Article

Using the Extended Theory of Planned Behavior to Explore the Effect of Farmer Differentiation on Their Intention to Revitalize Idle Homesteads: Empirical Evidence from Shaanxi, China

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Abstract: The revitalization of idle homesteads is an essential element in stimulating rural land resources and assets and promoting the integrated development of urban and rural areas. However, existing studies have paid less attention to the relationship between the differentiation of farm households and revitalization intention. Therefore, exploring the relationship between farmer differentiation and revitalization intention has become the key to improving the revitalization intention. The differentiation of farmers in the process of urbanization is an important factor affecting the intention of farmers to revitalize idle homesteads. This study defines "farmer differentiation" as a second-order factor and is based on the theoretical analysis framework of "farmer differentiation (FD)–farmer cognition (FC)–revitalization intention (RI)" to systematically reveal the relationship between FD and RI with a multi-dimensional perspective. At the same time, we analyze the mediating role of FC in the relationship between FD and RI. The data collected from 881 Shaanxi, China, farmers are analyzed through structural equation modeling (SEM). The results of the study show that (1) The dimensions of farmer differentiation (FD) are wealth capital differentiation (WCD) and reputation capital differentiation (RCD). (2) The formation of farmers' intention to revitalize follows the logical relationship of "FC–RI" in the Extended Theory of Planned Behavior (ETPB), and subjective norms (SN) are the critical factor. (3) The logical relationship of "FD–FC–RI" in the ETPB has been confirmed. In addition to the direct positive effect of the WCD and RCD on farmers' intention to revitalize idle homesteads, WCD will indirectly affect RI through the four sub-dimensions of behavioral attitudes (BA), subjective norms (SN), perceived behavioral control (PBC) and homestead dependence (HD) under the FC conception. Meanwhile, the chain mediating role of the WCD and FC sub-dimensions in the RCD effect on the intention to revitalize cannot be ignored. Therefore, to increase farmers' intention to revitalize Idle homesteads, policymakers need to focus on increasing WCD and RCD and helping farmers establish proactive FC.

Keywords: idle homestead revitalization; farmer differentiation; farmer intention; SEM; expanding the theory of planned behavior

1. Introduction

With the rapid advancement of global urbanization, the shortage of natural resources and energy has become increasingly evident, posing severe threats to sustainable development and public welfare on regional and global scales [1]. The most direct manifestation of rapid urbanization in land use is the increase in demand for land resources due to the continuous expansion of urban boundaries, thus increasing the pressure on arable land protection. China is in a phase of rapid urbanization and inevitably faces this global problem, as well as many others brought about by rapid urbanization.

Since the reform and opening in 1978, rapid urbanization and industrialization have brought China's increasing economic development and speedy improvement of people's living standards. At the same time, these transformations have also affected rural human-land relations [2]. According to the latest sample data from China's Ministry of Agriculture and Rural Development, the country's rural resident population decreased by 219 million from 2000 to 2016, while the idle rate of homesteads was 18.10% in 2019 [3]. This inefficient use and waste of rural homestead resources, caused mainly by the transfer of farmers to urban areas, has seriously impeded the development of rural areas in China [4,5]. In response, China has been reforming the rural homestead system since 2015. The reform of the rural homestead system is an integral part of the reform of China's rural land system, aiming to optimize the use and management of rural homesteads through policy adjustments to improve land use efficiency and promote rural economic and social development. Since then, every year, the No. 1 document of the central government focuses on the deployment of the reform of the homesteads system. One of the critical breakthroughs is the proposal to explore the "three rights of ownership, eligibility, and use" of homesteads in 2018. On the basis of the implementation of the collective ownership of the homesteads and the guarantee of the qualification right of the homesteads farmers, the use right of the homesteads is moderately liberalized, i.e., the farmers adopt the methods of self-employment, leasing, shareholding, and withdrawing to revitalize the idle homesteads and the house on the ground in the rural areas. Farmers are the main decision-making body in transferring the right to use the homesteads, but farmers are also the basic unit of rural economic and social activities. The formation mechanism of the farmers' will to revitalize the idle homesteads is the key to revitalizing the idle homesteads [6,7].

At the same time, farmer differentiation during urbanization also warrants attention. Institutional policy liberalization and the drive for agricultural transformation have led to farmer differentiation, evolving from purely agricultural households to the agricultural transfer population and new urban residents [8]. As the agricultural transfer population shifts from the part-time status of half-farming and half-employing between urban and rural areas to fully engaging in non-farming industries, the level of agricultural household differentiation of this group is also increasing [8]. Therefore, to narrow the gap in salary and compensation, public services and even cultural values faced by farmers with different levels of differentiation and raising the level of differentiation of farmers to obtain more development opportunities and enjoy better public services have become the main goals of this group. Farmers with different levels of differentiation differ in their ability to make a living and their subjective perception of the value of land, thus resulting in different degrees of land dependence. Therefore, when studying the formation mechanism of farmers' intention to revitalize idle homesteads (hereafter referred to as "revitalize intention"), farmers' differentiation level should be fully considered. Existing studies show that countries like the United States and most post-industrial countries have good practical experience in guiding farmers to reuse rural residential land, and it explores the influence of locational elements, ecological changes, and other factors on the reuse of rural residential land [9,10]. Reusing rural residential land has become an effective way to address idle and inefficiently used rural residential land due to the rural population's movement to the city. As a critical stakeholder, farmers' intention to revitalize is influenced by their factors (education level, social capital, and primary source of income) and external factors (government planning policies, landscape planning, and agricultural food production programs) [11–14]. The property rights of rural land in Western countries are transparent and dominated by private ownership, and there is no concept like the homesteads. Specifically, the land in the rural areas of the United States is privately owned. Farmers who buy land need to pay land taxes every year, but this does not affect the permanence of the property rights; this system ensures that the property can be passed on to future generations, realizing the true meaning of permanent property ownership. China's rural homesteads are a unique product under the dual structure; the village collective owns its property rights, and farmers only have the right to qualify (the right of eligibility is a specific right enjoyed by farmers based on

their membership of a rural collective economic organization) and the right to use. Compared with Western countries, reforming China's idle rural homesteads is more challenging and complex [2]. In China, the homestead is one of the core elements of the rural land system, which provides farmers with housing and agricultural production land and is an essential basis for guaranteeing farmers' challenging production and life. Therefore, the revitalization intention of farmers as the revitalization subject and direct stakeholder of idle homesteads is fundamental.

Previous studies often treated farmers as a homogeneous whole. They verified the influence of factors such as livelihood capital, the number of homesteads, and locational resources on their intention to revitalize from single perspectives of internal psychology or external situations [15,16]. Only a few scholars have noted the differentiated effects of farmer differentiation on revitalization intention, distinguishing farmer differentiation into horizontal occupational differentiation and vertical economic differentiation, thereby clarifying the direct impact of farmer differentiation on homestead exit intention [17]. With the deepening of the homestead system reform, the scope of the reform has gradually broadened, from farmers' withdrawal from idle homesteads to revitalizing idle homesteads. However, there are fewer quantitative analyses of the mechanism of the differentiation of farmers on the intention to revitalize. Specifically, there are the following shortcomings in the existing research: First, most current research focuses on the withdrawal of homesteads. However, with the further deepening of the reform of the homesteads system, the focus of the reform has gradually shifted from farmers' withdrawal from the idle homesteads to the revitalization of the idle homesteads. Second, the criteria for the differentiation of farmers are often judged solely based on income sources, neglecting its social connotations and affecting the credibility and persuasiveness of empirical conclusions. Third, there is a lack of exploration of the overall and multi-dimensional relationship between farmer differentiation and the intention to revitalize homesteads from the dual perspectives of internal cognition and external context.

The formation of farmers' revitalization intention is a multi-linked and complex systematic project, and the existing research has neglected the intrinsic dimensions of farmers' differentiation and explored the influence of a particular factor on farmers' revitalization intention only from a single perspective, such as the internal psychology or external context, which makes the research more fragmented. Therefore, this study systematically explores the overall and multi-dimensional relationship between farmer differentiation and revitalization intention from the dual perspectives of internal cognition and external context and, at the same time, analyzes the role of farmers' cognition in the relationship between the two.

Based on the above background, we consider farmer differentiation as a second-order factor consisting of wealth capital differentiation and reputation capital differentiation. Based on social stratification theory and Stimulus–Organism–Response theory (S-O-R), we improve the TPB and construct an analysis framework of "farmer differentiation (FD)–farmer cognition (FC)–revitalization intention (RI)". SEM was further used to validate the 881 data samples collected from farmers in Shaanxi Province. Based on using exploratory factor analysis to clarify the dimensions of the concept of FD, we systematically explored the relationship between the FD and RI from a multi-dimensional perspective. At the same time, we analyzed the role of the FC in the relationship between the two, intending to provide a theoretical basis and empirical evidence for enhancing the intention to revitalize the idle homesteads of farmers.

This study defines the intrinsic dimensions of farmer differentiation. It expands the existing binary research framework of "farmer cognition (FC)–revitalization intention (RI)" to construct the research framework of "farmer differentiation (FD)–farmer cognition (FC)–revitalization intention (RI)". Then, we embed wealth capital differentiation, reputation capital differentiation, behavioral attitudes, subjective norms, perceived behavioral control, homestead dependence, and revitalization intention in this research framework to analyze the effects of farm household differentiation on its willingness to revitalize and the mediat-

ing effect of farmers' cognition. The study's results help expand the theoretical research on the relationship between the farmer's differentiation and revitalization intention and provide theoretical support and a decision-making basis for the government to carry out revitalization work.

The remainder of the article is as follows: Section 2 constructs the theoretical framework and proposes the research hypotheses; Section 3 introduces the data sources and empirical methods; Section 4 presents the empirical results; Section 5 discusses the results; and Section 6 gives the study's conclusions and policy recommendations.

2. Theoretical Analysis

2.1. Farmer Differentiation

Farmer differentiation (FD), as a comprehensive reflection of the state and characteristics of the internal structure of the farm household, appears to be occupational differentiation and income differentiation. However, it is essentially due to the structural differentiation of society as it undergoes institutional transformation, social structural change, and societal change, which further leads to structural differences in the capital owned by farmers [18]. Capital is defined in Capitalism as "the value that brings surplus value, a relation of production under the guise of a thing". Capital is an element that can be invested in reproduction, tangible or intangible. Social stratification theory believes that social stratification should be considered comprehensively from the dimensions of wealth capital differentiation (WCD), reputation capital differentiation (RCD), and power capital differentiation (PCD). However, PCD (Position of the individual in the sectional organization) has not been widely accepted by subsequent researchers during the development of this theory [19]. Additionally, in surveys, farmers generally have weak power capital, posing applicability issues. Therefore, this paper divides the FD dimension into WCD and RCD, in which WCD is the individual's ability in the commodity market, expressed explicitly as the capital endowment owned by the farmer and can be measured in terms of material and money, such as arable land, mountains and forests, homesteads, bank deposits, and other tangible and intangible valuable assets. RCD is the individual's position in the social association, specifically expressed as the individual's cultural level, experience, and the condensation of social relationship resources, such as the cultural level, social relationship, and psychological state of farmers. This study will use exploratory factor analysis to verify these sub-dimensions.

2.2. Farmers' Cognition and Their Intention to Revitalize Idle Homesteads

Farmers' decision to participate in revitalizing homesteads is the result of their rational and emotional choices based on cognitive evaluation. Cognitive psychology emphasizes that cognition determines individual behavior, and its logical relationship is "individual cognition–behavioral intention", meaning that individual cognition is the predisposing factor of behavioral intention. In contrast, behavioral intention results from individual cognition [20]. Therefore, in revitalizing idle homesteads, farmer cognition (FC) is an important factor affecting their revitalization intention (RI).

As one of the classic theories for predicting and explaining individual intention and behavior, the theory of planned behavior (TPB) explains the individual decision-making process from a psychological perspective in its "cognition–intention–behavior" driving model. In TPB, individual cognitive factors affecting behavioral intention (BI) include three dimensions: behavioral attitude (BA), subjective norms (SN), and perceived behavioral control (PBC) [21].

TPB is open to other factors in principle. TPB itself is an extension and refinement of the Theory of Rational Behavior (TRA) by adding perceived behavioral control variables to the theory. Therefore, researchers can explore new influencing factors based on specific research contexts [22]. As the production and living dependence of farmers, due to the traditional concepts of "returning to one's roots" and "ancestral home consciousness" and homesteads can provide homes for farmers after failed urbanization, farmers are still

dependent on the homestead, which affects the formation of their intention to revitalize. Because the study is in the idle homestead revitalization context and the consideration of the improvement of the TPB, this study includes the homestead dependence (HD) under the dimension of FC. Therefore, considering the focus of the reform of China's homestead system and because intention and behavior are always regarded as the same but cannot be consistent [23]. The view that the conversion of intention to behavior may influence other factors has been verified in the consumption of individual products and adoption of new technologies in agricultural production [24–26]. To avoid confusion, this study will focus on farmers' intention to revitalize idle homesteads.

Based on the above analysis, this study proposes the following hypotheses:

H1a. *Behavioral attitude (BA) positively affects revitalization intention (RI).*

H1b. *Subjective norms (SN) positively affect revitalization intention (RI).*

H1c. *Perceived behavioral control (PBC) positively affects revitalization intention (RI).*

H1d. *Homestead dependence (HD) negatively affects revitalization intention (RI).*

2.3. Farmer Differentiation, Farmer Cognition, and Their Intention to Revitalize

S-O-R theory emphasizes that environmental stimuli are the prerequisite for individuals to produce psychological responses, leading to individual behavior. In the context of the revitalization of idle homesteads, on the one hand, farmers' behavioral attitudes towards the revitalization of homesteads, subjective norms, perceived behavioral control, and homestead dependence will affect farmers' revitalization intention. On the other hand, with the in-depth promotion of new urbanization and industrialization with the in-depth promotion of new urbanization and industrialization, in order to enjoy the same social security system as urban residents, a large number of farmers have moved to cities and towns and gradually become urban citizens. and the FD has made some of them gradually shift their knowledge of the value of homesteads from traditional "emotional identity" to "economic rationality" and from "land worship" to "industrial and commercial spirit" "Land worship" to "industrial and commercial spirit" [27]. In sum, the commodification of their homestead. The different degrees of differentiation of farmers caused differences in farmers' cognition, which in turn showed differences in behavioral intention. S–O–R theory has a reasonable degree of perseverance.

From the "rational person" perspective in neoclassical economics, the relationship between the FD and RI is explored based on the principle of benefit maximization. Farmers, as "economic people", hope to achieve the highest return with the most minor input. The key to farmers' intention to revitalize unused homesteads lies in whether the revitalization can bring higher benefits, i.e., whether there is a positive externality in revitalizing idle homesteads, generating economic, social, and ecological benefits [28]. For example, revitalizing idle homesteads can provide more land resources for urbanization and alleviate the pressure of protecting farmland, forest land, and other areas. However, farmers may face market, contractual, and policy risks in revitalizing idle homesteads [29,30], possibly resulting in significant economic losses. Thus, due to risk aversion, most farmers may believe that maintaining the status quo is safer than "adventurous speculation". However, deeply differentiated farmers generally have higher wealth capital that reduces livelihood burdens, income uncertainty, and risk perception, increases farmers' access to resources and risk tolerance, and is more susceptible to external pressures from stakeholders. For example, village collectives encourage farmers to revitalize idle residential land for village development.

According to the "irrational person" hypothesis of behavioral economics, farmers, as "social beings", are limited in their rationality. Farmers' decisions are influenced by various environmental factors and the resources they possess, limiting their cognitive and

decision-making abilities. Less differentiated farmers, materially and spiritually, still rely more on homesteads, having stronger emotional dependence on homesteads. In contrast, highly differentiated farmers gradually integrate into urban areas, with lower emotional dependence on homesteads [19]. At the same time, when farmers have a high level of reputation capital, they tend to have greater mobility and can effectively overcome the barriers between different "fields". Individual reputation capital can provide more options for farmers to enter different "fields" [31]. When farmers can switch "fields" more efficiently, they will gain new social relations, prompting the expansion and reorganization of farmers' original social relationship networks. Additionally, farmers with rich reputation capital are more likely to access educational opportunities and are more capable of coping with difficulties. They tend to have advantages in the workplace and hold higher expectations and psychological resilience for future life and work, accompanied by strong positive externalities, inducing imitation and learning among other individuals in the group.

Higher reputational capital differentiation represents, to a certain extent, higher individual cultural level, experience, and social relationship resources. This group is more likely to accumulate and enrich their wealth capital by expanding their social relationship networks, strengthening their psychological resilience, and improving their cultural levels and social standing.

In summary, FD has a direct effect on FC and RI, and FC has a direct effect on RI, so this study hypothesizes that the dimensions of FC are the mediating variables of the dimensions of FD acting on RI to inventory. Therefore, this study proposes the following hypotheses:

H2a. *Wealth capital differentiation (WCD) positively affects revitalization intention (RI).*

H2b. *Reputation capital differentiation (RCD) positively affects revitalization intention (RI).*

H2c. *Reputation capital differentiation (RCD) positively affects wealth capital differentiation (WCD).*

H3a. *Behavioral attitude (BA) mediates the effect between wealth capital differentiation (WCD) and revitalization intention (RI).*

H3b. *Subjective norms (SN) mediate the effect between wealth capital differentiation (WCD) and revitalization intention (RI).*

H3c. *Perceived behavioral control (PBC) mediates the effect between wealth capital differentiation (WCD) and revitalization intention (RI).*

H3d. *Homestead dependence (HD) mediates the effect between wealth capital differentiation (WCD) and revitalization intention (RI).*

H4a. *Behavioral attitude (BA) mediates the effect between reputation capital differentiation (RCD) and revitalization intention (RI).*

H4b. *Subjective norms (SN) mediate the effect between reputation capital differentiation (RCD) and revitalization intention (RI).*

H4c. *Perceived behavioral control (PBC) mediates the effect between reputation capital differentiation (RCD) and revitalization intention (RI).*

H4d. *Homestead dependence (HD) mediates the effect between reputation capital differentiation (RCD) and revitalization intention (RI).*

H5. *Wealth capital differentiation (WCD) mediates the effect between reputation capital differentiation (RCD) and revitalization intention (RI).*

H6a. *Wealth capital differentiation (WCD) and behavioral attitude (BA) mediate between reputation capital differentiation (RCD) and revitalization intention (RI).*

H6b. *Wealth capital differentiation (WCD) and subjective norms (SN) mediate between reputation capital differentiation (RCD) and revitalization intention (RI).*

H6c. *Wealth capital differentiation (WCD) and perceived behavioral control (PBC) mediate between reputation capital differentiation (RCD) and revitalization intention (RI).*

H6d. *Wealth capital differentiation (WCD) and homestead dependence (HD) mediate between reputation capital differentiation (RCD) and revitalization intention (RI).*

2.4. Theoretical Framework

Based on the above analysis, this study found that in addition to FC, FD is also an essential factor influencing RI. Stimulus–Organism–Response (S–O–R) theory suggests that an individual's response to external stimuli is not mechanical and passive but subjective and that individuals can process information effectively under stimuli to make rational behavioral decisions. FD can directly affect RI and have an impact on RI through FC. Therefore, RI is a dynamic awareness of farmers by external environmental factors and stimuli resulting in FC changes, that is, the FD (WCD, RCD) as an external stimulus (S). FC (BA, SN, PBC, and HD) are considered as farmers' organismic factors (O), and RI are considered as reactive factors (R). The specific research model is shown in Figure 1.
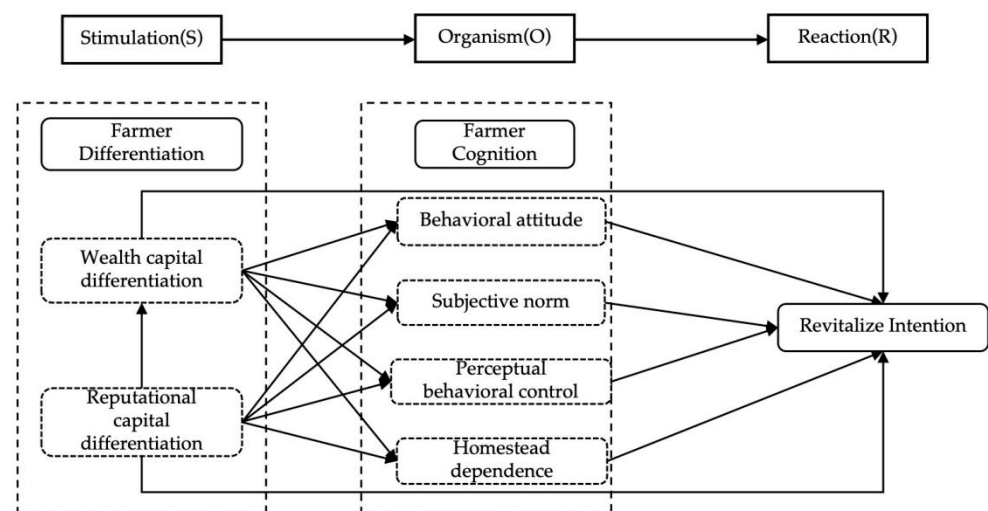
Figure 1. Analytical framework "FD–FC–RI".

3. Data and Methodology

3.1. Variable Selection

This study follows the paradigm of "FD–FC–RI" and contains seven latent variables. Since latent variables are challenging to observe directly, 29 observational variables were selected to characterize them, considering existing studies and expert discussions. In particular, the indicator Chineseization process was carried out by two native Chinese bilingual translators, one with a relevant research background and one familiar with colloquial phrases and idioms. The third bilingual translator synthesized the two translated versions into one scale. Reverse translations were performed by two translators who had never worked with the source indicators and had no relevant research background, each translating the Chinese version into English. The experts determined the final indicator selection. All variables are valued using a 5-point Likert scale (Table 1).

Table 1. Variable definitions and descriptive statistics.

Variable	Item	Mean	SD	Variable	Item	Mean	SD
WCD	NC1: Land area (m^2)	2.78	1.267	BA	ER1: Increase revenues	2.56	1.391
	NC2: Degree of land fertility	2.85	1.325		ER2: Increase employment	2.54	1.366
	PC1: Per capita housing area (m^2)	2.81	1.289		OB1: Involvement of government or third parties	2.53	1.42
	PC2: Infrastructure accessibility	2.81	1.315		OB2: Prospects for revitalized projects	2.51	1.402
	FC1: Annual household income (CNY)	2.78	1.275	SN	NB1: Government incentives	2.58	1.381
	FC2: Household savings	2.80	1.337		NB2: Village Collective Encouragement	2.58	1.389
	FC3: Difficulty of borrowing	2.76	1.288		CM1: Friends and family support	2.58	1.385
RCD	HC1: Number of household laborers	2.97	1.309		CM2: Neighborhood Support	2.57	1.371
	HC2: Educational level of head of household	2.91	1.286	PBC	CB1: Overcome obstacles	2.98	1.429
	SC1: Relationships with family and friends	2.89	1.242		CB2: Take risks	3.02	1.41
	SC2: Social organization representation	2.87	1.227		PI1: Access to resources	3.00	1.41
	MC1: Well-being	2.96	1.317		PI2: Familiarization model	3.04	1.399
	MC2: Psychological resilience	2.94	1.311		PED: Carrying memories.	3.23	1.43
RI	RI1: Intention to learn about homestead revitalization	2.84	1.108	HD	RSD: Retreats for urban workers	3.23	1.35
	RI2: Intention to revitalize homesteads	2.8	1.129		PD: Potential for future appreciation	3.24	1.354
	RI3: Intention to encourage others to revitalize home sites	2.76	1.083		APD: Development of the courtyard economy	3.17	1.399

Note: Land area (m^2) assigned as $\leq$2000 = 1, (2000, 4000] = 2, (4000, 6000] = 3, (6000, 8000] = 4, >8000 = 5; Per capita housing area (m^2) assigned as $\leq$20 = 1, (20, 40] = 2, (40, 60] = 3, (60, 80] = 4, >80 = 5; Annual household income(CNY) assigned as $\leq$10,000 = 1, (10,000, 30,000] = 2, (30,000, 50,000] = 3, (50,000, 70,000] = 4, >70,000 = 5; Number of household laborers assigned as $\leq$1 = 1, (1, 2] = 2, (2, 3] = 3, (3, 4] = 4, $\geq$5 = 5; Educational level of head of household assigned as Below Elementary = 1, Elementary = 2, Middle School = 3, High School/Middle School = 4, College and above = 5; Social organization representation assigned as $\leq$1 = 1, (1, 2] = 2, (2, 3] = 3, (3, 4] = 4, $\geq$5 = 5; all other questions are assigned a value from 1 to 5, representing the degree from low to high.

WCD. The wealth capital differentiation scale includes "land area", "Degree of land fertility", "Per capita housing area", "Infrastructure accessibility", "Annual household income", "household savings", and "Difficulty of borrowing" [19,31].

RCD. The reputational capital differentiation scale includes "Number of household laborers", "Educational level of head of household", "Relationships with family and friends", "Social organization representation", "Well-being", and "Psychological resilience" [19,32].

BA. The behavioral attitude scale includes "Increase revenues", "Increase employment", "Involvement of government or third parties", and "Prospects for revitalized projects" [33].

SN. The subjective norm scale includes "Government incentives", "Village Collective Encouragement", "Friends and family support", and "Neighborhood Support" [34].

PBC. The perceived behavioral control scale includes "Overcome obstacles", "Take risks", "Access to resources", and "Familiarization model" [35,36].

HD. The homestead dependence scale includes "Carrying memories", "Retreats for urban workers", "Potential for future appreciation", and "Development of the courtyard economy" [19].

RI. The revitalize intention scale includes "Intention to learn about homestead revitalization", "Intention to revitalize homesteads", and "Intention to encourage others to revitalize home sites".

3.2. Research Methods

Structural Equation Modelling (SEM) is a statistical method based on the covariance matrix of variables to analyze the relationship between variables. As a validation statistical method, SEM reflects these abstract latent variables through directly measurable observed variables, allowing the theoretical structure of the data to be directly compared with the actual structure of the observed sample data and allowing some measurement error [37]. Therefore, this paper uses SPSS 23.0 and AMOS 24.0 to analyze the mechanism of the influence of FD on RI and further adopts the Bootstrap method to validate the mediating effects of the dimensions of FC.

3.3. Data Source

Shaanxi Province is one of the core provinces in China and a significant population outflow province in the northwest region. According to China's seventh population census, by the beginning of 2024, Shaanxi Province's urbanization rate reached 65.16% [38]. Rapid urbanization has brought about a large number of agricultural transfers and urbanization and caused a large number of rural homesteads to be idle and inefficiently used. At the same time, Shaanxi Province, as a pilot area for the reform of the national homestead system, has selected 12 counties (districts) as pilot counties (districts) for the reform of the homestead system, including the pilot counties (districts) for the reform of the homestead system at the national level.

The data used in this study come from a field survey conducted by the group in Shaanxi Province from July to September 2023. Before the formal research, the group members were uniformly trained on the questionnaire, and a pre-survey was conducted in Dazhai Village, Yangling District, based on which the questionnaire was improved. The data from the pre-survey were not included in the final data analysis. At the time of the official research, to ensure the validity and representativeness of the survey data, a multi-stage sampling method was adopted to select the samples; the specific steps were as follows: firstly, 20 towns in 10 prefectural-level cities in Shaanxi Province were selected based on the principle of systematic sampling, secondly, 2 villages were selected from each town based on the principle of random sampling, and lastly, 25 farmers were selected from each village based on the principle of snowballing to carry out a household questionnaire survey. In addition to the pre-survey, 1000 questionnaires were distributed in this formal survey. After eliminating illogical and inaccurate questionnaires, 881 valid questionnaires were finally obtained, with a questionnaire efficiency of 88.1%. The essential characteristics of the sample are shown in Table 2.

Table 2. Basic characteristics of sample farmers.

Variable	Number	%	Variable	Number	%	Variable	Number	%
Gender			Occupier			Owns multiple homesteads		
Male	475	53.9	Yes	387	43.9	Yes	230	26.1
Female	406	46.1	No	494	56.1	No	651	73.9

Table 2. *Cont.*

Variable	Number	%	Variable	Number	%	Variable	Number	%
Age			Ownership			Distance from county (km)		
(18, 30)	119	13.5	country	167	19	≤5	122	13.8
(30, 40)	111	12.6	Village Collective	276	31.3	(5, 10)	293	33.3
(40, 50)	495	56.2	oneself	381	43.2	(10, 20)	320	36.3
(50, 65)	156	17.7	unaware	57	6.5	>20	146	16.6
Household size			Idle level			Planned or purchased house		
[1, 3]	268	30.4	Year-round idle	334	37.9	Yes	480	54
[4, 6]	449	51.0	Seasonal idle	250	28. 4	No	401	46
≥7	164	18.6	Non-idle	297	33.7			

3.4. Common Method Bias

Common method bias affects the accuracy of hypothesis testing; therefore, this study used Harman's single-factor test to avoid common method bias that may result from data collection by questionnaire method. Through exploratory factor analysis, the percentage of variance explained by the first common factor was extracted to be 23.557%, not more than half of the total variance. Therefore, this study has no serious problem of common method bias.

4. Result

4.1. Reliability and Validity Tests

This section uses Cronbach's α coefficient to conduct a reliability analysis on the questionnaire. A good Cronbach's α coefficient should be above 0.6 [39]. The Cronbach's α coefficients of all latent variables in this study are above 0.8 (Table 3), which means the questionnaire is reliable. This section examines the validity of the data through structural validity. It will test structural validity using exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

First, The Kaiser–Meyer–Olkin (KMO) values of the FD Scale and the FC Scale are both greater than 0.8, and the value of Bartlett's test of sphericity is significant ($p = 0.000 < 0.001$), which is suitable for subsequent factor analysis.

Secondly, using the maximum variance method, EFA was conducted to extract factors from the indicators corresponding to the variables in the FD Scale and FC Scale. According to the fundamental principle that the eigenvalue is greater than 1, two and four factors were finally extracted, respectively (Appendix A). The total variance explained for the two factors of FD amounted to 77.959%, and the total variance explained for the four factors of FC amounted to 89.313%. The measured items under each dimension were aggregated according to the theoretical distribution.

Finally, the validation factor analysis (see Table 3) was conducted. Under the precondition that the CFA model of the farmer differentiation scale has a good fit, the standardized factor loadings of each question item were greater than 0.5, and the CR value of each dimension was greater than 0.7. In contrast, the AVE value was greater than 0.5. The square root of the AVE was greater than the correlation coefficients between the variables (Table 4), which indicated that the scale variables had good convergent and discriminant validity. Further, the Heterotrait–Monotrait Ratio of Correlations (HTMT) was performed, and the results are shown in Table 5, where the HTMT values between all constructs were less than the criterion of 0. 85, again indicating good discriminant validity between the constructs.

Table 3. Reliability and validity analysis results.

Variable	Indicator	Std Estimate	AVE > 0.5	CR > 0.7	Cronbach's α > 0.7
WCD	NC1	0.876	0.776	0.960	0.960
	NC2	0.876			
	PC1	0.876			
	PC2	0.886			
	FC1	0.876			
	FC2	0.889			
	FC3	0.887			
RCD	HC1	0.869	0.694	0.931	0.932
	HC2	0.855			
	SC1	0.775			
	SC2	0.766			
	MC1	0.851			
	MC2	0.875			
BA	ER1	0.931	0.880	0.967	0.967
	ER2	0.928			
	OB1	0.942			
	OB2	0.951			
SN	NB1	0.949	0.889	0.970	0.970
	NB2	0.910			
	CM1	0.964			
	CM2	0.947			
PBC	CB1	0.917	0.850	0.958	0.958
	CB2	0.934			
	PI1	0.914			
	PI2	0.923			
HD	PED	0.906	0.809	0.944	0.944
	RSD	0.904			
	PD	0.910			
	APD	0.880			
RI	RI1	0.842	0.701	0.875	0.875
	RI2	0.806			
	RI3	0.862			

Table 4. Distinct validity results.

	WCD	RCD	RI	BA	SN	PBC	HD
WCD	0.881						
RCD	0.111	0.833					
RI	0.370	0.268	0.837				
BA	0.174	0.035	0.204	0.938			
SN	0.088	0.011	0.211	0.023	0.943		
PBC	0.292	0.087	0.238	−0.010	−0.105	0.922	
HD	−0.105	−0.053	−0.172	−0.033	−0.033	−0.083	0.899

Table 5. HTMT test results.

	WCD	RCD	RI	BA	SN	PBC	HD
WCD	-						
RCD	0.119	-					
RI	0.181	0.039	-				
BA	0.091	0.023	0.024	-			
SN	0.304	0.094	0.015	0.109	-		

Table 5. *Cont.*

	WCD	**RCD**	**RI**	**BA**	**SN**	**PBC**	**HD**
PBC	0.11	0.059	0.036	0.036	0.088	-	
HD	0.404	0.295	0.222	0.229	0.26	0.189	-

4.2. Overall Model Fit Test

The goodness-of-fit indices of this measurement model are the ratio of chi-square and degrees of freedom: 1.787, RMSEA = 0.030, and GFI = 0.944, indicating that the model's fitness is acceptable. Other fit indices, CFI = 0.988, IFI = 0.988, NFI = 0.973, and TLI = 0.986, all meet the fit criteria (Table 6). Therefore, this model's fit is good.

Table 6. Model fit index.

Fitness Index	**CMIN/df**	**RMSEA**	**GFI**	**CFI**	**TLI**	**NFI**	**IFI**
Reference Value	<3	<0.05	≥0.90	≥0.90	≥0.90	≥0.90	≥0.90
Model Fit	1.787	0.030	0.944	0.988	0.986	0.973	0.988

Note: CMIN/df means chi-square freedom ratio; RMSEA represents root mean square error of approximation; GFI is goodness-of-fit index; CIF means comparative fit index; TLI denotes Tucker Lewis index; NFI is normed fit index; IFI means Incremental fit index.

4.3. Hypothesis Test

After standardizing the sample data, estimates of the coefficients for each path of the model (Figure 2) were obtained.
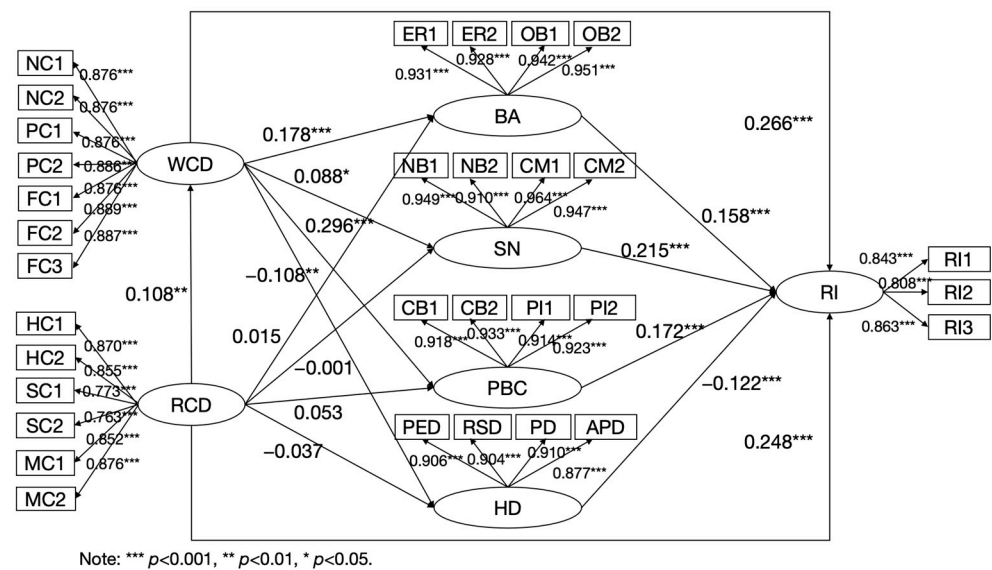

Note: *** $p < 0.001$, ** $p < 0.01$, * $p < 0.05$.

Figure 2. Results of structural equation model regression.

4.3.1. Direct Effect Test

BA ($\beta = 0.158$, $p < 0.001$), SN ($\beta = 0.215$, $p < 0.001$), and PBC ($\beta = 0.172$, $p < 0.001$) have significant positive direct effects on RI, and HD ($\beta = -0.12$, $p < 0.001$) has significant negative direct effects on RI, which verifies H1a–H1d.

There is a significant positive direct effect of WCD ($\beta = 0.266$, $p < 0.001$), RCD ($\beta = 0.248$, $p < 0.001$) on RI, and a positive direct effect of RCD ($\beta = 0.108$, $p < 0.01$) on WCD, which verifies H2a–H2c. The results of the test are presented in Table 7.

Table 7. Direct effect test results.

Hypothesis Path	Std.	Result	Hypothesis Path	Std.	Result
H1a: BA RI	0.158 ***	Supported	H2a: WCD RI	0.266 ***	Supported
H1b: SN RI	0.215 ***	Supported	H2b: RCD RI	0.248 ***	Supported
H1c: PBC RI	0.172 ***	Supported	H2c: RCD WCD	0.108 **	Supported
H1d: HD RI	−0.122 ***	Supported			

Note: ** $p < 0.05$, *** $p < 0.01$.

4.3.2. Indirect Effect Test

To further explore the influence mechanism of FD on RI, this study constructs a hypothesis model with BA, SN, PBC, and HD as mediating variables under the dimension of FC. It tests it based on the Bootstrap mediating effect test, in which the number of bootstrap samples is set to 5000, the percentile confidence interval is 95%, and when the percentile confidence interval of each path does not contain 0, indicating that the mediating effect exists. The test results are shown in Table 8.

Table 8. Indirect effect test results.

Hypothesis Path	Effect	Point Estimate	SE	Percentile 95% CI		Bias-Corrected Percentile 95% CI		p	Result
				Lower	Upper	Lower	Upper		
	Total effect	0.318	0.034	0.253	0.387	0.252	0.446	***	
	Direct effect	0.224	0.036	0.156	0.297	0.155	0.297	***	
	Total indirect effect	0.094	0.015	0.066	0.125	0.066	0.125	***	
H3a: WCD→AB→RI		0.024	0.007	0.011	0.039	0.012	0.041	***	Supported
H3b: WCD→SN→RI		0.016	0.007	0.004	0.031	0.004	0.031	**	Supported
H3c: WCD→PBC→RI		0.043	0.010	0.024	0.065	0.024	0.066	***	Supported
H3d: WCD→HD→RI		0.011	0.005	0.003	0.023	0.003	0.025	**	Supported
	Total effect	0.251	0.030	0.191	0.312	0.191	0.312	***	
	Direct effect	0.204	0.026	0.152	0.256	0.153	0.256	***	
	Total indirect effect	0.046	0.015	0.018	0.076	0.018	0.076	**	
H4a: RCD→AB→RI		0.002	0.004	−0.006	0.011	−0.006	0.011	0.607	Not supported
H4b: RCD→SN→RI		0.000	0.006	−0.012	0.012	−0.011	0.012	0.986	Not supported
H4c: RCD→PBC→RI		0.008	0.005	−0.002	0.019	−0.001	0.020	0.091	Not supported
H4d: RCD→HD→RI		0.004	0.004	−0.003	0.012	−0.002	0.013	0.218	Not supported
H5: RCD→WCD→RI		0.024	0.009	0.007	0.043	0.007	0.043	**	Supported
H6a: RCD→WCD→AB→RI		0.003	0.001	0.001	0.005	0.001	0.006	**	Supported
H6b: RCD→WCD→SN→RI		0.003	0.002	0.001	0.007	0.001	0.007	**	Supported
H6c: RCD→WCD→PBC→RI		0.003	0.001	0.001	0.005	0.001	0.006	**	Supported
H6d: RCD→WCD→HD→RI		−0.002	0.001	−0.004	0	−0.004	−0.001	**	Supported

Note: ** $p < 0.05$, *** $p < 0.01$.

(1)   Simple mediation effect.

The total effect value of WCD through BA, SN, PBC, and HD on RI is 0.318, the direct effect value is 0.224, and the indirect effect values are 0.024, 0.016, 0.043, and 0.011, respectively. The indirect effect values of the four have not passed through 0 at the 95% confidence interval, and the direct effect has not passed through 0 at the 95% confidence interval. This indicates that BA, SN, PBC, and HD all partially mediate the effect of WCD on RI, which verifies H3a–H3d. RCD affects RI through WCD; the value of the indirect effect is 0.024. The confidence interval does not pass through 0, indicating that the mediating effect is established. The corresponding 95% confidence interval for the direct effect passes through 0, indicating that WCD plays a partially mediating role in mediating the relationship between RCD and RI. H5 is established.

RCD cannot indirectly affect RI through BA, SN, PBC, and HD, where the indirect effects are 0.002, 0.000, 0.008, 0.004, respectively, and the confidence intervals of all four contain 0, i.e., H4a–H4d do not establish.

(2)   Chain mediation effect.

RCD positively affects RI to inventory through WCD and BA, WCD and SN, and WCD and PBC, with an indirect effect of 0.003, 0.003, 0.003, and a confidence interval of none of the three passing through 0. RCD negatively indirectly affects RI to inventory through WCD and HD, with an indirect effect of −0.002 and a confidence interval of none passing through 0. Therefore, H6a–H6d in this study's chain-mediated effects test are all valid.

5. Discussion

5.1. Dimensions of Farmer Differentiation

This study defines FD as a second-order factor, and the results of EFA show that WCD and RCD are accurate representations of the FD construct. Our findings are consistent with those of Liu et al., who noted that FD comprises "WCD" and "RCD" [19]. It also provides ideas for our subsequent research. The clarification of dimensions helps us understand the concept of FD and construct a system of measurement indicators to realize the measurement of the level of FD. This will help us understand the level of FD in the sample area and further explore whether there is any difference in the path of "FD–FC–RI" among farmers with different levels of differentiation.

5.2. The Formation Mechanism of Farmers' Intention to Revitalize Idle Homesteads

From the test results, the influence of the four variables on farmers' revitalization intention under the dimension of farmers' cognition is SN (0.215) > PBC (0.172) > BA (0.158) > HD (−0.122). The formation process of farmers' revitalization intention follows the path of "FC–RI", in which BA, SN, and PBC have a significant role in promoting farmers' revitalization intention, which is consistent with theoretical expectations and is also basically consistent with the empirical results of previous TPB applications in different fields [40–43]. This suggests that the TPB is also applicable to the study of the farmer's revitalization intention, further expanding the explanatory scope of TPB.

In the TPB, SN has the most significant influence on intention, mainly because the farmer is in a particular social network. Revitalized intention refers to the intention of individuals who are in the same social network as him, so revitalized intention is not only an individual behavior but also takes into account the influence of other social members [44,45].

Second, for PBC, farmers' perception of objective obstacles provides motivation for the formation of the intention to revitalize. Perception of self-efficacy provides conditions for the formation of the revitalized intention. It reduces the risk of uncertainty facing the revitalization of the homestead to promote the formation of the revitalized intention, and similar findings can be found in previous studies [46,47].

Finally, for BA, since China's moderate liberalization of the right to use the homestead, the pilot regions actively responded to the state's call to take diversified ways to revitalize

the idle homestead. Moreover, increase the publicity of the classic success stories through the TV, physical banners, and new media channels to farmers to popularize the benefits of the revitalization of the homestead. So, the farmers have more and more positive attitudes toward revitalizing the homestead and, therefore, are more willing to revitalize.

It is worth noting the significant negative effect of HD on the intention to revitalize, which implies that farmers' reluctance to revitalize idle homesteads is partly due to the group's dependence on homesteads in one or more ways. The establishment of this hypothesis validates the necessity and importance of including the variable HD in the TPB, thus increasing the TPB's explanatory power.

As a multifunctional composite space on which farmers rely for survival and development, the homestead is the center of interaction between people and land relations in rural areas, and its functional attributes have been transformed or diversified with the changes of the times and people's needs. In the planned economy period, farmers farm on collective land as the only means of survival. Farmers live in their yards and plant vegetables and livestock to meet the demand for housing, expand production as much as possible, increase the economic benefits of the homestead, and thus improve the quality of life. At this time, the function of the homestead is mainly expressed in the security of residence and auxiliary production function. Later, with the reform and opening, the function of the homestead began to transform and gradually diversified. The frequent flow of urban and rural elements made the function of the homestead gradually transformed, and the function of the property gradually came to the fore. In recent years, with the revitalization of the countryside and the construction of beautiful villages and other policies, the unique scenery and healthy environmental conditions of the countryside have attracted the public to go to the countryside for tourism, living and vacationing, and to relive childhood memories. The homestead thus shows the function of emotional support. Therefore, the higher the degree of dependence of farmers on homesteads, the greater its negative impact on the intention to revitalize.

5.3. The Effect of Farmer Differentiation on Their Intention to Revitalize Idle Homesteads

5.3.1. The Effect of WCD on RI

WCD not only directly affects RI but also positively and indirectly affects RI through BA, SN, and PBC and negatively and indirectly affects RI through HD. The logical relationship of the indirect impact is specifically expressed as WCD–BA/SN/PBC/HD–RI.

On the path of WCD–BA–RI. WCD affects the BA of farmers towards the revitalization of idle homesteads by increasing their capital endowment, which can be measured in terms of material and money. Farmers with abundant financial capital have higher incomes and savings. Farmers with abundant physical capital have more fixed assets, which is conducive to farmers' ability to cope with the revitalization risks brought about by the economic development cycle and the changes and uncertainties in the policy of revitalizing homesteads. The abundance of natural capital can satisfy the emotional dependence of farmers on their hometowns. Thus, the continuous differentiation of wealth capital implies that farmers positively evaluate the outcome of idle homesteads and are more confident in revitalizing idle homesteads. For example, farmers with more robust household savings have more opportunities for trial and error. They can better bear the costs during and after revitalization failures and are, therefore, more likely to form a positive view of the revitalization of unused homesteads due to opportunism.

Concerning WCD–SN–RI, to some extent, the ownership of wealth capital reflects the strength of the resource endowment capacity of the farmer's livelihoods. Farmers with higher wealth capital tend to be more differentiated. In the process of transferring to the city, this group of farmers is subject to local customs and conventions based on geo-bloodline vernacular society and modern social norms based on employment margins, which are intertwined and interact to varying degrees, showing a certain degree of complementary relationship.

Concerning WCD–PBC–RI, differences in wealth capital reflects, to some extent, farmers' risk tolerance and self-efficacy. Farmers with lower wealth capital are more likely to be engaged in agricultural production and less likely to be engaged in non-farming industries, which makes it difficult for them to earn higher economic returns. Low wealth capital makes farmers more worried and causes them to encounter more obstacles when facing policy, contractual, and income risks arising from the revitalization of homesteads.

Concerning WCD–HD–RI, farmers' intentions to revitalize idle homesteads is the idea of a specific situation, a psychological dynamic consciousness of farmers' continuous adaptation to a specific environment. Pure farming households and the agricultural transfer population, whose production and life centers are biased towards the countryside, do not have a stable life in the towns and cities and are more likely to return to the countryside and re-engage in agricultural production. When they return to their hometowns, they will continue to reside in their homesteads and make use of the homesteads to assist in their production. Moreover, because of urbanization, farmers' expectations of the asset value of the homestead are gradually increasing. In addition, influenced by the traditional concept of "ancestral home", farmers also have a strong psychological and emotional dependence on the homestead, and these factors have become an essential reason for hindering the formation of farmers' intention to revitalize.

Further from Figure 2, the factor loading of household savings is 0.889. Other studies have also shown that higher savings are a solid material foundation for farmers to complete the citizenship process and almost play a decisive role in the success or failure of their citizenship [16]. Therefore, the savings of farmers' households can be increased by broadening their income channels and strengthening social security.

5.3.2. The Effect of RCD on RI

RCD directly affects RI, and this conclusion is consistent with existing research conclusions [19]. RCD has a facilitating effect on WCD. However, RCD cannot influence RI through BA, SN, PBC, and HD.

However, higher RCD represents higher individual cultural level, experience, and social relationship resources to a certain extent. The revitalization of idle homesteads is only being tried in some counties (districts), and the benefits after revitalization are not well known. In order to successfully revitalize, it is impossible to accomplish it through individual strength; it also requires the cooperation of relevant interests such as village collectives and social capital. On the other hand, the reform of China's homestead system always puts the RI in the first place, whether in modern society or rural society; whether the farmers intend to revitalize or not is the key to revitalizing the idle homesteads.

This study further found the indirect effects of farmers' RCD on RI by testing the chain mediation of the model: RCD–WCD–BA–RI; RCD–WCD–SN–RI; RCD–WCD–PBC–RI; and RCD–WCD–HD–RI. Therefore, although the RCD does not directly affect FC, it indirectly affects RI to a greater extent by influencing BA, SN, PBC, and HD. This is mainly because, in the process of FD, farmers gradually learn to rationally allocate their capital, i.e., through the strategic combination of livelihood capital, to give full play to the role of reputation capital (human capital, social capital, and psychological capital) on the promotion of the WCD, which affects BA, SN, PBC, and HD. This is the rational choice of farmers under the risk environment and resource constraints, ultimately affecting RI formation.

Further from Figure 1, Mental toughness had a factor loading of 0.876, and it was most strongly related to RCD. Psychological resilience is the ability to quickly rebound and recover in the face of pressure and frustration, and stress resistance is the most direct manifestation of psychological resilience [48]. In the process of farmer differentiation, the agricultural transfer population undertakes most of the jobs in the city with complex conditions and relatively low pay, does not have the corresponding social security, and may also face conflict and unfit language and culture after moving to the city. Moreover, due to improved living standards and other factors, the new generation of farmers lacks frustration education and stress training, and their psychological tolerance is minimal.

Suppose they do not have a positive perception of the stressful events in the process of the differentiation of farmers. In that case, they will increase their psychological burden and produce many negative behaviors, thus affecting their differentiation process. Therefore, on the one hand, it is possible to guarantee the overall balance of resources by constructing an instrumental support system, such as the government's financial, policy, and information support; on the other hand, it is possible to improve the sense of well-being by building an emotional support system.

6. Conclusions and Implications

6.1. Conclusions

Our main findings are: (1) FD is multi-dimensional, including two sub-dimensions: WCD and RCD. (2) The logical relationship of "FC→RI" in TPB has been verified in the study of RI, and the inhibitory effect of HD on RI is worthy of attention. (3) Expanding the logical relationship of "FD–FC–RI" in TPB has been confirmed; in addition to the direct positive impact of WCD and RCD on RI, WCD can indirectly affect RI through FC sub-dimensions BA, SN, PBA, and HD. At the same time, the chain mediating role of WCD and FC sub-dimensions in the influence of RCD on RI should not be ignored. These findings suggest that the ETPB not only increases the theory's explanatory power but also expands its explanatory scope. It also provides the theoretical basis and empirical evidence for policymakers. In addition, more extended models can be developed for rural land consolidation and reuse in other countries based on this conceptual framework.

6.2. Implications

(1)   Based on the logical relationship of "FC → RI".

Policymakers can enhance FC from the following four aspects:

First, regarding BA, on the one hand, the government can explore successful cases of revitalization, benchmark farmers, increase publicity efforts, and broaden publicity channels to cultivate farmers' confidence in the prospects of revitalizing homesteads. On the other hand, it is necessary to regulate the relevant laws and regulations on homestead revitalization strictly, focus on the difficulties of homestead revitalization, and enhance farmers' confidence in the prospects of homestead revitalization.

Second, regarding SN, the government can increase the support of significant others, especially friends and relatives, by increasing incentives for homestead revitalization, reducing the pitfalls of homestead revitalization, and protecting the legal rights of farmers. For example, the village collective economic organization-led revitalization expanded the proportion of farmer benefits.

Third, regarding PBC, the government can enhance farmers' ability to bear the risks of revitalization by focusing on strengthening farmers' understanding of policies and employment training, improving the rural social security system, and improving the communication and dispute coordination mechanisms of the main parties involved in revitalization.

Fourth, regarding the HD, the government should focus on farmers' property dependence on homesteads, appropriately raise the standard of subsidies within the scope of conditions or increase the proportion of the distribution of homestead revitalization proceeds to farmers so that they can share more of the fruits of reform and development.

(2)   Based on the logical relationship of "FD→FC→RI".

FD will be the future trend of rural social development in the context of urbanization; the ability of farmers in the commodity market and the status of social interaction will continue to produce differences. In this case, farmers with different levels of differentiation will have different perceptions of the revitalization of homesteads, so the more deeply differentiated farmers are more willing to revitalize unused homesteads. For example, deeply differentiated farmers are less land-dependent and have more resources and social status, so the more deeply differentiated farmers are more willing to revitalize unused homesteads. Therefore, in addition to guiding farmers to form a proactive cognition on the

revitalization of idle homesteads, governments should also start by improving the level of farmer differentiation:

First, to help farmers accumulate wealth capital, the government should give more policy encouragement and financial support to rural areas and farmers. For example, it could reduce interest rate subsidies and other ways to enhance the entrepreneurial capacity of farmers, attract investment to attract social capital to develop rural industries to enhance rural infrastructure, and provide free education for children, health insurance, housing subsidies, and retirement benefits for the agricultural transfer population and for farmers who have been citizens, etc.

Second, to increase farmers' reputation capital, the government should promote reforms to equalize public services, such as providing vocational and technical training for farmers to improve their off-farm employability, breaking down barriers to social welfare entitlement, and providing equalized social services for farmers to enhance the sense of belonging of migrant farmers and agricultural migrants, etc.

The marginal contributions of this study include (1) following the pace of reform to pay attention to the intention of farmers to revitalize idle homesteads. (2) Theoretically explore the internal dimensions of FD based on the social stratification theory and verify it by EFA. (3) Expanding TPB by using the social stratification theory and the SOR theory to construct the analytical framework of "FD–FC–RI", which provides a detailed analysis of the overall and multi-dimensional relationship between the FD and RI.

However, our study has the following potential limitations: First, this study uses cross-sectional data, which only focuses on the static relationship between variables. Second, although intention can determine behavior to a certain extent, behavioral intention cannot fully represent behavior. Third, in addition to the differentiation of farmer, there may also be other social and economic variables that have an impact on the intention of farms to revitalize and their behavior. Examples include family life cycles and generational differences. Future research can use panel data and a broader research framework to conduct in-depth research on farmers' intentional behavior to revitalize.

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Appendix A

Table A1. Exploratory factor analysis results.

Latent Construct	Indicator	Component 1	Component 2	Component 3	Component 4
FD	FC2	0.902			
	FC3	0.902			
	PC2	0.901			
	FC1	0.895			
	PC1	0.894			

Table A1. *Cont.*

Latent Construct	Indicator	Component 1	Component 2	Component 3	Component 4
FD	NC2	0.894			
	NC1	0.893			
	MC2		0.890		
	HC1		0.884		
	HC2		0.873		
	MC1		0.871		
	SC1		0.829		
	SC2		0.821		
	Cumulative (%)	43.531	77.959		
FC	CM1	0.967			
	CM2	0.96			
	NB1	0.958			
	NB2	0.938			
	ER2		0.948		
	OB2		0.960		
	OB1		0.956		
	ER1		0.950		
	CB2			0.947	
	PI2			0.94	
	CB1			0.938	
	PI1			0.935	
	PD				0.931
	PED				0.928
	RSD				0.926
	APD				0.912
	Cumulative (%)	22.929	45.689	67.885	89.313

Appendix B

Table A2. Glossary of terms.

Abbreviations	FD	FC	RI
detail	farmer differentiation	farmer cognition	revitalization intention
Abbreviations	WCD	RCD	BA
detail	wealth capital differentiation	Reputation capital differentiation	behavioral attitude
Abbreviations	SN	PBC	HD
detail	subjective norms	perceived behavioral control	homestead dependence

References

1. Randolph, G.; Storper, M. Is urbanization in the Global South fundamentally different? Comparative global urban analysis for the 21st century. *Urban Stud.* **2023**, *60*, 3–25. [CrossRef]
2. Lu, M.; Guo, B.; Chen, G.; Yuan, L.; Xing, R.; Huang, Y. A Study on the Factors Influencing farmers' Intention to Revitalize Idle homesteads on Improved TPB Framework—Analysis of the Moderating Effect of farmer Differentiation. *Sustainability* **2022**, *14*, 15759. [CrossRef]
3. Southern Weekend. A Draft that Has Been Terminated: Intended to Break through the Civil Code, Concerning the Reform of Residential Land [EB/OL]. 2024. Available online: https://new.qq.com/rain/a/20240902A096LL00 (accessed on 9 September 2024).
4. Li, M.; Feng, Y.; Tang, P. A Study on the Factors Affecting the Satisfaction of Villagers Quitting from Rural Homesteads—Based on the Survey Data of Typical Areas in Sichuan Province. *West Forum* **2019**, *29*, 45–54.
5. Zhang, Y.; Torre, A.; Ehrlich, M. Governance Structure of Rural Homestead Transfer in China: Government and/or Market? *Land* **2021**, *10*, 745. [CrossRef]
6. Zhang, Y.; Zhou, J.; Lu, P. The theory and practice of revitalizing and utilizing idle rural homestead in the context of rural revitalization–a study based on two cases in Anhui Province. *Agric. Econ. Issues* **2022**, *4*, 96–106.
7. Shan, Z.; Feng, C. The redundancy of homestead in rural China: The evolution process, status, and policy implications. *Land Use Policy* **2018**, *74*, 179–186. [CrossRef]

8.   Zhang, C.; Peng, C.; Kong, X. The evolutionary logic, historical evolution and future outlook of farmer differentiation. *Reform* **2019**, *2*, 5–16.

9.   Wynne, L.; Ruoso, L.E.; Cordell, D.; Jacobs, B. 'locationally disadvantaged': Planning governmentalities and peri-urban agricultural futures. *Aust. Geogr.* **2020**, *51*, 377–397. [CrossRef]

10. Ghosh, S.; Chifos, C. The 1985 siting of a Toyota manufacturing plant in rural Kentucky, USA: The ensuing land use change and implications for planning. *Landsc. Urban Plan.* **2017**, *167*, 288–301. [CrossRef]

11. Bittner, C.; Sofer, M. Land use changes in the rural–urban fringe: An Israeli case study. *Land Use Policy* **2013**, *33*, 11–19. [CrossRef]

12. Munton, R. Rural land ownership in the United Kingdom: Changing patterns and future possibilities for land use. *Land Use Policy* **2009**, *26*, S54–S61. [CrossRef]

13. Baldwin, C.; Hamerlinck, J.; McKinlay, A. Institutional support for building resilience within rural communities characterized by multifunctional land use. *Land Use Policy* **2023**, *132*, 106808. [CrossRef]

14. De, W. Land use planning: A key to sustainable agriculture. In *Conservation Agriculture*; Springer: Dordrecht, The Netherlands, 2003; pp. 471–483. [CrossRef]

15. Chen, Y.; Ni, X.; Liang, Y. The Influence of External Environment Factors on farmers' Willingness to Withdraw from Rural Homesteads: Evidence from Wuhan and Suizhou City in Central China. *Land* **2022**, *11*, 1602. [CrossRef]

16. Zhang, T.; Li, J.; Wang, Y. Effects of Livelihood Capital on the farmers' Behavioral Intention of Rural homesteads Development Right Transfer: Evidence from Wujin District, Changzhou City, China. *Land* **2023**, *12*, 1207. [CrossRef]

17. Zou, W.; Wang, Z.; Xu, B.; Zhang, B. Study on the impacts of rural household differentiation on the rural homesteads exit: Based on the empirical research of 1456 rural households in Jiangsu Province. *China Land Sci.* **2017**, *31*, 31–37.

18. Liu, R.; Yu, C.; Jiang, J.; Huang, Z.; Jiang, Y. farmer differentiation, generational differences and farmers' behaviors to withdraw from rural homesteads: Evidence from Chengdu, China. *Habitat Int.* **2020**, *103*, 102231. [CrossRef]

19. Liu, L.; Zhang, Y. The Impact Mechanism of Rural Social Strata on Their Land Transfer Behavior: Based on the Mediation Effect of Rural Land Dependence. *Resour. Sci.* **2023**, *44*, 2525–2539.

20. Gan, C.; Tan, Y.; Chen, L. The Impact of farmer's Cognition on farmer land Transfer Intention Based on TPB Framework. *Chinas Popul. Resour. Environ.* **2018**, *28*, 152–159.

21. Ajzen, I.; Madden, T. Prediction of goal-directed behavior: Attitudes, intentions, and perceived behavioral control. *J. Exp. Soc. Psychol.* **1986**, *22*, 453–474. [CrossRef]

22. Ajzen, I. Theory of planned behavior. *Organ. Behav. Hum. Decis. Process.* **1991**, *50*, 179–211. [CrossRef]

23. Elahi, E.; Zhang, H.; Lirong, X.; Khalid, Z.; Xu, H. Understanding cognitive and socio-psychological factors determining farmers' intentions to use improved grassland: Implications of land use policy for sustainable pasture production. *Land Use Policy* **2021**, *102*. [CrossRef]

24. Perren, K.; Yang, L. Psychosocial and behavioural factors associated with intention to save water around the home: A Greek case study. *Procedia Eng.* **2015**, *119*, 1447–1454. [CrossRef]

25. La Barbera, F.; Amato, M.; Sannino, G. Understanding consumers' intention and behaviour towards functionalised food: The role of knowledge and food technology neophobia. *Br. Food J.* **2016**, *118*, 885–895. [CrossRef]

26. Yazdanpanah, M.; Hayati, D.; Hochrainer-Stigler, S.; Zamani, G.H. Understanding farmers' intention and behavior regarding water conservation in the Middle-East and North Africa: A case study in Iran. *J. Environ. Manag.* **2014**, *135*, 63–72. [CrossRef] [PubMed]

27. Liu, T.; Niu, L. Rural-household differentiation, willingness of land usufruct abdication and farmers' choice preference. *China Popul. Resour. Environ.* **2014**, *24*, 114–120.

28. Lin, C.; Liang, F. Empowerment Practice and Revitalization Path of Rural Homestead Land under the "Three Rights Separation": An Empirical Analysis Based on Typical Villages in Jinjiang City. *J. Northwest AF Univ. Soc. Sci. Ed.* **2023**, *23*, 67–76.

29. Zhou, J. The willingness, obstacles, and reform focus analysis of the active utilization of idle rural homesteads. *J. Huazhong Agric. Univ. Soc. Sci. Ed.* **2022**, *6*, 145–154.

30. Zhang, Y. Realistic obstacles and solutions to the active utilization of idle homesteads under the strategy of rural revitalization. *J. Hehai Univ. Philos. Soc. Sci. Ed.* **2020**, *22*, 61–67+108.

31. Wang, M.; Li, M.; Jin, B.; Yao, L.; Ji, H. Does livelihood capital influence the livelihood strategy of herdsmen? Evidence from western China. *Land* **2021**, *10*, 763. [CrossRef]

32. He, Y.; Li, W. The impact of livelihood capital on sustainable livelihood capacity of farmers: Evidence from Yunnan Province, China. *Appl. Econ. Lett.* **2024**, 1–6. [CrossRef]

33. Guo, B.; Yuan, L.; Lu, M. Analysis of influencing factors of farmers' homestead revitalization intention from the perspective of social capital. *Land* **2023**, *12*, 812. [CrossRef]

34. Lan, Y.; Jiang, Y.; Du, Z. A Study on the Renewal Intention and Influencing Factors of farmers Transferring Land to Family farmer. *Chinas Rural. Econ.* **2020**, *1*, 65–85.

35. Japutra, A.; Loureiro, S.; Molinillo, S.; Ekinci, Y. Travelers' mindsets and theory of planned behavior. *Tour. Manag. Perspect.* **2019**, *30*, 193–196.

36. Sun, H.; Zhang, Q.; Guo, W.; Lin, K. Hikers' pro-environmental behavior in national park: Integrating theory of planned behavior and norm activation theory. *Front. For. Glob. Chang.* **2002**, *5*, 1068960. [CrossRef]

37. Zhong, J.; Liu, S.; Huang, M.; Cao, S.; Yu, H. Driving forces for the spatial reconstruction of rural settlements in mountainous areas based on structural equation models: A case study in western China. *Land* **2021**, *10*, 913. [CrossRef]

38. Shaanxi Daily. Statistical Bulletin on National Economic and Social Development of Shaanxi Province in 2023 [EB/OL]. 2024. Available online: http://www.shaanxi.gov.cn/xw/sxyw/202403/t20240326_2324079.html (accessed on 9 September 2024).

39. Yu, B.; Wang, J.; Liao, Y.; Wu, H.; Wong, A. Determinants Affecting Purchase Willingness of Contractors towards Construction and Demolition Waste Recycling Products: An Empirical Study in Shenzhen, China. *Int. J. Environ. Res. Public Health* **2021**, *18*, 4412. [CrossRef]

40. Matović, B.; Petrović, A.; Damjanović, M.; Bulajić, A.; Ilić, V. Socio-Cognitive Determinants of Pedestrians' Intention to Cross on a Red-Light Signal: An Application of the Theory of Planned Behavior. *Safety* **2024**, *10*, 33. [CrossRef]

41. Casaca, J.; Loureiro, A. The determinants of non-consumption of disposable plastic: Application of an extended theory of planned behavior. *Int. J. Bus. Environ.* **2024**, *15*, 87–116. [CrossRef]

42. Puzzo, G.; Prati, G. Psychological correlates of e-waste recycling intentions and behaviors: A meta-analysis. *Resour. Conserv. Recycl.* **2024**, *204*, 107462. [CrossRef]

43. Huo, H.; Chen, J.; Li, W. Applying Ecotourism Knowledge and Destination Image in Planned Behavior Theory in Ecotourism. *Pol. J. Environ. Stud.* **2024**, *33*, 685–695. [CrossRef]

44. Wang, H.; Zhang, L. Research on farmers' Low-Carbon Production Behavior: Introducing Green Cognition into the Theory of Planned Behavior. *Pol. J. Environ. Stud.* **2024**, *33*, 873–884. [CrossRef] [PubMed]

45. Hwang, S.; Lee, J.; Jang, D. Climate Change Awareness and Pro-Environmental Intentions in Sports Fans: Applying the Extended Theory of Planned Behavior Model for Sustainable Spectating. *Sustainability* **2024**, *16*, 3246. [CrossRef]

46. Abdoulaye, D.; Yin, P.; Shi, Q. Influencing the Mechanism of Tourists' Choice of Green Transportation Modes—A Case Study of Beijing, China. *Sustainability* **2024**, *16*, 2350. [CrossRef]

47. Mir, M.; Briscoe, M.; Sohrabi, M. Waste separation behavior in Iran: An empirical test of the theory of planned behavior using SEM. *J. Mater. Cycles Waste Manag.* **2024**, *26*, 1042–1055.

48. Wang, S.; Wang, Y.; Zhao, L. Effects of Psychological Resilience on Online Learning Performance and Satisfaction Among Undergraduates: The Mediating Role of Academic Burnout. *Asia-Pac. Educ. Res.* **2024**, 1–15. [CrossRef]