Clientele Group and Extension Council Officer Perceptions of the Cooperative Agricultural Extension Service

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The primary role of the Cooperative Agricultural Extension Service has been to help people help themselves through educational activities. Extension programs in agriculture have been designed to provide practical information that could be put immediately into practice. Bailey and Knapp (1945) noted that "what a man hears, he may doubt, what he sees, he may possibly doubt, but what he does himself, he cannot doubt." This summarizes the basic philosophy of the Cooperative Agricultural Extension Service. In that respect, the educational nature of successful extension programs has focused on changing the behavior of extension clientele in terms of developing skills, knowledge and attitudes. Previous studies (Habeeb, 1979) have examined the adoption of new innovations, speed of the adoption process, adoptor classification and factors related to acceleration of the adoption of new innovations. Other studies (Okai, 1986) have focused on the effectiveness of different media used in extension programs.

One of the most important concerns with any educational activity is an evaluation of the program. Furthermore, program outcomes as perceived by persons served should be a primary focus of such evaluations.

Problem

The purpose of this study was to ascertain the quality of the Cooperative Agricultural Extension Service as perceived by county extension council officers and the extension clientele. This study was also designed to assess various personal characteristics that may have affected the extension clientele's perception of extension information, extension agricultural specialists, extension methods, and the agricultural extension education program generally.

Objectives

This study was designed to answer the following questions.

1. Is there a difference in the perception of extension council officers and the extension clientele (farmers) of the following: extension information, extension methods, extension agricultural specialists, and the agricultural extension education program?

2. Which characteristic or combination of characteristics can explain a significant portion of the variability associated with the extension clientele's perception of the following: extension information, extension agricultural specialist, extension methods, and the agricultural extension education program?

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Procedure

Population and Sample

The population for this study consisted of all extension council officers and farmers who utilized the Cooperative Agricultural Extension Service in Missouri. The sample consisted of 400 farmers representing the agricultural extension clientele group and 150 individuals representing extension council officers. Respondents were selected using a random sampling technique, stratified by county. Forty members of the extension clientele group were identified by extension office coordinators in each of ten randomly selected counties in Missouri. Three county extension council officers were randomly selected from each of the 50 randomly selected counties in Missouri. The extension council officer group consisted of individuals elected to leadership positions within each respective county extension council. Counties with fewer than 500 farms were eliminated prior to the sampling procedure. Extension office coordinators were asked to select 40 farmer respondents to represent the clientele group using the following criteria. The farmers must: (a) have been active in and had knowledge of the extension service; (b) have been respected members of the community; (c) have been representative of the various programs in agriculture; and (d) not have been an extension council officer.

Instrumentation

Young and Cunningham (1977) developed the instrument that was used in this study to assess the perceptions of both the agricultural extension clientele and extension council officers. The instrument consisted of 43 items in four subsections: extension information (14 items), extension agricultural specialists (11 items), extension methods (10 items), and agricultural extension education program (8 items). The Kuder-Richardson reliability estimate computed using the data collected in this study for the total instrument was 0.98.

Data Collection and Analysis

Questionnaires and cover letters were mailed to 150 extension council officers and 400 extension clientele along with a stamped, addressed return envelope. Each respondent was asked to circle one of five responses on a Likert-type scale from poor to excellent (1 = poor; 5 = excellent), which reflected their perception of each component of the Cooperative Agricultural Extension Service. The innovativeness level of the agricultural extension clientele was assessed by asking respondents to indicate their perceived rate of adoption of new agricultural practices. Responses were obtained from 143 (95.3%) extension council officers and 284 (71%) farmers representing the agricultural extension clientele group. Three follow-up mailings were used to achieve the 77.6% overall response rate. Additional background and personal information was also requested from the agricultural extension clientele group. Non-respondents were not assessed as part of this study.

The data collected were analyzed using the Statistical Analysis System (SAS, 1982). One-way analysis of variance and Fisher's Least Significant Difference tests (LSD) were used to answer question number one. A multiple linear regression technique was used to answer the second research question. The .05 alpha level was used to determine statistical significance for data analysis and testing purposes.

Findings

Data in Table 1 reveal results of one-way analysis of variance tests to answer question one. A significant difference was identified between the mean scores of extension council officers' and the extension clientele's perception of extension information. The F value was 4.23, statistically significant at the 0.05 level. The mean score of the extension council officers was 3.98 and extension clientele was 3.86, which tended to indicate that both groups were somewhat satisfied with information provided by the Cooperative Agricultural Extension Service in Missouri.

Table 1

Comparison of Respondent Group Perceptions of the Agricultural Extension Service

Perception of	n	$\bar{X}^a$	SE	F	p
Extension Information					
Extension Officers	143	3.98	0.048	4.23*	0.04
Extension Clientele	284	3.86	0.034		
Extension Agricultural Specialist					
Extension Officers	143	4.01	0.052	5.33*	0.02
Extension Clientele	284	3.86	0.037		
Extension Methods					
Extension Officers	143	3.47	0.057	0.02	0.89
Extension Clientele	284	3.48	0.047		
Agricultural Extension Education Program					
Extension Officers	143	3.47	0.062	0.14	0.70
Extension Clientele	284	3.50	0.044		

*Significant at 0.05 level.

[a]Responses were coded with Poor = 1, Excellent = 5.

A significant difference was also found between extension council officers' and the extension clientele's perception of extension agricultural specialists. The F value was 5.33, significant at the 0.05 level. Again, both groups tended to reveal their satisfaction with extension agricultural specialists as evidenced by mean scores of 4.01 for extension council officers and 3.86 for the extension clientele.

Significant differences were not found between extension council officers' and extension clientele's perceptions of extension methods or the agricultural extension education program in general. Both respondent groups appeared to be relatively satisfied with each component as indicated by group mean scores of approximately 3.50 for the extension methods and agricultural extension education program variables.

Factors Associated with Clientele Perceptions

Data in Table 2 reveal that a portion of the variability associated with the extension clientele's perception of extension information can be explained by the amount of extension contact, the number of extension meetings attended, and the perceived innovativeness level of respondents. The innovativeness level was negatively associated with the respondents' perception of extension information while the remaining two variables were positively related. However, the combined predictability of these variables, although statistically significant, was able to account for only about 15% of the variability associated with the extension clientele's perception of extension information.

Table 2

Multiple Regression for the Dependent Variable Missouri Extension Clientele's Perception

	Regression Coefficient	Mean Square Error	F	p	R^2 Percent
Extension Information					
Intercept	3.699	0.320	16.62*	0.0001	15.11
Extension Meetings[a]	0.071				
Extension Contacts[b]	0.019				
Innovativeness Level[c]	-0.126				
Agricultural Specialists					
Intercept	3.780				
Employment Status[d]	0.018	0.382	11.10*	0.0001	10.62
Extension Meetings	0.072				
Innovativeness Level	-0.125				
Extension Methods					
Intercept	3.981				
Employment Status	0.025	0.504	7.81*	0.0005	5.26
Extension Meetings	0.093				
Agricultural Extension Education Program					
Intercept	3.641				
Education Level	-0.030				
Extension Contacts	0.024	0.533	7.85*	0.0001	10.11
Extension Meetings	0.069				
Innovativeness Level	-0.125				

*Significant at .05 level.

[a]Number of meetings attended in the last two years. [b]Number of personal contacts with extension workers or ag. specialists. [c]Responses were coded, Low = 1, High = 5. [d]Number of hours worked per day.

The extension clientele's perception of extension agricultural specialists was significantly related to the employment status, the number of extension meetings attended, and the innovativeness level of the respondents. Again, innovativeness level was negatively related to the extension clientele's perception of extension specialists while the remaining two variables were positively related. The combination of these three variables accounted for less than 11% of the variability associated with the extension clientele's perception of the extension agricultural specialists.

The clientele's perception of extension methods was significantly and positively related to the employment status and the number of extension meetings attended by respondents. These variables jointly accounted for slightly over 5% of the variability associated with the extension clientele's perception of the extension methods.

The extension clientele's perception of the agricultural extension education program was significantly related to education level, the amount of extension contact, the number of extension meetings attended, and innovativeness level. The education level and innovativeness variables were negatively related whereas the remaining two variables were found to be positively related to the extension clientele's perception of the agricultural extension education program. These variables explained slightly over 10% of the variability associated with the extension clientele's perception of the agricultural extension education program.

Conclusions

The results of this research provided the basis from which the following conclusions were drawn. Although statistical differences were found between the perception of extension council officers and the extension clientele, practical differences were not clearly evident.

Respondents generally perceived the value of extension information, extension specialists, extension methods, and the agricultural extension education program to be relatively satisfactory. However, the extension methods and program variables received lower mean scores. This finding would tend to suggest that improvements may be needed in these two areas. Future Cooperative Agricultural Extension Service workers should examine alternatives to improve the methods used in delivering information and to enhance the focus of the programs they provide to farmers.

Selected factors were examined to identify the extent to which they would help to explain the variability in respondent perceptions of the Cooperative Agricultural Extension Service. The number of extension meetings attended and the amount of contact with the extension service were related to a more positive perception of the Cooperative Agricultural Extension Service. Conversely, respondents with higher innovativeness scores tended to be less satisfied with three of the four areas of the Cooperative Agricultural Extension Service examined in the study.

These findings would tend to support the conclusion that persons who utilized the educational opportunities provided by the Cooperative Agricultural Extension Service were also more satisfied. Furthermore, persons who were more innovative tended to be less satisfied with the extension information, extension specialists, and the agricultural extension education program in general. The latter conclusion may be the result of the efforts of the extension service to focus on problems of more general interest to the average person and therefore not

adequately address the needs of more innovative farmers in local communities. Future Cooperative Agricultural Extension Service programs should be developed to address problems facing innovative farmers who have not been served through traditional extension programs.

Recommendations

For more effective services, agricultural extension workers at the local level should plan and conduct extension meetings for an expanded target audience. Respondents indicated the amount of personal contacts and the number of informational meetings were significantly related to their perception of the Cooperative Agricultural Extension Service. Therefore, extension workers desiring to enhance the public perception of services offered through Cooperative Agricultural Extension Service programs should develop more and innovative opportunities to provide information to an expanded target audience.

Agricultural extension workers should create and take advantage of opportunities to increase the amount of direct contacts with members of the clientele group. By increasing the amount of direct contacts, the clientele group's perception of the Cooperative Agricultural Extension Service would be expected to increase likewise. Similar efforts should also be made to expand the focus of agricultural extension programs and the delivery methods used to address the needs of innovative farmers in local communities.

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