

Satisfaction of Low Country vegetable farmers about the agricultural extension service in Sri Lanka

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Introduction

In Sri Lanka public sector organizations are the major party of extension delivery. The agricultural extension service in Sri Lanka was a greater service offering to all type of the farmers equally, irrespective of scale of farming. This service was started with the establishment of Department of Agriculture (DOA). The service was given by the DOA, agricultural research institutions and other agricultural related institutions in the state sector as public commodity. But this has reached to the critical stage. Large sum of public funds need to maintain and conduct the service. Due to the shortage of funds, government has to continue this service under big pressure. In this situation, due to lack of efficiency, effectiveness and not devoting sufficiently to the agriculture development of country government extension services are criticized as wasting public money (Mahaliyanarachchi, 2002)

This study was completed to find the satisfaction of low- country vegetable farmers on agriculture extension service in Sri Lanka. Objectives of the study were to determine satisfaction of farmers about the extension services, investigate factors which affect the satisfaction of farmers and find out extension needs of low- country vegetable farmers.

Materials and methodology

This study was conducted in Anuradhapura and Monaragala districts where high productions of low- country vegetables are taken place throughout the year. Sample size was 200 farmers. Data were gathered using semi structured questionnaire. Semi- structured questionnaire was consisted to sought information on demographic characteristics of farmer (age, gender, education level, marital status etc.), information related farm (land extent, type of labour *etc*), information related to the extension service (frequency of the visit by the extension agent, methods of extension, teaching skills of the agent, communication skills of the agent and satisfaction of the farmers etc.)

Independent variables which were used to test hypotheses were subjected to judge by the respondents. The statement on a 5 point Likert scale of Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D) Strongly Disagree (SA) and scores of 5, 4,3,2,1 were assigned to the corresponding responses for positive statement and the reversed scores for the negative statements. Using the minimum score of (1) and maximum score of (5): Dependent variable was Satisfaction of farmers: Satisfaction is the dependent variable which was inquired from the respondents directly. Farmers were asked to mention overall satisfaction about extension service.

(1) Satisfied (2) Not Satisfied.

Data collection was done by the researcher. Personal interview was used to collect data according to the semi structured questionnaire. Sampled farmers of two districts were interviewed through field survey. Collected data were arranged, coded and analyzed through the use of Statistical Package for the Social Sciences (SPSS) computer programme. Both descriptive

and inferential statistical tools were used to analyze the data. Descriptive statistical tools used were frequency counts, percentages and mean. Inferential statistical tool was used to test the hypotheses of the study. Chi-square test was used to measure the significant relationship between independent variables in the model and dependent variable in the model.

Logistic Regression Analysis used to test amount of variability of the dependent variables that could be explained by the independent variables. The regression coefficients identified and estimated how variable input included in the model best explained the variability on output.

The model is:

$\text{Log}(p) = 0 + 1X_1 + 2X_2 + 3X_3 + 4X_4 + 5X_5 + 6X_6 + 7X_7 + 8X_8 + \dots + 12X_{12}$
Log (p) – probability of being satisfied or not

1..... 12 – Coefficients

0 - Constant

X1- Extension source 1

X2- Frequency of visit

X3- Appropriateness of Extension method

X4- Perceived Qualifications of extension Agent

X5- Perceived practical knowledge of extension agent

X6- Adequate information delivery

X7- Timely information delivery

X8- Trustworthiness of extension agent

X9- Peer presence for decision making

X10- Continuity of extension service

X11- fairness of extension service

X12- Dealer presence for decision making.

Results and Discussion

Demographic characteristics of farmers

Majority (42% of total sample) of farmers is more than 50 years and 78% of farmers are male respondents. According to the findings only 5% of the farmers are single where 95% of the farmers are belongs to the married group. Highest proportion (48% of the total sample) of the respondents is able to get secondary education. Only 26% of the total sample is in no formal education group. 67.5% of the total sample is highest proportion in experience more than 15 years. Majority of the farmers are engaged in farming in full time. Approximately 84% farmers are members of any kind of agricultural organization. Approximately 35.5% of the sample of farmers has 1.5- 2.5 acres of land extent. Most of the farmers use family labours for their farming activities. According to the results own land percentage is 82.5% and other land percentage is 17.5%.

Extension Source Related Characteristics

Highest proportion (57%) of the farmers is get information from government extension source only. Nearly 30.5% of farmers use only their own experience for cultivation. Approximately 4.5% of farmers are get information from both government and private input supply companies while 3.5% of farmers are get information only from private input supply company. And also 3% of farmers are get information from both government and non-government organizations. Only 1.5% of farmers are get information from non-government organization. Nearly 60% of farmers are experienced no visits by extension agents of their fields. Nearly 19.5% of farmers are able to get extension agent's visit when farmers required. Approximately 10% of total farmers are visited by the extension agent once per month while 5.5% of the farmers are visited by the extension agent twice per month. Only 5% of the farmers are experienced extension agent's contact thrice per month. Most (57%) of the farmers are required information regarding pest and diseases only. All information is needed by the 39.5% of total sample while agronomic practices and irrigation information required by 1% of total farmers and selection of crops for cultivation are required by 0.5% of total farmers. Most of the farmers use new hybrid varieties for their cultivation..

Social Behavior of Farmers

Approximately 45.5% of total farmers were strongly agreed that they rely on peer farmer's decision. Nearly 32% of farmers were agreed that they considered peer farmers as good decision body. Only 17% of farmers were disagreed about above condition while 3% and 5% of farmers had no idea and strongly disagreement accordingly. According to the data 20% of farmers were agreed that dealer was considerable decision making body for their cultivation. Approximately 14% of farmers were strongly agreed about above condition. Nearly 10% of farmers had no idea. Majority of farmers were disagreed. It was approximately 50%. Nearly 6% of farmers were strongly disagreed about above statement.

Satisfaction of Farmers on Agricultural extension sources

Most of the farmers were not satisfied about the extension sources. It was about 66.5%. Minority of farmers were satisfied about the extension sources. It was nearly 33.5%. According to the chi-square test Extension source, frequency of visit by extension agent, appropriateness of extension methods, perceived qualification of extension agent, perceived practical knowledge of extension agent, adequate information delivery, timely information delivery, trustworthiness of extension agent, peer presence for decision making, continuity of extension agent, fairness of extension service, buyer presence for decision making variables were significant at 95% confident interval. From above variables Binary Regression was run.

Binary Regression Model yielded following results.

According to the model summery pseudo R^2 is 62.9% and 87.2%. -2 Log likelihood also smaller and near to zero. Therefore goodness of model is in considerable level.

Table 01: Variables in the Equation

		B	S.E.	Wald	df	Sig.	Exp(B)
Step 1 ^a	EX.SOURCE *	.659	.296	4.967	1	.026	1.933
	VISIT	-.171	.271	.400	1	.527	.843
	METH	-.969	.657	2.177	1	.140	.380
	QUALI *	1.705	.591	8.325	1	.004	5.499
	PRAC	-.400	.386	1.070	1	.301	.670
	ADQINF	-.298	.579	.266	1	.606	.742
	TIMINF *	1.296	.459	7.957	1	.005	3.655
	TRUST *	3.264	.865	14.231	1	.000	26.165
	PEER	.513	.313	2.676	1	.102	1.670
	DEALER	-.597	.339	3.092	1	.079	.551
	CONTIN *	.972	.359	7.337	1	.007	2.644
	FAIR	.383	.359	1.140	1	.286	1.467
	Constant	-20.884	4.662	20.065	1	.000	.000
Variable(s) entered on step 1: EX.SOURCE, VISIT, METH, QUALI, PRAC, ADQINF, TIMINF, TRUST, PEER, DEALER, CONTIN, FAIR. Significant at 0.05- *							

Under 95% confident intervals

According to the results Extension source is significantly affect to the satisfaction of farmers about the extension source. Sig. is 0.026. Coefficient of perceived qualification of extension agent is + 0.659. It explains positive relationship with satisfied farmers and extension source. Frequency of visit by extension agent and Appropriateness of extension methodsis not significantly affect to the satisfaction of farmers about extension sources. The sig. values are in accordingly 0.527 and 0.140. Both of values are higher than p value. (0.05). It shows there is no relationship between Appropriateness of extension methods and satisfied farmers.

Perceived qualification of extension agent is significantly affect to the satisfaction of farmers about extension services since the sig. is 0.004. Coefficient of extension source is +1.705. It explains the positive relationship with satisfied farmers and perceived qualification of extension agent. It shows tendency of farmers to be satisfied about extension services when extension agents are with perceived educational qualifications. Above results highlighted Practical Knowledge of extension agent and adequate information delivery by the extension agent is not significantly affect to the satisfaction of farmers about the extension sources. The sig. values are 0.301 and 0.606 in accordingly.

According to the results timely information delivery by the extension agent is significantly affect to the satisfaction of farmers about the extension services. Sig.is 0.005. Coefficient of extension source is 1.296. It explains the positive relationship with satisfied farmers and timely information delivery by extension agent. It shows tendency of farmers be satisfied about extension services when extension agents are deliver timely information to the farmers. Trustworthiness of extension agent is significantly affecting to the satisfaction of farmers about the extension services. Sig is 0.000. Coefficient of extension source is 3.264. It explains the positive relationship with satisfied farmers and trustworthiness of extension agent. It shows the tendency of the farmers to be satisfied about the extension services when extension agents are trustworthy.

Peer presence for decision making, Dealer presence for decision making and Fairness of extension service is not significantly affect to the satisfaction of farmers about the extension services. Sig Values are accordingly 0.102, 0.079 and 0.286. Continuity of extension service is significantly affected to the satisfaction of farmers about the extension services. Sig is 0.007.

Coefficient of continuity of extension service is 0.972. It explains the positive relationship with satisfied farmers and continuity of service. It shows tendency of farmers to be satisfied about extension services when extension agents are increase continuity of service.

Equation

$$\text{Logit(Satisfaction)} = -20.884 + 0.659(\text{Extension source}) + 1.705(\text{Perceived qualification}) + 1.296(\text{Timely information delivery}) + 3.264(\text{Trustworthiness of agent}) + 0.972(\text{continuity of service})$$

Conclusion

Majority of low country vegetable farmers are not satisfied about agricultural extension services in Sri Lanka. According to the finding of the study, Timeliness of information, trustworthiness of extension agent, perceived qualification of extension agent, extension source and continuity of extension source are the variables which are significantly affect to the satisfaction of extension service.

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