

Article

A Study on the Factors Influencing Farmers' Intention to Revitalize Idle Homesteads Based on Improved TPB Framework—Analysis of the Moderating Effect of Farmer Differentiation

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Abstract: Under the dual structure of urban and rural lands, revitalizing rural idle homesteads is an effective measure for reducing resource waste and improving the efficiency of rural land use. Therefore, the intention of farmers, as the primary decision-makers in revitalizing rural idle homesteads, is the key to the success of revitalizing idle homesteads. With an analytical framework based on the theory of planned behavior (TPB), this study used multiple linear regressions to analyze the survey data (N = 680). The results showed that attitude toward the behavior (AB), subjective norms (SN), and perceived behavioral control (PBC) had significant positive effects on the farmers' intention to revitalize, with SN, PBC, and AB in descending order of influence. It confirmed that the TPB applies to the study of farmers' intention to revitalize idle homesteads in the context of China. In addition, this study focused on the social phenomenon of farmer differentiation, which is prominent in the urbanization process. It emphasizes the moderating effect of farmer differentiation on the relationships of "attitude toward the behavior–intention to revitalize," "subjective norm–intention to revitalize," and "perceived behavioral control–intention to revitalize," and further improves TPB. The present empirical study using hierarchical regression found that the deeper the differentiation of farmers, the stronger the effective influence of AB, SN, and PBC on farmers' intention to revitalize idle homesteads. Therefore, it is suggested that the Chinese government should enhance farmers' intention to revitalize by cultivating a positive attitude toward the behavior, strengthening the positive influence of subjective norms on farmers, and enhancing farmers perceived behavioral control. Furthermore, it is more important to pay full attention to the phenomenon of farmer differentiation and design a revitalization policy according to the differences in sensitivity of different types of farmers to attitudes toward the behavior, subjective norms, and perceived behavioral control.

Keywords: farmers' intention to revitalize idle homesteads; improved theory of planned behavior (TPB); farmer differentiation; moderating effect



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1. Introduction

Population and land are the essential elements that constitute the national situation and power, which restrict and influence social and economic development to a considerable extent. The rapid development of urbanization has brought about social and economic development and has changed the relationship between people and land in rural areas—the most prominent of which is the use of homesteads. Homesteads belong to rural (collective) construction land, a type of land exclusively used by farmers to build residential houses and ancillary facilities, which are owned by farmers and village collectives. Before 2019, rural homesteads were not legally allowed to house migrants. Therefore, with the migration of the agricultural population to cities and further urbanization, rural homesteads have not decreased but increased. A large number of homesteads are also shown to be idle [1,2].

According to China's 2017 National Land Consolidation Plan (2016–2020), as of the end of 2017, the area of rural homesteads in China was approximately 191,333 km². With the migration of nearly 15 million agricultural populations and urbanization every year, the idle area has reached 20,000 km² [3,4]. As a developing country, it is necessary for China to revitalize rural idle homesteads to promote urbanization and rural revitalization and increase the property income of farmers under the constraints of limited total urban construction land and the dual structure of the land. The specific approach is that rural collective economic organizations and farmers can reuse idle homesteads and houses on the ground through self-employment, leasing, shareholding, and cooperation [5,6]. Since 2015, the Chinese government has introduced a series of measures to encourage the revitalization of idle homesteads. The 2018 Central Government Document No. 1 clearly proposes to explore the “separation of ownership, qualification and use” of the homestead and appropriately release the right to use homesteads and farmers' houses. As the main body and direct stakeholder, the intention of farmers to revitalize plays a crucial role in the revitalization of rural idle homesteads.

At the same time, farmer differentiation in the process of urbanization has become one of the most important social phenomena worthy of our attention [7,8]. Since the 1980s, urbanization has gradually broken down the barriers of institutional mechanisms that restricted the flow of various factors between urban and rural areas under the previous urban–rural dual structure; good public infrastructure and more employment opportunities in cities have enabled labor factors to flow between urban and rural areas and across different industries. The migration of the agricultural populations have caused differences in their livelihoods, sources of income, and land dependence [9,10]. These differences have led to the differentiation of farmers through a self-accumulation cycle. This differentiation is essentially a decline in the share of the farmer's income from the farm. The liberalization of institutional policies and the development of agricultural transformation are essential factors in the differentiation of farmers, driving their evolution from pure, to migrant, to urbanized farmers [11]. At present, the farmer differentiation is clear, the proportion of pure farmers is decreasing, and the proportion of urbanized farmers is increasing. Moreover, rural homesteads, which are used to guarantee the production and living of farmers, have gradually lost their effectiveness. A large number of homesteads are idle and inefficiently used, which is a tremendous waste of land resources in China. Therefore, the phenomenon of farmer differentiation is worthy of attention. Based on this, it is of great theoretical and practical significance to explore the influencing factors and mechanisms of farmers' intention to revitalize and analyze the moderating effect of farmers' differentiation, then propose a strategy to enhance the intention of the farmer to revitalize the homestead.

As a unique product of China's dual structure, the rural homestead is the legacy and evolution of the land system reform since the founding of the People's Republic of China. In Western countries, where rural land property rights are clear and predominantly private, there is no concept similar to the homestead. However, at present, the United States and most of the countries undergoing urbanization are also undergoing major social and economic changes in their rural areas. The problems of the migrant rural population and low utilization of rural homesteads are gradually becoming prominent. The concept of rural residential land utilization has become the focus of research by foreign scholars [12,13]. Geographical location [14], ecological changes [15], and accessibility to public services [16] are essential factors in the reuse of rural residential land. In line with the reform process in China, there are few studies on the revitalization of farmers' idle homesteads, but studies around the withdrawal of idle homesteads have yielded some results. It is well known that the property rights of rural homesteads in China are collectively owned by the village and have the function of guaranteeing the production and livelihood of farmers, so the reform of idle rural homesteads in China is unique and complicated compared with Western countries [17]. China's policies on the withdrawal and revitalization of idle homesteads repeatedly emphasize respecting farmers' intentions. Farmers, as “rational economic people,” are the main subjects and direct stakeholders in the revitalization of the

idle homestead, and their intention to revitalize plays a vital role in the revitalization and utilization of idle homesteads in rural areas. On the subjective level, policy cognition [18,19] and generational differences [20], and on the objective level, factors such as the housing environment [21], social security policy [17], and land income [22], have an impact on farmers' intention to withdraw. Only a few scholars have focused on the influence of the three capital attributes and policy advocacy's effects on farmers' intention to recycle [23,24]. Finally, some scholars have focused on the influence of farmer differentiation on the conservation input behavior of arable land quality and the adoption behavior of new agricultural technologies [25,26]. In summary, first, most studies on idle homesteads in the context of China focus on farmers' intention to withdraw from idle homesteads. However, with the further deepening of the reform of the homestead system, the focus of the reform has gradually shifted from farmers' withdrawal from idle homesteads to the revitalization of idle homesteads [17–22]. Second, fewer studies systematically analyze the factors influencing farmers' intention to revitalize using mature theory [23,24]. Lastly, fewer scholars have paid attention to the social phenomenon of farmer differentiation [25,26].

Therefore, this paper builds a theoretical model based on the theory of planned behavior, which is a mature theory for studying individual intention behaviors and enables the exploration of the influencing factors and mechanisms of farmers' intention to revitalize idle homesteads. The paper also emphasizes the influence of farmers' differentiation on the relationships of "attitude toward the behavior–intention to revitalize," "subjective norm–intention to revitalize," and "perceived behavioral control–intention to revitalize." In this study, we try to answer three questions. First, what factors influence farmers' intention to revitalize their idle homesteads? Second, to what extent do these factors influence farmers' intention to revitalize? Third, is there a moderating effect of farmer differentiation? The contributions of this paper are as follows: first, this paper creates an analytical framework to improve the theory of planned behavior by using farmer differentiation as a moderating variable. Second, it discusses the factors influencing farmers' intention to revitalize their homesteads. Third, the moderating role of farmer differentiation is emphasized.

The remainder of the article is organized as follows: Section 2 builds the theoretical framework and presents the research hypotheses. Section 3 introduces the data sources and empirical methods. Section 4 presents the empirical results. Section 5 discusses the findings. Section 6 presents the research conclusions and policy recommendations.

2. Theoretical Framework and Research Hypotheses

2.1. Analysis of the Influencing Mechanism of Farmers' Intention to Revitalize Idle Homesteads Based on the Theory of Planned Behavior

The theory of planned behavior (TPB), as an extension and refinement of the theory of rational behavior, has become one of the classic theories for predicting and explaining individual intention and behavior. Ajzen proposes that attitude toward the behavior (AB), subjective norms (SN), and perceived behavioral control (PBC) can help predict and explain behavioral intention (BI) and thus influence individual behavior (behavior) [27].

Attitude toward the behavior refers to an individual's overall evaluation of a certain behavior, and subjective norms refer to the influence from the social group that an individual feels when performing a behavior, especially whether the individual should follow the preferences of significant others. Perceived behavioral control, as an advancement of the theory of rational behavior, refers to an individual's perception of the ease of performing a behavior and the resources under individual control. The more positive the attitude of farmers, the more subjective norms, the stronger the perceived behavior control, the greater the behavior intention will be, and vice versa [28]. This theory has been applied by scholars in various countries to explain the farmers' intentions to reform [29], manage pastures sustainably [30], conserve land [31], and the intention of urban residents to separate waste [32]. However, due to the heterogeneity within the context of the individual, it is unknown whether the theory of planned behavior applies to idle homestead revitalization intention in China.

Considering that the revitalization of idle homesteads in China is still in the initial stages, intention and behavior are always considered as one, but this cannot be consistent. In order to avoid confusion between intention and behavior, this study focused on the motivation stage of planned behavior theory to conduct in-depth research on farmers' intention to revitalize idle homesteads [33] (Figure 1).

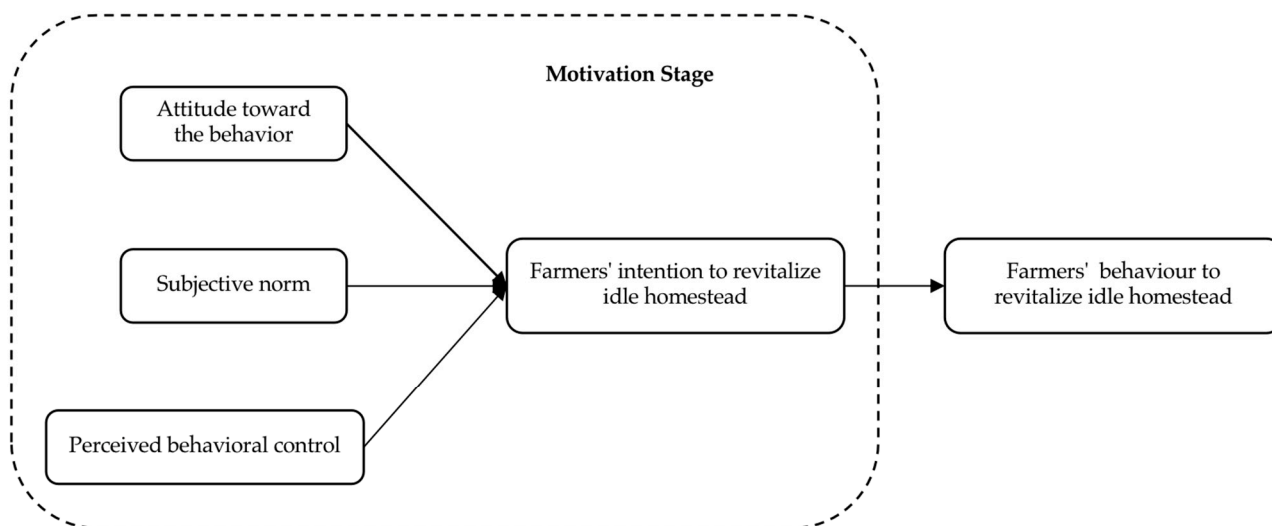


Figure 1. Simplified model of the theory of planned behavior.

1. Farmers' attitude toward the behavior;

Attitude toward the behavior refers to the degree of farmers' agreement with the act of revitalizing idle homesteads. The more positive the attitude is towards the behavior, the stronger the farmers' intention to revitalize. This leads to the first hypothesis:

Hypothesis 1 (H1). *Farmers' attitude toward the behavior has a significant positive influence on their intention to revitalize.*

2. Subjective norms of farmers' feelings;

Subjective norms refer to the influence of social networks that farmers perceive when they engage in revitalizing behavior. When the subjective norms are more positive, they help to enhance farmers' intention to revitalize. This leads to the second hypothesis:

Hypothesis 2 (H2). *Subjective norms perceived by farmers have a significant positive effect on their intention to revitalize.*

3. Farmers' perceived behavioral control.

Perceived behavioral control refers to farmers' perception of the difficulty level and their own controllable resources when revitalizing idle homesteads. The stronger the perceived behavioral control of farmers, the more likely they will be willing to revitalize. This leads to the third hypothesis:

Hypothesis 3 (H3). *The perceived behavioral control of farmers has a significant positive effect on their intention to revitalize.*

2.2. The Moderating Effect of Farmer Differentiation

The higher the farmer's agricultural income proportion, the shallower the degree of differentiation; the lower the farmer's agricultural income proportion, the deeper the degree

of differentiation (referred to as “shallowly differentiated” and “deeply differentiated” in the following) [34].

For deeply differentiated farmers, first, they are less dependent on homesteads and more receptive to new concepts, so they have fewer doubts about the income after the revitalization of homesteads and pay more attention to the property functions of homesteads. Therefore, deeply differentiated farmers recognize the revitalization of idle homesteads more, and their attitude toward the behavior is more positive than shallowly differentiated farmers. Second, deeply differentiated farmers are more susceptible to the influence of subjective norms, mainly because the differentiation of farmers is manifested in the migration of the agricultural population to urban and rural areas and the civilization of the agricultural migrant population. This makes farmers not only migrate into a local society based on geographical kinship but also obliges farmers to abide by modern social norms based on business relationships. The two are intertwined and interact to varying degrees, presenting a certain complementary relationship. Finally, the livelihood capacity and control over resources of deeply differentiated farmers are stronger; therefore, their perceived behavioral control is stronger. This will further enhance the attitude towards behavior, subjective norms, and perceived behavioral control of deeply differentiated farmers, which ultimately has a stronger impact on the relationships of “attitude toward behavior–intention to revitalize,” “subjective norm–intention to revitalize,” and “perceived behavioral control–intention to revitalize.”

However, for the shallowly differentiated farmers, first, since their primary source of income is agriculture, they are highly dependent on homesteads and have a low acceptance of new things, such as idle homesteads, which leads to less positive attitudes towards behavior. Second, the shallowly differentiated farmers have lived in rural societies for a long time, and their informal social network is more developed than deeply differentiated farmers'; thus, it is not easy to receive the directive norms from the government in the formal social network, so they experience less subjective norms. Finally, shallowly differentiated farmers have a lower sense of self-efficacy and weaker control over resources, which makes their perceived behavioral control weaker. This will lead to the further weakening of farmers' attitude toward behavior, subjective norms, and perceived behavioral control by shallowly differentiated farmers, and ultimately have a dampening effect on the relationships of “attitude toward behavior–intention to revitalize,” “subjective norm–intention to revitalize,” and “perceived behavioral control–intention to revitalize.”

Based on this, farmer differentiation is used as a moderating variable to improve the theory of planned behavior (Figure 2); Moreover, the following hypotheses are proposed:

Hypothesis 4 (H4). *The influence of attitude toward behavior on farmers' intention to revitalize is moderated by the differentiation of farmers. The differentiation of farmers strengthens the influence of behavioral attitudes on farmers' intention to revitalize, and the higher the degree of differentiation, the stronger the intention of farmers to revitalize.*

Hypothesis 5 (H5). *The influence of subjective norms on farmers' intention to revitalize is moderated by farmers' differentiation. Farmers' differentiation strengthens the effect of subjective norms on farmers' intention to revitalize, and the higher the degree of differentiation, the stronger the farmers' intention to revitalize.*

Hypothesis 6 (H6). *The influence of perceived behavioral control on farmers' intention to revitalize is moderated by farmers' differentiation. Farmers' differentiation strengthens the effect of perceived behavioral control on farmers' intention to revitalize. The higher the degree of differentiation, the stronger the farmers' intention to revitalize.*

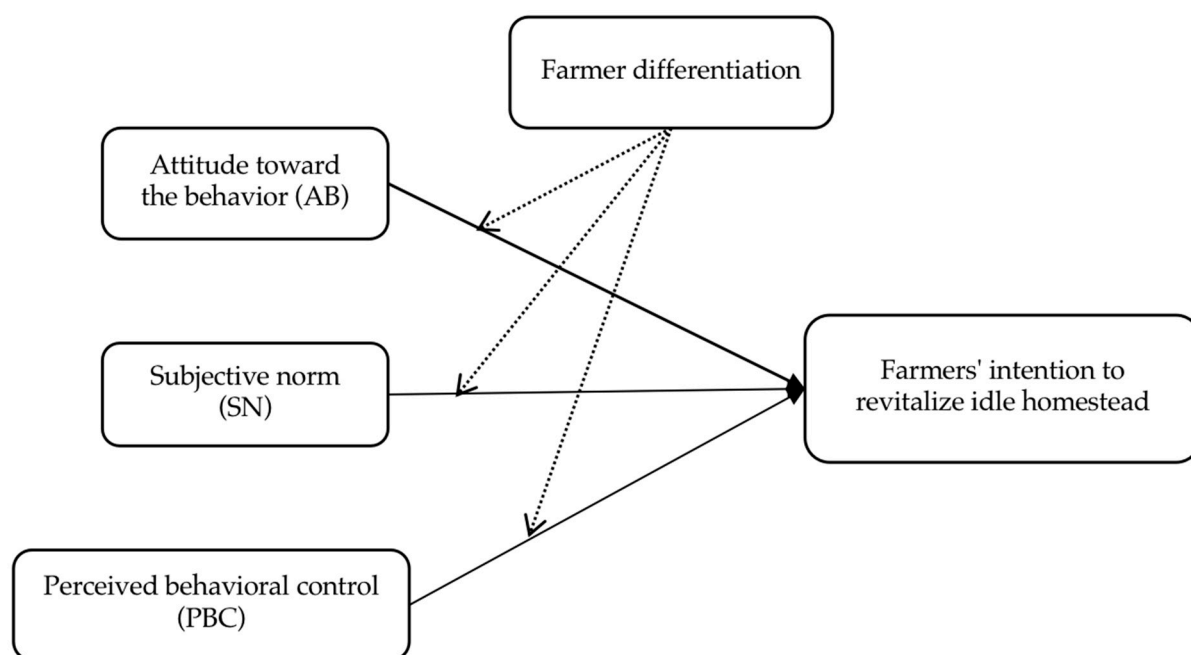


Figure 2. Improving the theoretical model of planned behavior.

3. Materials and Methods

3.1. Research Region

The Shaanxi Province is one of the core provinces in Northwest China and the bridge-head of the “Belt and Road” initiative. From north to south, Shaanxi Province is differentiated into three natural regions, namely the Northern Shaanxi Plateau, Guanzhong Plain, and Southern Shaanxi Qinling Mountain. It has been pointed out in this study that research on the extent of idle homesteads in 140 sample villages is in four major regions of China, namely, East, Central, West, and Northeast. The average rate of idle homesteads was 10.7%, with the rate of idle homesteads in the western region being 11.4%, ranking second among the four major regions and higher than the national average. The reason for the idle homestead in the western region is mainly due to the relatively backward economic development of the region and the lack of industrial support in the rural areas. So, a large number of the agricultural population has moved to the cities and tertiary industries, thus causing a large number of homesteads to be idle [35]. According to the data of the seventh census of China, as of November 2020, the urbanization rate of China’s resident population was 63.89%. Among them, the urbanization rate of the Shaanxi Province reached 62.66%, which is 16.96 percentage points higher than the urbanization rate of the Shaanxi Province 10 years ago and 2.75 percentage points higher than the national increase. The total number of agricultural population migrants from urbanization reached 10 million, with the characteristics of a large total and high age range. Rapid urbanization has brought about a change in the relationship between rural people and land. Many rural homesteads have been idle and used inefficiently due to the migration and urbanization of a large part of the agricultural population. To cope with the problem of wasted rural land resources and to facilitate the urbanization of the migrating agricultural population, the Shaanxi Province has selected 12 counties (districts), including national-level pilot counties, for the homestead system reform. The characteristics of the Shaanxi Province, such as the widespread differentiation of farmers and the prominent problem of the idle homestead, meet the needs of this study (Figure 3).

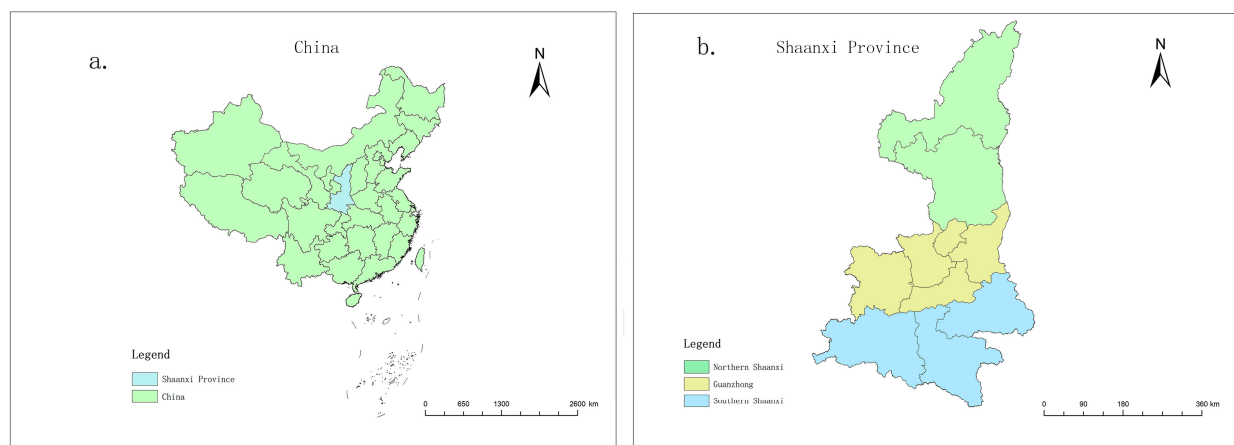


Figure 3. Overview of Shaanxi Province: (a) The location of Shaanxi Province in China, and (b) the distribution of the three natural regions in Shaanxi Province.

3.2. Data Source

To truly grasp the real intentions of different types of farmers, the research team conducted a field survey in February 2022, during the first month of the Chinese Lunar New Year before farmers went out to work, and in August, during the summer vacation of Chinese schools. Before the formal survey, all survey team members received expert training and conducted a pre-survey in the Gaoling District, Xi'an, to refine the questionnaire based on the survey, and the pre-survey data were not included in the final data analysis. The survey used a multi-stage sampling method to select the sample. In the first stage, ten counties (districts) were selected from three regions in the Shaanxi Province, which included the Yuyang District, Zichang County, Fu County, Dali County, Gaoling District, Yangling District, Liquan County, Pingli County, Zhashui County, and Chenggu County, as selected by using the stratified sampling method (Figure 4). Two towns were selected in each county (district) in the second stage using the random sampling method.

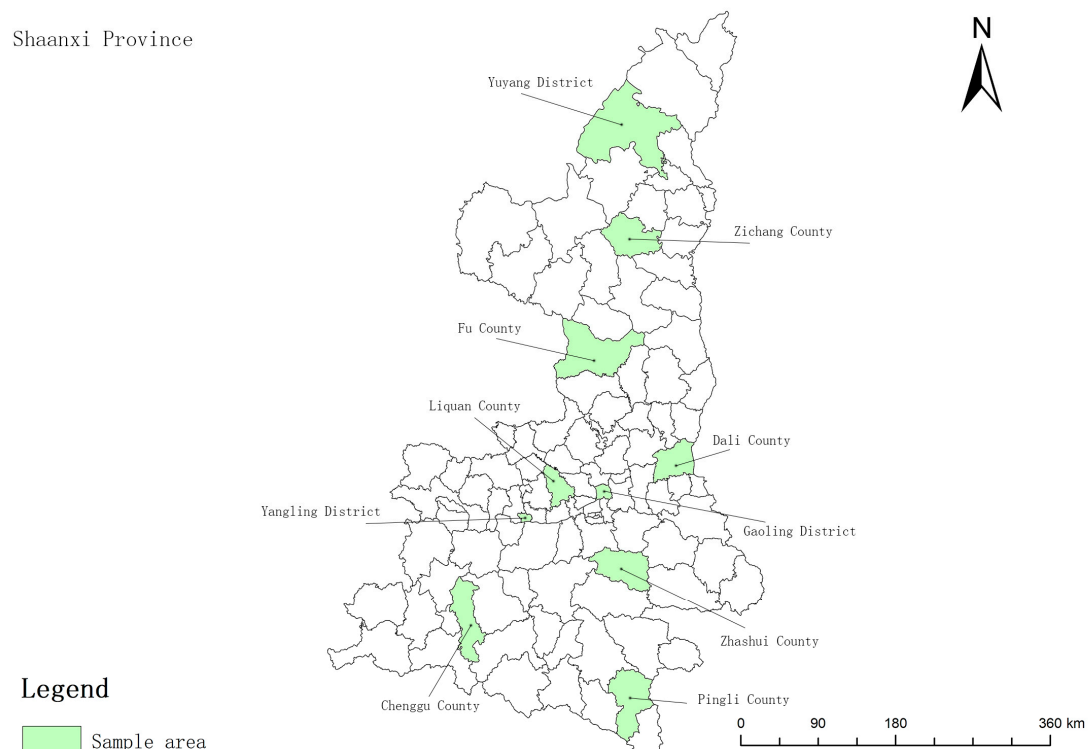


Figure 4. Locations of sampled counties.

In the third stage, two villages were selected in each town by systematic random sampling method. In the fourth stage, the snowball method was applied to find 20 farmers in each village, and a total of 800 farmers were targeted to conduct the survey questionnaire. The questionnaire mainly collected data involving personal, family, and homestead characteristics, intention, behavior attitude, subjective norms, and the perceived behavior control of farmers. A total of 800 questionnaires were distributed, of which 680 were valid, with a valid return rate of 85%.

3.3. Variable Selection

(1) Dependent variable:

The dependent variable was the farmers' intention to revitalize idle homesteads. In this study, whether a farmer was willing to revitalize the idle homestead was used to measure the farmer's intention to revitalize. Furthermore, the Likert 5-point scale method was used (very unwilling = 1; unwilling = 2; generally = 3; willing = 4; very willing = 5), where the larger the value, the stronger the farmers' intention.

(2) Independent variables:

The attitude toward the behavior dimension can be measured via the experiential and instrumental attitudes, and we further selected the "increase family income and employment opportunities" to measure "experiential attitude" and "promote industrial scale and rural development" to measure "instrumental attitude" [36].

Directive and descriptive norms can be used to measure the subjective norm dimension, so in this study, we chose "government and village collective encouragement" to measure "directive norms" and "support from family and neighbors" to measure "descriptive norms" [33].

The perceived behavioral control dimension can be measured by self-efficacy and control force. Therefore, in this study, we chose "overcoming the difficulties and taking risks of the revitalize" to measure "self-efficacy" and "access to relevant resources and familiarity with the revitalize model" to measure "control force" [37].

These three variables were used as core independent variables in this study. Each dimension was measured by a scale consisting of four question items, using a 5-point Likert scale method (strongly disagree = 1; disagree = 2; average = 3; agree = 4; strongly agree = 5). Estimating the internal consistency of the scale is necessary to ensure scale reliability [38]. Therefore, we used SPSS 26.0 to test the reliability of the scales. After testing, Cronbach's α values of 0.897 for the Attitude toward Behavior Scale, 0.875 for the Subjective Normative Scale, and 0.918 for the Perceived Behavioral Control Scale were obtained, all of which were above 0.700, indicating that the core independent variables had high internal consistency with the scales and excellent reliability [19,39,40]. Therefore, it was reasonable to use the mean values of the four-question items to represent their corresponding core independent variables in the model validation phase.

(3) Moderating variables:

Farmer differentiation referred to the proportion of agricultural income in the total household income of farmers, based on a criterion by the Institute of Rural Development, Chinese Academy of Social Sciences in 2002. Farmers with an agricultural income of 90% or more were defined as pure farmers and assigned a value of 1. Farmers with an agricultural income of 10–90% were defined as the agricultural migrant population and assigned a value of 2. Farmers with less than 10% agricultural income were defined as urbanized farmers and assigned a value of 3. The larger the value, the higher the proportion of non-agricultural income and the deeper the differentiation of farmers.

(4) Control variables:

To exclude interference with the independent variables, age, gender, occupation, and education level were controlled in the variables of individual farmers' characteristics. The number of laborers, annual income, and whether they have bought or plan to buy houses

in towns were controlled by the variables of family characteristics. The idle status, quantity, and area were controlled by the variables of homestead characteristics.

Table 1 reports the definition, assignment, and descriptive statistics of all variables.

Table 1. Variable selection, assignment, and descriptive statistics.

Categories	Variable	Variable Definition and Assignment	Mean	Std
Dependent variable	Intention	Farmers' intention to revitalize idle homesteads. Very reluctant = 1; Reluctant = 2; Average = 3; Willing = 4; Very willing = 5.	4.06	1.053
		Increase family income. Strongly disagree = 1; Disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	3.82	1.160
	Behavioral attitude	Increase employment opportunities. Strongly disagree = 1; Disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	3.80	1.178
		Promote industrial scale. Strongly disagree = 1; Disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	3.85	1.132
		Promote rural development. Strongly disagree = 1; Disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	3.91	1.155
		Government encouragement. Strongly disagree = 1; Disagree = 2; Indifferent = 3; agree = 4; Strongly agree = 5.	3.97	1.058
		Village collective encouragement. Strongly disagree = 1; Disagree = 2; Indifferent = 3; agree = 4; Strongly agree = 5.	4.06	1.005
		Support from friends and relatives. Strongly disagree = 1; Disagree = 2; Indifferent = 3; agree = 4; Strongly agree = 5.	4.04	1.045
Independent variables	Subjective norm	Neighborhood support. Strongly disagree = 1; Disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	4.04	1.055
		Overcoming the difficulties of revitalization. Strongly disagree = 1; disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	3.53	1.254
		Assume the risk of revitalization. Strongly disagree = 1; Disagree = 2; Indifferent = 3; agree = 4; Strongly agree = 5.	3.59	1.308
		Obtain relevant resources. Strongly disagree = 1; Disagree = 2; Indifferent = 3; agree = 4; Strongly agree = 5.	3.54	1.321
	Perceived behavioral control	Familiarize oneself with the revitalization model. Strongly disagree = 1; Disagree = 2; Indifferent = 3; Agree = 4; Strongly agree = 5.	3.62	1.285
		Farmers' type. Pure farmer = 1; Agricultural migrant population = 2; Farmer that has been urbanized = 3.	1.95	0.779
Moderating variable	Farmer differentiation			

Table 1. Cont.

Categories	Variable	Variable Definition and Assignment	Mean	Std
Control variables	Personal characteristics	Age. Youth (18–45 years old) = 1; Middle age (46–69 years old) = 2; Elderly (69 years old and above) = 3.	1.82	0.753
		Gender. Male = 1; Female = 2.	1.42	0.494
		Occupation. Non-farming = 0; Farming = 1.	0.48	0.500
		Education level. Elementary school and below = 1; Middle school to high school/junior college = 2; College and above = 3.	1.88	0.782
	Family characteristics	The number of the labor force (people, annual income). CNY 50,000 and below = 1; CNY 50,001–100,000 = 2; CNY 100,001–150,000 = 3; CNY 150,000 or more = 4.	2.03	0.741
		Have purchased or plan to purchase a house in town. No = 0; Yes = 1.	0.64	0.480
		Idle status. Non-idle (less than 3 months) = 0; Seasonally idle (3 to 6 months) = 1; Year-round inactivity (more than 6 months) = 2	1.04	0.857
	Homestead characteristics	The number of owned properties. One place = 0; Two or more places = 1.	1.38	0.485
		Area (mu).	286.7	0.226

Note: 1 mu = 1/15 hectare; CNY, or Yuan, is the Chinese currency: USD 1 = CNY 7.1082 in 2022.

3.4. Research Methods

In this study, the dependent variable “farmers’ intention to revitalize idle homestead” was differentiated into five levels (very unwilling = 1; unwilling = 2; average = 3; willing = 4; very willing = 5), so the dependent variable can be treated as a continuous variable [41]. Moreover, the data met the prerequisites for using multiple linear regression. Therefore, a multiple linear regression model was used for data analysis with SPSS 26.0. The basic form of Model 1 (Formula (1)) was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \mu \quad (1)$$

where Y is the dependent variable, “farmers’ intention to revitalize idle homestead,” X_1 is the attitude toward behavior, X_2 is the subjective norm, and X_3 is the perceived behavioral control. β_i is the regression coefficient of the independent variable, which indicates the degree of influence of the independent variable on farmers’ intention to revitalize idle homesteads, where the larger the parameter, the greater the influence. μ is the random error term. Before performing multiple linear regression, the independent variables were tested for independence, and no multiple covariances existed between the independent variables after testing.

This study was concerned not only with the direct relationship between the independent variables and the dependent variable but also with whether the moderating variables influence the effect of the independent variables on the dependent variable. Since the independent variables belong to continuous variables and the moderating variables belong to categorical variables, the method of hierarchical regression analysis was chosen to test the moderating effect of farmer differentiation. The basic form of Formula (2) was:

$$Y = \alpha_1 X + \alpha_2 M + \alpha_3 XM + \varepsilon \quad (2)$$

where Y is the dependent variable, “farmers’ intention to revitalize idle homestead,” and X is the independent variable, “attitude toward behavior, subjective norm, and perceived behavioral control.” M is the moderating variable “farmers’ differentiation.” XM is the product of the independent variable and the moderating variable “attitude toward behavior $\times$ farmer differentiation, subjective norm $\times$ farmer differentiation, perceived behavioral control $\times$ farmer differentiation”; α_i is the estimated coefficient, and ε is the residual error. Based on Formula (2), using hierarchical regression, the regressions of the independent variables “attitude toward behavior, subjective norms, and perceived behavioral control” (Model 2), the moderating variable “farmer differentiation” (Model 3), and the product of the independent variables and the moderating variables (Model 4) was obtained. They were used to test the effects of farmer differentiation on the three relationships “attitude toward behavior–farmers’ willingness to revitalize,” “subjective norms–farmers’ willingness to revitalize,” and “perceived behavioral control–farmers’ willingness to revitalize.”

If the determination coefficient R^2 of Model 4 is greater than the R^2 of Models 2 and 3, or if the XM regression coefficient passes the significance test, it indicates that the differentiation of farmers plays a moderating role in the relationships of “attitude toward behavior–farmers’ intention to revitalize,” “subjective norms–farmers’ intention to revitalize,” and “perceived behavioral control–farmers’ intention to revitalize.”

4. Results

4.1. Demographic Analysis

Regarding the personal characteristics of farmers, males accounted for the majority of the sample at 57.6% (392 households), and females accounted for only 42.4% (288 households). Education was mostly elementary school and below. Junior high school to high school education accounted for 37.5% (255 households) and 37.4% (254 households), respectively, and only 25.1% (171 households) of farmers had a college education or above. The middle-aged and elderly accounted for 61.3% (417 households), and the occupational distribution was more balanced between farming and non-farming, accounting for 48.4% (329 households) and 51.6% (351 households), respectively. In terms of family characteristics, the average number of laborers in the sample family was 2.03, and 64.1% (436 households) had purchased or planned to purchase houses in town areas, which reflects the trend of migrating peasant populations to work in urban and rural areas with the further acceleration of urbanization. From the characteristics of the homestead, 65.3% (444 households) of the homesteads had different degrees of idleness, 37.6% (256 households) of the families had multiple houses in one family, the average area of the homestead was 286.7 m², and 52.9% (360 households) exceeded the standard of 200 m² per family. The phenomenon of multiple houses in one family and exceeding the standard area for one family exists widely, indicating that the homestead idleness in the Shaanxi Province is serious. In terms of the types of farmers, 33.1% (225 households) were pure farmers, 39.1% (266 households) were of the agricultural migrant population, and 27.8% (189 households) were urbanized farmers, which shows a clear differentiation of farmers.

Regarding the intention to revitalize idle homesteads among the respondents, 34.6% (235 households) and 42.1% (286 households) of the farmers indicated that they were willing and very willing to revitalize idle homesteads, respectively, together accounting for 76.7% (521 households) of the total sample. Meanwhile, 4.3% (29 households) and 4.1% (28 households) indicated that they were unwilling and very unwilling to revitalize idle homesteads, accounting for 8.4% (57 households) of the total sample, while 15% (102 households) were undecided. Most farmers were willing to revitalize their idle homesteads (Table 2).

Table 2. Basic characteristics of sampled farmers.

	N	%		N	%
Gender			Idle status of homestead		
Male	392	57.6	Year-round idle	264	38.8
Female	288	42.4	Seasonally idle	180	26.5
			Non-idle	236	34.7
Age			Homestead area		
Youth 18–45 years old	263	38.7	200 m ² and below	320	47.1
Middle-aged 46–69 years old	274	40.3	More than 200–333 m ²	232	34.1
Elderly 69 years old and above	143	21	More than 333–667 m ²	114	16.8
			More than 667 m ²	14	2.0
Occupation			Number of homesteads owned		
Farming	329	48.4	One	424	62.4
Non-farming	351	51.6	Two or more	256	37.6
Educational level			Degree of farmer differentiation		
Elementary school and below	255	37.5	Pure farmers	225	33.1
Middle school to high school	254	37.4	Agricultural migrant population	266	39.1
College and above	171	25.1	Urbanized farmers	189	27.8
Number of family laborers			Intention to revitalize		
One person	178	26.2	Very willing	286	42.1
Two persons	307	45.1	Willing	235	34.6
Three persons and more	195	28.7	Do not care	102	15.0
Have purchased or intend to purchase a home in town			Not willing	29	4.3
Yes	436	64.1	Very reluctant	28	4.1
No	244	35.9			

Note: In the actual research, the homestead area item is measured in mu. In the paper, international units are used for conversion to facilitate readers' understanding.

4.2. Model Estimation Results

Based on the theoretical analysis, attitude toward behavior, subjective norms, and perceived behavioral control affect farmers' intention to revitalize idle homesteads, and the effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize varies depending on the degree of farmers' differentiation. Therefore, this study first examined the effects of attitude toward behavior, subjective norms, and perceived behavioral control on the intention to revitalize. Secondly, we examined how farmer differentiation moderates the effects of attitude toward behavior, subjective norms, and perceived behavioral control on the farmers' intention to revitalize.

1. Effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize;

The effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize idle homesteads were estimated using multiple linear regression equations (Model 1) without considering the moderating effects. The estimated results are shown in Table 3.

After controlling for a series of variables, such as farmers' personal, family, and homestead characteristics, attitude toward behavior, subjective norms, and perceived behavioral control, all passed the significance test, and the regression coefficients were significant at the 0.01 level in the positive direction. This points out that the more positive farmers' attitudes are toward idle homestead revitalization behaviors, the more positive the perceived subjective norms, and the stronger the perceived behavioral control, the stronger farmers' intention to revitalize, verifying H1, H2, and H3. This also indicates that the theory of planned behavior is applicable to the scenario of idle homestead revitalization behavior.

Table 3. Regression analysis of independent variables on farm households' intention to revitalize.

Variable	B	SD	T-Value
Behavioral attitude	0.08 ***	0.026	3.062
Subjective norm	0.39 ***	0.024	16.009
Perceived behavioral control	0.127 ***	0.024	5.318
Age	−0.162 ***	0.031	−5.244
Gender	−0.006	0.034	−0.186
Occupation	0.052	0.034	1.533
Educational level	0.062 ***	0.022	2.851
Number of family laborers	0.037	0.024	1.552
Annual income	−0.018	0.019	−0.966
Have purchased or intend to purchase a home in town	0.036	0.046	0.788
Idle status of homestead	0.574 ***	0.034	17.033
Number of homesteads owned	0.03	0.035	0.856
Homestead area	−0.076	0.074	−1.03
Constant	1.22 ***	0.16	7.621
R ²		0.835	
Observations		680	

Note: *** indicates significance at the 1% level.

2. Testing the moderating effect based on farmer differentiation;

In this study, we centralized the three core independent variables. We then tested the moderating effects of farmer differentiation on the relationships of “attitude toward behavior–intention to revitalize idle homestead,” “subjective norms–farmers’ intention to revitalize idle homestead,” and “perceived behavioral control–farmers’ intention to revitalize idle homestead,” through hierarchical regressions (Table 4). The R² of each variable in Model 4 was larger than that of Models 2 and 3 in the three relationships of “attitude toward behavior–farmers’ intention to revitalize idle homestead,” “subjective norm–farmers’ intention to revitalize idle homestead,” and “perceived behavioral control–farmers’ intention to revitalize idle homestead,” The interaction coefficients of attitude toward behavior, subjective norms, perceived behavioral control, and farmer differentiation in Model 4 each passed the significance test.

Table 4. A test of the moderating effect of farmer differentiation.

Variable	Behavioral Attitudes–Farmers’ Intention to Revitalize			Subjective Norm–Farmers’ Intention to Revitalize			Perceived Behavioral Control–Farmers’ Intention to Revitalize		
	Model 2	Model 3	Model 4	Model 2	Model 3	Model 4	Model 2	Model 3	Model 4
Behavioral attitudes	0.317 ***	0.308 ***	0.305 ***						
Subjective norm				0.457	0.435 ***	0.419 ***			
Perceived behavioral control							0.251 ***	0.233 ***	0.235 ***
Farmer differentiation		−0.187 ***	−0.187 ***		−0.106 ***	−0.11 ***		−0.176 ***	−0.176 ***
Behavioral attitudes × Farmer differentiation			0.118 ***						
Subjective norm × Farmer differentiation						0.061 **			
Perceived behavioral control × Farmer differentiation									0.081 ***
Age	−0.225 ***	−0.209 ***	−0.187 ***	−0.2 ***	−0.194 ***	−0.195 ***	−0.2 ***	−0.188 ***	−0.161 ***
Gender	−0.037	−0.039	−0.04	−0.002	−0.006	−0.003	−0.055	−0.057	−0.052
Occupation	0.034	−0.005	0.003	0.024	0.002	0.003	0.063	0.023	0.029
Educational level	0.048 *	0.022	0.027	0.067 ***	0.051 **	0.052 **	0.035	0.011	0.014
Number of family laborers	0.04	0.05 *	0.045 *	0.05 **	0.055 **	0.055 **	0.055 *	0.065 **	0.059 *
Annual income	−0.029	−0.031	−0.025	−0.01	−0.012	−0.011	−0.027	−0.028	−0.022
Have purchased or intend to purchase a home in town	0.089	0.039	0.051	0.071	0.046	0.056	0.099 *	0.055	0.07
Idle status of homesteads	0.694 ***	0.694 ***	0.701 ***	0.718 ***	0.725 ***	0.725 ***	0.696 ***	0.707 ***	0.715 ***
Number of homesteads owned	0.016	−0.018	−0.017	0.025	0.005	0.006	0.004	−0.028	−0.028
Homestead area	−0.064	−0.02	−0.033	−0.065	−0.038	−0.04	0.017	0.057	0.053
Constant	2.392 ***	2.872 ***	2.823 ***	1.569 ***	1.911 ***	1.978 ***	2.643 ***	3.125 ***	3.042 ***
R ²	0.761	0.779	0.787	0.822	0.827	0.828	0.741	0.756	0.761
Observations					680				

Note: *, **, and *** indicate significance at the 10%, 5%, and 1% levels, respectively; × indicates the interaction between items.

This indicates that, first, there are significant moderating effects of farmer differentiation in the relationships of “attitude toward behavior–farmers’ intention to revitalize idle homestead,” “subjective norms–farmers’ intention to revitalize idle homestead,” and “perceived behavioral control–farmers’ intention to revitalize idle homestead.” Second, the direction of the interaction term coefficient is consistent with the direction of the main effect (attitude toward behavior, subjective norms, and perceived behavioral control all have positive effects on farmers’ intention to revitalize idle homesteads), indicating that the moderating effect is enhanced.

The effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers’ intention to revitalize idle homesteads are stronger for deeply differentiated farmers. On the contrary, the effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers’ intention to revitalize idle homesteads are smaller for shallowly differentiated farmers, which verifies H4, H5, and H6.

3. Effects of other control variables;

The two control variables (age and idle status) had a significant effect on the intention of farmers to revitalize idle homesteads, in which age had a negative effect but idle status had a positive effect.

This indicates that, first, the older the farmers are, the lower their intentions to revitalize idle homesteads. This may be because, on the one hand, older people have been living in a rural society for a long time and are influenced by the traditional concept of “private house and ancestral property.” They believe that the homestead is their “root.” On the other hand, elderly adults have a single channel to obtain information and are slow to accept new concepts, so they do not see the benefits of revitalizing their homesteads for the time being. Second, farmers are more willing to revitalize their idle homesteads throughout the year. This is largely due to the desire of farmers to realize the property function of their homesteads after urbanization or migration to the city, thus enhancing their livelihood in the city.

5. Discussion

In the survey area, 33.1% (225 households), 39.1% (266 households), and 27.8% (189 households) of the survey area were represented by pure farmers, the agricultural migrant population, and urbanized farmers, respectively, which once again confirms that the division of farmers has become a widespread phenomenon in the urbanization process [20]. Moreover, 65.3% of the homesteads were idle to varying degrees, indicating that the problem of idle or inefficient use of homesteads in China is severe, and the Chinese government must take appropriate measures to revitalize idle homesteads [42]. Therefore, it is necessary to conduct a study on farmers’ intention to revitalize idle homesteads [23,24].

5.1. Effects of Attitude toward Behavior, Subjective Norms, and Perceived Behavioral Control on Farmers’ Intention to Revitalize

As a mature theory for studying individual intention and behavior, TPB can fully explain the formation process of an individual’s intention and behavior [43]. Therefore, in this study, we chose the TPB theory to explain the formation process of farmers’ intention to revitalize idle homesteads [41]. The results of the study indicate that farmers’ attitudes toward behavior, subjective norms, and perceived behavioral control of revitalizing idle homesteads all have positive effects on the intention to revitalize at the 1% significance level, which is consistent with theoretical expectations and also with previous empirical results on farmers’ intention to withdraw idle homesteads [19,44]. This indicates that the theory of planned behavior also applies to the study of idle homestead revitalization intention in the Chinese context, further extending the explanatory scope of TPB. However, in the practical application, we found that behavioral experience, individual needs and emotions, and national culture influences farmers’ intentions to revitalize. TPB theory needs to add other manifestations that can explain the explanatory power of behavior and intention, of which behavioral experience is considered the most.

First, the coefficient of attitude toward behavior was 0.08. For every unit increase in farmers' behavioral attitude toward revitalizing idle homesteads, farmers' intention to revitalize increased by 0.08 units, indicating that the more positive farmers' attitude toward revitalizing idle homesteads, the higher is farmers' intention to revitalize. The results also go hand-in-hand with Willock et al.'s (1999) argument [45]. The highest degree of influence of attitude toward behavior on farmers' intention in the context of green fertilizer adoption technology. In the context of farmers' green fertilizer adoption technology, attitude toward behavior had the highest degree of influence on farmers' intentions [46]. However, in the context of idle homestead revitalization, although farmers' attitude toward a behavior is a more critical influencing factor in the formation of farmers' intention to revitalize, it is less influential than the two factors of subjective norms and perceived behavioral control. This is because China has long restricted the free flow of land elements between urban and rural areas, coupled with the fact that farmers have stayed in rural areas for a long time and are less receptive to new concepts, which has led to fewer typical cases of successful revitalization in China, as farmers do not see the benefits of revitalization for themselves and their villages. In the field research, we found that the more inconvenient the traffic is, the less developed the network is, and the more the farmers do not believe that revitalization will bring any income. However, according to the four questions of the attitude toward behavior dimension, it can be seen that the current attitude toward farmers' behavior regarding the revitalization of the idle homestead is based on four aspects: whether the revitalization of the idle homestead will increase the family income, increase employment opportunities for individuals, promote the development of village industries on a large scale, and promote rural development. This is mainly because the property function of the idle homestead is becoming increasingly prominent at present. If the effect brought to farmers and villages after revitalization is not attractive enough to them, their attitude toward behavior will not be positive, thus affecting the farmers' intention to revitalize idle homesteads.

Second, the coefficient of subjective norms was 0.39, which significantly influenced farmers' intention to revitalize. Specifically, for every unit increase in farmers' subjective norms of revitalizing idle homesteads, farmers' intention to revitalize increased by 0.39 units, indicating that the social network influence positively influenced farmers' intention to revitalize, which is consistent with the study on farmers' intention to manage their farms sustainably [29]. As social beings, farmers are influenced by cultural norms and social expectations in their conscious and subconscious and feel pressure from society that affects their intention to recycle. Chinese law stipulates that village collectives are mass grassroots organizations that are self-managed, self-educated, and self-serving by farmers and are also vital to promoting public policies that can be effectively implemented. In the context of urbanization and land system reform, full attention should be paid to the village collectives' role in carrying on the top and bottom. Moreover, government guidance and support are highly directive and organizational. Friends and neighbors are the most important social resources for farmers, and the geographical proximity makes farmers' intentions more convergent, and other people's inventory behavior also has a strong demonstration effect on farmers [47]. Therefore, their advice and support are the primary reference and drivers of farmers' decisions. Furthermore, based on the four items of the subjective norm dimension, farmers' intention to revitalize is mainly influenced by the directive norms from the government and village collectives and the descriptive norms from friends and relatives. Farmers not only care about the influence of the credible government and village collectives but are also easily influenced by friends and relatives. The more positive the influence of the government, village collectives, and friends and neighbors, the more motivated they are to follow the subjective norms, thus increasing farmers' intention to revitalize.

Third, the coefficient of perceived behavioral control was 0.127, which was between the influence of attitude toward behavior and subjective norms on farmers' intention to revitalize. For every unit increase in farmers' perceived behavioral control in revitalizing

idle homesteads, farmers' intention to revitalize increased by 0.127 units, indicating that the stronger farmers' self-efficacy and control, the stronger their intention to revitalize. This finding was in discordance with the findings of Armitage and Conner (2001) and Bijani et al. (2017) [48,49]. It is worth noting that China deeply recognizes that farmers are the main body of the idle homestead. Therefore, to improve farmers' intention to revitalize, the Chinese government has taken a series of measures to improve the control of farmers' perception behavior, such as policy publicity and explanation, linking social capital, and improving the security system. When farmers have the ability and opportunity to revitalize the idle homestead, they will participate in the idle homestead. According to the four items of the subjective norm dimension, the more farmers believe that they can overcome difficulties and bear the risks of revitalization, the more they can obtain relevant resources and become familiar with the revitalization model, and the higher their intention to revitalize.

5.2. The Moderating Effect Based on Farmer Differentiation

In addition to the direct effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize, this study took into account the current realistic context of farmers' differentiation in China and examined the effects of farmers' differentiation in the relationships of "attitude toward behavior–farmers' intention to revitalize," "subjective norms–farmers' intention to revitalize," and "perceived behavioral control–farmers' intention to revitalize idle homestead." While the deeper level of farmer differentiation suggested by Liu et al. (2020) has an inhibitory effect on farmers' behavior of exiting idle homesteads [20], the empirical results of this study found that the interaction item between farmer differentiation and attitudes toward behavior, subjective norms, and perceived behavioral control was significant and positive. These results indicate that farmer differentiation strengthened the positive relationship between attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize, which was consistent with the theoretical analysis. The reason for the inconsistent findings is that this study focuses on the revitalization of the idle homestead, that is, the reuse of idle homesteads without changing the property rights relationship, rather than the withdrawal of the right to use an idle homestead. This verifies the necessity and importance of incorporating the variable of farmer differentiation into the theory of planned behavior and increases the explanatory power of the theory of planned behavior.

Actually, deeply differentiated farmers have stronger livelihood capacity and control, and their dependence on the rural homestead is much lower [50]. With the gradual disappearance of institutional barriers to free flow and the equal exchange of urban and rural factors, farmers gradually see the property value of their homesteads and hope to realize this [51]. Moreover, deeply differentiated farmers are positively influenced by descriptive norms from informal social networks based on the Consanguineous Relationship and Geographical Relationship and by directive norms from formal social networks based on the Business Relationship. Therefore, deeply differentiated farmers have a more positive attitude toward behavior, stronger perceived positive subjective norms, and stronger perceived behavioral control over the idle homestead. Thus, attitudes toward behavior, subjective norms, and perceived behavioral control strongly influence farmers' intentions to revitalize. The shallowly differentiated farmers are less receptive to new ideas, have narrower access to information, and are more susceptible to descriptive norms from informal social networks, so they have a more negative view of the revitalization of the idle homestead.

Moreover, the shallowly differentiated farmers have a weaker sense of self-efficacy and control due to a low-quality and less thorough understanding of national policies. The homestead assumes more of a security function, and shallowly differentiated farmers have stronger emotional attachments to it. Therefore, the influence of attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize is relatively weak [50,52]. In short, the effects of attitude towards behavior, subjective norms,

and perceived behavioral control on farmers' intention to revitalize are stronger in farmers with deeper differentiation.

The differentiation of farmers has led to differences in the sensitivity of different types of farmers' attitudes toward behavior, subjective norms, and perceived behavioral control. Therefore, policymakers should no longer treat farmers as a homogeneous group but should fully explore their heterogeneity and formulate land use policies according to their categories.

This study focused on the prominent social phenomenon of farmer differentiation. It used the theory of planned behavior to explore the influencing factors of farmers' intention to revitalize idle homesteads, which to a certain extent, makes up for the shortcomings of previous studies. However, there are still some potential limitations: First, the analysis of factors influencing farmers' intention to revitalize idle homesteads is based on the theory of planned behavior, and other mature theories, such as the TAM model, can be further considered in the future to clarify the influence of factors, such as perceived usefulness and perceived ease of use on a farmers' intention to revitalize. Second, this study only focused on farmers' intention to revitalize idle homesteads. However, intention does not necessarily lead to behavior, and the conversion process from intention to behavior should be paid attention to in future research. Regarding farmers' revitalized behavior, since the revitalization of the idle homestead is based on the Chinese scenario, and different cultures represent independent preferences for a state of affairs, the study of farmers' revitalized behavior can further consider factors such as national culture. Third, this study only selected the moderating variable of farmer differentiation to improve the theory of planned behavior. According to the idea of the inductive method, there may be other moderating variables that can be comprehensively studied in the future. Fourth, this study mainly took samples from the Shaanxi Province in Northwest China and did not consider other provinces. The results may differ due to the differences in the degree of idleness of homesteads and the degree of farmer differentiation among provinces, and the scope of the study can be further expanded in the future.

6. Conclusions and Implications

6.1. Conclusions

This study aims to explore the influencing factors of farmers' intention to revitalize idle homesteads and further consider the moderating role of farmer differentiation, which to a certain extent, enriches relevant research.

The main conclusion of this article is that, first, there are significant positive effects of attitude toward behavior, subjective norms, and perceived behavioral control on farmers' intention to revitalize. In particular, the influence of subjective norms is stronger, followed by perceived behavioral control and attitude toward behavior. The influence of subjective norms on farmers' intention to revitalize is the strongest. This is since Chinese society is vernacular, and farmers live around villages, which creates "local" constraints, making people from different villages isolated from each other and people from the same village familiar with each other. In a society of acquaintances without strangers, farmers are more vulnerable to the influence of significant others. Second, farmer differentiation has an enhancing effect in the relationships of "attitude toward behavior–intention to revitalize," "subjective norms–intention to revitalize," and "perceived behavioral control–intention to revitalize." Third, we should pay full attention to the phenomenon of farmers' differentiation and design the revitalization policy according to different types of farmers' sensitivity to differences in attitude toward behavior, subjective norms, and perceived behavioral control, and fully consider farmers' different demands.

This study is unique to China, and its contributions are worth acknowledging. First, this study expands the scope of what can be explained by the theory of planned behavior and improves the contribution of the theory. Second, this study improves the theory of planned behavior by incorporating farmer differentiation variables as moderating variables based on the phenomenon of farmer differentiation which is prominent in the current

urbanization process. Third, this study provides some references for the formulation of rural land use policies in many countries that are experiencing urbanization and, thus, has potential application value. Therefore, as farmer differentiation has become a common social phenomenon in urbanization, national governments need to pay attention to farmer heterogeneity and formulate rural land use policies according to their categories.

6.2. Implications

Based on the above findings, to enhance farmers' intention to revitalize idle homesteads, we should not only pay attention to farmers' attitudes toward behavior, subjective norms, and perceived behavioral control but also pay attention to the influence of the moderating effect of farmers' differentiation. Therefore, this paper presents the following four suggestions to enhance farmers' revitalization intention.

First, to cultivate farmers' positive attitudes toward the behavior by enhancing their experiential and instrumental attitudes, the government should explore successful cases and benchmark farmers and give full play to the role of the media in guiding public opinion to establish farmers' correct and positive perceptions of revitalizing idle homesteads, thus improving farmers' attitude toward the behavior.

Second, the positive influence of subjective norms is strengthened through the implementation of directives and descriptive norms. The government should continuously improve the management system of rural homesteads and the supervision and management system of revitalizing idle homesteads. Additionally, they should open the supervision and reporting mechanism to break the "trust barrier" between farmers, the government, and village collectives. They should also actively collect public opinions so that various policies and systems can more effectively reflect the farmers' needs and interests, improve the guiding and driving effect of the directives and descriptive norms on farmers, create a strong social atmosphere of actively revitalizing idle homesteads, and thus strengthen the positive influence of subjective norms.

Third, it is necessary to enhance the perceived behavior control of farmers by improving their sense of self-efficacy and control force. On the one hand, the government should strengthen farmers' skills training and broaden their employment channels. On the other hand, it needs to continuously strengthen the institutional construction of idle homestead revitalization, standardize the revitalization procedures, and establish dispute resolution mechanisms to enhance farmers' perceived behavioral control.

Fourth, the government needs to pay great attention to the social phenomenon of farmer differentiation and promote the urbanization of the agricultural population. By improving the social security system in rural areas and promoting the equalization of public services in urban and rural areas, the government can narrow the gap between urban and rural areas at the root, reduce farmers' dependence on the homestead, and promote the urbanization of the agricultural population. When designing the policy mechanism for revitalizing idle homesteads, the government should respond to the differences in the sensitivity of different types of farmers to attitudes toward behavior, subjective norms, and perceived behavioral control in the context of rapid urbanization and design the revitalization policy according to the category.

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