Development of a Scale to Measure Perception of Clients in Availing Benefits from Agripreneurs

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ABSTRACT

In the present era, it is being realized that entrepreneurship contributes to development of a country in several ways, viz., assembling and harnessing the various inputs, bearing the risks, innovating and imitating the techniques of production to reduce the cost and increase its quality and quantity, expanding the horizons of the market, coordinating and managing the manufacturing unit at various levels. In fact, the rapid economic development of a country crucially depends upon the number of abilities of entrepreneurs. There was no scale to measure the clients' perception towards receiving the benefits from agripreneurs. Hence, the present study was designed to develop and standardize a scale for measuring clients' perception. This was a part of the larger Ph.D. study on "Performance of Agripreneurs under Agri-Clinics and agribusiness centres scheme in Karnataka- An Exploratory study" conducted during 2015-16.

Key words: Agripreneurs, Perception, Clients, Dairy Enterprise

INTRODUCTION

Livestock and livelihood are very intimately related in our country and crop livestock integrated farming is the pathway of farmers' well-being. Dairy enterprise is getting into the present era with the aim of achieving profit by high production and processing aspect. The dairy entrepreneurs also serve as extension functionaries to provide the information to the farming community about the innovative practices suitable for dairy farming. Hence, the present study is conducted to ascertain the perception of clients of successful agripreneurs about the benefits of availing the innovations in the dairy farming. In the present era, it is being realized that entrepreneurship contributes to development of a country in several ways, viz., assembling and harnessing the various inputs, bearing the risks, innovating and imitating the techniques of production to reduce the cost and increase its quality and quantity, expanding the horizons of the market, and coordinating and managing the manufacturing unit at various levels. In fact, the rapid economic development of a country crucially depends upon the number of abilities of entrepreneurs. In this background, Government of India implemented ACABC scheme with the help of Ministry of Agriculture (MoA), National Bank for Agriculture and Rural Development (NABARD), National Centre for Management of Agricultural Extension (MANAGE) and Small Farmers' Agri-business Consortium (SFAC). The scheme was designed to help in developing opportunities for private extension, in order to lower the burden on public funding, to offer a wider range of advice in specialist areas than is possible through public extension, and to develop challenging job opportunities for agricultural graduates.

It is an intensive capacity building effort by the National Training Institute (NTI) faculty in association with locally available experts and successful agripreneurs. Keeping in view these important considerations, present study was undertaken and scale was developed to measure the perception of clients of agripreneurs in availing benefits from agripreneurs to run the dairy enterprise.

METHODOLOGY

The perception, in psychology, is mental organization and interpretation of sensory information. It is the opinion expressed by the respondents. Perception was operationally defined as the opinion of the clients towards the benefits availed from the agripreneurs in terms of service, input availability, medical help etc. in relation to agriculture and dairy activities.

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The method of summated rating suggested by Likert (1932) and Edward (1957) was followed in the development of scale. The following steps were considered for developing the perception scale.

Collection of items/statements: Referring the available literature on perception of clients, a large number of draft statements related to perception of clients of agripreneurs towards dairy enterprise covering the entire universe of content were selected. The researchers, farmers and extension experts were consulted for preparation of statements. The statements were then edited according to the fourteen criteria laid down by Edward (1957). Among all the statements, 45 statements were selected as they were found to be non-ambiguous and non-factual. Further, for the sake of convenience and ease in application of scale, the identified statements were grouped under three components considering the perception of the clients. The identified components along with number of statements initially selected under each component were given in Table 1.

Relevancy test : It was possible that all the statements collected may not be relevant equally in measuring the perception of clients in availing the benefits from agripreneurs. Hence, these statements were subjected to scrutiny by an expert panel of judges to determine the relevancy and their subsequent screening for inclusion in the final scale. For this, all the forty five statements that were grouped under five categories were typed and the list was then sent to panel of judges. The judges comprised of experts in the fields of Agricultural Extension, Dairy Extension and Veterinary Extension. The statements were sent to 60 judges with necessary instructions to critically evaluate each statement for its relevancy to measure perception of clients. The judges were requested to give their response on a five point continuum, *viz.,* Strongly agree, Agree, Undecided, Disagree and Strongly disagree with scores of 5, 4, 3, 2, and 1, respectively. The judges were requested to indicate their responses by tick mark against appropriate points of continuum and to make necessary modifications, additions or deletions, if they desired so. Out of 60 judges 45 judges had returned the same set of statements after duly recording their judgements in a stipulated span of 2 months. Out of 45 responses, 9 responses were found unsuitable for item analysis and were eliminated after careful examination of responses. Responses of the remaining 36 judges were considered for the item analysis.

The relevancy score of each item was found out by adding the scores on the rating scale for all the thirty six judges' responses. From the data so obtained relevancy percentage, relevancy weightage and mean relevancy

scores were worked out for all the 45 statements individually by using the following formulae.

a.   Relevancy percentage
Relevancy percentage was worked out by summing up the scores of Strongly agree, Agree, Undecided, Disagree and Strongly disagree categories, which were converted into percentage.

b.   Relevancy weightage (R.W.): Relevancy weightage was obtained by the following formula:

R.W = Strongly agree response X5 + Agree response X4 + Undecided response

X3 + Disagree response X2 + Strongly disagree X1/ maximum possible score (36×5 =180).

c.   Mean relevancy score (M.R.S.): M.R.S. was obtained by the following formula:

M.R.S = Strongly agree response X5 + Agree response X4 + Undecided response

X3 + Disagree response X2 + Strongly disagree X1/ Number of judges (36).

Editing of statements: The statements were edited as per 14 informal criteria suggested by Edwards (1957). As an outcome, 9 statements were eliminated. Finally, 36 statements were retained after editing and were considered them for judge's response.

Response to raw statements: The Performa containing 36 raw statements on five point continuum *i.e.* Strongly agree, Agree, Undecided, Disagree and Strongly disagree were sent to the 60 experts *i.e.* the researchers and extension experts through e-mail, post and were also handed over personally.

Item analysis: It was essential to delineate the items based on the extent to which they can differentiate the respondent with favourable perception than the clients with unfavourable perception of the respondents. For this purpose, item analysis was carried out on the statements selected in the first stage. A schedule consisting of 24 statements was prepared and used for personally interviewing a sample of 40 farmers from non-sampled area. The responses for the statements were obtained on a five point continuum, *viz.,* strongly agree, undecided, disagree and strongly disagree with scores of 5, 4, 3, 2 and 1, respectively. The perception score of the clients was obtained by summing up the scores of all statements. For item analysis, the clients were arranged in ascending

order based on perception score. Twenty five per cent of the clients with highest total scores and 25 per cent with lowest total scores were selected. These two groups provided the criterion groups in terms of which item analysis was carried out. The critical ratio was calculated by t-test.

The 't' values were worked out in order to differentiate between the high and low groups of the respondents for each statements and was calculated by using the formula given by Edwards (1957).

Where,
$$ t = \frac{\overline{X_H} - \overline{X_L}}{\sqrt{\dfrac{\sum(\overline{X_H} - \overline{X_L})^2 + \sum(\overline{X_L} - \overline{X_L})^2}{n\,(n-1)}}} $$

$$ \sum(X_L - \overline{X_L})^2 = \sum X_L^{\,2} - \frac{(\sum X_L)^2}{n} $$

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

XL= 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 given statement for high group

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

n = Number of judges in low and high groups
t = The extent to which a given statement differentiate between the high and low groups.

$\sum$ = Summation

The 't' value is a measure of the extent to which a given statement differentiates between the high and low groups. As a crude and approximate rule of thumb, a statement with value greater than 1.76 was selected indicating that the average response of high and low groups to a statement differs significantly. Thus 16 (12 positive and 4 negative) statements about the perception of clients with significant 't' values were retained in the final scale.

Standardization of the scale: The validity and reliability were ascertained for standardization of the scale. The validity was confirmed by content validity and criterion validity.

Content validity: The content validity is the represen-tativeness of sampling adequacy of the content, the substance, the matter and the topics of measuring instrument. This was ensured while selecting perception statements. Due care was exercised in selecting and wording the statements so as to cover all the relevant aspects of quality, thus, ensuring a fair degree of content validity.

Criterion validity: The criterion validity may be an objective measure of perception. In the present study, criterion validity was measured by using performance of dairy farm. The comparison was made between the perception score and performance of dairy farm of 40 non-sampled respondents. Pearson's product moment correlation coefficient was calculated.

Reliability: A scale is reliable when it gives consistently the same results when applied to the same sample. The final set of the 16 statements which represent the clients' perception towards the benefits availed from agripreneurs was administered on five point continuums to a group of 30 clients of agripreneurs (15% of actual sample size) from non-sample area which was not included in the actual sample size of study.

The designed perception scale for the study was pre-tested for its reliability by using the split half method in which a scale is divided into two halves. One half contains the odd numbered statements (1, 3... 15) and the other half contains the even numbered statements (2, 4... 16). The total individual score of each client was calculated by summing up the responses given by clients on two halves of the statements.

The correlation coefficient (rhh) between scores of two halves of statements was 0.855. The positive and significant correlation between the two sets of scores indicated that the scale was reliable. The reliability coefficient of the whole scale was calculated by the formula given by Spearman (1910) and Brown (1910) as follows,

$$ r_{SB} = \frac{2 * r_{hh}}{1 + r_{hh}} $$

Where, r_{SB} = Reliability coefficient of the whole scale

r_{hh} Reliability coefficient of the half-scale, found experimentally *i. e.* 0.855

$$r_{SB} = \frac{2 * r_{hh}}{1 + r_{hh}} = \frac{2 * 0.855}{1 + 0.855} = \frac{1.71}{1.855} = 0.92$$

The reliability coefficient of the whole scale was 0.92 which was found positively significant at 0.01 level of probability indicating that the whole scale was reliable.

RESULTS AND DISCUSSION

The final scale consisted of 16 statements (Table 1). The statements which are marked red in the table are the negative statements and the rest are positive statements. The responses had to be recorded on a five point continuum representing strongly agree, agree, undecided, disagree and strongly disagree with scores of 5, 4, 3, 2, and 1, respectively. The perception score of each client can be calculated by adding up the scores obtained by him/her on all the items. The perception score on this scale ranges from a minimum of 16 to a maximum of 90. The higher scores indicate that the clients had more perception in availing the benefits from agripreneurs.

Table 1: A list of selected statements for final scale construction.

Statements	SA	A	UD	DA	SDA
Enterprise promotion helps to reduce the poverty of the clients					
Enterprise promotion is not able to provide skill-oriented jobs to the clients.					
Enterprise promotion helps to develop communication behaviour of the clients.					
Trustworthiness and linkage between the clients and other stakeholders increases					
It helps to achieve optimum production level through integration of different components of dairy enterprise.					
Enterprise promotion provides great opportunity to produce quality and diversified products.					
Enterprise promotion ensures food and nutritional security of farm family.					
Sufficient capacity building and training activities are not taken up under dairy enterprise.					
Acquired knowledge and skills in scientific dairy management practices.					
Better access to advisory services in production and management.					
Benefits from the enterprise help to increase income diversification.					
Enterprise promotion helps in eventual enhancement of managerial qualities of the clients.					
Participation in enterprise promotion involves some level of stress to both clients and their family members.					
It leads to capacity building of the clients					
Enterprise promotion helps to bring improvement in					
Clients do not have confidence in agripreneurs.					

SA: Strongly agree on A: Agree UN: Undecided DA: Disagree SDA: Strongly disagree

CONCLUSION

The validity and reliability of scale indicated the precision and consistency of the results. This scale can be used to measure the clients' perceptions beyond the study area and to other enterprises with little modifications.

REFERENCES

Brown, W. 1910. Some experimental results in the correlation of mental abilities. *British Journal of Psychology,* 3, 296-322.

Edward, A.L. 1957. Techniques of attitude scale construction. Appleton Century- Crofts, New York.

Likert, R.A. 1932. A technique for the measurement of attitudes. Archives of Psychology. New York.140.

Spearman, Charles, C. 1910. Correlation calculated from faculty data. *British Journal of Psychology,* 3, 271-295.