

Determinants of Market Outlet Choice of Tea Farmer in Thai Nguyen City, Viet Nam

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Abstract The aim of this study was to determine the factors influencing farmers' choice on tea farmer marketing channel in Thai Nguyen city, Viet Nam. A semi-structured and pre-tested questionnaire was used to collect data from tea farmers through face to face interview. Multistage sampling procedure was employed to contact 386 respondents. The study used Multinomial logistic regression (MNL) model to identify factors that determine tea growers' choice of marketing channel and sales volume decisions once a marketing channel has been selected. The results showed that Family size (famsz); Farming Experience (exper); Non/Off Farm Income (offarm); Land Size Allocated (aretea); Distance significantly affected the participation in marketing channel. Land Size allocated is the most influential factor with ($B = 4.418$; $OR = e^{4.418} = 82.957$).

Keywords: tea value chain, tea production, Multinomial logistic regression (MNL), marketing channel

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1. Introduction

Marketing plays a key role in meeting the overall goals of food security, poverty alleviation and sustainable agriculture, particularly among smallholder farmers in developing countries. For the marketing of agricultural products, channel decisions are among the most critical decisions facing an organization and the chosen channels intimately affect all other marketing decision [1]. Marketing channel defined by [2] is a set of interdependent organizations involved in the process of making a product or service available for consumption or use. Makhura [3] inspected that the marketing of smallholder farmers was constrained by poor infrastructure, distance from the market, lack of own transportation and inadequate market information. Lack of bargaining power along with various credit bound relationships with the buyers has led to farmers being exploited during the transaction where most of the farmers become price takers. The majority of farmers are smallholders and hence, unable to obtain a fair price for their produce and resulting not being able to sustain their livelihood [4].

In this research we especially focus on factors that determine tea growers' choice of marketing channel in Thai Nguyen, Where currently has over 22,300 hectares of tea plantations and is the province with the largest growing tea area in the country with the yield of fresh tea reaching over 118 quintals/ha, the output of fresh bud tea more than 240,000 tons/year. Tea has become a key

economic component, bringing great economic value to the locality, the value of products obtained per hectare is about 300-500 million VND/ha on average, some specialty tea areas can from 500-800 million VND/ha.

For many years, Thai Nguyen province has focused on prioritizing resources for investment and development of tea in the direction of both expanding the size of the tea area and developing in the direction of improving the quality, added value, and competitiveness of tea production on domestic and international markets. Along with the restructuring of varieties, localities have focused on promoting the application of scientific and technological advances in the production and processing of safe and organic tea, and improving product quality. The area of tea applying safe production processes has increased rapidly, many scientific and technological advances have been applied such as: Using organic fertilizers, biological products, water-saving irrigation technology in tea intensive farming. Most of tea area is produced in the direction of applying safe tea production processes, organic production, good agricultural production practices (GAP), meeting national and international safety standards. (such as: VietGAP, GlobalGAP, UTZ Certified, organic...).

Choice of a marketing channel is one of the key ingredients to successful marketing of both agricultural and non-agricultural products. This is so because different channels are characterized by different benefits (profitability) and costs. According to Tsourgiannisa [5], marketing channel used when selling the product has a bearing on the profit farmers may make. Therefore, studies on marketing channel choice decisions are very important especially in a

Thai Nguyen tea market, where there are many alternative market channels open to the sellers' choice. Identifying and understanding the factors influencing the producers' choice of marketing channels and how these factors can help develop the Tea value chain is important in developing the industry. Understanding the factors affecting market participation decisions and how the farmers associated with these factors can be alleviated is also fundamental in improving marketing and the well being of emerging and small holder livelihood. This research was therefore aimed at assessing the factors that affect marketing channel choice for Tea farmer so as to be able to pinpoint setbacks in the tea marketing and also to formulate strategic plans as a roadmap to development of the market. The study also contributes to the existing knowledge gap regarding to the benefits of different marketing channels so that farmers in tea production can market their tea profitably and investment and also formulate the strategic plans and policies for the development of small holder marketing abilities.

2. Literature Review

Many studies have been carried out to identify the factors influencing the marketing channel choices by producer for agricultural products. Fafchamps and Hill (2005), studies the choice of selling at the farm gate and travelling to market for Ugandan coffee farmers. In their study, the farmers must walk to the coffee market when public transport is not available and the wealthier farmers want to sell at the farm gate, especially the quantity sold or distance to market is large because of their opportunity cost of time is higher. The result is reverse when the cash constraints and public transport are introduced in their model as they can afford to pay for transport. Wealthier farmers are more likely to sell at the market when they have large quantities

Nyaupane et al. (2010) studied the producers' marketing decision in the Louisiana Crawfish Industry and found that most of producers choose wholesale markets compared to the selling directly to the consumers and retailers as this channel is most convenient and also offers the high returns. In their study, the channel choice is influenced by demographic characteristics of farmers and market characteristics. A study by Jari [6] provides an insight into the institutional and technical factors that influence agricultural marketing channel choices among smallholder and emerging farmers in Kat River Valley in South Africa. According to Jari [6] farmer market participation is important both for sustainable economic growth and for the alleviation of poverty and inequality. In summary, marketing plays a critical role in meeting the overall goals of food security, poverty alleviation and sustainable agriculture, particularly among smallholder farmers in developing countries [6].

Agricultural marketing in particular is the performance of all business activities involved in the flow of goods and services from the point of initial agricultural production until they are in the hands of the ultimate consumer (Kohls and Uhl, [7] as cited in Demeke [8]). A marketing channel is a set of practices or activities necessary to transfer the ownership of goods, and to move goods, from the point of

production to the point of consumption and, as such, which consists of all the institutions and all the marketing activities in the marketing process. A marketing channel can be as short as being direct from the vendor to the consumer or may include several inter-connected (usually independent but mutually dependent) intermediaries such as wholesalers, distributors, agents, retailers. Each intermediary receives the item at one pricing point and moves it to the next higher pricing point until it reaches the final buyer [9].

3. Research Methodology

3.1. Research Design and Framework

The mixed-method research is the most appropriate approach to collect and analyze data of the research. By combining quantitative and qualitative method, researcher qualified data from quantitative raw materials from respondents. Qualitative method was utilized to explain levels and relationships between quantitative variables.

3.2. Description of the Study Area

Thai Nguyen is a large northern mountainous midland province, most famous with specialty tea in Vietnam. It has 22,330 hectares of tea. The output of tea leaves of the province in 2019 reached 210 thousand tons, the average productivity reached 118 quintals per hectare, creating jobs for more than 60,000 tea farmers (Thai Nguyen Statistical Office, 2020). At present, Thai Nguyen province has 174 professional tea villages and tea villages, of which 140 tea villages have been recognized by the provincial People's Committee as professional tea villages and traditionally professional tea villages. The tea professional villages create job opportunity for 10,290 households in the villages with 21,000 laborers.

3.3. Data Type and Methods of Data Collection

In this study, both primary and secondary data were used. Both formal and informal survey procedure was used to collect primary data. The formal survey was undertaken through interviews with selected tomato producer farmers using a pretested semi-structured questionnaire. Secondary data was collected from published and unpublished documents, and internet sources.

3.4. Sampling Technique and Sample Size

The primary data were collected through the use of face to face interview with farmers with the aid of structured questionnaire considering both open and close ended questionnaire. The data for this paper was collected in the 3 main tea producing area (Thai Nguyen city, Dai Tu and Dong Hy) in Thai Nguyen between December 2019 and January 2020. The survey data including demographics, land use, production, marketing practices etc. of tea producing household by face to face interview. A two stage random sampling procedure was used to draw sample of 386 farmers.

The sample size was taken by determining the population proportion in studies. Specifically, McClave et al. (2006) stated that the use of the population proportion was presented to determine the amount of a sample size to preset the whole group of population which can be used for unknown population. In this research, it is impossible to get the number of proportion exactly. For this reason, the formular developed by Smith (2011) is referred to calculate the sample size.

$$N = \frac{pqz^2}{E^2} = \frac{(0.5)(1-0.5)(1.96)^2}{0.05^2} = 384.16$$

3.5. Statistical Treatment

Descriptive statistics and econometric analysis were used to analyze the data collected from tea producers. Mean, percentages, standard deviation minimum and maximum in the process of describing households' characteristics. Econometric analysis uses a multinomial logit (MNL) model to analyze the determinants of market channel choice decisions of tea producers in the study area because all Tea producers sold tea through more than two channels.

This study assumes that farmer's decision is generated based on its utility maximization. This implies that each alternative marketing outlet choice entails different private costs and benefits, and hence different utility, to a household decision maker. The analytical model is constructed as follows. Suppose that the utility to a household of alternative j is U_{ij} , where $j = 0, 1, 2, \dots$. From the decision maker's perspective, the best alternative is simply the one that maximizes net private benefit at the margin. In other words, household i will choose marketing outlet j if and only if $U_{ij} > U_{ik}$. It is important to note that household's utility cannot be observed in practice. What a researcher observe are the factors influencing the household's utility such as household and personal characteristics and attributes of the choice set experienced by the household. Based on McFadden (1978), a household's utility function from using alternative j can then be expressed as follows:

$$U(\text{choice of } j \text{ for household } i) = U_{ij} = V_{ij} + \varepsilon_{ij}$$

Where:

V_{ij} : is indirect utility function and

ε_{ij} : is a random error

The probability that household i select alternative j can be specified as

$$P_{ij} = Pr (V_{ij} + e_{ij} > V_{ik} + e_{ik})$$

$$P_{ij} = Pr (e_{ik} < e_{ij} + V_{ij} - V_{ik} \forall k \neq J)$$

Assuming that the error terms are identically and independently distributed with type i extreme value distribution, the probability that a household chooses alternative j can be explained by a multinomial logit model (Greene, 2000) as follow:

Design multinomial logit (MNL) model

$$P_{ij} = \frac{\exp(\beta_j X_{ij})}{\sum_{i=0}^J \exp(\beta_j X_{ij})}$$

Where:

X_{ij} : is a vector of household of the i^{th} respondent facing alternative j

β_{ij} : is a vector of regression parameter estimates associated with alternative j

Dependent variables

Market Outlets (MktO): A categorical dependent variable measured by the probability of producers sells Tea to either of the alternatives market outlets. It was represented in the model as:

+ Y1 for those households who choose rural collectors to sell Tea.

+ Y2 for those households who choose retailers to sell Tea.

+ Y3 for those households who choose consumers to sell Tea,

+ Y4 for those households s who choose to wholesalers (Enterprises or Cooperative)

Independent Variables

In order to identify factors influencing Tea volume sales and market outlets choice both continuous and discrete variables were hypothesized based on economic theories and the findings of different empirical studies. Accordingly, in order to investigate the determinants of market supply and market outlet choice, the following variables were constructed. The explanatory variables that are expected to influence the dependent variable(s) are the following:

1. Productivity (YILDTEA): It is an economic factor and continuous variable that can affect the household level volume sales and measured in quintals per hectare during survey year. Productivity is assumed to affect the volume supply positively, because a farmer that obtains high yield can supply more to the market than a producer who had fewer yields.

2. Sex of the Household Head (SHH): This is a dummy variable (takes a value of 1 if the household head is male and 0 otherwise). The variable is expected to have either a positive or negative relation with volume of Tea marketed. Bebe et al. (2012) noted that majority of the female are resource constrained given that they do not own critical resources in vegetable marketing to obtain additional income. As a result, male household heads have more chance to choose appropriate market outlets than female household heads.

Family Size (famsz): This variable is a continuous explanatory variable and refers to the total number of family in the household. In this study it is assumed that any family member might decide to participate in Tea production and marketing. Since production is the function of labour, availability of labour is assumed to have positive relation with volume of supply. In this context family size is expected to have positive or negative impact on volume of sale and choice of market outlets.

Education Level of the Household Head (EduHH): This is a continuous variable measured. The educational status of the farmer determines the speed with which he/she likely to adopt agricultural technologies.

Farming Experience (exper): This is a continuous variable measured in number of years. A household with better experience in Tea farming is assumed to produce more amounts of Tea and, as a result, assumed to supply

more amounts of Tea to market. Toyiba et al. (2014) found that experience in papaya production had a positive and significant effect on papaya volume marketed. Therefore, it is expected that farm experience affects market outlet choice decisions.

Non/Off Farm Income (offarm): This is a continuous variable measured. The study has hypothesized that if the earning from the non/off-farm income is higher than the Tae production mostly the farmer’s shift towards the non-farm income activities. Rehima (2006) found that the amount of pepper supplied to the market decreases as pepper producer have engaged on non-farm income.

Specciatly tea production place (teaplace): Dummy variable: Farmer in Tan Cuong town take value 1 and 0 otherwise

Extension Contact Frequency (Extcontact): dummy variable, 1 = access to extension service, 0= otherwise

The objective of the extension service is introducing farmers to improved agricultural inputs and to better methods of production. In this regard, extension is assumed to have positive contribution to farm level volume supply of Tea. Farmers that have frequent contact with extension agent have better access to information and could adopt better technology that would increase their marketed supply of Tea. Ayelech (2011) found that if fruit producer gets extension, the amount of fruits supplied to the market increases. The number of extension agent visits improves household’s intellectual capitals and helps in improving Tea production and impacts Tea market outlet choices. So that extension contact is assumed to have direct relation with market outlet choice of Tea producers.

Linked farmer: Cooperative (dummy variable, 1= farmer joining in cooperative, 0=otherwise)

Cooperative farmers are member of cooperatives organized to produce tea.

Land Size Allocated (areatea): This variable is assumed to have a positive relation with the dependent variable and is continuous variable measured in hectare. Tea is cash crop having a direct relation with volume supplied. Increase in the area of land covered by the Tea can directly increase the marketed supply of tea. Hence, area allocated for Tea is hypothesized to influence positively volume supply to market and market outlet choice decision of Tea producers.

4. Results and Discussions

4.1. Determinants of Tea Producers’ Market Outlets Choice

The model fits the data reasonably well. The Wald test ($\chi^2(48) = 163.73, p = 0.000$) is significant at the 1% level, which indicates that the subset of coefficients of the model is jointly significant and that the explanatory power of the factors included in the model is satisfactory. Furthermore, results of likelihood ratio test in the model ($LR\chi^2(6) = 20.567, p > \chi^2 = 0.0022$) is statistically significant at 1% level, indicating that the independence of the disturbance terms (independence of market outlets choice) is rejected and there are significant joint correlations for two estimated coefficients across the equations in the models.

The likelihood ratio test of the null hypothesis of independence between the market outlets decision ($\rho_{21} = \rho_{31} = \rho_{41} = \rho_{32} = \rho_{42} = \rho_{43}$) is significant at 5%. Therefore, the null hypothesis that all the ρ (Rho) values are jointly equal to 0 is rejected, indicating the goodness-of-fit of the model. Hence, there are differences in market outlet selection behavior among farmers, which are reflected in the likelihood ratio statistics.

Table 1. Model Fitting Information

Model	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood	Chi-Square	df	Sig.
Intercept Only	701.688			
Final	350.599	351.089	33	.000

Pseudo R-Square test

Cox and Snell	.690
Nagelkerke	.763
McFadden	.500

Table 2. Likelihood Ratio Tests

Effect	Model Fitting Criteria	Likelihood Ratio Tests		
	-2 Log Likelihood of Reduced Model	Chi-Square	df	Sig.
Intercept	350.599 ^a	.000	0	.
YILDTEA	364.281	13.683	3	.003
famsz	379.750	29.151	3	.000
EduHH	359.974	9.375	3	.025
exper	381.228	30.629	3	.000
offarm	382.291	31.693	3	.000
areatea	371.015	20.416	3	.000
Distance	393.943	43.344	3	.000
SHH	351.685	1.086	3	.780
teaplace	353.428	2.830	3	.419
Extcontact	353.593	2.994	3	.393
Cooperative	354.078	3.480	3	.323

According to **Table 2**, the variables Sex of Head of Household (SHH), Teaplace, Extension Service (Extcontact), Member of Cooperative (Cooperative) no statistically significant because P-value>0.05.

4.2. Factors Effects Households Chosing Marketoulet between Collectors and Retailer, Whosalers

According to the results of **Table 3**, in the first row, we see that the following independent variables have an impact on the choice of market channels of farmers: Household size (famsz); Production experience (exper); Non-farm income (offarm); Area planted with tea (areatea) because of sig<0.05.

Multinomial logit (MNL) model

$$\log \frac{p}{1-p} = -16.176 + 0.669Famsz + 0.584Exper + 0.167Offarm + 1.872Areatea$$

Factors effects households chosing marketoulet between collectors and retailer, whosalers: Family size (famsz); Farming Experience (exper); Non/Off Farm Income (offarm); Land Size Allocated (areatea). In which, Land Size allocated is the most influential factor with (B = 1.872; OR= $e^{1.872} = 6.502$).

Table 3. Factors effects households chosing marketoulet between collectors and retailer, whosalers

MktO ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Intercept	-16.176	4.618	12.269	1	.000			
YILDTEA	.001	.002	.520	1	.471	1.001	.998	1.005
famsz	.669	.183	13.293	1	.000	1.952	1.362	2.796
EduHH	-.103	.134	.598	1	.439	.902	.694	1.172
exper	.584	.167	12.236	1	.000	1.794	1.293	2.488
offarm	.167	.038	19.327	1	.000	1.182	1.097	1.274
areatea	1.872	.627	8.918	1	.003	6.502	1.903	22.214
Distance	-.065	.161	.160	1	.689	.937	.683	1.286
[SHH=0]	.370	.507	.535	1	.465	1.448	.537	3.909
[SHH=1]	0 ^b	.	.	0	.	.	.	.
[teaplace=0]	.322	.487	.438	1	.508	1.380	.532	3.582
[teaplace=1]	0 ^b	.	.	0	.	.	.	.
[Extcontact=0]	-.829	.521	2.527	1	.112	.437	.157	1.213
[Extcontact=1]	0 ^b	.	.	0	.	.	.	.
[Cooperative=0]	-.711	.494	2.069	1	.150	.491	.186	1.294
[Cooperative=1]	0 ^b	.	.	0	.	.	.	.

Table 4. Factors effects households chosing marketoulet between collectors and comsumers

MktO ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Intercept	-33.815	5.992	31.843	1	.000			
YILDTEA	.004	.002	2.776	1	.096	1.004	.999	1.009
famsz	.970	.232	17.444	1	.000	2.638	1.673	4.158
EduHH	.095	.164	.333	1	.564	1.099	.797	1.517
exper	.759	.180	17.795	1	.000	2.136	1.501	3.040
offarm	.222	.049	20.929	1	.000	1.249	1.135	1.374
areatea	2.557	.731	12.225	1	.000	12.900	3.076	54.092
Distance	.482	.196	6.066	1	.014	1.620	1.104	2.378
[SHH=0]	.459	.629	.533	1	.465	1.583	.461	5.435
[SHH=1]	0 ^b	.	.	0	.	.	.	.
[teaplace=0]	-.099	.640	.024	1	.878	.906	.258	3.180
[teaplace=1]	0 ^b	.	.	0	.	.	.	.
[Extcontact=0]	-.749	.646	1.346	1	.246	.473	.133	1.676
[Extcontact=1]	0 ^b	.	.	0	.	.	.	.
[Cooperative=0]	-.219	.650	.113	1	.737	.804	.225	2.875
[Cooperative=1]	0 ^b	.	.	0	.	.	.	.

4.3. Factors Effects Households Chosing Marketoulet between Collectors and Comsumers

According to the results of Table 4, in the first row, we see that the following independent variables have an impact on the choice of market channels of farmers: Household size (famsz); Production experience (exper); Distance; Non-farm income (offarm); Area planted with tea (aretea) because of sig<0.05.

Multinomial logit (MNL) model

$$\log \frac{P}{1-p} = -33,815 + 0,970Famsz + 0,759Exper + 0,222Offarm + 2,557Areatea + 0,482 Distance$$

Factors effects households chosing marketoulet between collectors and comsumers: Family size (famsz); Farming Experience (exper); Non/Off Farm Income (offarm); Land Size Allocated (aretea); Distance. In which, Land Size allocated is the most influential factor with (B = 2.557; OR = e^{2.557} = 12.900).

4.4. Factors Effects Households Chosing Marketoulet between Collectors and Enterprises or Cooperatives

According to the results of Table 5, in the first row, we see that the following independent variables have an impact on the choice of market channels of farmers: Household size (famsz); Production experience (exper); Distance; YILDTEA; Non-farm income (offarm); Area planted with tea (aretea) because of sig<0.05.

Multinomial logit (MNL) model

$$\log \frac{P}{1-p} = -85.260 + 0.018YILDTEA + 1.90Famsz + 1.031Exper + 0.2Offarm + 4.418Areatea - 1.598Distance$$

Factors effects households chosing marketoulet between collectors and Enterprises or cooperatives: Family size (famsz); Farming Experience (exper); Non/Off Farm Income (offarm); Land Size Allocated (aretea); Distance. In which, Land Size allocated is the most influential factor with (B = 4.418; OR = e^{4.418} = 82.957).

Table 5. Factors effects households chosing marketoulet between collectors and Enterprises or cooperatives

MktO ^a	B	Std. Error	Wald	df	Sig.	Exp(B)	95% Confidence Interval for Exp(B)	
							Lower Bound	Upper Bound
Intercept	-85.260	15.307	31.025	1	.000			
YILDTEA	.018	.006	9.026	1	.003	1.018	1.006	1.029
famsz	1.900	.464	16.788	1	.000	6.687	2.695	16.596
EduHH	.368	.212	3.017	1	.082	1.445	.954	2.189
exper	1.031	.217	22.506	1	.000	2.805	1.832	4.295
offarm	.200	.070	8.132	1	.004	1.221	1.064	1.401
areatea	4.418	1.136	15.117	1	.000	82.957	8.944	769.410
Distance	-1.598	1.156	10.873	1	.001	0.202	0.127	11.796
[SHH=0]	-.070	.936	.006	1	.940	.932	.149	5.835
[SHH=1]	0 ^b	.	.	0	.	.	.	.
[teaplace=0]	.958	1.007	.905	1	.341	2.606	.362	18.743
[teaplace=1]	0 ^b	.	.	0	.	.	.	.
[Extcontact=0]	-.275	1.006	.074	1	.785	.760	.106	5.463
[Extcontact=1]	0 ^b	.	.	0	.	.	.	.
[Cooperative=0]	-.631	1.070	.348	1	.556	.532	.065	4.331
[Cooperative=1]	0 ^b	.	.	0	.	.	.	.

5. Conclusions and Recommendations

5.1. Conclusion

Tea farm farmers use different marketing channels to sell their tea, although the amount of tea sold and reason for selling to each channel differs. According to this study 3 marketing channels were identified from the survey results, that is collectors; retailer or whosalers; Enterprises or Cooperatives the marketing channel. Tea farmers can choose to sell all, a portion or none through any one of these marketing outlets.

Factors like Household size (famsz); Production experience (exper); Distance; YILDTEA; Non-farm income (offarm); Area planted with tea (aretea); Education of household (EduHH) affected marketing channel choice. Education in years positively and significantly plays a major role in marketing channel choice. This can be explained by the fact that education enhances farmer's ability to access and process information. Education levels affect the interpretation of market information and hence influence the level of participation. Production experience (a proxy of experience) also plays a crucial role in marketing channel choice. This is because relative long years of farming expose tea farmers to experience in tea farming and marketing activities. Non-farm income was significant in determining tea marketing channel. This was expected because economic theory suggests that higher prices are an incentive to the producer to sell the produce to that marketing channel because it will determine the profitability of the farm enterprise. Price also increases the incentive to participate. Land Size (aretea) allocated is the most influential factor with (B = 4.418; OR = $e^{4.418} = 82.957$) when households chosing marketoulet between collectors and Enterprises or cooperatives; (B = 2.557; OR = $e^{2.557} = 12.900$) when households chosing marketoulet between collectors and comsumers; When households chosing marketoulet between collectors and retailer, whosaler (B = 1.872; OR = $e^{1.872} = 6.502$).

5.2. Recommendations

Decision on market participation and further into the choice of marketing channel decision is an important task that is influenced by many factors. Based on the empirical results, recommendations can be suggested. This section gives a series of options that can be considered, in an effort to help tea producers to reach their full potential.

Land size (Tea growing area) is an important factor observed to influence choice of marketing channel. Implying that with quantity of tea farmers are more likely to choose wisely on the appropriate channel. Experience variable is also an important factor observed to influence choice of marketing channel. Implying that farmers which are more experienced participate in intermediary marketing channels because they are aware of the benefits. Farmers with little experience may be trained on how to market tea in different channels as well as benefits associated with these channels. This can be done because education is important variable which affect marketing channel choice decisions. Education has a positive relationship with quantity supplied in intermediary marketing channels.

Distance from the farm to market significantly affects channel decisions, government should ensure developing markets for tea within reach this will motivate a lot of farmers to participate in tea supply chain their by increase their income and subsequently their livelihood. Farmers do not want to travel long distances because there will be more transaction costs and they rely on customers purchasing tea at farm gate.

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