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Perception of farmers towards the technical capabilities of extension personnel in Andhra Pradesh

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Abstract

Extension personnel play a vital role in capacity building of the farmers and in turn productivity enhancement. It is evident that technical abilities of the extension professional significantly affect the quality of the extension services provided to the farmers. By keeping this in the view the present study was carried out to study Perception of the farmers towards the technical capabilities of extension personnel in Andhra Pradesh. To measure the perception of the farmers a scale was developed using the Likert summated rating technique and used for the study. The study was conducted in Telangana, Andhra Pradesh and Rayalaseema regions of the undivided Andhra Pradesh. The findings of the study revealed that majority (40%) of farmers had medium favourable perception on technical abilities of the extension officers followed by low and high favourable perception.

Keywords: Technical capabilities, Extension personnel, Perception

Introduction

Agriculture sector all over the world is witnessing rapid changes and extension personnel must realize these unprecedented challenges due to recent global trends. On the other hand the farmer needs various kinds of facilitation to support their agro-based livelihoods. To meet the challenges in agriculture sector the extension officers need to be equipped with the latest technical information and skills. By keeping this in the view an attitude scale was constructed to measure the perception of farmers towards the technical capabilities of extension personnel. Many psychologists have given different definitions for attitudes. According to Schneider (1988), 'Attitudes are evaluative reactions to persons, objects, and events. This includes your beliefs, positive and negative feelings about the attitude object.' In brief, it could be said that, attitude is a positive or negative evaluations or feelings that people have towards other people, objects, issues or events. Attitudes include the general way people feel towards socially significant objects and most attitudes are lasting. But attitude is precondition factor for any action. Attitude of an individual plays an important role in determining ones behavior with respect to a particular psychological object. For successful implementation of the programme or dissemination of the technologies, it is needless to say that the clients should have favorable attitude towards technology. Above all these factors the farmer's attitude towards the technical abilities of the extension officers plays a crucial role in adoption of technologies. It is therefore necessary to measure the perception of farmers towards the technical capabilities of extension personnel. It is operationalized as the farmer's ability to see, understand and consider the capabilities of Agriculture Extension Officer (AEO) and the Agriculture Officer (AO) to solve the problems related to agriculture and related aspects. It is measured through the Rating Scale developed for the study. The main objective of this investigation was to construct the attitude scale to measure the perception of farmers towards the technical capabilities of extension personnel.

Methodology

The method of summated rating scale suggested by Likert (1932) and Edwards was followed in the construction of rating scale

Collection of Statements

As a prelude to measurement of "Perception of farmers towards the Technical Capabilities of Extension Personnel" a list of components that can go into the scale of components of technical capabilities of extension personnel, was prepared basing on review of literature and was sent to 80 judges in the field of extension. Out of that, 50 responses were obtained with in a time frame of three months. The judges were asked to rate the components in the order of their importance on a three point continuum viz. Strongly Agree, Agree and Undecided. They were also requested to feel free to add some more components.

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After the responses were obtained, they were given scores as 3 for strongly agree, 2 for agree and 1 for undecided. The instrument sheet together with rating pattern of the components is given below.

As the main objective of the study was to identify the farmers perception on technical capabilities of extension personnel, 21 statements were administered to the judges to rank them in order of their importance. Based on this scores and z value of the top 15 statements were selected to assess the farmer's perception.

After giving scores to the components and coding the data, z values were calculated for each component. Finally the grand z for all the components were calculated and obtained. All the components which were having above grand z value were selected as final components of the perception scale of the Technical Capabilities of the Extension Personnel. Then finally 15 components out of 21 were obtained which formed the final Scale of "perception of farmers towards the Technical Capabilities of Extension Personnel". The list of components selected with their 'z' value is given as below:

Table 1: Method of selecting the statements for the scale based on the z- value

S.N	Statement	Total Score	'z' value
1.	Extension personnel are able to meet the farmers' requirements with their technical capabilities. (+)	132	0.6920
2.	Information Provided by the Extension Personnel is inadequate (-)	120	0.4234
3.	The advices provided by the Extension Personnel are useful in agriculture development (+)	122	0.4682
4. *	Extension Personnel's efforts to solve farmers problems are not effective (-)	112	0.2443
5. *	Technically sound Extension Personnel are selected in Agriculture Department (+)	114	0.2891
6. *	Extension personnel are unable to provide quality services to farmers. (-)	114	0.2891
7.	Farmers take Extension personnel's advice seriously (+)	120	0.4234
8.	The technological recommendations by the extension personnel are adaptable (+)	124	0.5129
9.	Latest technical knowhow is not provided by the extension personnel (-)	120	0.4234
10.	Extension personnel have sufficient knowledge to solve the farmers problems (+)	126	0.5577
11. *	Extension Personnel are able to solve the farmers' problems well by their job activities. (+)	110	0.1996
12. *	Quality extension services in agriculture are possible through present extension system (+)	107	0.1324
13.	Agriculture extension personnel should be consulted for information on agriculture (+)	121	0.4458
14. *	Extension personnel cannot provide every advice required from seed to harvest (-)	114	0.2891
15.	Extension personnel involve farmers in developing village crop plans (+)	120	0.4234
16.	Extension personnel cannot meet the farmers expectations in time (-)	130	0.6472
17.	Farmers are happy with extension personnel's job performance. (+)	116	0.4339
18.	The extension personnel with sound technical knowledge are not sufficient in number to tackle the farmers problems (-)	128	0.6024
19.	Extension personnel are able to motivate farmers through better communication of their technical knowledge (+)	122	0.4682
20.	Extension staff can advice the farmers to decrease the cost of production and increase the yields (+)	118	0.4786
21.	Present day farmers' problems like marketing, processing, value addition, remunerative price etc. are not addressed by the extension personnel. (-)	130	0.6472

(* Statements not selected)

Final statements for the scale

When there was a good agreement among the judges in judging the degree of agreement or disagreement of a statement, calculated z value of the statement was higher than the overall z value (0.42500) of the statements. Only those items were selected whose z calculated value was above the (z) over all z value of the statements. Based on the above comparison, 15 statements numbering 1, 2, 3, 7, 8, 9, 10, 13, 15, 16, 17, 18, 19, 20 and 21 of the original list were finally selected to constitute the perception scale to know the technical capabilities of extension personnel as perceived by the farmers. The z value ranged from 0.4232 to 0.6920, which was compared with, calculated over all z value of 0.42500.

Method of scoring

The selected 15 statements for the final format of the perception scale were randomly arranged to avoid response biases, which might contribute to low reliability and distraction from validity of the scale. Out of the 15 statements selected, ten statements were the indicators of positive perception and five statements represented the negative perception. Against these 15 statements, there were three columns representing the three points on continuum viz., Strongly Agree, Agree and Undecided with the respective weights of 3, 2 and 1 for the Strongly agree, Agree and undecided respectively for positive perception and with the respective weights of 1, 2 and 3 for the negative perception.

Reliability of the scale

The scale is considered to be reliable when it will consistently produce the same results when applied to the same sample. In the present study due to limited time and resources available to the researcher, only Test-Retest method of testing reliability was used. In this method 15 components which formed the final scale of the Perception was administered to 30 selected respondents twice with 20 days interval. The scores were finalized, calculated and subjected to correlation coefficient analysis. The 'r' was found to be highly significant ($r=0.86$) indicating the reliability of the best to measure the farmers perception of technical capabilities of extension Personnel.

Validity of the scale

The validity of the Scale of the farmer's perception of technical capabilities of extension personnel was obtained through content validity by taking the opinion of judges. The items selected for the scale were evaluated individually and as a whole by the judges. There were again checked by experts for their relevance and coverage. It was felt that, all the items were relevant and covered sufficiently the entire dimension under consideration. Hence it may reasonably be assumed that the perception scale has content validity.

Final format of the perception scale

The selected 15 statements for the final format of the scale

were randomly arranged to avoid response biases, which might contribute to low reliability and from validity of the scale. Out of the 15 selected statements, ten statements were the indicators of favorableness and five statements were the indicators of unfavorableness. Against these 15 statements,

there were three columns representing a three point continuum of agreement and disagreement to the statements as followed by Likert (1932) in his summated rating technique of measurement. Final format has been presented in the Table 4.

Table 3: Final format of scale to measure the technical capabilities of the Extension personnel as perceived by the farmers.

S. No	Statement	Strongly Agree	Agree	Un-decided
1.	Extension personnel are able to meet the farmers' requirements with their technical capabilities. (+)	3	2	1
2.	Information provided by the Extension Personnel is inadequate (-)	1	2	3
3.	The advices provided by the Extension Personnel are useful in agriculture development (+)	3	2	1
4.	Latest technical know-how is not provided by the extension personnel (-)	1	2	3
5.	The technological recommendations by the extension personnel are adaptable (+)	3	2	1
6.	Extension personnel cannot meet the farmers expectations in time (-)	1	2	3
7.	Extension personnel have sufficient knowledge to solve the farmers problems (+)	3	2	1
8.	Agriculture extension personnel should be consulted for information on agriculture (+)	3	2	1
9.	Extension personnel involve farmers in developing village crop plans (+)	3	2	1
10.	Farmers take Extension personnel's advice seriously (+)	3	2	1
11.	Farmers are happy with extension personnel's job performance. (+)	3	2	1
12.	The extension personnel with sound technical knowledge are not sufficient in number to tackle the farmers problems (-)	1	2	3
13.	Extension personnel are able to motivate farmers through better communication of their technical knowledge (+)	3	2	1
14.	Extension staff can advice the farmers to decrease the cost of production and increase the yields (+)	3	2	1
15.	Present day farmers' problems like marketing, processing, value addition, remunerative price etc., are not addressed by the extension personnel. (-)	1	2	3

Perception of farmers towards the Technical Capabilities of Extension Personnel

A key concept in determining the technical capabilities of extension personnel as perceived by the farmers is to decide the performance of the extension personnel working in their area to tackle their needs and problems regarding the agriculture development. Such decisions depend on the

evaluation of the perceptions of the farmers towards the extension personnel's technical capabilities in a quantitative manner.

The result says that majority (78.00 per cent) of the farmers had low to medium degree of favorable perception towards the technical capabilities of extension personnel.

Table 4: Distribution of the respondents according to their degree of perception towards technical capabilities of extension personnel.

S. No.	Degree of perception on Technical Capabilities	Number of farmers	Per cent
1.	Low	92	38.00
2.	Medium	96	40.00
3.	High	52	22.00
	Total	240	100.00
		Mean: 35.28	SD: 5.34

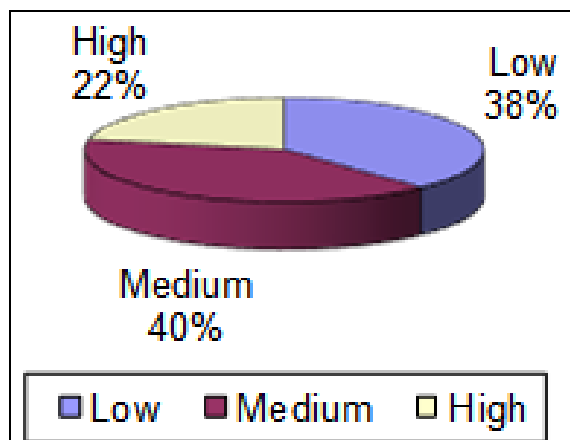


Fig 2: Degree of perception of Technical Capabilities

Conclusion

The scale developed to measure the perception of farmers towards the technical capabilities of extension personnel was

valid and reliable. Hence the same can be used by the researchers elsewhere with due modifications. The findings of the study revealed that majority (40%) of farmers had medium favourable perception on technical abilities of the extension officers followed by low and high favourable perception. Hence there is an immense need for capacity building of the extension officers to enhance their technical abilities to meet the expectations of the farmers.

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