

Original Research Article

Scale for Measuring Attitude of Farmers towards Organic Farming Practices

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ABSTRACT

Attitude influences many aspects of life in general. Attitude can be either positive or negative. Attitude plays a key role in determining behavioural actions. Organic farming practices significantly enhance the sustainability of the environment, farms and livelihood of the farmers but certain constraints diminished the adoption of sustainable organic agricultural practices. There is little study available on attitude of farmers towards organic farming. Keeping all this in view it was felt that a standardized scale be developed to measure the attitude of farmers towards organic farming practices. The term attitude may be defined as degree of positive or negative affect associated with some psychological objects. A standard and reliable scale was developed to measure this variable. After careful scanning of literature and consultation with experts, extension functionaries and progressive organic farmers, a list of practices which were essential for achieving efficient results was prepared. By these process 141 statements were prepared. On scrutiny it was found that a good number of statement were overlapping in one way or other following the informal criteria suggested by Edwards (1957) the items were edited. After rigorous culling, 71 items were retained. From the data so gathered, relevancy percentage, relevancy weightage and mean relevancy score were worked out for all the 71 items individually. Using these three criteria, the items were screened for their relevancy. Accordingly, items having relevancy percentage of more than 70, relevancy weightage of more than 0.69 and mean relevancy score of more than 2 were considered for final selection. Thus finally 12 statements were selected. Scale was found to be reliable and valid the developed scale will serve as a scientific tool for the measurement of attitude of the farmers towards organic farming practices in Konkan region.

Keywords

Symbol, slogan,
person, institution,
ideal, organic
farming

Introduction

Attitude influences many aspects of life in general. Attitude can be either positive or negative. Attitude plays a key role in determining behavioural actions. "It is our attitude at the beginning of a difficult task which, more than anything else, will affect its

successful outcome" Chamberlin (2010). By a psychological object Thurstone (1946) meant any symbol, slogan, person, institution, ideal or ideas towards which people can differ with respect to positive or negative affect. Attitude is one of the important psychological variables which enhances or hinders the adoption process of farmers

towards organic farming practices. According to Poyyamoli and Padmavathy (2011) organic farming practices significantly enhance the sustainability of the environment, farms and livelihood of the farmers but certain constraints diminished the adoption of sustainable organic agricultural practices.

There is little study available on attitude of farmers towards organic farming. It is certain that a number of social scientist will like to investigate this aspect of organic farming. Dillard (1994) shows that attitude emanates and is strongly associated with the activities in the brain and the long-term memory sections. The baseline component is the emotional node, which when subject to manipulation, can lead to attitude change.

Greenwald (1990) attempts to scale attitude by defining attitude as “the evaluation or affect associated with a social object” and continues with the attitude evaluation process by incorporating theoretical constructs based on social objects. Keeping all this in view it was felt that a standardized scale be developed to measure the attitude of farmers towards organic farming practices which could be used by researchers, hence an attempt was made to construct a scale to measure the attitude of farmers towards organic farming practices.

Materials and Methods

Construction and standardization of attitude scale

Attitude of farmers about organic farming

The term attitude may be defined as degree of positive or negative affect associated with some psychological objects. A standard and reliable scale was developed to measure this variable. The steps followed in construction and standardization of scale to measure

“Attitude of farmers about organic farming.” is explained below.

Identifying the task/activity

After careful scanning of literature and consultation with experts, extension functionaries and progressive organic farmers, a list of practices which were essential for achieving efficient results was prepared. By these process 141 statements was prepared. On scrutiny it was found that a good number of statement were overlapping in one way or other following the informal criteria suggested by Edwards (1957) the items were edited. After rigorous culling, 71 items were retained

List of activities along with judgement sheet was sent to 90 identified experts for their judgment on each practice on three response categories namely, ‘most relevant’, ‘relevant’ and ‘not relevant’ for indicating degree of relevance. Fifty judges returned the schedule.

From the data so gathered, relevancy percentage, relevancy weightage and mean relevancy score were worked out for all the 71 items individually by using the following procedure.

Relevancy percentage

Relevancy percentage (RP) was worked out by summing up the scores of ‘more relevant’, ‘somewhat relevant’ and ‘not relevant’ responses and later converting it into percentage. Following formula was used for the purpose.

$$RP = \frac{\text{More relevant response} \times 3 + \text{Somewhat relevant response} \times 2 + \text{Not relevant response} \times 1}{150 \text{ (i.e. maximum possible score } 50 \times 3)} \times 100$$

Relevancy weightage

Relevancy weightage (RW) was obtained by the following standard formula

$$RW = \frac{\text{More relevant response} \times 3 + \text{Somewhat relevant response} \times 2 + \text{Not relevant response} \times 1}{150 \text{ (i.e. maximum possible score } 50 \times 3)}$$

Mean relevancy score

The mean relevancy score (MRS) was obtained by the following standard formula.

$$MRS = \frac{\text{More relevant response} \times 3 + \text{Somewhat relevant response} \times 2 + \text{Not relevant response} \times 1}{\text{Number of judges (i.e. 50)}}$$

Using these three criteria, the items were screened for their relevancy. Accordingly, items having relevancy percentage of more than 70, relevancy weightage of more than 0.69 and mean relevancy score of more than 2 were considered for final selection. Thus finally 12 statement were selected (Table-1) were finally selected for the study by this process.

Pre-testing of the instrument

The test was administered to 30 organic farmers in a non-sample area by the student researcher. While administrating the test, care was taken to maintain privacy. After careful observations, the responses were recorded in the judgement sheet of each respondent.

Reliability of the developed scale

Reliability refers to the extent to which the repeated measurement produces the same result. The reliability of the developed scale

was determined by test-retest method. The responses were obtained from 30 organic farmers. The second administration was done after two weeks from the date of first administration. Pearson's product moment coefficient of correlation for two sets of data was 0.79. It indicated that the test was reliable.

Validity of the developed scale

To ensure that the obtained test measures the variable it is supposed to measure, content validity test was done. The expert's opinion was sought at various stages of test construction, besides reviewing extension literature relating to the test. Thus, the content validity was established.

Measure of variability

The highest attitude score was 52 and the lowest was 36. The range was found to be 16.00. Therefore, the scale developed to measure the attitude was able to detect variations in the attitude from one organic farmer to another.

Administering the developed scale

The respondents were asked to express their response in terms of strongly agree, agree, undecided, disagree and strongly disagree with regard to each of the 12 items included in the scale. The responses were collected on five point continuum namely 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with a score of assigned 5, 4, 3, 2 and 1 respectively for positive statements and 1, 2, 3, 4 and 5 for negative statements, respectively. Thus, the total score one could obtain ranged from 12 to 60 as 12 statements were included in final scale. The score for each respondent was obtained by summation of score of each one of the statements included in the scale.

Table.1 Statements with relevancy percentage, relevancy weightage and mean relevancy scores as given by extension specialists.

Sl. no	Statements of attitudes	Relevancy percentage	Relevancy weightage	Mean Relevancy Score
1	The quality of organic product is better than the product from Chemical.	92.67	0.93	2.78
2	Producing food material with pesticide is as like as slow poisoning to human.	92.67	0.93	2.78
3	Organic farming improves the lifespan of farm.	92.67	0.93	2.78
4	Consumers are prefer to purchase organic farming products than chemical farming products.	92.00	0.92	2.76
5	Farmer needs technical and financial assistance to convert to organic farming.	91.33	0.91	2.74
6	Organic farming leads to sustainability.	90.00	0.90	2.70
7	Crop with high nutrient uptake cannot be grown in organic farming.	80.67	0.81	2.58
8	It is easy to arrange chemical inputs than organic inputs.	86.00	0.86	2.58
9	Application of crop residue in soil requires special guidance.	78.00	0.78	2.52
10	We should first feed our present population, then think about future generation by organic agriculture.	84.00	0.84	2.52
11	Organic farming is suitable for particular crops but not for all crops.	82.67	0.83	2.48
12	Organic farming will not be able to feed the whole population of country.	81.33	0.81	2.44

As the above scale was found to be reliable and valid the developed scale will serve as a scientific tool for the measurement of attitude of the farmers towards organic farming practices in Konkan region.

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