



Profile Characteristics of Extension Personnel in Association with Attitude towards the Service Delivery System of Agro Service Centres

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Authors' contributions

This work was carried out in collaboration between both authors. Authors SVKM and BS designed the study. Author SVKM performed the statistical analysis of the study, managed the literature searches and the wrote the first draft of the manuscript. Both authors read and approved the final manuscript.

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ABSTRACT

The attitude of extension personnel towards the service delivery system of Agro Service Centres is developed based on their work experience in Agro Service Centres and the response they have received from the beneficiary farmers for the services they have been extended to them. The present study was conducted among 60 extension personnel associated with Agro Service Centres from the three districts of Kerala representing the central, northern, and southern Kerala, during the year 2019. Data collection was done using a pre-tested interview schedule, and analysis and interpretation of the data were done using statistical tools such as frequency, percentage, and correlation analysis. Based on the analysis of the data, it was observed that the majority (56.67%)

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of the extension personnel had a highly favourable attitude towards the service delivery system of the Agro Service Centre. The majority of the extension personnel working in ASCs belonged to the middle and old age categories, and the majority had up to five years of experience in extension work. The majority of the extension personnel possess medium extension service orientation and work commitment and moderate to high problem-solving and leadership abilities. The correlation analysis revealed that the attitude of extension personnel was positively and significantly correlated with their extension service orientation, work commitment, problem-solving ability, and leadership ability.

Keywords: Agro service centre; profile characteristics; attitude; extension personnel; agricultural facilitator; service providers; service delivery system; Kerala.

1. INTRODUCTION

Agricultural support services are considered an integral part of the development of the farming sector. The functioning of all organizations that facilitate and support all stakeholders engaged in farming and related activities needs to be improved for the continuous growth and development of the agricultural and allied sectors. Agricultural extension services rendered by these organizations play an important role in improving the livelihood of farmers in terms of providing cost-effective, appropriate and affordable services to farmers, transfer of latest farming technologies and help in diversification and specification of farming [1]. The quality of services rendered by the extension agencies depends on a number of factors, such as the number and continuity of extension personnel, recruitment, pre-service training, field support, including rewards and incentives, communication and cooperation within and between extension departments, and the extent of local community involvement [2]. Other than these factors, the profile characteristics and attitude of extension personnel working in these organizations also affect their performance in service delivery and, thereby, the quality of support services rendered by the agricultural service delivery systems. Agro service centres (ASCs) are the extension agencies providing integrated services and supply of agro inputs in rural areas according to local needs and also provide advise to farmers regarding the efficient utilization of available resources and create employment opportunities to rural youth [3]. In Kerala, the Department of Agriculture and Farmers Welfare established Agro Service Centres as part of the Agro Service Centres and service delivery project from 2012–13, mainly to attract unemployed youth to agriculture [4]. The activities of ASCs are guided by an appointed Agricultural Facilitator. The facilitator should be either a retired officer from the Department of Agriculture or persons having

educational qualification like B Sc. Agriculture, Diploma in agriculture. There are a number of service delivery executives like VHSC certificate holders, ITIs and others to provide services to farmers. Agro Service Centres act as catalysts between traditional and advanced technological developments in the field of agriculture and increase the agricultural productivity of farmers. The performance of extension personnel working in Agro Service Centres (ASCs) is based on how they perceive the importance of service delivery to farmers. The performance and attitude of extension personnel towards the service delivery system of Agro Service Centres (ASCs) is developed based on their profile characteristics.

2. METHODOLOGY

The study was conducted among the extension personnel of Agro Service Centres (ASCs) in three districts of Kerala, representing Kottayam from the southern region, Thrissur from the central region, and Kannur from the northern region, which had the highest number of Agro Service Centres established until 2016–17, Viz., Ten Agro Service Centres from Thrissur district, Ten Agro Service Centres from Kannur district, and Six Agro Service Centres from Kottayam district

The respondent groups of the study comprised a total of 60 extension personnel, including both Agricultural Facilitators and Service Providers working in ASCs. Data were collected through personal interviews with the respondents using a pre-tested interview schedule. The analysis and interpretation of the data were done using statistical tools such as frequency, percentage, and correlation analysis.

The attitude of extension personnel is operationally defined as the degree of positive and negative mental disposition of extension personnel working in Agro Service Centre (ASC)

towards its service delivery mechanism to the beneficiary farmers. An arbitrary scale was developed for the study with eleven statements reflecting the attitude of extension agents towards the service delivery system of ASC. The scale consists of 11 statements with six positive statements and five negative statements. The respondents were asked to give their agreement (or) disagreement on a five-point continuum as 'strongly agree', 'agree', 'undecided', 'disagree' and 'strongly disagree' with the scoring 5, 4, 3, 2 and 1 respectively in the case of positive statements and vice-versa in the case of negative statements. The possible minimum and maximum scores were 11 and 55 respectively.

Frequency and percentage analysis was carried out to find the distribution of Extension personnel based on their attitude towards the service delivery system of ASCs and they were classified into three categories based on the obtained data score range: Extension personnel with an unfavourable attitude, Extension personnel with a moderately favourable attitude, and with a highly favourable attitude.

Nine independent variables for Extension personnel such as age, Education, Occupational position, Experience in extension work, Training received, Extension service orientation, Work commitment, Problem solving ability, Leadership ability were identified to study the profile characteristics of Extension personnel working in ASCs. Seven independent variables for Extension personnel such as age, Experience in extension work, Training received, Extension service orientation, Work commitment, Problem solving ability, Leadership ability were selected to perform correlation analysis to evaluate the significance of the attitude of extension personnel towards the service delivery system of ASCs with the selected independent variable.

3. RESULTS AND DISCUSSION

3.1 Agro Service Centres in Kerala

Agro Service Centres (ASCs) in Kerala were established on a pilot basis by the Department of Agriculture and Farmers Welfare in 2012–13, mainly to accelerate the growth of the agricultural sector with quality inputs and services and to popularise mechanised farming among the

beneficiary farmers. Agricultural facilitators appointed in ASCs manage and supervise the activities of ASCs under the guidance of a nodal officer. The service delivery executives in ASCs deliver inputs, information, and other services to the farmers. Repair and service unit of the Agro Service Centre is managed by professionals having ITI qualification. Diagnostic and clinical services are managed by VHSE holders. The day to day activities of ASCs are monitored by the members of management committee and its control and sovereignty is vested with the high power committee. Government also conducts training programmes for the facilitator and for service delivery executives to enhance their knowledge and skill in agriculture. Training programmes for service providers of ASCs are conducted by Department of Agriculture in association with District Agricultural Engineering Department, Farmer Training Centres (FTCs), Agricultural Research Station (ARS), RATTTC etc.

3.2 The Attitude of Extension Personnel towards the Service Delivery System of Agro Service Centres

The attitude of extension personnel towards the service delivery system of ASCs is shaped based on their personal and social characteristics such as age, education, occupational position, work experience, training received, extension service orientation, work commitment, problem-solving ability, leadership ability, etc., and the response they have received from the beneficiary farmers to the services they have been extended to them. The attitude of extension personnel towards the service delivery system of ASCs were measured using an arbitrary scale developed for the purpose and based on scores obtained and data score range the respondents were categorized into Low, Medium and High group. The result obtained are presented in Table 1.

Table 1, shows that majority (56.67%) of the extension personnel had a high favourable attitude towards the service delivery system of Agro Service Centre and a very few extension personnel had unfavourable attitude. Here the result implies that most of the officials had a favourable attitude towards the service delivery system of ASCs and they were always willing to provide services to the farmers. Since most of them were already employed in the State

Table 1. Distribution of extension personnel based on their attitude towards the service delivery system of ASCs

Category	Frequency	Percentage (%)
Low (11 – 26)	3	5
Medium (26 – 41)	23	38.33
High (41 – 56)	34	56.67

Department of Agriculture and many had agricultural background, which might be one of the reason for obtaining the above result. The result obtained is desirable because a favourable attitude will motivate the employees to perform better. Results are similar to that of Peter [5] and Bortamuly [6], where majority of the extension agents had favourable attitude towards different farming service delivery systems.

3.3 Profile Characteristics of Extension Personnel towards the Agro Service Centres (Ascs) in Kerala

3.3.1 Age

Table 2 revealed that majority of the extension personnel of ASC belonged to middle and old age category. Only 16.66 per cent of extension agents were youngsters. Majority of the young service provider of Agro Service Centres discontinues and opt for other jobs and also most of the Agricultural Facilitators joined ASC after their retirement from the Department of Agriculture. This is the main reason for the low per cent of youth as extension worker in ASCs. Results are in line with that of Bortamuly [6]; Bhaurao [7], where majority of the extension personnel belonged to middle and old age category.

3.3.2 Education

Table 2 showed that 23.34 per cent of respondents had Diploma in agriculture and SSLC as educational qualification. Nearly twenty per cent (18.33%) of the respondents had studied VHSE and ITI. So, it is clear from Table 2 that only one extension agent had B Sc. Agriculture qualification. The result shows that most of the Agricultural Facilitators had Diploma in Agriculture followed by KGTA and VHSE qualification. But most of the service providers had qualification of SSLC, ITI and VHSE.

3.3.3 Occupational position

Table 2 shows the distribution of respondents based on their occupational position in the Agro Service Centre. There were mainly two

categories of respondents in ASC and they included Agricultural facilitators and Service providers. In this 56.66 per cent of respondents were service providers and 43.34 per cent of them were Agricultural Facilitators.

3.3.4 Experience in extension work

Table 2 revealed that majority (41.66%) of the respondents had experience in extension work up to five years followed by 23.33 per cent with more than 30 years of experience in extension work. But in the case of Agricultural Facilitators, most of them had experience of more than 30 years followed by experience between 15 to 30 years. Most of the service providers had less than 5 years of experience in extension work.

3.3.5 Training received

The Table 2 reveals the training received by the respondent after joining in Agro Service Centre were mainly on the operation of farm machinery or for the enhancement of any particular skill related to farming. Majority (56.66%) of the extension agents received 2 training programmes and 26.67 per cent received only one training and 16.67 per cent of the respondents received more than 3 training programmes. Agricultural Facilitators were instructed on how to set and manage the Agro Service Centre and subsequently, extensive trainings were given to them for the same. The success of the Agro Service Centres depends on the management as well as operational skills imparted to the Service Providers. Twenty days training on the field operations, repair and maintenance of farm machinery were imparted to the Service Providers. After the training, they set the main working groups of the ASC. A Next level training for 20 days was given to the working group to operate farm clinic and diagnostic centre. The training was imparted on essential technologies to VHSC (Agri) members of the ASC working group. Farm machinery repairing and service training were provided to ITI people to operate repair service centre of machinery. The other five members were imparted skill up-gradation training for the service they are offering in each area.

Table 2. Distribution of extension personnel of Agro Service Centres based on their personal and social characteristics

Sl. No.	Profile character	Frequency/No.	Percentage (%)
1	Age		
	Young age	10	16.66
	Middle age	25	41.67
	Old age	25	41.67
2	Education		
	B Sc. agriculture	1	1.66
	Diploma in agriculture	14	23.34
	VHSE	11	18.33
	KGTA	4	6.67
	ITI	11	18.33
	SSLC	14	23.34
	Others	5	8.33
3	Occupational position		
	Agricultural facilitators	26	43.34
	Service providers	34	56.66
4	Experience in extension work		
	Up to 5	25	41.66
	6 to 15	11	18.34
	16 to 30	10	16.67
	Above 30	14	23.33
5	Training received		
	One training	16	26.67
	Two training	34	56.66
	Three training	10	16.67
6	Extension service orientation		
	Low (11 to 19)	12	20
	Medium (19 to 27)	34	56.67
	High (27 to 35)	14	23.33
7	Work commitment		
	Low (7 to 16)	10	16.67
	Medium (17 to 26)	26	43.33
	High (27 to 36)	24	40
8	Problem solving ability		
	Low (8 to 19)	16	26.66
	Medium (19 to 30)	22	36.67
	High (30 to 41)	22	36.67
9	Leadership ability		
	Low (5 to 12)	11	18.33
	Medium (12 to 19)	25	41.67
	High (19 to 26)	24	40

3.3.6 Extension service orientation

Table 2 showed that more than fifty per cent of the extension personnel had medium extension service orientation followed by 23.33 per cent with high and 20 per cent with less extension service orientation. The result obtained is desirable as eighty per cent of the extension workers were having medium to high extension service orientation which is a desirable trait in an extension worker. The result is not in agreement with the finding of Ganiger [8].

3.3.7 Work commitment

Table 2 revealed that 43.33 per cent of extension personnel of Agro Service Centre were having medium work commitment followed by 40 per cent with a high commitment to their work. Only 16.67 per cent of respondents belonged to the category of having less work commitment. Work commitment which is a desirable trait in an extension worker to perform excellently in his work was found to be more in the

respondent category which is a positive observation. These result is in agreement with the findings of Chaudhary [9] and Sundaran [10].

3.3.8 Problem solving ability

From the Table 2, we can see that 36.67 per cent each of extension agents had moderate and high problem solving ability. Only 26.66 per cent of respondents belonged to the category of extension agents with less problem solving ability. The role function which is limited in nature could be the reason why extension agents belonged to the category of low problem solving ability.

3.3.9 Leadership ability

Majority of extension personnel of Agro Service Centres had medium and high leadership ability and 18.33 per cent of extension agents were belonging to low category of leadership. Extension workers with good leadership quality will be able to take initiative in various extension activities of ASC to help the farmers for betterment of their farming. The result is in line with the findings of Shankar [11] and Chaudhary [9], where most of the extension agents were having moderate ability to lead others.

3.4 Relationship of Attitude of Extension Personnel towards the Service Delivery System of Ascs with their Profile Characteristics

Correlation analysis was performed to evaluate whether there is any significant relationship between the attitude of extension personnel towards the service delivery system of ASCs with their profile characteristics.

The attitude of extension personnel was positively and significantly correlated with extension service orientation, work commitment, problem solving ability and leadership ability of the respondents. The result also showed that extension service orientation, work commitment and problem-solving ability were positively and significantly correlated to attitude at 1 per cent and leadership ability was positively and significantly correlated to attitude at 5 per cent level of significance. The independent variables like Age, experience in

extension work and training received were found to be positive and non significant with the attitude of extension personnel.

The performance effectiveness of Agro Service Centre was determined in terms of extension service orientation, work commitment, problem solving ability and leadership ability of the extension personnel. There was a significant and positive correlation between extension service orientation and attitude of extension personnel. Service minded extension agents will be more interested in providing services to farmers. This leads to improvement in the performance of Agro Service Centres and thereby enhance the standard of living of farmers. This may be the reason for the favourable attitude of extension personnel towards the service delivery mechanism of Agro Service Centres. The results are in line with the findings of Ganiger [8] where he reported that extension service orientation was positively and significantly correlated with role performance. The one who performs well in his role as an extension agent will have favourable attitude towards agro advisory services.

Work commitment was significantly and positively correlated with the attitude of extension agents. Those who have more dedication and responsibility in doing work will have a favourable attitude towards the service delivery system. This is in line with the result of Ravikishore [12]. Problem solving ability and leadership ability of extension personnel were significantly and positively correlated with their attitude towards the service delivery system of ASCs. Similar result was reported by Chaudhary [9], where attitude of Agricultural Supervisors was significantly and positively related with their leadership ability.

The key factors that determine the confidence of extension personnel are their ability to convince farmers that they can solve problems and has the ability to lead the farmers. Those extension agents with these abilities will have a favourable attitude towards the service delivery system of ASCs. Therefore, it is clear that the performance effectiveness of Agro Service Centre was determined in terms of extension service orientation, work commitment, problem solving ability and leadership ability of the extension personnel.

Table 3. Correlation of the profile characteristics of extension personnel with their attitude towards the service delivery system of ASCs

No.	Independent variables	Correlation co-efficient
1	Age	0.224
2	Experience in extension work	0.180
3	Training received	0.044
4	Extension service orientation	0.523**
5	Work commitment	0.476**
6	Problem solving ability	0.600**
7	Leadership ability	0.255*

N = 60, $r_{table} = 0.330$ (1%) & $r_{table} = 0.254$ (5%)

(**1 per cent significant level *5 percent significant level)

4. CONCLUSION

Agro Service Centre (ASC) is a single-window outlet operated by a group of extension personnel, such as Agricultural Facilitators and Service Providers, that focuses mainly on delivering inputs and services required by the farmers. The majority of the extension personnel working in ASCs belonged to the middle and old age categories, and most of the officials had a highly favourable attitude towards the service delivery system of ASCs. The majority of the respondents received two training programmes and had up to five years of experience in extension work. The majority of the extension personnel possess medium extension service orientation and work commitment and moderate to high problem-solving and leadership abilities. The result of the correlation between the attitude of extension personnel and their profile characteristics pointed out that extension service orientation, work commitment, problem-solving ability, and leadership ability had a positive and significant correlation with the attitude of extension personnel.

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COMPETING INTERESTS

Authors have declared that no competing interests exist.

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