

FACTORS AFFECTING THE INTENTION TO DEVELOP GREEN SUPPLY CHAIN IN COFFEE PRODUCTION IN TAY NGUYEN, VIETNAM

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Abstract

This study explores the factors that influence the intention of developing green supply chains in Central Highlands coffee production. The author surveyed 392 households in which: 131 households have participated in the green supply chain in coffee production, 261 households have not participated in the green supply chain. Using quantitative research methods, using software supporting SPSS 22.0 to analyze and verify the reliability of the Cronbach's Alpha scale, Factor analysis (EFA), correlation analysis, regression analysis. The results show that there are 5 factors that influence the intention of developing green supply chains in coffee production. Based on the research results of the author also implies that the ability to develop the green supply chain in coffee production is joined by many households, to reduce greenhouse gas emissions and increase coffee production.

Keywords: *Green, supplychain, cofee, Central Highlands*

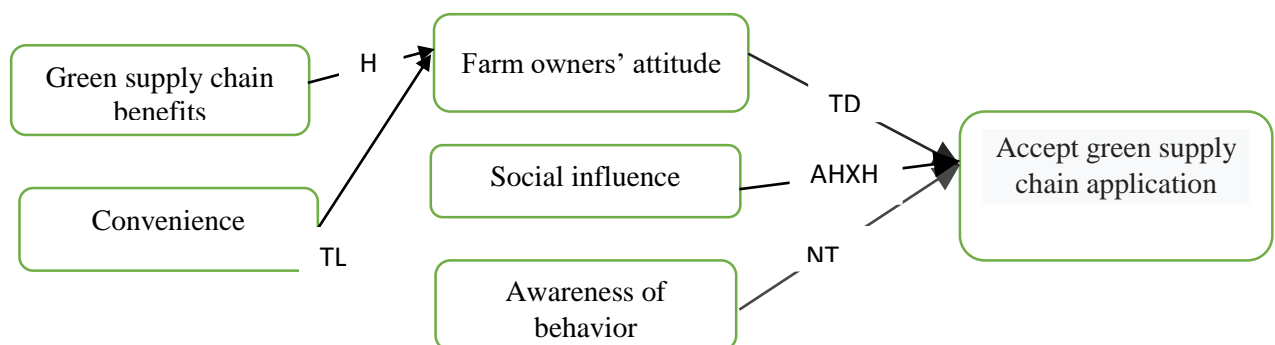
1. Introduction

Coffee is the main export item in Vietnam in general and the Central Highlands provinces in particular, contributing 3% of the national GDP in 2018, also resolving to more than 2.9 million people in the locality and neighboring provinces (*Vietnam Customs, 2015*). Coffee is the second largest export commodity in the world after Brazil since 2000, and the achievements show that the coffee industry develops in the future.

The Central Highlands is one of the key regions for growing typical industrial crops of coffee trees. Due to many different reasons, together with the Central Highlands, only 22% of coffee farmers only participate in the supply chain in coffee production. Households spend too much labor and have a large amount of untreated waste, discharging waste directly into the water and soil environment, increasing greenhouse gas emissions increasingly when producing coffee.

2. Method

2.1. Research model



2.2. Theory of research

LI: Calculating the benefits of a green supply chain has a positive effect on the attitude of coffee farmers.

TL : Convenience of green supply chain has a positive effect on green supply chain attitude in coffee production.

TD: Coffee farm owners' attitude has a positive influence on the intention of developing green supply chains for coffee production.

AHXH: Social influence has a positive influence on the intention of developing green supply chains in coffee production.

NT: Awareness of farm owner behavior has a positive influence on the intention of developing green supply chains in coffee production.

2.3. Data and research methods

The author's research used quantitative research method through two main stages: Preliminary research and official research. The sample size depends on the expectation of reliability, the method of data analysis, the parameters to be estimated and the distribution rules of the selected sets. According to Hai et al. (2006), if the study uses EFA (Explorator Factor Analysis), the sample size must be at least 100 (or larger). According to Tabachnick and Fidell, for the regression calculation, the sample size calculated using the formula $50 + 8 * m$ (m number of independent variables) must be at least 5 times higher than the measurement variables. It means that for each measurement variable, there must be at least 5 observed variables. Inheriting the research of *Hoang Trong and Chu Nguyen Mong Ngoc* (2008) also shows that EFA factors usually have at least 4 or 5 times the number of observed variables in factor analysis. In the study of the thesis there are 21 observed variables so the minimum sample size is $50 + 8 * 21 = 218$ observed variables.

3. Result

3.1. Characteristics of research sample

Table 1: Deciding to develop a green supply chain

		Deciding to develop a green supply chain			
		Green supply chain has not yet been applied		Green supply chain has been applied	
		Amount (People)	Ratio (%)	Amount (People)	Ratio (%)
SEX	Male	136	52,1	104	79,4
	Female	125	47,9	27	20,6
Nation	Kinh	185	70,9	108	82,4
	Other	76	29,1	23	17,6

Jobs	Farmer	261	100	94	71,8
	Employee	0	0	21	16
	Public servants	0	0	16	12,2
Education	Unlettered	55	21,1	0	0
	Level I	118	45,2	0	0
	Level II	88	33,7	11	8,4
	Level III	0	0	97	74,0
	Secondary	0	0	23	17,6
	University	0	0	0	0

+ **Sex:** For those who have not yet participated in the green supply chain: The author surveyed 261 people (accounting for 52,1%) of those who had not participated in the green supply chain, including 136 male sexes (accounting for 52,1%), women have 125 people (accounting for 47,9%). Green supply chain has been applied with 131 people, including 104 men (79.4%) and 27 people (20.6%). This disparity is not large, which indicates that women can afford to be in work instead of men doing hard work.

+ **Jobs:** For those who have not yet participated in the green supply chain: The author surveyed 261 (accounting for 52.1%), who had not participated in the green supply chain, of which 261 were farmers (accounting for 100%). and has applied a green supply chain of 131 people, of which 94 farmers (71.8%), 21 employees (16%), 16 civil servants (12.2%).

+ **Nation:** For those who have not participated in the green supply chain: Survey author 261 (52.1%), who has not participated in the green supply chain, of which 185 people are ethnic Kinh (accounting for 70.9%), the rest 76 ethnic minorities (accounting for 29.1%). Regarding participating in the green supply chain, the author surveyed 131 people, including 108 Kinh ethnic people (accounting for 82.4%), 23 ethnic minority people (accounting for 17.6%).

+ **Education:** For those who have not yet participated in the green supply chain: The author surveyed 261 (accounting for 52.1%), there were 55 illiterate people (21.1%), 118 people with primary education level (45.2%), 88 people with secondary education (accounting for 33.7%). Regarding the households participating in the green supply chain, the author surveyed 131 people including, there are no literate and educated people, there are 11 people with secondary education (accounting for 8.4%).), 97 people with high school education (74%), 23 people with professional secondary education (accounting for 17.6%).

3.2. Testing the scale

- Preliminary quantitative research

Inspection results preliminary analysis of the reliability of the factors affecting the development of green supply chain consists there: favorability, attitude ranchers, social influence, perceived behavioral control of all pages, farmers in the two groups were taking part and not taking in the show: turn the section “reduction in the space” of human factors beneficial

interests have us some relatively important variables into part – variable total by 0.240 to see turned into part of this do not being put to work to save on the message reliability. Because so, the variable is not being put to work to save on the amount of the formula. The turn into part of the human factor was to have with us the same opinion turning into part – turn the total are greater than 0.3 and generation of Cronbach's Alpha greater than 0.6 should all make sure the information reliable and be put into research examined in the amount of the formula.

- Official quantitative research

To measure the factors affecting the development of green supply chains in coffee production in the Central Highlands, the author uses 5 factors with 21 component variables. These factors before being used for analysis will be evaluated by Cronbach's Alpha coefficient to measure reliability. Accordingly, the factors are considered to be reliable when the Cronbach's Alpha coefficient is greater than or equal to 0.6 and the correlation coefficient of each component variable with the total variable is greater than 0.3 .

+ Benefit variable, LI: Benefits of participating in the green supply chain in coffee production.

This factor has 7 component variables, after type 1 turns into component LI7 because there are total variables <0.3, the remaining 6 component variables. The analytical results show that the Cronbach's Alpha coefficient of LI factor is 0.826; The correlation coefficient of each component variable with this factor is more than 0.3. Therefore, these component variables are statistically significant.

Favorable factors

This factor has 3 component variables. The analytical results show that the Cronbach's Alpha coefficient of TL factor is 0.787; The correlation coefficient of each component variable with this factor is more than 0.3. Therefore, these component variables are statistically significant.

Attitude factor .

This factor has 3 component variables. The analytical results show that, Cronbach's Alpha coefficient of factor TD is 0.848; The correlation coefficient of each component variable with this factor is more than 0.3. Therefore, these component variables are statistically significant.

Social influence factors

This factor has 4 component variables. The analytical results show that, Cronbach's Alpha coefficient of AHXH factor is 0.801; The correlation coefficient of each component variable with this factor is more than 0.3. Therefore, these component variables are statistically significant .

Cognitive behavior control factors

This factor has 4 component variables. The analytical results show that, Cronbach's Alpha coefficient of NT factor is 0.766; The correlation coefficient of each component variable with this factor is more than 0.3. Therefore, these component variables are statistically significant.

* EFA factor analysis

Next, the author uses EFA factor analysis to check the fit between the theoretical model and the actual survey. According to the analysis results, the KMO coefficient is 0.725, the significance level of Bartlett test is less than 0.5, which shows that the factor analysis is appropriate and the linear variables are linearly related.

Table 2: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.725
Bartlett's Test of Sphericity	Approx. Chi-Square	2840.632
	df	190
	Sig.	0.000

Source: author's processing from survey data

In EFA analysis, component variables are retained to participate in factor analysis when having a factor of load greater than or equal to 0.5, according to analysis results, component variables have a larger factor load factor 0.5, so these component variables are all involved in factor analysis.

The analysis results also showed that the total variance extracted of the factors by 63.32 reflects the factor analysis explained by 63.32% by the component variables.

Thus, these factors are all dependent on the theoretical model.

* Test of research hypotheses

• Already in the green supply chain

Hypothesis H1.1: LI is positively related to the attitude of the farmer / farmer who participates in the green supply chain in coffee production.

According to results distribution area , generation of correlation between benefits with the attitude of ranchers / farmers have joined green supply chain in coffee production by 0.550, with a coefficient of $VIF = 1.505 < 10$, not There is a phenomenon of multicollinearity, the significance level = 0.000 is less than 0.005, reflecting the positive relationship and has statistical significance. As such , false doctrine " LI-way relationship with the attitude of ranchers / farmers have participated in the supply chain in the production of green coffee. Accepted this study.

Table 3: Correlation coefficient between favorable variables and farm owner attitude

		Farm owner attitude	Benefit
Benefit	Correlation coefficients	1	.550**
	Significance level of 2 -sided testing		.000
	Number of respondents	131	131
Attitude	Correlation coefficients	.550**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	131	131

** The significance level of the correlation coefficient of the two-sided test is 0.01

Hypothesis H2.1: Favorability (TL), positively impacting the attitude of farm owners / farmers

According to the analysis results , the correlation coefficient of convenience with the attitude of the farmer / farmer participating in the green supply chain in coffee production is equal to 0.439, with a coefficient of VIF = 1.505 <10, no. There is a phenomenon of multi-collinearity, the significance level = 0.000 is less than 0.005, reflecting the positive relationship and has statistical significance .

As such , false doctrine " properties favorable relationship in the same direction to the attitude of ranchers / farmers have participated in the supply chain in the production of green coffee. Accepted this study.

Table 4 : Correlation coefficients between variables intention to join / continue to participate with conveniently favorability

		Farm owner attitude	Advantage
Farm owner attitude	Correlation coefficients	1	.439**
	Significance level of 2 -sided testing		.000
	Number of respondents	131	131
Advantage	Correlation coefficients	.439**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	131	131

Hypothesis H4.1: Social influence affecting green supply chain development

Social influence has focal agency system in the same direction to the participants intend to green supply chain of the households in family.

According to results distribution are, generation of relatively agencies between profit utility with reviews to take part in the green supply chain of the households in families have participated in an not take part in visits respectively by 0.500 and 0.429, the standard means test for less than 0.05 reflect light focal agency system same way and have the means system statistics.

As such, doctrine “AHXH relationship the same way households intend to participate/ continue to participate in the green supply chain coffee production” were approved to receive the study at this.

Table 5 : Correlation coefficient between variables continue to participate with social effects

		Continue to participate in the green coffee supply chain	Social influence
Continue to participate in the green coffee supply chain	Correlation coefficients	1	.500**
	Significance level of 2 -sided testing		.000
	Number of respondents	131	131
Social influence	Correlation coefficients	.500**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	131	131

** The significance level of the correlation coefficient of the two-sided test is 0.01

Hypothesis H5.1: Cognitive behavioral control, NT; awareness of behavioral control in green supply chains in coffee production.

Cognitive behavioral control with focal agency system in the same way to intend to continue Participants green supply chain of the households in family.

According to the analysis, the correlation coefficient of benefits and the intention of participating green supply chains of participating and non-participating households is 0.455 and 0.474, the test significance level is less than 0.05 which shows the positive and statistic relationship.

Thus, the hypothesis “NTK has a positive relationship with continuing to participate in the green supply chains of households” is accepted in this study.

Table 6: Correlation coefficient between continue to participate in the green coffee supply chain and cognitive behavioral control

		Continue to participate in the green coffee supply chain	Cognitive behavioral control
Continue to participate in the green coffee supply chain	Correlation coefficients	1	.455**
	Significance level of 2 -sided testing		.000
	Number of respondents	131	131
Cognitive behavioral control	Correlation coefficients	.455**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	131	131

The significance level of the correlation coefficient of the two-sided test is 0.01

• *Not participate in green supply chain*

Hypothesis H1.2: LI has a positive relationship with the attitude of the farm owner/household who has not joined the green supply chain in coffee production.

According to the analysis, the correlation coefficient of benefits and attitude of the farmer / household participating in the green supply chain in coffee production is equal to 0.469, with a VIF = 1,277 <10, no. There is no a phenomenon of multi-collinearity, the significance level is equal to 0.000 is less than 0.005, reflecting the positive relationship and has statistical significance.

Thus, the hypothesis “LI is positively related to the attitude of the owner of the farm owner/household who has not participated in the green supply chain in coffee production is accepted in this study.

Table 7: Correlation coefficient between benefits and the attitude of the farm owner/household

		Attitude of the farm owner/household	benefits
Attitude of the farm owner/household	Correlation coefficients	1	.469**
	Significance level of 2 -sided testing		.000
	Number of respondents	261	261
benefits	Correlation coefficients	.469**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	262	262

** The significance level of the correlation coefficient of the two-sided test is 0.01

Hypothesis H2.1: Convenience (TL) has a positive impact on the attitude of farm owners/ households

Benefits has a positive relationship with the attitude of the farm owner / household who has not participated in the green supply chain in coffee production.

According to the analysis, the correlation coefficient of favorability with the attitude of the farmer owner/household who has not participated in the green supply chain in coffee production is equal to 0.326, with a coefficient of VIF = 1,277 <10, no. There is a phenomenon of multi-collinearity, the significance level = 0.000 is less than 0.005, reflecting the positive relationship and has statistical significance.

Thus, the hypothesis “facilitation is positively related to the attitude of the owner of the farm / farmer who has not participated in the green supply chain in coffee production. Accepted this study.

Table 8: Correlation coefficient between favorable variables and attitudes

		Attitude of the farm owner / household	Convenience
the attitude of the farm owner / household	Correlation coefficients	1	.326**
	Significance level of 2 - sided testing		.000
	Number of respondents	261	261
Convenience	Correlation coefficients	.326**	1
	Significance level of 2 - sided testing	.000	
	Number of respondents	262	262

** The significance level of the correlation coefficient of the two-sided test is 0.01

Hypothesis H3.1: Farmer owners' attitude is positively related to the intention of participating in the green supply chain in coffee production

According to the analysis of the correlation coefficient between attitude and intention to participate of households who have not participated in the green supply chain is 0.510, the test significance level is less than 0.05 which reflects a positive relationship and a statistical significance.

Thus, the hypothesis "Attitude is positively related to the intention to participate in the green supply chain of coffee production" is accepted in this study.

Table 9: Correlation coefficient between the intention to participate and the owners'/households' attitude

		The intention to participate in the green supply chain	Attitude
The intention to participate in the green supply chain	Correlation coefficients	1	.510**
	Significance level of 2 -sided testing		.000
	Number of respondents	261	261
Attitude	Correlation coefficients	.510**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	262	262

** The significance level of the correlation coefficient of the two-sided test is 0.01

Hypothesis H4.2: Social influence is positively related to the intention to participate in green supply chains in coffee production

According to the analysis, the correlation coefficient between attitude and intention to participate of households not participating in the green supply chain is equal to 0.429, the test significance level is less than 0.05 which reflects a positive relationship and a statistical significance.

Thus, the hypothesis "Social influence is positively related to the intention of participating in green coffee supply chain" is accepted in this study.

Table 10: Correlation coefficient between the intention to participate and social influence

		intention to participate in green supply chains	Social influence
intention to participate in green supply chains	Correlation coefficients	1	.429**
	Significance level of 2 -sided testing		.000
	Number of respondents	261	261
Social influence	Correlation coefficients	.429**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	262	262

The significance level of the correlation coefficient of the two-sided test is 0.01

Hypothesis H5.2: Farmers' perceptions of behavioral control are positively related to the intention to participate in green supply chains in coffee production.

According to the analysis of the correlation coefficient between attitude and intention to participate of households not participating in the green supply chain is 0.474, the test significance level is less than 0.05 which reflects a positive relationship and there is statistical significance.

As such, the hypothesis "Perception of behavioral control is positively related to the intention to participate in green coffee production supply chains" is accepted in this study.

Table 11: Correlation coefficients between intention to participate/continue participation and Cognitive behavioral control

		Intention to engage households that have not yet joined the green supply chain	Cognitive behavioral control NTKS
Intention to engage households that have not yet joined the green supply chain	Correlation coefficients	1	.474**
	Significance level of 2 -sided testing		.000
	Number of respondents	261	261
Cognitive behavioral control (NTKS)	Correlation coefficients	.474**	1
	Significance level of 2 -sided testing	.000	
	Number of respondents	262	262

** The significance level of the correlation coefficient of the two-sided test is 0.01

3.4.2.2 Analysis of factors affecting green supply chain development in coffee production in the Central Highlands.

In order to analyzing the factors affecting the development of green supply chains in coffee production in the Central Highlands, the author uses the Logistic regression model with the method of eliminating the stepwise conditional variable in SPSS.

The households participating in the survey are divided into two groups: households that have participated in the green supply chain and those have not participate in the green supply chain. Therefore, the factors analysing affecting to green supply chain development in coffee production is shown as follows:

- For households that have participated in the green supply chain

Model 1: The intention variable of green supply chain development is influenced by LI. The correct prediction rate of this model is 91.6% and the -2 Log likelihood value is 58.557. The test results on the general suitability of the model are statistically significant because of the significance level of the test is less than 0.05 (Sig = 0.000). The significance level of the Wald test is less than 0.05 (Sig = 0.000), reflecting that the regression coefficients in model 1 are statistically significant.

Table 12: Regression coefficient model 1

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 1	LI	3.689	.983	14.092	1	.000	39.994
	Constant	-12.221	3.692	10.957	1	.001	.000

a. Model 1: Independent variable LI.

Model 2: The Intention of green supply chain development is influenced by LI and AHXH. The correct prediction rate for this model is 97.4% and the -2 Log likelihood value is 42.085. Test results on the model's general suitability. The significance level of the Wald test on regression coefficients for the independent variables in the model is less than 0.05. The significance level of the Wald test is less than 0.05 (Sig = 0.000) which reflects the regression coefficients in model 1 are statistically significant.

Table 13: Regression coefficient model 2

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 2	LI	4.599	1.254	13.455	1	.000	99.345
	AHXH	2.803	.784	12.778	1	.000	16.497
	Constant	-27.431	6.715	16.690	1	.000	.000

b. Model 2: independent variable LI, AHXH.

Model 3: The intention to develop a green supply chain is influenced by LI, AHXH and TD. The correct prediction rate of this model is 96.2% and the -2 Log likelihood value is 22.135. Test results on the model's general suitability. The significance level of the Wald test for regression coefficients in the model is less than 0.05, reflecting the statistically significant model.

Table 14: Regression coefficient model 3

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 3	LI	4.973	1.568	10.057	1	.002	144.494
	AHXH	2.882	1.200	5.767	1	.016	17.846
	TD	8.120	2.701	9.040	1	.003	3361.166
	Constant	-61.280	17.438	12.349	1	.000	.000

c. Model 3: independent variable LI, AHXH, TD

Model 4: Intention variable Continuing to participate in the green supply chain is influenced by LI, TL, TD and AHXH. The correct prediction rate for this model is 98.5% and the -2 Log likelihood value is equal to 10,365. Test results on the model's general suitability. The

significance level of the Wald test for regression coefficients for the independent variables in the model is less than 0.05. As such, this regression model is not used to analyze the factors affecting green supply chain development

Table 15: Regression coefficient of model 4

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 4	LI	5.887	2.001	8.652	1	.003	360.311
	TL	3.167	1.447	4.791	1	.029	23.732
	TD	3.884	1.844	4.436	1	.035	48.637
	AHXH	11.569	4.641	6.213	1	.013	105718.178
	Constant	-94.478	31.707	8.879	1	.003	.000

d. Model 4: independent variables LI, AHXH, TD, AHXH

Thus, these 4 models are used to analyze factors affecting green supply chain development in coffee production. To select an appropriate analytical model, the author uses -2 Log likelihood coefficient. Accordingly, the model chosen is the one with the least -2 Log likelihood value. In the above models, model 4 is the model chosen to analyze the factors affecting the development of green chain in coffee production due to the coefficient of -2 Log likelihood smallest and equal to 10,365. Thus, factors affecting the development of green supply chains in coffee production of households participating in the green supply chain include: LI, TL, TD, AHXH. Based on the coefficient of recovery to determine the influence of the factors. Among these factors, AHXH is the most influential factor due to the regression coefficient equal to 11,569. The degree of influence of the remaining factors in the order is LI (5,887); TD (3,884) and TL (3,167).

$$\text{Log}_e\left[\frac{P(Y = 1)}{P(Y = 0)}\right] = -94.478 + 11.569 * \text{AHXH} + 5.887 * \text{LI} + 3.884 * \text{TD} + 3.167 * \text{TL}$$

Not participating in green supply chain

Model 1: The intention to participate in the green supply chain is influenced by TL. The correct prediction rate of this model is 95.8%. The test results on the general suitability of the model are statistically significant because the significance level of the test is less than 0.05 (Sig = 0.000). The significance level of the Wald test is less than 0.05 (Sig = 0.000), reflecting that the regression coefficients in model 1 are statistically significant.

Table 16: Coefficient. regression model 1

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 1	TL	2.919	.478	37.264	1	.000	18.530
	Constant	-9.025	1.789	25.449	1	.000	.000

a. Model 1: independent variable TL.

Model 2: The Intention of green supply chain participation is influenced by TL and AHXH. The correct prediction rate of this model is 98.3%. The test results on the general suitability of the model are statistically significant because the significance level of the test is less than 0.05 (Sig = 0.000). The significance level of the Wald test is less than 0.05 (Sig = 0.000), reflecting that the regression coefficients in model 1 are statistically significant.

Table 17: Regression coefficient model 2

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 2	TL	2.658	.477	31.063	1	.000	14.272
	AHXH	1.516	.377	16.161	1	.000	4.554
	Constant	-14.334	2.399	35.696	1	.000	.000

b. model 2: independent variable TL, AHXH.

Model 3: Variable The intention of developing a green supply chain is influenced by TL, AHXH and NT. The correct prediction rate of this model is 98.3%. Test results on the model's general suitability. The significance level of the Wald test for regression coefficients in the model is less than 0.05, reflecting the statistically significant model.

Table 18: Regression coefficient model 3

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 3	TL	2.426	.636	14.544	1	.000	11.318
	AHXH	3.536	.763	21.496	1	.000	34.341
	NT	6.272	1.489	17.748	1	.000	529.400
	Constant	-46.518	9.789	22.582	1	.000	.000

c. Model 3: independent variable TL, AHXH, NT

Model 4: The Intention of green supply chain participation is influenced by LI, TL, AHXH and NT. The correct prediction rate of this model is 90.0%. Test results on the model's general suitability. The significance level of the Wald test for regression coefficients for the independent variables in the model is less than 0.05. The significance level of the Wald test for regression coefficients in the model is less than 0.05, reflecting the statistically significant model.

Table 19: Regression coefficient model 4

		B	S.E	Wald	Df	Sig.	Exp(B)
Model 4	LI	2.885	.998	8.359	1	.004	17.899
	TL	2.324	.716	10.520	1	.001	10.213
	AHXH	4.099	1.191	11.836	1	.001	60.270
	NT	6.629	1.831	13.113	1	.000	756.878
	Constant	-60.749	14.233	18.217	1	.000	.000

d. Model 3: independent variables LI, AHXH, TL, NT

Thus, these 4 models are used to analyze factors affecting green supply chain development in coffee production. To select an appropriate analytical model, the author uses -2 Log likelihood coefficient. Accordingly, the model is the one with the least -2 Log likelihood value. In the above models, model 4 is the model chosen to analyze the factors affecting the development of green chain in coffee production due to the coefficient of -2 Log likelihood smallest and equal to 10,365. Thus, factors affecting the development of green supply chains in coffee production of households participating in the green supply chain include: LI, TL, AHXH, NT. Based on the coefficient of recovery to determine the influence of the factors. Among these factors, NT is the most influential factor due to the regression coefficient equal to 6,629. The degree of influence of the remaining factors in the order is AHXH (4,099); LI (2,885) and TL (2,324).

$$\text{Loge}\left[\frac{P(Y = 1)}{P(Y = 0)}\right] = -60.749 + 6.629 * NT + 4.099 * AHXH + 2.885 * LI + TL * 2.324$$

Conclusion: The results of the study show that there are 5 factors that confirm.

4. Discussion and conclusion

After the study, it can be concluded that the intention to develop a green supply chain in coffee production in the Central Highlands has the opportunity to develop active participation of coffee growers. Purpose of reducing fertilizer, reducing greenhouse gas emissions, increasing coffee production... In addition to many advantages and disadvantages, the government needs to pay attention to the needs of coffee farmers.

The author's research is limited to taking samples only five Central Highlands Provinces. The reliability will be higher if the expansion of the study area, in addition to selecting a representative sample has a higher, can more accurate results.

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