Brooder house should be rain-proof and protected against predator in poultry rearing	-1.49
Lack of awareness about biosecurity measures related to poultry farming	2.69
Family labour cannot be utilized easily in poultry farming	2.82
De-beaking in poultry birds is not necessary	-1.80
Majority of youth are selected for training programme as per their needs (poultry farming under ARYA project)	2.64
Non-availability of good demonstration units at KVK under ARYA project	3.18
Knowledge about modern poultry rearing practices are provided by KVK under ARYA project	1.94
There is no adequate follow-up of the training programme at KVK under ARYA project	1.18
Course content of training programme on poultry farming is well designed under ARYA project	1.81
Many youth are not getting benefits of ARYA due to lack of proper publicity	2.44
ARYA project helps in empowering youth and making them productive	-3.26
Training approach followed by ARYA is not innovative	2.57
Skill development trainings provided by ARYA can improve the efficiency of youth in starting new enterprise	-0.53
Training period of ARYA is not sufficient to cover all information about selected vocations	2.15

Table 2. Attitude of beneficiaries and non-beneficiaries towards poultry farming practices (Final scale)

Statements	Degree of statement
Poultry farming is a profitable business in the area	+
Housing cost for poultry farming is too high	-
Poultry rearing provides good quality protein for the family members	+
Poultry farming does not provide gainful self-employment	-
Poultry farming can strengthen economic condition of the farmer	+
Proper management skills are not required in poultry farming	-
Vaccination against Ranikhet disease is very crucial in poultry farming	+
Poultry rearing requires high investment as compared to rearing other livestock	-
Poultry meat and eggs have high demand among the people	+
Family labour cannot be utilized easily in poultry farming	-
Balanced feeding is necessary to develop natural resistance in birds	+
One should not keep social taboos and irrelevant social restriction in mind while opening a poultry farm	-
Good start in poultry farming gives good and quick return	+
Available resources are not utilized optimally in poultry farming	-
Poultry enterprise should be started after thorough deliberations and sound planning	+
Lack of awareness about bio-security measures in the area	-
Small and marginal farmers can easily start poultry farming on a small scale	+
Non-availability of good demonstration units at KVK under ARYA project	-
Majority of youth are selected for training programme as per their needs regarding poultry farming under ARYA project	+
Many youth are not getting benefits of ARYA due to lack of proper publicity	-
Knowledge about modern poultry rearing practices are provided by KVK under ARYA project	+
Training approach followed by ARYA is not innovative	-
Course content of training programme on poultry farming is well designed under ARYA project	+
Training period of ARYA is not sufficient to cover all information about selected vocations	-

suggestions (Table 2).

Administration of the scale : The attitude scale was incorporated in the final format of the interview schedule for administration to the sampled farmers. The scale consists of 12 positive and 12 negative statements. 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 the positive statement and vice-versa for negative statements.

CONCLUSION

Scale developed will be useful to the researcher for measuring the attitude of beneficiaries and non-beneficiaries farmers of ARYA project towards poultry farming technologies. Equal number of positive and negative statements were selected and framed on the basis of expert opinions, literatures and after statistical analysis. This also helps in identify the preferences and ranking of both beneficiary and non-beneficiary respondents.

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