Identification of Factors Affecting Farmers' Satisfaction with Tea Extension Services in Yatinuwara Divisional Secretariat Division in Kandy District

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Introduction

Agricultural extension is a specialized system of extension education relating to farmers. We have to effectively handle the information so as to attain our goal of achieving 3 Ps i.e., productivity, profitability and prosperity. In developing countries, it is not the lack of technologies which is a major setback, but the rate of transfer of technologies from the point of generation to the actual users. Thus, there is a vast gap between the knowledge generated and knowledge utilized. Further, it is not only the transfer of technology that alone modernized agriculture, but the adoption of technology and innovation which is equally important. As the result of knowledge gap and adoption gap, there exists considerable amount of yield gap. Many farmers are not able to realize the full potential. To obviate this, the farmers should be educated and technology should be taught to them.

At present tea smallholders sector is the main producer of tea in Sri Lanka. It produces approximately 74 per cent of the total tea (TSHDA, 2007). Many extension programs were implemented at different periods by Tea Small Holders Development Authority (TSHDA) but certain limitations still exist in the tea small holding sector. The existing advisory services and extension services among small holders are inadequate. There is no opportunity to express any of their problems and to obtain advice or discuss with a responsible person. Through extension services they are providing knowledge, technology as well as some other facilities. Although they are providing those things they do not know in which extent farmers satisfied with their services. The effectiveness as well the farmers adoptions mainly depend on their overall satisfaction with the extension services. Therefore, identification of factors affecting for farmers' satisfaction with extension service is important to increase the effectiveness of the extension services.

Methodology

This study concentrated on the Yatinuwara Divisional Secretariat (DS) division which accounts for 3561 tea small holders. Total sample of 178 farmers representing 5% of total tea small holders was drawn from three major Tea Inspector (TI) regions named Gannoruwa, Danthure, and Manikdivela. Primary data were collected through a pre tested questionnaires. Secondary data were collected from TSHDA. published materials and annual reports of Central Bank. A binary logistic regression model was used to determine the factors affecting the farmers' satisfaction with existing extension service. The dependent variable was measured as a dummy variable. If the farmer satisfied with the extension service it was coded as 1 and 0 otherwise. A descrption of variables is given in Table 1.

Table 01: Description of the variables

Variable	Unit of measurement	Description
SATIS	Dummy	1 = Satisfied 0 = Not satisfied
VISIT	Number of times per year	Number of times extension officer visit to the field.
EXP	Number of years	Number of years farmer engage with tea cultivation
P1	Dummy	1 = Farmer satisfied with the way of conducting extension program. 0 = Otherwise
P2	Dummy	1 = Farmer dissatisfied with the way of conducting extension program 0 = Otherwise
T1	Dummy	1 = Farmer satisfied with the technique used by the extension officer 0 = Otherwise
T2	Dummy	1 = Farmer dissatisfied with the technique used by the extension officer 0 = Otherwise
C1	Dummy	1 = Farmer satisfied with the content of the extension program 0 = Otherwise
C2	Dummy	1 = Farmer dissatisfied with the content of the extension program 0 = Otherwise
EDU	Number of years	Education level of respondent

Results and discussion

The results of the binary logistic regression model are given in Table 2.

Table 2: Farmers' Satisfaction with Extension Service – Binary Logistic Analysis

Variable	Coefficient	Z	Marginal Effect	Std. Err
Constant* **	18.07124	3.93		4.598452
P1* **	9.620603	3.93	.9548084	2.448212
P2	-.8077447	-0.53	-.110996	1.528253
T1* **	4.72584	3.15	.787055	1.499236
T2* **	-4.400645	-2.63	-.574928	1.673744
VISIT* **	3.820955	3.65	.5860905	1.047867
C1	1.710821	1.20	.2263751	1.423465
C2* **	-4.364725	-2.61	-.4503711	1.670164
EDU* **	-2.303585	-4.16	-.3533434	.5539185
EXP* **	-.4108214	-4.25	-.0630153	.0967656

n = 178 Pseudo R^2 = 0.8006

* (P<0.1) ** (P<0.05) *** (P<0.01)

The coefficient for the variable VISIT, which captures the number of times extension officer visit to the field per year is positive and statistically significant at 1% level. This suggests that the field visit of the extension officer has a positive effect on the probability of satisfaction. The marginal effect for the variable VISIT is 0.5860905. This implies the unit increment of number of times extension officer visit to field leads to increase the farmers' satisfaction with existing extension service by 0.59. Farmers who were satisfied with the ability of the extension officer in conducting the program (P1) is statistically significant at 1% level and has positive coefficient. Here the marginal effect of the dummy variable P1 was 0.9548084. This suggests the unit increment of satisfaction on P1 leads to increase the probability of overall satisfaction of the farmer with the existing extension service by 0.95. The dummy variables of farmers' satisfaction with the techniques used by the extension agent (T1 and T2) also play an important role in changing the probability of farmers' satisfaction with the overall extension service. These two variables are statistically significant at 1% level and coefficient of variable farmers who were satisfied with the techniques used by extension agent (T1) is positive and has negative value for the variable farmers' who were dissatisfied (T2). The marginal value of the dummy variable T1 was 0.787055. Since it is a positive value, the unit increment of the satisfaction with the technique used by extension officer (variable T1) effected to increase the probability of the overall satisfaction of the farmer by 0.78. However, the marginal value of the dummy variable T2 is -0.574928. This implies the unit increment of the dissatisfaction with the technique used by extension officer (variable T2) leads to decrease the probability of framer satisfaction by 0.57 on overall extension program. The dummy variable for the farmers' dissatisfaction with the content of the extension program (C2) are statistically significant but have negative coefficient. The marginal effect of -0.4503711 for the dummy variable C2 suggest that unit increment of respondents dissatisfaction with the content of the extension program leads to decrease the farmers' satisfaction with overall extension service. When consider about the farmers' education level and experience both variables are statistically significant. But those variables have negative coefficient. The marginal effects for these variables are -0.3533434 and -0.0630153. Those values imply the unit increment of education level and experience lead to decrease the farmers' satisfaction with the existing extension service by 0.35 and 0.06.

Pseudo R^2 for this model is 0.8006. That implies this model have ability to explain 80% of farmers' satisfaction with existing extension service. When consider about the probability value it also significant at 99% level. Therefore, this model is suitable to evaluate the factors affecting for the farmers' satisfaction with existing extension service.

Conclusions

Number of times Extension Officer visit the field, ability of extension officer in conducting the extension program, techniques used by Extension Officer for disseminate the information, content of the extension program, Education level of the respondent and experience in tea cultivation were found to have a great impact on the farmers' satisfaction with the existing extension service.

References

Tea Small Holdings Development Authority, Annual Report. 2007. Tea Small Holdings Development Authority