

Analysis of the Influencing Factors of Farmers' Willingness to Participate in the Integration of Tea and Tourism —An Empirical Study of Tea Farmers in Emeishan City

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Abstract

This paper is based on a questionnaire survey of 277 tea farmers and the operating enterprises of Jia'e Tea Valley in Emeishan City. Using the theory of deconstructive planning behavior, the influencing factors of the willingness of tea farmers to participate in the integration of tea and tourism are analyzed. In order to unleash the enthusiasm and initiative of tea farmers, promote the organic integration of tea industry and tourism, increase their income, and promote rural revitalization. The results indicate that (1) Behavioral attitudes, subjective norms, and perceived behavioral control have a significant impact on the willingness of tea farmers to participate in the integration of tea and tourism, but the influence of tea tourism integration concepts on tea farmers' behavioral attitudes is not significant. (2) Individual characteristics such as age, education level, family labor force, and per capita disposable income have a significant impact on tea farmer behavior attitudes, subjective norms, and perceived behavioral control, and have a significant indirect impact on the willingness to participate in tea tourism integration. Therefore, this article suggests that grassroots organizations should play a guiding role and increase publicity on the necessity and feasibility of integrating tea and tourism; Give full play to the leading role of village and community cadres, as well as the exemplary and driving role of tea farmers in the same village; Efforts will be made to enhance the recognition and trust of tea farmers in the enterprises they rely on, increase revenue expectations, expand participation channels, reduce participation thresholds and risks, and make tea farmers feel that they can make progress and gain through tea tourism integration, thereby enhancing their enthusiasm and initiative in participating in tea tourism integration.

Keyword: tea tourism integration, influence factor, empirical study, tea farmer willingness

1. Introduction

China is the hometown of tea and the birthplace of tea culture. As a traditional agricultural comprehensive industry in China, the tea industry has a natural coupling with the tourism industry. The integration of tea and tourism is a characteristic rural tourism form that takes tea gardens as the spatial material carrier, tea and tea culture as the theme, and integrates rural tourism, ecological tourism, and health tourism. It can effectively increase the added value of the tea industry, extend the industrial chain, and is an important measure to promote the structural reform of the tea industry and help farmers out of poverty. It is becoming a green economic support for revitalizing traditional tea producing areas in China and an important strategy for implementing rural revitalization strategies. Mount Emei is a globally renowned tourist destination and also an important tea production base in Sichuan. It has natural advantages in the integration of tea and tourism development. However, there are not many successful cases of tea tourism integration at present, and its support for rural revitalization is insufficient. There is still great potential and space for development. There is relatively less research on the integration of tea and tourism abroad, and more in China. Wang Jianrong analyzed the background, current situation, advantages, and existing problems of the development of China's tea tourism industry, and proposed that the integration of tea and tourism should be developed comprehensively from the perspectives of specialization, intelligence, marketization, and integration; Su et al. (2021) defined the concept of the integrated development model of tea culture, tourism, and health, summarized the research overview and

problems of tea culture tourism, and analyzed the development path of tea culture, tourism, and health resources based on tea trees, tea gardens, tea factories, tea, tea culture, and tea activities. Qin et al. (2015) proposed the concept and system composition of the tea themed value chain, analyzed the driving mechanism of tea tourism integration, and explored the integration path and strategy. Lin et al. (2023) analyzed and evaluated the effectiveness of tea tourism integration in the eight key tea producing areas in China, and explored the driving mechanism for the development of tea tourism integration. Some scholars have conducted research on the integration of tea and tourism in specific regions, covering various aspects such as value, path, mode, effect, mechanism, and countermeasures. However, there is relatively little research on the participants involved in tea and tourism integration. In theory, the relevant participants in the integration of tea and tourism include consumers (tourists) and implementers (relying on enterprises and tea farmers). Jiang et al. (2021) studied the perception and behavioral intentions of tea tourism integration consumers (tourists); Ye et al. (2023) studied the willingness of tea enterprises in Jiangxi Province to integrate tea tourism. In addition to consumer entities and enterprises, the integration of tea and tourism requires a certain scale of tea gardens as spatial material carriers, and under the household contract system, tea gardens are generally scattered. Therefore, tea farmers, as the actual owners of tea gardens, are also important implementers of tea and tourism integration. Their willingness to participate has a significant impact on the possibility of tea and tourism integration, which has not yet received sufficient attention from academia and is worth further exploration. In terms of research methods, the current analysis of behavioral intention is mostly based on rational behavior theory, planned behavior theory and deconstructive planned behavior theory. The deconstructive behavior theory integrates various internal and external factors that affect an individual's behavioral intention into three analytical subsystems: behavioral attitude, subjective norms, and perceived behavioral control. It is believed that an individual's behavioral attitude, subjective norms, and perceived behavioral control determine their behavioral intention (Figure 1). Compared with rational behavior theory and planned behavior theory, deconstructing planned behavior theory can deconstruct relevant antecedents based on the characteristics of specific behaviors for in-depth targeted research. It decomposes beliefs from various dimensions and solves the problem of one-dimensional belief integration between the two. In view of this, within the framework of deconstructing planned behavior theory, this article uses 277 empirical survey questionnaires from Emeishan City to analyze how various internal and external factors synergistically affect the willingness of tea farmers to participate in tea tourism integration, in order to enrich the research results related to tea tourism integration, and provide theoretical basis and practical reference for promoting the development of tea tourism integration in Emeishan City and assisting rural revitalization.

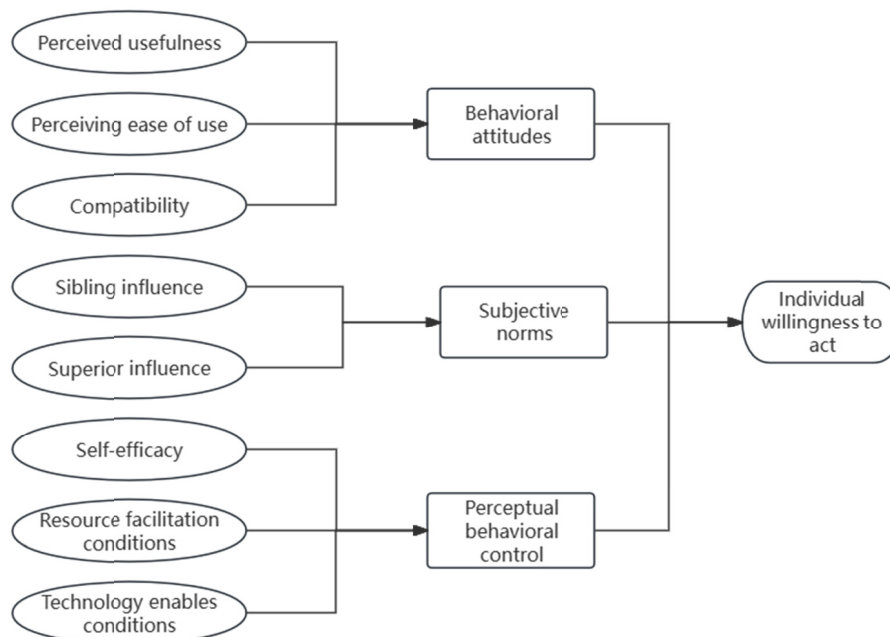


Figure 1. Deconstructing the Theory of Planned Behavior Theoretical framework and research hypotheses

1.1 Theoretical Framework

Although there is little research on the willingness of tea farmers and tourists to participate in the integration of tea and tourism by domestic and foreign scholars, there are many research results on the willingness of farmers to participate around themes such as leisure agriculture, rural tourism, and rural revitalization, including participation in land transfer, OECD, modern agriculture, large-scale operation, organic agriculture, ecological agriculture, and rural tourism. The research by Ren et al. (2020) shows that factors such as education level, risk-taking ability, labor force, financial support, transportation location, tourism resources, awareness of leisure agriculture, promotion, prospect expectations, demonstration role of family and friends, and degree of organization have a significant impact on the willingness of farmers to participate; Yang et al. (2020) found that different endowment characteristics of farmers have differentiated effects on the participation methods of leisure agriculture; The study by Lv et al. (2022) on the willingness of small farmers to participate in modern agriculture found that small farmers ultimately make decisions on whether to participate in modern agricultural behavior under the joint influence of psychological cognition, family characteristics, and external market environment. Considering that tea farmers also belong to farmers, these achievements have important reference value for this study. When applying the theory of deconstructive planned behavior to analyze behavioral intentions, many scholars tend to increase the dimensions of deconstructive planned behavior theory by combining research fields or problems. Zhang et al. (2023) added “awareness of green agricultural products” when studying the willingness of large-scale farmers to produce green and high-quality agricultural products; Dong et al. (2023) added the dimension of “authentic perception” and added “role identity” as an intermediary when studying the willingness of farmers to develop agricultural heritage tourism. When studying the influencing factors of small farmers participating in modern agricultural behavior, Lv et al. (2022) added two dimensions: “family endowment” and “transaction cost”. Wan Yi added dimensions such as “recycling convenience” and “ethical standards” when studying the willingness of villagers to participate in the reduction of plastic pollution at the source. However, the author believes that as a mature theory that has been repeatedly demonstrated and widely recognized, the three dimensions of “behavioral attitude, subjective norms, and perceived behavioral control” constructed by this theory are sufficient to explain the subject’s behavioral intention. Other factors actually use these three dimensions as mediators to influence the subject’s intention, and can be considered included in these three dimensions. Therefore, it is only necessary to consider the impact of other factors on these three dimensions, rather than adding them as a separate dimension. Based on the reality of this study, the participation of tea farmers in tea tourism integration is a pioneering behavioral choice based on traditional agricultural production. Among them, “attitude” can be deconstructed as “tea tourism integration benefit assessment” (*i.e.*, “perceived usefulness”), “tea tourism integration risk assessment” (*i.e.*, “perceived ease of use”), “tea tourism integration concept identification” (*i.e.*, “compatibility”) for tea farmers; “Subjective norms” can be deconstructed as the pressure felt by tea farmers from “local villagers” (*i.e.*, “peer influence”, where individual decisions may affect the overall interests of other local villagers) and “social influence” (*i.e.*, “superior influence”, where village leaders are elected through collective recommendation, and village decisions largely rely on village leaders); “Perceived behavioral control” can be deconstructed as “participatory ability assessment” (*i.e.*, “self-efficacy”, when tea farmers choose whether to participate in tea tourism integration, they will consider their potential role in tea tourism integration), “tourism resource conditions” (*i.e.*, “resource facilitation conditions”, where tea tourism integration has the necessary transportation, resources, and other conditions for developing tourism), “relying on enterprise identification” (*i.e.*, “technology facilitation conditions”, mainly relying on the strength, experience, credit, etc. of the enterprise). The differences in the characteristics of tea farmers themselves may also affect their understanding of the necessity and feasibility of tea tourism integration, but ultimately indirectly affect their willingness to participate in tea tourism integration through three dimensions: behavioral attitude, subjective norms, and perceived behavioral control. Based on this, a theoretical analysis framework was constructed to evaluate the willingness of tea farmers to participate in the integration of tea and tourism (Figure 2).

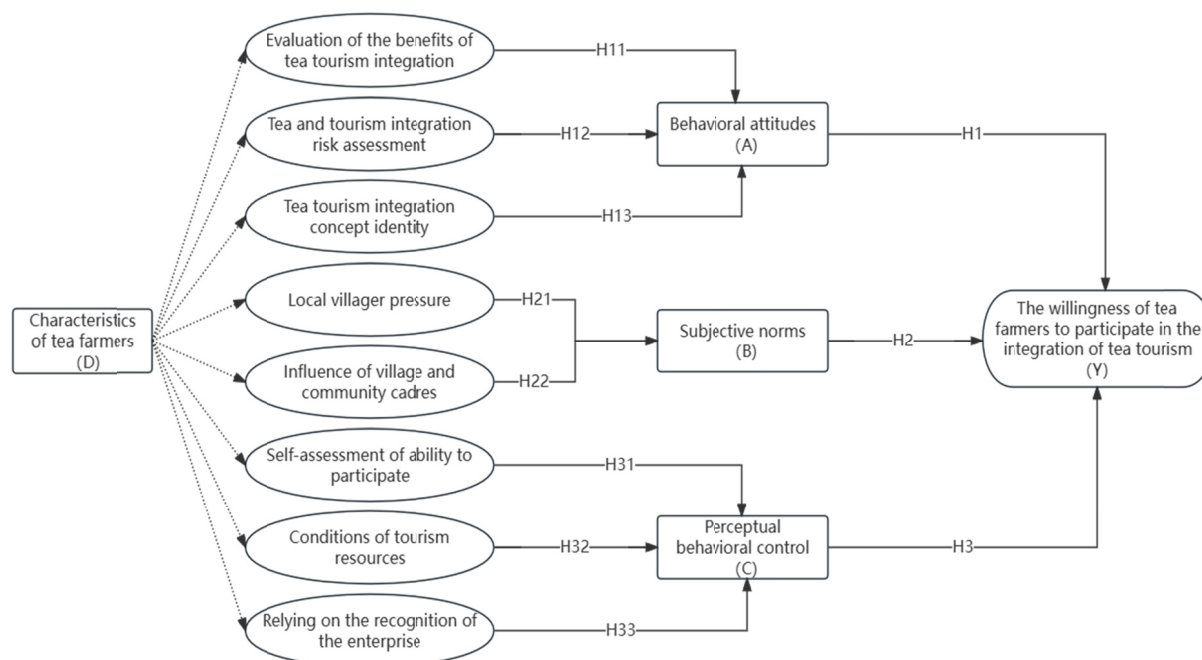


Figure 2. Theoretical analysis framework of willingness of tea farmers to participate in the integration of tea and tourism

1.2 Research Hypotheses

(1) The impact of behavioral attitudes on the willingness of tea farmers to participate in the integration of tea and tourism. According to conventional thinking, tea farmers will strive to maximize their comprehensive benefits when choosing whether to participate in tea tourism integration. Firstly, they will evaluate the expected benefits. When tea farmers expect tea tourism integration to bring additional benefits beyond traditional tea production, their behavior attitude will be more positive; The second is to predict potential risks. When tea farmers feel that the risk of tea tourism integration is low, their participation attitude will be more positive; The third is the understanding of tea tourism integration. Generally speaking, the higher the awareness and identification of tea farmers towards tea tourism integration, the higher their participation enthusiasm will be. Based on this, the following assumptions are proposed:

H₁: Behavioral attitudes have a positive impact on the willingness of tea farmers to participate in the integration of tea and tourism.

H₁₁: The evaluation of the benefits of tea tourism integration has a positive impact on the attitudes and behaviors of tea farmers towards tea tourism integration.

H₁₂: The risk assessment of tea tourism integration has a positive impact on the attitudes and behaviors of tea farmers towards tea tourism integration.

H₁₃: The recognition of the concept of tea tourism integration has a positive impact on the attitudes and behaviors of tea farmers towards tea tourism integration.

(2) The influence of subjective norms on the willingness of tea farmers to participate in the integration of tea and tourism. Tea farmers are influenced by other important groups when deciding whether to participate in tea tourism integration. Due to the fact that the integration of tea and tourism requires the joint participation of the vast majority of tea farmers in a certain area (especially the core area of tea and tourism integration) in order to be successfully implemented, it is usually necessary for the collective organization of the village to coordinate. At the same time, individual tea farmers will be influenced by the village leadership (superior influence) and pressure from other tea farmers in the region (peer influence) when making decisions. When perceived to have credible support from village leaders, tea farmers tend to choose to participate in tea tourism integration; When the overall opinion of other tea farmers in the region is perceived to support the implementation of tea tourism integration, the participation enthusiasm of tea farmers will also be enhanced. Based on this, the following assumptions are proposed:

H₂: Subjective norms have a positive impact on the willingness of tea farmers to participate in the integration of tea and tourism.

H₂₁: The opinions of local villagers have a positive impact on the subjective norms of tea farmer and tourism integration.

H₂₂: The influence of village and community leaders has a positive impact on the subjective norms of tea farmer and tourism integration.

(3) The impact of perceived behavioral control on the willingness of tea farmers to participate in tea tourism integration. Perceived behavioral control mainly refers to the perception of tea farmers on the difficulty and controllability of participating in tea tourism integration. When tea farmers have a high self-efficacy evaluation (based on their own economic conditions, labor ability, risk resistance and other resource endowments, they believe that they have a certain degree of control over participating in tea tourism integration), they tend to choose to participate; When tea farmers believe that the conditions for promoting the integration of tea and tourism resources are good (the region has tourism resources and location conditions for implementing tea and tourism integration), they tend to choose to participate; When tea farmers believe that the conditions for promoting the integration of tea and tourism technology are good (including relying on the comprehensive strength of the enterprise, relevant experience, honest operation, etc.), they tend to choose to participate. Based on this, the following assumptions are proposed:

H₃: Perceived behavioral control has a positive impact on the willingness of tea farmers to participate in tea tourism integration.

H₃₁: Self-evaluation of tea farmer participation ability has a positive impact on perceived behavioral control of tea farmer tourism integration.

H₃₂: Regional tourism resource conditions have a positive impact on the perceived behavioral control of tea farmer tea tourism integration.

H₃₃: Relying on the recognition of enterprises has a positive impact on the perceived behavioral control of tea farmer tea tourism integration.

(4) The impact of tea farmer characteristics on their willingness to participate in the integration of tea and tourism. Due to differences in age, gender, education level, family labor situation, and economic conditions, tea farmers may have different perceptions of tea tourism integration, which indirectly affects their willingness to participate.

H₄: The characteristics of tea farmers have significant differences in their willingness to participate in the integration of tea and tourism.

2 Research Areas and Data Sources

2.1 Research Area

The research area is located in Fuxi Town in the eastern part of Emeishan City, which is critical to the central area of Leshan City. It is the core area of Jia'e Tea Valley, the "Eastern Smart Tea Garden" of Emeishan National Modern Agriculture Industrial Park. The scenic area covers an area of 3.3 square kilometers and has successfully passed the AAA level scenic spot acceptance by the end of 2022. It is a gateway scenic area for the integration of tea culture and tourism of Emei Mountain Tea, a national geographical indication product. The scenic spot has convenient transportation (directly from Le'e Avenue, 20 km away from Mount Emei scenic spot, 30 km away from Leshan Giant Buddha Scenic Area scenic spot), pleasant scenery (green tea hills, simple and elegant buildings, colorful pavilions), complete facilities (with tea art experience center, tea fragrance platform, dragon shaped plank road, 5 km tea fragrance ecological walking path, 4000 m² ecological parking lot), and good conditions for tourism development. At present, it is operated and managed by Emeishan Modern Agriculture Development Group Co., Ltd. (a state-owned enterprise under the jurisdiction of Emeishan City), with strong enterprise strength (now invested 150 million yuan) and rich experience in tourism management. It has developed the "Emeixin" tea brand and also developed a series of derivative products such as invisible cups, tea sets, tea oil, tea food, and tea makeup. It has been declared as a science popularization base in Sichuan Province, a "Leyou Jiaxue" research and practical education base for primary and secondary school students in Leshan City, and one of the top ten tea tourism integration bases in Leshan City. It has made certain contributions to promoting the upgrading of the Emeishan tea industry and driving the income growth and wealth of tea farmers. This scenic area is committed to relying on good tea cultivation and natural landscapes, and focusing on research tourism, leisure sightseeing, tea science research, and tea product sales as the main business models to create a

national demonstration model scenic area for leisure agriculture, tea tourism integration, and tea culture research and learning. But the implementation of the project requires active participation and support from tea farmers in the core area.

2.2 Data Sources

This data is sourced from a survey conducted by the research group on the core scenic area of Jia'e Tea Valley in Emeishan City. The survey includes three aspects: firstly, obtaining statistical data on the development of the tea industry, economic development level, and tourism related resources in the surveyed area through relevant government departments; The second is to interview the person in charge of the Jia'e Tea Valley business to understand the business situation, ideas, planning, difficulties, etc. of the enterprise; The third is to conduct random household interviews to understand the willingness of tea farmers to participate. Based on relevant literature and theoretical analysis, a survey questionnaire was designed with 8 latent variables and 21 observation variables (Table 1) for 3 dimensions of independent variables (using the Likert five level scale form). In the attachment section of the survey questionnaire, 10 survey variables were designed to describe the basic situation of tea farmers (Table 2) based on their characteristics (D). A total of 312 questionnaires were distributed to households in Youyi Village and Fengshou Village, Fuxi Town, Emeishan City, where the core scenic area of Jia'e Tea Valley is located. 277 valid questionnaires were collected, with a questionnaire response rate of 88.78%.

Table 1. Variable Selection and Scale Design

Variable categorization	The name of the latent variable	Code	Observed variables and problem descriptions	Code
Behavioural Attitudes (A)	Evaluation of the benefits of tea tourism integration	X ₁	Participating in the integration of tea tourism can increase tea income	X ₁₁
			Participating in the integration of tea and tourism can increase additional tourism revenue	X ₁₂
	Tea and tourism integration risk assessment	X ₂	The integration of tea tourism will lead to a decrease in tea production	X ₂₁
			The integration of tea tourism may affect the quality of tea	X ₂₂
	Tea tourism integration concept identity	X ₃	Tea tourism integration is a trend and trend	X ₃₁
			The integration of tea and tourism is the path of rural revitalization	X ₃₂
Subjective Norms (B)	Local villager pressure	X ₄	The thoughts of other villagers have an impact on themselves	X ₄₁
			Personal decisions may have an impact on other villagers	X ₄₂
	The influence of village community leaders	X ₅	The leaders of the village community have the appeal and can be trusted	X ₅₁
			Decisions are made in accordance with the opinions of village leaders	X ₅₂
Perceptual Behavior Control (C)	Participate in competency assessments	X ₆	There are better economic conditions to participate in the integration of tea and tourism	X ₆₁
			There are better manpower conditions, and it is more integrated with the tea brigade	X ₆₂
			There are good other resources to participate in the integration of tea and tourism	X ₆₃
	Conditions of tourism resources	X ₇	There are good tourism resources	X ₇₁
			There are good facilities	X ₇₂
			It has a good location advantage	X ₇₃
			There are good other tourism resources	X ₇₄
	Relying on corporate identity	X ₈	Enterprises have economic strength	X ₈₁
Enterprises have the ability to operate tourism			X ₈₂	
The enterprise has good integrity			X ₈₃	
Willingness to Participate (Y)	Willingness to participate in the integration of tea tourism	Y	I am willing to participate in the integration of tea and tourism	Y

Table 2 Survey variables of basic situation of tea farmers

Variable	Code	Variable description
Gender	BS ₁	1 for male, 0 for female
Age	BS ₂	1~5 represents ≤30, (30,40), (40,50], (50,60], >60, respectively
Educational attainment	BS ₃	1~5 represents elementary school and below, junior high school, high school, university, master's degree and above
Household size	BS ₄	1~5 represents 1 person and below, 2 people, 3 people, 4 people, 5 people and more respectively
Number of people in the household labor force	BS ₅	1~5 represents 1 person and below, 2 people, 3 people, 4 people, 5 people and more respectively
Proportion of the labor force	BS ₆	Number of Household Labor Force/Total Household Population (0~1)
Number of migrant workers	BS ₇	1~5 represents 1 person and below, 2 people, 3 people, 4 people, 5 people and more respectively
Family Tea Garden Area (Mu)	BS ₈	1~5 represents less than one acre, 1~3 acres, 4~6 acres, 7~9 acres, 10 acres and above
Tea plantation area per capita	BS ₉	Area of family tea plantations/total number of people in the household
Per capita disposable income (1,000 yuan/person/year)	BS ₁₀	1~5 represents ≤5, (5,15), (15,25], (25,35], >35, respectively

2.3 Descriptive Analysis

The basic information of tea farmers is shown in Table 3. Due to the large number of migrant workers, the proportion of women who usually stay in the village is relatively large, accounting for 65.70% of the total sample. The age group is around 50 years old (61.73% are between 40 and 60 years old), and the education level is mainly in junior high school (51.26%). The family population is mainly 3-4 people, and the family labor force is mainly 1-2 people. The per capita tea garden area is 2.26 acres. Due to the good development of the tea industry, the number of migrant workers is relatively high, and the economic conditions are relatively good, with a per capita disposable income of over 20000 yuan.

Table 3. Survey variables of basic situation of tea farmers

Variable	Valid values	Frequency	Proportion (%)
Gender	Man	95	34.30
	woman	182	65.70
Age	30 and below	18	6.50
	31~40	31	11.19
	41~50	79	28.52
	51~60	92	33.21
	60 and above	57	20.58
Educational attainment	Elementary school and below	56	20.22
	Junior high school	142	51.26
	High school	76	27.44
	university	3	1.08
Annual per capita disposable income (RMB)	Master's degree or above	0	0.00
	5000 and below	16	5.78
	5001~15000	41	14.80
	15001~25000	83	29.96
	25001~35000	101	36.46
Household size	More than 35000	36	13.00
	1 person and below	7	2.53
	2 people	37	13.36
	3 people	119	42.96
	4 people	102	36.82
Household labor force population	5 people and more	12	4.33
	1 person and below	119	42.96
	2 people	128	46.21
	3 people	21	7.58
	4 people	5	1.81
Number of migrant workers	5 people and more	4	1.44
	1 person and below	133	48.01
	2 people	83	29.96
	3 people	36	13.00
	4 people	25	9.03
Family Tea Garden Area (Mu)	5 people and more	0	0.00
	Less than an acre	5	1.81
	1~3 acres	217	78.34
	4~6 acres	23	8.30
	7~9 acres	20	7.22
	10 acres and above	12	4.33

2.4 Research Methods

Unlike traditional regression analysis, Structural Equation Modeling (SEM) is based on the covariance matrix of variables to analyze the relationships between variables, and can effectively avoid the problem of multicollinearity between independent variables when dealing with multivariate relationships. It can replace methods such as multiple regression, path analysis, factor analysis, and covariance analysis, clearly analyze the role of individual indicators on the population and the interrelationships between individual indicators, and has certain advantages in exploring and studying individual behavioral intentions. This study is based on the deconstructive behavior theory and measures the behavioral willingness of tea farmers to participate in tea tourism integration through relevant latent variables and the relationship between multiple latent variables. This is precisely the advantage of structural equation modeling. Therefore, this study used SPSS 26.0 for statistical analysis and selected Structural Equation Modeling (SEM) to explore the relationship between tea farmer behavior attitudes, subjective norms, perceived behavioral control, and willingness to participate in tea tourism integration.

3. Analysis of Empirical Results

3.1 Reliability and Validity Testing

The reliability and validity test results are shown in Table 4.

The reliability test found that the Cronbach’s Alpha (CA) based on standardized terms is 0.837 (generally with a CA coefficient of 0.6 as the critical value, and if the CA coefficient is greater than 0.7, it is considered that the internal consistency of the scale is good), and the Composite Reliability (CR) is 0.879 (generally required to be > 0.70), indicating that the reliability and consistency of the questionnaire sample data are relatively good.

The validity test found that the overall KMO (Kaiser Meyer Olkin) value of the sampling suitability test was 0.882, and the KMO of all variables was greater than 0.7 (generally, factor analysis is suitable if the KMO value exceeds 0.7); The squared difference extraction amount (AVE) is 0.793 (generally required to be > 0.70); Bartlett’s spherical test value is 1326.51, with a significance probability value of P = 0.000 (< 0.01). In factor analysis, the loading coefficients of all observed variables on their assigned factors range from 0.58 to 0.84 (threshold conditions greater than 0.5).

Table 4. Reliability and validity testing of the scale

Dimension	CA	CR	KMO	AVE
Behavioral attitudes	0.917	0.902	0.908	0.636
Subjective norms	0.913	0.915	0.816	0.774
Perceptual behavioral control	0.852	0.841	0.795	0.686
The willingness of tea farmers to participate in the integration of tea tourism	0.837	0.879	0.882	0.793

In summary, the reliability and validity of the model data are good, and the quality of the model data has passed the test.

3.2 Model Fit Evaluation

The model was subjected to exponential testing using SPSS Amos 26.0 software. According to Table 5, all fit indicators of the model were above the critical value, indicating an overall good fit. This indicates that the model is suitable for analyzing the factors influencing the willingness of tea farmers to participate in the integration of tea and tourism.

Table 5. Model adaptability indicators

Statistical testing indicators	Indicator Name	Inspection results	Adaptation standards	Whether it meets the standard
PGFI	Minimalist Fit Index	0.702	≥ 0.5	Yes
PNFI	Adjusted Specification Adaptation Index	0.751		Yes
GFI	Adaptability index	0.946	≥ 0.9	Yes
RMSEA	Root mean square of approximation error	0.043	≤ 0.05	Yes
RFI	Relative fitness index	0.924	≥ 0.9	Yes
GFI	Comparative Adaptation Index	0.957		Yes
RMSE	Root Mean Square Error	0.038	≤ 0.08	Yes
IFI	Value added adaptation index	0.941	≥ 0.9	Yes
X ² /df	Chi square degree of freedom ratio	2.132	≤ 3.0	Yes
NFI	Standardized adaptation index	0.944	≥ 0.9	Yes

3.3 Model Estimation Results

Using the maximum likelihood method for standardized path coefficient analysis (Table 6, Figure 3), it was found that behavioral attitudes, subjective norms, and perceived behavioral control have a significant positive impact on the willingness of tea farmers to participate in tea tourism integration. The research hypotheses H₁, H₂, and H₃ were validated. From the hypothesis verification of the deconstruction hypothesis of various factors, it can be seen that only the concept of tea tourism integration has no significant impact on the behavioral attitude of tea farmers (H₁₃), while other hypotheses (H₁₁, H₁₂, H₂₁, H₂₂, H₃₁, H₃₂, H₃₃) have also been verified.

Using SPSS 26.0, the correlation analysis between the characteristic factors of tea farmers and the 20 independent variables in Table 1 was conducted one by one. The results showed that age, education level, family labor force, and per capita disposable income had significant correlations with behavioral attitudes, subjective norms, and perceived behavioral control, and ultimately showed significant differences in willingness to participate in tea tourism integration. The research hypothesis H_4 has been validated.

Table 6. Hypothesis test results

Impact path	Path coefficient	S.E.	T-value	P-value	Hypothesis test results
H ₁ : Behavioral attitudes→The willingness of tea farmers to participate in the integration of tea tourism	0.213	0.005	4.651	0.000	√
H ₂ : Subjective norms→The willingness of tea farmers to participate in the integration of tea tourism	0.375	0.042	5.454	0.003	√
H ₃ : Perceptual behavioral control→The willingness of tea farmers to participate in the integration of tea tourism	0.152	0.037	3.776	0.001	√
H ₁₁ : Evaluation of the benefits of tea tourism integration→Behavioral attitudes	0.476	0.048	4.352	0.000	√
H ₁₂ : Tea and tourism integration risk assessment→Behavioral attitudes	0.353	0.075	3.668	0.001	√
H ₁₃ : Tea tourism integration concept identity→Behavioral attitudes	0.105	0.136	1.314	0.203	×
H ₂₁ : Local villager pressure→Subjective norms	0.356	0.055	2.153	0.049	√
H ₂₂ : Influence of village and community cadres→Subjective norms	0.218	0.007	3.243	0.028	√
H ₃₁ : Self-assessment of ability to participate→Perceptual behavioral control	0.637	0.064	5.139	0.000	√
H ₃₂ : Conditions of tourism resources→Perceptual behavioral control	0.104	0.118	1.157	0.048	√
H ₃₃ : Relying on the recognition of the enterprise→Perceptual behavioral control	0.281	0.120	2.787	0.001	√

(1) From a behavioral attitude perspective, tea farmers are more concerned about the expected benefits and potential risks that tea tourism integration can bring. The expected benefits include an increase in revenue from empowering tea brands through tourism, as well as an increase in revenue from expanding the tourism industry chain. The higher the expected income of tea farmers, the stronger their willingness to participate in the integration of tea and tourism. The expected risks may manifest in two aspects: firstly, there is concern that the entry of tourists may have a certain impact on the tea production environment, and the concept of “ecology and organic” may be questioned, which may affect the quality and brand of tea. Secondly, there is concern that some tea gardens used for tourism development may reduce the tea garden area, leading to a decrease in revenue. The greater the potential risk that tea farmers anticipate, the weaker their willingness to participate in tea tourism integration. Due to the influence of the characteristics and cognition of tea farmers themselves, their overall understanding of the concept of tea tourism integration is relatively low, and their impact on behavioral attitudes is not significant (manifested as hypothesis H_{13} failing the test). (2) From a subjective perspective, as village and community cadres are democratically elected by villagers, they are basically “capable people” who have a strong driving and leading role in the economic development of the village and community, or “wise people” who have strong prestige and are respected by villagers. Therefore, the overall trust of tea farmers in village and community cadres is high, and the guiding and directional opinions of village and community cadres have a significant impact on the willingness of tea farmers to participate. The stronger the biased opinions of village cadres, the stronger their willingness to participate in the integration of tea farmers and tourism. At the same time, due to the older age of the labor force remaining in the village, and the per capita tea plantation area exceeding 2 acres, the production and operation of tea farmers often require mutual assistance from villagers. In addition, they are all indigenous people passed down from generation to generation, and their neighborhood relationships are harmonious. Therefore, when choosing, tea farmers will fully consider the wishes of other tea farmers in the same village, and may also consider the adverse effects their own choices may have on other villagers. Therefore, the willingness of tea farmers to integrate tea and tourism is significantly influenced by the villagers in the same village. (3) From the perspective of perceived behavioral control, tea farmers will examine their own conditions and abilities to participate in tea tourism integration. If they perceive that their economic, cultural, and labor conditions have more opportunities to play a role in tea tourism integration, their willingness to participate in tea tourism integration will be enhanced; At the same time, due to the need for tea tourism integration to rely on the overall operation of the enterprise, tea farmers pay high attention to the economy, experience, trust, and other aspects of the enterprise. If they have sufficient confidence in the enterprise, their willingness to participate will be strengthened. Due to limitations such as culture and age, tea farmers may also pay more attention to the

resource conditions related to the feasibility of tea tourism integration, but compared to other aspects, they are relatively weaker.

(4) From the perspective of indicators related to the characteristics of tea farmers, there is a certain degree of contradiction and conflict in the specific impact on the three dimensions of behavioral attitude, subjective norms, and perceived behavioral control. If tea farmers are generally older and have lower levels of education, their overall self-evaluation of the concept of tea tourism integration and the possibility of individual participation is generally lower, which is manifested as a negative impact on behavioral attitudes and perceived behavioral control. However, such individual characteristics have a greater trust and dependence on village cadres, and a stronger convergence of considerations and choices for the interests of tea farmers in the same village, manifested as a positive impact on subjective norms and perceived behavioral control. However, families with more migrant workers tend to have lower self-evaluations of their participation in tea tourism integration in terms of manpower, while families with more migrant workers generally have better economic conditions and higher self-evaluations of their participation in tea tourism integration in terms of economy. Although there are contradictions and conflicts, overall, the impact of tea farmer characteristics on the three dimensions is significant (as evidenced by the validation of research hypothesis H₄), indicating that tea farmer characteristics have a strong indirect impact on the willingness to participate in tea tourism integration.

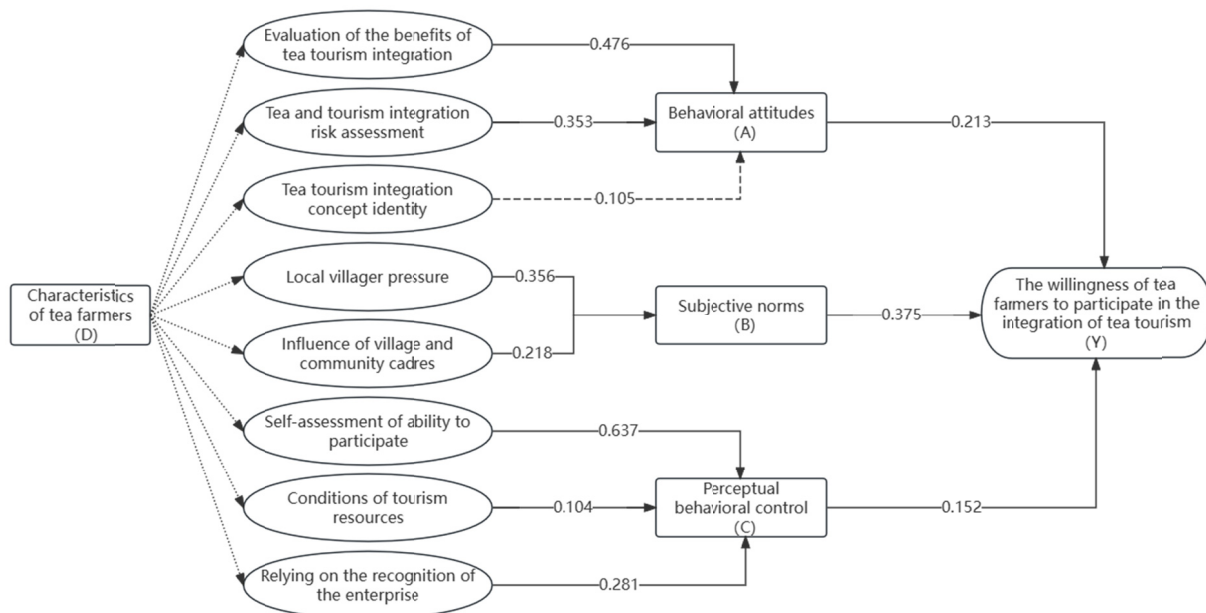


Figure 3. The influencing path and coefficient of tea farmers' willingness to participate in the integration of tea tourism and tea tourism

4 Conclusion and Suggestions

4.1 Conclusion

This article takes the survey data of 277 tea farmers in Emeishan City, Sichuan Province as the sample, combines statistical data collection and enterprise interviews, and uses the deconstructive behavior theory to analyze the willingness of tea farmers to participate in the integration of tea and tourism. The following conclusions are drawn:

- (1) The willingness of tea farmers to participate in the integration of tea and tourism is influenced by three dimensions: behavioral attitude, subjective norms, and perceived behavioral control.
- (2) The evaluation of the benefits and risks of tea tourism integration by tea farmers has a significant impact on their behavioral attitudes, but the concept of tea tourism integration has no significant impact on their behavioral attitudes; Local villagers and village leaders have a significant impact on the subjective norms of tea farmers, thus having a significant impact on the willingness to participate in tea tourism integration; The evaluation of the ability of tea farmers to participate in the integration of tea and tourism, as well as the trust in the relying

enterprises, have a significant impact on their perceived behavioral control. However, the level of recognition and attention to the resource conditions of tea and tourism integration is not high.

(3) The characteristics of tea farmers, such as age, education level, family labor force, number of migrant workers, and per capita disposable income, have a certain degree of self-contradiction and conflict on their behavioral attitudes, subjective norms, and perceived behavioral control. However, the comprehensive and overall impact is significant, and it has an indirect impact on the willingness to participate in tea tourism integration.

4.2 Recommendations

(1) Grassroots governments should increase the promotion of the importance of tea tourism integration, making tea farmers aware of the importance of tea tourism integration in extending the tea industry chain, increasing additional income, and promoting rural revitalization, and improving the behavior and attitude of tea farmers. At the same time, providing better transportation conditions and other infrastructure for regions with advantages in integrating tea and tourism resources, and enhancing the resource conditions for the development of tea and tourism integration.

(2) On the basis of fully evaluating and demonstrating the necessity and possibility of implementing tea tourism integration in the region, village and community leaders should play a guiding role and fully utilize the peer influence of local tea farmers to enhance the subjective norms of tea farmer tea tourism integration. At the same time, guide young migrant workers to return to their hometowns to participate in the integration of tea and tourism, and enhance the participation ability of tea farmers in the integration of tea and tourism.

(3) The leading enterprise in the integration of tea and tourism should focus on enhancing the trust in the minds of tea farmers, making them feel that the enterprise has economic strength and operational capabilities, as well as sufficient credibility, and can sign a bottom line agreement with tea farmers to ensure that their profits will not decrease, thereby allowing tea farmers to have higher expected benefits and lower expected risks. At the same time, we will expand the participation channels for tea farmers and tourism integration from multiple aspects such as human resources and capital investment, and try to reduce the participation threshold as much as possible, so that more tea farmers can feel that they can make progress and gain something in tea tourism integration, thereby enhancing their willingness to participate in tea tourism integration.

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Notes

Note 1. Labour force refers to the population aged between 16 and 60 who are able to work.

Note 2. The P-value needs to be less than 0.10 to indicate significant impact and the research hypothesis is valid.

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Authors Contributions

Fang Mei is responsible for researching and designing survey questionnaires. Zhu Man participated in questionnaire surveys and data collection. Fang Mei drafted the manuscript, and Zhu Man revised it. All authors have read and approved the final manuscript.

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Competing Interests

The authors assert that they possess no identifiable conflicting financial interests or personal affiliations that may have purportedly influenced the outcomes presented in this paper.

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