Factors Affecting Farmers' Decisions to Participate in Agricultural Tourism Activities: A Case Study in the Mekong Delta, Vietnam

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Agricultural tourism, or agritourism, creates jobs for household members, diversifies farming activities and sources of revenue, and lowers the household's reliance on nature. This study uses Binary Logistic regression analysis to conduct a direct survey of 450 agricultural households in the Mekong Delta, Vietnam. The findings indicate that influencing factors include the following: support for local government policies; membership in farmer associations, unions, and extension clubs; awareness of the benefits of agritourism; a variety of production models; Internet access; education level; and membership in tourism associations, travel organisations. Distance between farms and agritourism destinations.

Key words: Agricultural tourism; Benefits of agritourism; Binary Logistic Regression Model; Mekong Delta, Vietnam; Tourism associations.

1. INTRODUCTION

Vietnam's agriculture has been developing, with more than 65 percent of the population residing in rural areas. This sector is critical to socio-economic growth. Vietnam has numerous benefits for developing agricultural tourism due to its abundant natural resources, cultural identities, and long-standing farming methods of ethnic groups. Each of the 63 provinces and cities has spectacular natural landscapes, various agricultural production strategies tailored to the region's ecology, and hospitable farmers. It is a tourism asset and a competitive advantage for Vietnam (Tam, 2021). Agritourism is a viable option for farmers interested in supplementing their income and increasing earnings from farm assets (Bernardo, 2004). Agritourism generates employment options for household members (Carter, 1998), diversifies farming operations and sources of revenue, and lessens the household's reliance on nature (Veeck et al., 2006). Tourism development in rural areas also benefits spiritual and monetary values and community cohesion.

However, agricultural tourism growth in Vietnam has lagged below the available potential in recent years. The primary objective of agricultural tourism development is to engage farmers in agricultural tourism activities. The issue is also a source of contention for scholars and policymakers in Vietnam's agriculture and tourist sectors. This article is divided into three sections: (1) Identifying the elements that influence a farmer's decision to participate in agricultural tourism; (2) Developing an econometric model to account for the above linkages; and (3) Policy implications for farmers interested in participating in agricultural tourism activities. The Mekong Delta in Vietnam is one of Southeast Asia's largest and most fertile deltas, the largest food production and export area, and the largest tropical fruit tree planting area in the country, with a natural area of 4,092.2 thousand hectares, 62.9 percent of which is used for agricultural production. Each year, the majority of the delta area is deposited with alluvium, which is highly fertile, particularly the sweet alluvial strip along the Tien and Hau rivers, which, combined with an interlaced network of rivers and canals, creates favourable conditions for agricultural production water supply (General Statistics Office of Vietnam (GSO), 2020). As a result of their agricultural capabilities and different ecosystems, the Mekong Delta provinces have an edge in promoting niche tourism, such as biosphere reserves, eco-tourism, river culture, fruit gardens, and traditional village professions.

2. THEORY OVERVIEW

2.1 Concept of agritourism

According to experts at the University of California, Agritourism is any revenue-generating activity conducted on a farm for the recreational and educational enjoyment of tourists. It encompasses the interpretation of the land's natural, cultural, historical, and environmental characteristics and the farmers who cultivate it. Agritourism activities are classified by the USDA (United States Department of Agriculture) as educational activities, hospitality, outdoor leisure, marketing agricultural products, and product manufacture or sale. According to the United States Natural Resources Conservation Service (NRCS), agritourism can contribute to soil conservation and enable the development of more sustainable agricultural systems because farmers and ranchers rely on natural resources such as soil, water, air, plants, wildlife, and landscapes to connect their families to farms and ranches (SAREP, 2017).

2.2 Foundation Theory

2.2.1 Theory of Reasoned Action

According to Ajzen (1991) theory of reasoned action, behavioural intentions cause behaviour and intentions are

controlled by individual attitudes, with the effect of subjective norms (The influence of others also leads to their attitudes). In which, behavioural intention is influenced by attitude and subjective norms. This model is used to forecast how individuals will behave in the future based on their prior attitudes and behavioural intentions. Numerous research studies have established a strong link between behavioural intention and behaviour (Sheppard et al., 1988). However, there is still considerable dispute over the link between behavioural intention and actual conduct, as behavioural intention does not necessarily result in actual behaviour under certain conditions.

2.2.2 Theory of Planned Behavior

According to Ajzen (1991)'s theory of planned behaviour, the intention to do an action is impacted by three factors: attitude toward the conduct, subjective norms, and perceived behavioural control. Thus, TPB evolved from the notion of rational action and overcame the constraint that human behaviour is entirely determined by reason. There are three essential determinants in this theory: (i) the personal factor is the individual's attitude toward the behaviour in terms of the positive or negative consequences of performing the behaviour; (ii) the subjective norm is the individual's intention to perceive social pressure; and (iii) finally, the determinant of self-efficacy or the ability to perform the behaviour is called cognitive behaviour. The theory demonstrates the critical role of behavioural attitudes, subjective norms, and cognitive behavioural control in creating behavioural intentions.

2.2.3 Useful Perception Theory

According to the useful perception theory, in agriculture, new technical measures or solutions are frequently perceived to carry more significant risks than traditional methods, creating barriers to application selection decisions when farmers are uncertain about the effectiveness and utility of the measure or solution and therefore delay application to await trial results (Feder et al., 1985). Thus, Feder et al. (1981) demonstrated that access to official information enables farmers to perceive a reduction in risk and uncertainty while recognising the application's effectiveness and utility, thereby increasing the likelihood of picking the application.

2.2.4 Theory of Agritourism

Alternative tourism is an integral aspect of today's tourist sector. Agricultural tourism is a type of alternative tourism that exists in rural areas. Thus, agricultural tourism is an activity in rural areas, where agriculture and agricultural product processing occur at all phases (Mieczkowski, 1995). According to Coates et al. (2002), most resources have multiple uses, and farms can increase their competitiveness by repurposing these resource advantages and transforming them into new products or services.

2.2.5 Social Representation Theory

According to social representation theory, encouraging community involvement in rural tourism development will result in sustainable rural tourism development. Social representation is a body of information comprised of disparate expectations, images, and values, each with its cultural importance and distinct from personal experience (Rateau, 2011). Social representation is mainly formed through printed and electronic media, social interaction, and direct experience, and as a result, social consensus directly affects people's attitudes toward a particular subject (Pearce, 1996).

2.2.6 The Center-Periphery Theory

According to the Center-Periphery Theory, well-endowed regions will have the possibility to expand further if they utilise the resources of neighbouring regions (Gren, 2003). The application of innovation to the growth of one community and the subsequent creative spillover into another (Yates, 2001).

The background mentioned above ideas are essential to this study because they help explain the nature of agritourism, the behaviour of farmers involved in agritourism, and why farmers actively participate in the agritourism model of rural tourism development.

2.2.7 Empirical Studies Related to Factors Affecting the Decision to Join Agricultural Tourism

Agritourism research in China demonstrates that communities engaged in agritourism activities are influenced by local economic, cultural, social, and environmental aspects (Li et al., 2011). Kunasekaran et al. (2012) found that perceived benefits, government backing, and distance from farm to nearest commercial towns are all significant factors affecting farmers' participation in agricultural tourism activities in Cameron. According to Bagi et al. (2012) and Yeboah et al. (2017), factors influencing the decision to participate in agricultural tourism include young age, farm size, internet availability, and farm location. Malkanthi et al. (2015) conducted research in Sri Lanka and discovered that farmers' age and education level influence their decision to participate in agritourism activities. According to Jungprabate (2018)'s research on agritourism in Thailand, the primary characteristics determining farmers' participation in agritourism activities are gender, age, education, and work experience. Additionally, research on agritourism in Vietnam indicates that critical criteria include age, education level, region size, years of foreign tourism participation, trust, relationship with travel companies, and support for local officials (Nguyễn, 2021; Nguyen, 2018).

Since the 2010s, numerous studies on agritourism have been conducted worldwide, including in Nepal (Bhatta et al., 2019); India (Ezung, 2011); Cuba (Duffy et al., 2017); and Indonesia (Nastiti, 2020). These studies indicate that the following factors influence the decision to participate in agritourism: gender, age, agricultural land area, income, membership in tourism associations, travel organisation, and location near commercial centres.

The summary of the preceding empirical investigations indicates six distinct sets of factors influencing farmers'

decisions to participate in agricultural tourism: Human capital; physical capital; social capital; a sense of usefulness; market access; and government assistance policies are all examples of human capital. The study surveyed twenty tourism sector management specialists in Can Tho and Soc Trang to find particular sets of criteria that fit Vietnam's features.

"**Human capital:** Age and Education level of the household head.

Physical capital: Agricultural land area, Internet accessibility, Production model on agricultural land, and income.

Social capital: Household heads participate in farmer associations, unions, farmer clubs; the level of contact with agricultural extension officers; and Join tourism associations, travel organizations.

Perceived usefulness: The head of the household perceives the benefits brought from agricultural tourism.

Market Access: Distance from farm to local malls.

Supporting policies of local authorities: Investment in infrastructure (electricity, clean water, rural roads, Internet transmission system, complete planning of local commercial centers), security management whole food, and local marketing program on agritourism.

3. RESEARCH MODEL AND HYPOTHESIS

Further study is required to extend the theory, give additional empirical evidence, and develop theoretical policy implications related to the factors influencing the decision to join agricultural tourism. Previous studies provide insight into the impact of factors influencing the decision to join agricultural tourism and quantify relationships using various distinct quantitative models such as statistical tests, linear regression, or separate regression models. However, they do not provide an adequate foundation for a comprehensive analytical framework on factors influencing the decision to join agricultural tourism. As such, the purpose of this work was to extend earlier findings and examine the correlations in the Binary Logistic regression model. This study chose the following research model for the Mekong Delta in Vietnam (Figure 1).

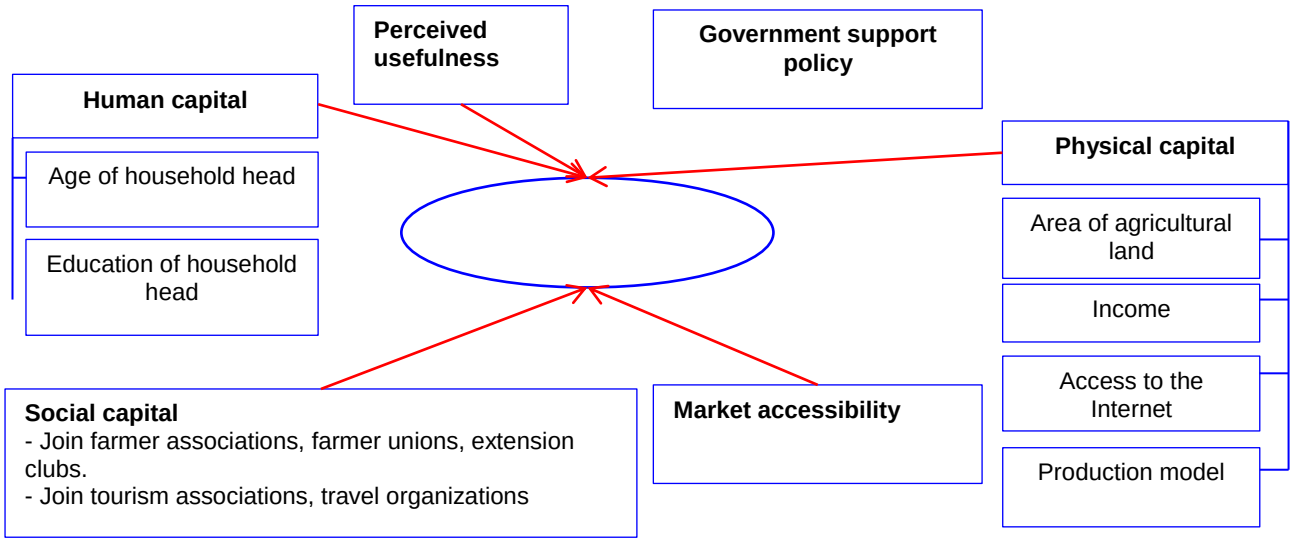

Fig. 1: Research Model

Hypotheses: Based on the empirical studies, the study proposes the following hypothesis:

H1: The age of the household head positively affects the decision to join agritourism;

H2: The educational level of the household head positively affects the decision to join agritourism;

H3: Area of agricultural land positively affects the decision to join agritourism;

H4: Household's income positively affects the decision to join agritourism;

H5: Access to the Internet positively affects the decision to join agritourism;

H6: Production model positively affects the decision to join agritourism;

H7: Joining farmer associations, farmer unions, extension clubs positively affect the decision to join agritourism;

H8: Joining tourism associations, travel organizations positively affect the decision to join agritourism;

H9: Joining tourism associations, travel organizations positively affect the decision to join agritourism;

H10: Positive perception of tourism positively affects the decision to join agritourism;

H11: Distance from the farm to the nearest central market positively affects the decision to join agritourism.

Table 1. Definitions of Variables and Expectations

No.	Variables	Code	Units	Expectation
I	**Dependent variable**			
	The decision to join agricultural tourism	Y	Yes = 1; No = 0	
II	**Independent variables**			
1	Human capital			
	Age of household head	X1	Number of years	-
	Education of household head	X2	Level 1 = 0; Level 2 = 1; Level 3 = 2; Intermediate & College = 3; University = 4	+
2	Physical capital			
	Area of agricultural land	X3	1000 m2	+
	Income	X4	Million VND	+
	Access to the Internet	X5	Yes =1; No = 0	+
	Production model	X6	Diversity = 1; No = 0	+
3	Social capital			
	Join farmer associations, farmer unions, extension clubs	X7	Yes = 1; No = 0	+
	Join tourism associations, travel organizations	X8	Yes = 1; No = 1	+
4	Government support policy	X9	Yes = 1; No = 2	+
5	Perceived usefulness (Positive perception of tourism)	X10	Yes = 1; No = 3	+
6	Market accessibility			
	Distance from the farm to the nearest central market	X11	Km	-

4. RESEARCH DESIGN

4.1 Quantitative Model

Form of the research model: Y = f(X1, X2,…,X11)

General form of the linear regression model:

$$Y = B_0 + \sum_{i=1}^{n} B_i X_i + u$$

X*i*: Independent variables; Y: Dependent variable; *u*: Residuals.

According to Howitt (2011), when the dependent variable is a dummy variable (Dummy variable, Y = 1; Y = 0), the appropriate model is the Binary Logistic regression model. In this study, the dependent variable is a dummy variable. The Binary Logistic regression model is applied in this study.

Thus, the appropriate model is the Binary Logistic regression:

$$Ln\left[\frac{P(Y=1)}{P(Y=0)}\right] = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + .. + B_{11}X_{11} \quad (1)$$

Of which:

P(Y=1) = P_0: The probability of households join agritourism.

P(Y = 0) = 1 - P_0: The probability of households did not join agritourism.

X*i*: Independent variables (*i*: from 1 to 11); Ln: Log of base *e* (*e* = 2,714).

Odds coefficient (O_0):

$$O_0 = \frac{P_0}{1-P_0} = \frac{P(\text{Decision to join agritourism})}{P(\text{Decide not to join agritourism})}$$

Substitute O_0 into the equation (1):

$$LnO_0 = B_0 + B_1X_1 + .. + B_{11}X_{11} \quad (2)$$

The Odds log is a linear function with the independent variables X*i* *(Cox, 1958).*

Equation (2) has the form of a Logit function, estimating the regression coefficients by the Maximum Likelihood (ML) method. All variables are presented in Table 1.

4.2 Data Collection and Processing

We collected 480 observations in eight districts throughout four provinces in Vietnam's Mekong Delta to represent various agro-ecological zones, including Ben Tre, An Giang, Soc Trang, and Can Tho City. Ben Tre and Soc Trang have an alluvial freshwater environment, a mangrove ecosystem, and a sand dune ecosystem in its estuaries and coastal areas; Can Tho has an alluvial freshwater ecosystem and is the Mekong Delta's cradle. A Giang's alluvial freshwater ecosystems and flooded woods are typical of the Hau river's western area. These areas exhibit characteristics of agro-ecological tourism, including tourism to visit fruit orchards; homestay experiences; visits and experiences at traditional craft villages, Khmer ethnic culture, and traditional music; and traditional dishes associated with coconut trees, sea crabs, fish sauce hotpot, and freshwater fish.

From March 2018 to March 2019, all respondents were identified as head of households using a simple stratified sample technique. 450 observations were taken following

data processing to guarantee acceptability and usability for data analysis. SPSS version 21.0 software was used to process all data. Direct interviews and thorough questionnaires were used to collect data to validate the research model and hypotheses.

5. RESULTS

5.1 Describe the Characteristics of the Survey Object

Gender and Internet Access: Among 450 surveyed households, the male head of the household accounts for the majority (83%) (Figure 2). The rate of households accessing the Internet is 67.6% (Figure 3).

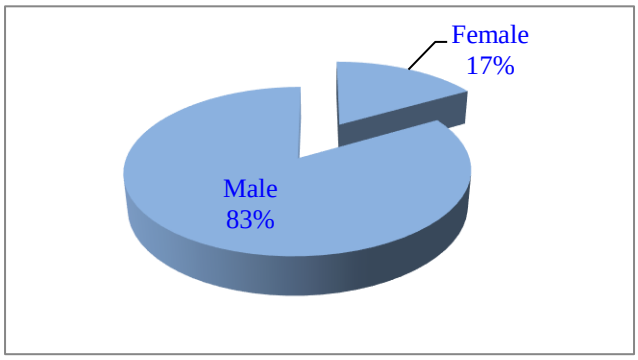

Fig. 2: Gender of household head (%)

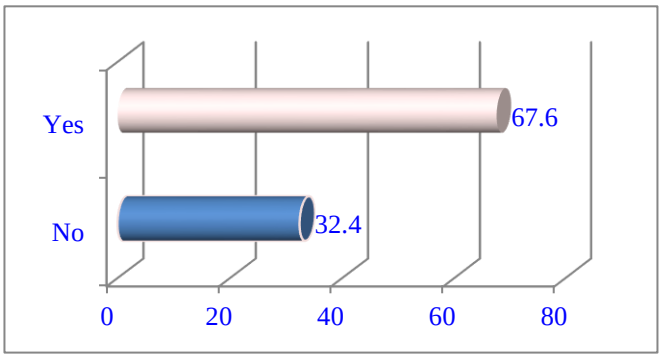

Fig. 3: Internet access (%)

Table 2. The Mean Value of The Measures

	Minimum	Maximum	Mean	Std. Deviation
Ages (years)	20	63	41,49	10.983
Area of agricultural land (1000 m2)	7	18	9,02	2.866
Income for the year (Million VND)	11	27	18,37	4.289
Distance from farms to the nearest commercial centers (Km)	1	13	4,7	2.122

Table 2 shows that the average age of the household head is 41; Agricultural land area: 9000 m2; Income: 18 million VND; Distance from farms to the nearest shopping centers: 5 Km.

Production model on agricultural land: 84.2% of households apply a diversified production model.

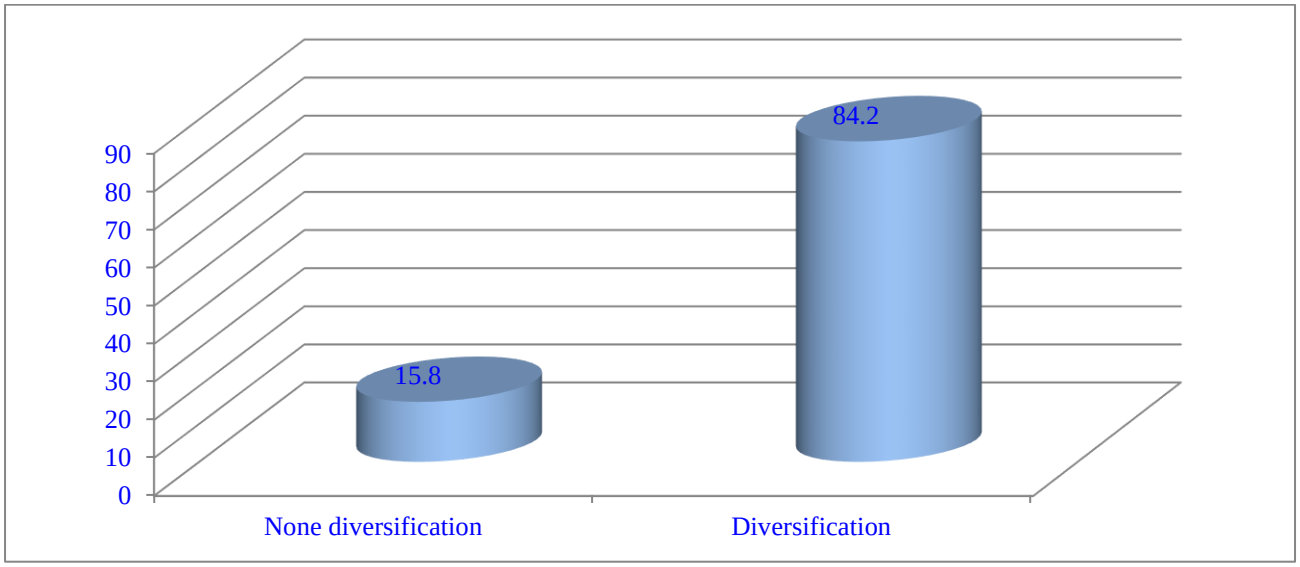

Fig. 4: Production model (%)

5.2 Regression results

Table 3. Variables in the Equation

	B	S.E.	Wald	Sig.	Exp(B)	95% C.I.for EXP(B)

						Lower	Upper
X1	-0.06	0.029	4.229	0.040	0.942	0.889	0.997
X2	1.264	0.549	5.301	0.021	3.538	1.207	10.374
X3	0.752	0.165	20.872	0.000	2.121	1.536	2.929
X5	1.919	0.898	4.566	0.033	6.817	1.172	39.649
X4	0.171	0.064	7.168	0.007	1.186	1.047	1.344
X6	2.135	0.736	8.408	0.004	8.457	1.998	35.808
X7	2.376	0.836	8.083	0.004	10.762	2.092	55.372
X8	0.988	0.485	4.149	0.042	2.686	1.038	6.95
X9	2.888	0.834	11.982	0.001	17.950	3.499	92.076
X10	2.29	0.681	11.304	0.001	9.877	2.599	37.536
X11	-0.542	0.175	9.572	0.002	0.582	0.413	0.82
Constant	-16.765	3.285	26.052	0.000	0.000		
R^2 Nagelkerke	0.918						
Omnibus Tests (Sig.)	0.000						

In Table 3, Wald's test shows that all variables have Sig. ≤ 0.05. The sign of the regression coefficients is consistent with the hypothesis. R^2 Nagelkerke = 0.918, so the independent variables of the model explain 91,8% of the change in the dependent variable. Omnibus testing with Sig. ≤ 0.05, overall, the independent variables are linearly correlated with the dependent variable. Thus, the independent variables that have a statistically significant impact on the Y variable "Decide to join agritourism" include: X1, X2, X3, X4, X5, X6, X7, X8, X9, X10, and X11.

Table 4. Level of Impact of Factors Affecting the Decision to Join Agritourism

				Initial probability P_0 = 10%	
	B	e^B	Pi (%)	Probability Change (Absolute Value)	Position
X1	-0.06	0.942	9.5	0.5	11
X2	1.264	3.538	28.2	18.2	6
X3	0.752	2.121	19.1	9.1	8
X5	1.919	6.817	43.1	33.1	5
X4	0.171	1.186	11.6	1.6	10
X6	2.135	8.457	48.4	38.4	4
X7	2.376	10.762	54.5	44.5	2
X8	0.988	2.686	23.0	13.0	7
X9	2.888	17.95	66.6	56.6	**1**
X10	2.29	9.877	52.3	42.3	3
X11	-0.542	0.582	6.1	3.9	9

Note: How to calculate P*i* in Appendix

In Table 4, the order of impact on "Decide to join agritourism" is strongest to lowest: X9 (Government support policy); X7 (Join farmer associations, farmer unions, extension clubs); X10 (Perceived usefulness); X6 (Production model); X5 (Access to the Internet); X2 (Education level of household head); X8 (Join tourism associations, travel organizations); X11 (Distance from the farm to the nearest central market); X4 (Income); and X1 (Age of household head).

The results presented in Table 5 show that: all hypotheses are accepted at a confidence level of over 95%.

Table 5. Hypothetical Results

Hypothesis	Impact			Estimate	S.E.	Sig.	Decision
H1	Y	<---	X1	-0.060	0.029	0.040	Fit
H2	Y	<---	X2	1.264	0.549	0.021	Fit
H3	Y	<---	X3	0.752	0.165	0.000	Fit
H4	Y	<---	X4	1.919	0.898	0.033	Fit
H5	Y	<---	X5	0.171	0.064	0.007	Fit

H6	Y	<---	X6	2.135	0.736	0.004	Fit
H7	Y	<---	X7	2.376	0.836	0.004	Fit
H8	Y	<---	X8	0.988	0.485	0.042	Fit
H9	Y	<---	X9	2.888	0.834	0.001	Fit
H10	Y	<---	X10	2.290	0.681	0.001	Fit
H11	Y	<---	X11	-0.542	0.175	0.002	Fit

5.3 Predicted Scenario for A Change of Joining Agritourism

The model's regression equation:

$$Y = -16.765 - 0.06X1 + 1.264X2 + 0.752X3 + 0.171X4 + 1.191X5 + 2.135X6 + 2.376X7 + 0.988X8 + 2.888X9 + 2.290X10 - 0.542X11 \quad (3)$$

Table 6. Statistical Value of Variables and Scenarios

	Minimum	Maximum	Scenario 1	Scenario 2
X1	20	63	63	20
X2	0	4	0	4
X3	7	18	7	18
X4	11	27	11	27
X5	0	1	0	1
X6	0	1	0	1
X7	0	1	0	1
	Minimum	Maximum	Scenario 1	Scenario 2
X8	0	4	0	4
X9	0	1	0	1
X10	0	1	0	1
X11	1	13	13	1

Scenario 1 (SCE1): X*i* are independent variables with the lowest values according to the theoretical model expectations.

Scenario 2 (SCE2): According to theoretical model expectations, Xi are independent variables with the highest values.

Table 7. Forecast With Scenario of Impacting Factors

			Values of variables	
No.	Variables	Regression coefficient (B)	SCE 1	SCE 2
1	X1	-0.06	63	20
2	X2	1.264	0	4
3	X3	0.752	7	18
4	X4	1.919	11	27
5	X5	0.171	0	1
6	X6	2.135	0	1
7	X7	2.376	0	1
8	X8	0.988	0	4
9	X9	2.888	0	1
10	X10	2.29	0	1
11	X11	-0.542	13	1
12	Constant	-16.765		
	LogOdds		-20.446	20.262
	elogOdds		0.000000	63048504
	1+elogOdds		1.000000	63048505
	*E(Y/Xi): Probability that Y = 1 occurs is when the independent variable X has a specific value Xi (%).		0	100

See Appendix: *How to calculate E(Y/X*i*).

Substitute the SCE1 values into equation (3), resulting in LogOdds. If the household has the following conditions, this household has a probability of "Decide to join agritourism" of 0%.

X1 = 63 (Age of household head); X2 = 0 (Level of education, Level 1); X3 = 7000 m2 (Agricultural land area); X4= 11 million VND/year (Income); X5 = 0 (No Internet access); X6 = 0 (None diversification); X7 = 0 (Do not join farmer associations, unions, extension clubs); X8 = 0 (Do not join tourism associations, travel organizations); X9 = 0 (No support policy of the local government); X10 = 0 (Do not perceive benefits from agritourism; and X11 = 13km (Distance from the farm to the nearest central market) (Tables 6 & 7).

Substitute the SCE2 values into equation (3), resulting in LogOdds. If the household has the following conditions, this household has a probability of "Decide to join agritourism" of 100%.

X1 = 20 (Age of household head); X2 = 4 (Level of education, university); X3 = 18,000 m2 (Agricultural land area); X4= 27 million VND/year (Income); X5 = 0 (Internet access); X6 = 0 (diversification); X7 = 1 (join farmer associations, unions, extension clubs); X8 = 1 (join tourism associations, travel organizations); X9 = 1 (Support policy of the local government); X10 = 1 (Perceive benefits from agritourism; and X11 = 1km (Distance from the farm to the nearest central market) (Tables 6 & 7).

6. DISCUSSION AND POLICY IMPLICATION

To begin, the study defined six categories of elements that influence agritourism participation: human capital, physical capital, social capital, useful perception, market accessibility, and government support policy.

The category of factors referred to as "human capital" comprises the household head's age and educational level. This finding is consistent with Malkanthi et al. (2015).'s study on agricultural tourism in Sri Lanka and Bhatta et al study's on rural tourism in Bhatta et al. (2019).

The term "physical capital" refers to a combination of characteristics that includes agricultural land acreage, Internet connectivity, diverse production strategies, and household income. This finding is consistent with Yeboah's (2017) findings on farmer participation in agritourism activities in North California, USA.

Social capital determinants include the following: membership in farmer associations, mass organisations, agricultural extension clubs, membership in tourism associations, tourism organisations. This finding is consistent with Ha Hong Nguyen's study of agricultural tourism in Nguyen (2018).

The combination of criteria referred to as "perceived utility" and "market accessibility" includes perceived benefits and the distance between the farm and the nearest commercial area. This finding is consistent with Kunasekaran's (2012) research on agritourism in Cameron and Bagi et al. (2012) research on agritourism in the United States (2021).

The factor category "Policy to assist the government" corresponds to the findings of Dung Thai Nguyen's research on agricultural tourism in Nguyen (2018).

Second, the study quantified the impact of each element on a scale of strong to weak: Support local government policy; Join farmer associations, unions, and extension clubs; Take use of the benefits; Diverse modes of production; Internet access; education level; membership in tourism and travel associations; The distance between the farm and the nearest commercial hub; Income; and the head of the household's age.

This finding implies that in order to increase farmers' ability to participate in agricultural tourism, they should prioritise the following: (i) Local governments should prioritise infrastructure investment (electricity, clean water, rural roads, Internet transmission system, comprehensive planning of the local commercial centre), food safety management, and a local agricultural tourism marketing programme; and (ii) Agricultural tourism associations, clubs (farmers join the association and clubs are educated about the benefits of agritourism, particularly household heads who are young and earn a high income from agriculture; farmers are trained in necessary skills and agricultural tourism activities that complement the local tourism strengths); and (iii) a policy is in place to focus on raising the educational level of farmer's children.

7. CONCLUSIONS AND LIMITS OF THE RESEARCH

This study aims to develop the theoretical framework and give empirical evidence on the behaviour of farmers engaged in agritourism in the Mekong Delta of Vietnam. The Binary Logistic regression analysis model results demonstrate the significant importance of factors influencing the decision to participate in agritourism.

Certain restrictions apply to this investigation. The survey subjects were drawn from only four regions in Vietnam's Mekong Delta, limiting the study's generalizability. Future research should examine and compare various provinces and areas in Vietnam to increase the generalizability of the findings. Additionally, this study addresses only 11 criteria that influence whether or not to participate in agritourism.

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APPENDIX

Calculate P*i*:

Assuming the initial probability of a household decides to participate agritourism is (P_0), the probability that this household will be P*i* due to the effect of the variable X*i*. According to Agresti (2007), P*i* is defined as follows:

$$P_i = \frac{P_0 \times e^{B_i}}{1 - P_0(1 - e^{B_i})}$$

e^{Bi}: Impact coefficient of X*i*

Predicted scenario for a change of poor households:

According to Agresti (2007), the predictive form of the model:

$$P_i = \frac{P_0 \times e^{B_i}}{1 - P_0(1 - e^{B_i})}$$

$$E(Y / Xi) = \frac{e^{LnOdds}}{1 + e^{LnOdds}}$$

E (Y/X*i*): The probability that Y = 1 occurs when the independent variable X has a specific value X*i*.

$$LnOdds = B_0 + B_1X_1 + B_2X_2 + B_3X_3 + .. + B_{11}X_{11}$$

$$E(Y / Xi) = \frac{e^{B0+B1X1+B2X2+B3X3+..+B11X11}}{1 + e^{B0+B1X1+B2X2+B3X3+..+B11X11}}$$