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Attitude of Beneficiary farmers towards the Service Delivery System of Agro Service Centres in Kerala, India

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ABSTRACT

The attitude of farmers and other stakeholders towards farming is formed based on the way they have been treated by the agricultural extension and service delivery system. The present study was conducted among the beneficiary farmers of Agro Service Centres (ASCs) in Thrissur, Kannur and Kottayam districts of Kerala, India, representing the central, northern and southern Kerala. The sample of the study comprised 120 farmers i.e., 45 farmers from Thrissur, 45 farmers from Kannur and 30 farmers from Kottayam. The purpose of this study was to examine and understand the beneficiary farmers' attitudes toward the Agro Service Centers' service delivery system and to determine whether there are any appreciable differences in those attitudes between the three districts. Based on the analysis of data, it was observed that half of the respondents had a medium level of favourable attitude towards the service delivery system of Agro Service Centres. The result of Kruskal Wallis test indicated that there was significant differences in the attitude of farmer beneficiaries towards the service delivery system of Agro Service Centres among the three districts. The correlation analysis revealed that the attitude of beneficiaries towards the Agro Service Centre was positively and significantly correlated with farming experience, annual farm income, resource utilization, and change proneness and it was negatively and significantly correlated with risk orientation.

Keywords: *Agro Service Centre; Attitude; beneficiary farmers; Information ; Technology; Service delivery system; Kerala*

INTRODUCTION

Agriculture is the foundation of any economy. Different services and farming information provided by agencies such as Agro Service Centres (ASCs) enable the consecutive growth of the agriculture sector, thereby strengthening the agriculture foundation of the country. Favourable attitudes of both farmers and other stakeholders involved in farming and related activities are required for proper delivery of technologies among the beneficiary farmers and its rapid spread and thereby enhancing productivity and income from farming.

Agro Service Centre (ASC) is an agency which is delivering different farming inputs and services to farmers based on their requirement at a single point (Meethal, 2019). Moreover, they are the extension agencies providing integrated services and supply of agro-inputs in rural areas according to local needs and also provide advice

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to farmers regarding the efficient utilization of available resources and create employment opportunities to rural youth (Vitthaldas, 2016). Quality information and advisory services in farming have long been recognized as influential factors in boosting agricultural productivity and production, which ultimately lead to the development of the agricultural economy of the country. The services provided by agricultural extension have significant public good attributes and play a pivotal role in increasing farmers' income through increased yield and reduced farm expenses.

Today, agriculture is viewed from a different perspective, with a greater focus on commercial crop cultivation, for which farmers need scientific and technical information and guidance that is not readily available in the current extension service networks. Farmers require quick, practical, and scientific advisory services to address their field problems. Agro Service Centers were established by Kerala's department of agriculture to primarily meet the needs of farmers, including those related to input demands, the newest agricultural techniques and technologies, the availability of farm machinery and labour, guidance and advisory services, etc. This study was conducted to examine and understand the attitude of beneficiary farmers towards the service delivery system of Agro Service Centers, as well as to determine whether there are any significant differences in those attitudes between the three districts. Ex-post-facto research design was employed.

It is therefore hoped that this study will help in revising the working norms and conditions as preferred by the beneficiary farmers, popularize the services of ASCs among farmers and other stakeholders in agriculture, and help in rectifying problems that lead to the development of unfavourable attitudes among beneficiaries, such as difficulty in access, other procedural formalities, etc. The results of the study will be useful to the Department of Agriculture in Kerala and to other planners and policymakers related to agricultural extension systems for developing a farmer-friendly atmosphere and easy access to agricultural information and services.

METHODOLOGY

The study was conducted in three districts of Kerala, India , viz., Kottayam from the southern region, Thrissur from the central region, and Kannur from the northern region, which had the highest number of Agro Service Centers established until 2016–17. The respondent groups of the study comprised of beneficiary farmers of Agro Service Centres. The number of farmers in the districts was determined in proportion to the total number of Agro Service Centers in each district. A total of 120 farmers with a sample size of 30, 45, and 45 farmers were randomly selected from the 6, 10, and 10 Agro Service Centers that were functioning in Kottayam, Thrissur, and Kannur districts, respectively. The farmer beneficiaries of ASCs were classified into three categories namely unfavourable attitude, medium favourable attitude and highly favourable attitude based on their responses.

Attitude of beneficiary farmers towards Agro Service Centre is operationally defined as the degree of positive and negative mental disposition of respondent towards the service delivery system of Agro Service Centre. An arbitrary scale was developed for the study with ten statements reflecting the attitude of farmer beneficiaries towards ASC. The scale consist of ten statements with six positive and four 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 score ranged from 10 to 50.

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

Eleven independent variables for farmers, such as age, education, farming experience, size of land holding, resource utilization, annual farm income, change proneness, information source utilization, decision making ability, extension agency contact and risk orientation were selected, and correlation analysis was performed to evaluate the significance of the attitude of beneficiary farmers towards ASCs with the selected independent variables. The Kruskal-Wallis test was used to compare the attitude of beneficiary farmers of ASC in the three regions of Kerala.

FINDINGS AND DISCUSSION

Attitude of Beneficiary Farmers towards ASCs

The attitude of beneficiary farmers towards the services of ASCs was measured using an arbitrary scale developed for the purpose, and based on the scores obtained and the data score range, the respondent farmers were categorised into three groups, such as farmers with an unfavourable attitude, a mediumly favourable attitude, and a highly favourable attitude.

Table 1. Distribution of Beneficiaries based on their Attitude towards ASCs

	Overall		Thrissur		Kannur		Kottayam	
Category	No.	%	No.	%	No.	%	No.	%
Unfavourable attitude(10 – 24)	27	22.5	5	11.12	6	13.33	16	53.34
Medium favourable attitude (24 – 38)	60	50	23	51.11	25	55.55	12	40
Highly favourable attitude (38 – 52)	33	27.5	17	37.77	14	31.12	2	6.66
Mean	33.33		35.71		34.86		27.46	
Total	120		45		45		30	

From Table 1, it was clear that majority (50%) of the respondents had a medium favourable attitude towards the Agro Service Centre followed by 27.5 % who had a highly favourable attitude and 22.5% had an unfavourable attitude towards ASCs. Majority of the farmers from Thrissur and Kannur district belonged to the category of people with moderate attitude. But in the case of Kottayam district, 53.34% had unfavourable attitude followed by 40% who had a medium attitude and only a very few farmers (6.66%) had a favourable attitude towards ASCs.

Some of the ASCs from Kannur and Thrissur were not delivering some of the offered services as per the Agro Service Centers and service delivery scheme launched by the Department of Agriculture and Farmers Welfare in Kerala. This might be the reason for the medium favourable attitude of beneficiary farmers. The results are

in line with the findings of Sobanbhai (2014) and Koshy (2016), who reported that most of the farmers were having a medium favourable attitude towards the services of Kisan Call Centres. According to Meethal (2019), the performance effectiveness of ASCs is reflected in the unfavourable attitude of farmers towards ASCs in Kottayam district, where some of the ASCs fail to render many of the proposed agroservices to farmers. The performance of the Agro Service Centres in rendering different services to farmers affected the attitude of beneficiaries towards the centre. The unfavourable attitude of the beneficiary farmers may be caused by the subpar performance of the majority of the ASCs in Kottayam. Therefore, ASC system authorities and extension agents must emphasise the services, information, and technology dissemination systems of ASCs.

Comparsion of Three Districts of Kerala with Respect to Attitude of Beneficiaries Towards ASCs

A meticulous comparison is required to know the difference in the response of farmers towards the single window mechanism of information and services delivery.

Table 2. Comparison of the attitude of beneficiaries towards ASCs between the districts

	Thrissur	Kannur	Kottayam
Minimum	18	22	19
Maximum	47	46	39
Mean score	35.71	34.87	27.47
Mean rank	72.50	66.73	33.15
KW statistics	25.46		
χ^2 (0.05, 2)	5.991		
Inference	Significant		

From Table 2, the result of the Kruskal-Wallis test showed that the estimated KW value was 25.46 which is greater than the chi-square value at 2 degrees of freedom (5.991). Therefore, the result indicated that there was significant difference in the attitude of farmer beneficiaries towards ASCs among the three districts. Hence it is clear that the beneficiary farmers had different mental disposition towards the service delivery system of Agro Service Centres of Department of Agriculture, Kerala. The result of this comparison paves a way to improve the existing functioning of ASCs.

The area of investigation was restricted to three districts in Kerala, representing the three zones. The working conditions, farming culture, cropping pattern, soil and climatic conditions, pest and disease incidence, and the like in each area were quite different. Farmers' awareness and exposure to resources and extension services also differ. This might be the reason for the difference in the attitude of farmers towards ASCs among the three districts.

Relationship Between the Attitude of Beneficiary Farmers towards ASCs and their Profile Characteristics

A perusal of Table 3 revealed the relationship between attitude of farmers and their profile characteristics such as age, education, size of land holding, annual farm income, farming experience, resource utilization, change proneness, decision-making ability, information source utilization, risk orientation, and extension agency contact.

Table 3. Correlation of the Profile characteristics of farmers with Performance Effectiveness Index and attitude of beneficiaries towards ASCs.

Sl. No.	Independent variables	Attitude (r value)
1	Age (Years)	-0.073
2	Education	0.133
3	Size of land holding (ha)	0.070
4	Annual farm income	0.185*
5	Farming experience	0.246**
6	Resource utilization	0.232*
7	Change proneness	0.332**
8	Decision making ability	-0.106
9	Information source utilization	0.094
10	Risk orientation	-0.307**
11	Extension agency contact	-0.139
If N = 120, r-table value = 0.179 (5%) & r-table value = 0.234 (1%)		

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

The attitude of beneficiaries towards Agro Service Centre was positively and significantly correlated with farming experience, annual farm income, resource utilization and change proneness and it was negatively and significantly correlated with risk orientation. The result also showed that farming experience and change proneness was positively and significantly correlated with attitude of farmers at 1 per cent. Annual farm income and resource utilization were positively and significantly correlated with the attitudes of beneficiaries of ASC at 5 per cent and risk orientation was negatively and significantly correlated with the attitudes of beneficiaries of ASC at the 1 percent level of significance.

The computed r-value (-0.073) for age and attitude of farmers showed a negative and non-significant relationship between age and the attitude of farmers towards ASCs. This indicates that the age of the farmer did not significantly influence their attitude towards ASCs. The finding was in accordance with the findings of Rebecca (2012).

The r-value calculated (0.133) for finding the relationship between farmers education and attitude showed positive and non-significant relationship of education with attitude of farmers towards ASCs. This indicates that the education of the farmer did not significantly influence their attitude towards the services of ASCs. Similar observations were reported by Rebecca (2012) in her study on the attitudes of women farmers towards agricultural extension services.

It is evident from Table 3 that the computed r-value (0.070) for assessing the relationship between the size of landholdings and the attitudes of beneficiaries showed a non-significant relationship between land size and farmers' attitudes. This implies that the size of the land owned by the farmer had no influence on developing a favourable attitude towards ASCs. The finding was in accordance with the findings of Rebecca (2012).

A significant and positive correlation was found between the attitude of beneficiaries towards ASCs and their annual farm income while comparing the computed r-value (0.185) with the r-table value (0.179). This indicates farmers with high incomes will have a favourable attitude towards ASCs. Farmers earning a good

income from agriculture will try to utilize all ways to improve their farming. The farmers who earn income from farming will try to adopt all possible means and technologies for the further improvement in production and productivity of crops. These farmers will be having a favourable attitude towards any agency which is providing different agricultural services and information regarding the new farming technologies. The finding was in accordance with Kiranmayi and Vijayabhinandana (2018).

Table 3 revealed the calculated r-value of farming experience and attitude to be 0.246, indicating a positive and significant association between the experience of the farmer and their attitude. Farming experience plays an important role in determining the attitude of farmers. Experienced farmers are more conscious about the different agro advisory systems around them and they know the importance of such a system. So they will have a positive attitude towards all the interventions for the upliftment of the farming community. The findings are not in line with the findings of Kiranmayi and Vijayabhinandana (2018) and Rebecca (2012).

It is evident from Table 3 that the computed r-value (0.232) for resource utilisation and attitude of beneficiary farmers showed a non-significant relationship with attitude. Resource utilization is the ability of the farmer to utilize the available on farm and off-farm resources and services at its fullest potential. Resource utilization directly influences the attitude of farmers. So these farmers recognise everything around them as an opportunity for agricultural growth and hence they perceive ASCs as a better source of resources. This leads them to develop a favourable attitude towards ASCs.

The calculated r-value of 0.332 for change proneness and attitude of beneficiaries towards ASC indicates a positive and significant correlation between farmers' proneness to changes and their attitude. Those who are ready to accept the changes will definitely support the changes in the agricultural information and technology disseminating system. Therefore, they will be having a favourable attitude towards Agro Service Centres. The result is in agreement with the findings of Bhosale *et al.* (2021) where he observed that farmers with favourable attitude are prone to new ideas.

The computed r-value (-0.106) for farmers' decision-making ability and attitude toward ASCs indicates a non-significant relationship between farmers' decision-making ability and attitude toward ASCs. The calculated r-value (0.094) for information source utilization and the farmer's attitude revealed a positive but non-significant relationship between them. This indicates that farmer's information source utilization behaviour does not significantly influence their attitude toward ASCs. The extension agency contact of the farmer and his attitude towards ASC did not significantly influence each other as per the calculated r-value (-0.139) in the correlation analysis between them. The finding was not in agreement with the findings of Shankaraiah and Swamy (2012).

The calculated r-value (-0.307) for risk orientation and attitude of farmers showed a significant and negative correlation between attitude and risk orientation. Farmer's attitude becomes more favourable according to the performance effectiveness of Agro Service Centres. Consequently, the tendency of farmers who depend on such centres for the support will increase. This leads to a shift in their decision-making habit and ultimately it might have reduced the risk-taking propensity of farmers, which explains negative significant relation between attitude and risk orientation observed

in the study. The result is not in agreement with the findings of Kiranmayi and Vijayabhinandana (2018) where risk orientation of farmers showed positive and significant relationship with attitude of farmers.

CONCLUSION

Agro Service Centre (ASC) is an agency which is delivering different farming inputs and services to farmers based on their requirement. Time-bound, high-quality agro-services are essential for the growth and development of the agricultural sector. Agro Service Centres satisfy the needs of small and marginal farmers by addressing their problems and also by providing support services to them. The study was intended to evaluate and comprehend how the services of Agro Service Centers were perceived by the benefiting farmers and to see if there were any notable discrepancies in the attitude of farmers towards ASCs across the three districts. The results of the study concluded that fifty percent of the respondents had a moderately favourable attitude towards the services of Agro Service Centers in Kerala. Therefore, the performance efficiency and farmer-friendly environment of such centres are essential for building a positive and supportive attitude among farmers.

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