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# Is a Rural Entrepreneurial Ecosystem Conducive to the Improvement of Entrepreneurial Performance? Evidence from Typical Counties of Rural Entrepreneurship and Innovation in China

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**Abstract:** Rural entrepreneurship is an important means to solve the problem of "rural decline" and is also the focus of the "rural revitalization" strategy. The rural entrepreneurship ecosystem directly affects entrepreneurial performance. Based on the configurational perspective, using the fuzzy-set qualitative comparative analysis (fsQCA) method, taking 85 typical rural innovation and entrepreneurship demonstration counties in China as research samples, this study explores the impact path of the rural entrepreneurship ecosystem composed of multiple factors on entrepreneurial performance and the complex causal mechanisms behind it. The results show that market size, human capital, financial capital, infrastructure (both hardware and software), and government scale cannot individually constitute the necessary conditions for high or non-high rural entrepreneurial performance; there exist two pathways driving high entrepreneurial performance in rural areas: a market-driven financing-and-intelligence integration pathway and a government-supported infrastructure-assisted pathway. Under certain conditions, there is a substitution relationship between rural entrepreneurial market allocation and government intervention; there are two paths driving non-high rural entrepreneurial performance, which are summarized into market–financing suppression and market–government suppression according to the core driving factors. By systematically analyzing the impact of the rural entrepreneurial ecosystem on entrepreneurial performance, and explaining the intrinsic logic and path of high and non-high entrepreneurial performance based on the configurational perspective, this paper provides a decision-making reference for further enhancing the entrepreneurial performance in rural China and realizing rural revitalization.

**Keywords:** rural entrepreneurship; entrepreneurial ecosystem; entrepreneurial performance; configurational effects; fsQCA

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## 1. Introduction

Industrial prosperity is a critical component of rural revitalization and serves as the fundamental prerequisite for addressing rural challenges [1]. Rural industries, rooted in county-level areas, leverage agricultural and rural resources with farmers as primary stakeholders. These industries follow an integrated development path across primary, secondary, and tertiary sectors, characterized by distinct regional features, active innovation, and diverse business models. They play a crucial role in modernizing agriculture,

fostering rural prosperity, and enhancing farmers' economic well-being. Recent improvements in the rural entrepreneurial ecosystem have catalyzed the emergence of returning and migrating entrepreneurs. These individuals have introduced high-quality resources, including modern technologies, production methods, and management concepts, into rural areas. Consequently, they have activated urban–rural production factors, boosted farmers' employment and income, and contributed to shared prosperity, thereby invigorating rural industrial revitalization. Nevertheless, rural entrepreneurship faces numerous constraints in sustainable development due to limitations in foundational infrastructure and conditions. These challenges manifest primarily as a low-skilled rural workforce, stringent land-use restrictions for entrepreneurial activities, financial barriers, and inadequate infrastructure [2]. To address these issues, China established the Rural Revitalization Bureau and issued the "Implementation Opinions on Further Supporting Migrant Workers' Employment and Entrepreneurship". This initiative emphasizes accelerating rural entrepreneurship, reinforcing pilot demonstrations, identifying exemplary cases, diversifying income streams, and effectively aligning poverty alleviation achievements with rural revitalization efforts.

Since 2018, China has initiated the development of model counties for rural entrepreneurship and innovation nationwide, aiming to optimize the rural innovation and entrepreneurship environment and promote rural entrepreneurial performance. However, rural areas can hardly improve entrepreneurial performance by relying on a single factor; they need to effectively coordinate various entrepreneurial elements such as resources, talent, and markets. Therefore, there exist interactive relationships and combinatorial effects among rural entrepreneurial ecosystem elements. The entrepreneurial ecosystem theory provides a new perspective for comprehensively understanding the interactions among entrepreneurial elements, emphasizing that the improvement of entrepreneurial performance is a process of continuous accumulation, adjustment, and optimization of elements such as resources, talent, and markets within the entrepreneurial ecosystem. Based on the objective fact that entrepreneurial elements are unevenly distributed among rural areas, entrepreneurial ecosystems in different rural areas are inevitably diverse, resulting in distinctly different outcomes when these ecosystem elements jointly influence entrepreneurial performance.

In research on regional entrepreneurial ecosystems and entrepreneurial performance, the existing literature primarily focuses on the relationship between entrepreneurial performance and larger-scale national entrepreneurial ecosystems [3], urban entrepreneurial ecosystems [4], and entrepreneurial ecosystems in the technology industry [5] led by governments and core enterprises. The research findings are applicable to urban entrepreneurship, corporate entrepreneurship, and high-tech entrepreneurship domains, with the explained logic of entrepreneurial performance improvement having its own specific boundary characteristics, such as advantages in resource acquisition and innovation development at specific locations [6]. The limited literature on rural entrepreneurial ecosystems typically employs statistical analysis methods like panel data regression, multiple and hierarchical regression, and stochastic frontier models, focusing on linear relationships between single elements in rural entrepreneurial ecosystems (such as institutional support [7], entrepreneurial marketing [8], and entrepreneurial self-efficacy [9]) and rural entrepreneurial performance. This approach overlooks the fact that interdependence and synergistic interaction among various elements are key to achieving value creation and maximizing overall system benefits. Notably, in recent years, some scholars have attempted to construct rural entrepreneurial ecosystem frameworks from a regional development perspective, incorporating elements such as government regulation, entrepreneurial education, and market environment to deconstruct the pathways to entrepreneurial performance [10]. While these studies emphasize the synergistic complementarity of elements, they tend to overlook the prevalent substitutional relationships between elements. In fact, when one element is missing, the presence of other elements might effectively compensate for this deficiency, achieving similar results through alternative pathways. However, questions remain about which elements have substitutional relationships with each other and how

these substitute elements function. These issues warrant further investigation. Encouragingly, qualitative comparative analysis, based on set theory thinking and using Boolean algebra calculations, has become an important method for studying complex dynamic entrepreneurial ecosystems by focusing on the 'configurational effects' of multiple factors and revealing different pathways to achieving equivalent results [11].

In summary, based on the fuzzy-set qualitative comparative analysis (fsQCA) method and drawing from entrepreneurial ecosystem theory, we propose a configurational analysis framework to study rural entrepreneurship performance. Using a sample of 100 typical counties of entrepreneurship and innovation first announced by China's Ministry of Agriculture and Rural Affairs, we explore the complex causal relationships between rural entrepreneurial ecosystems and entrepreneurial performance. This study aims to address the following questions: What elements constitute the rural entrepreneurial ecosystem? What types of rural entrepreneurial ecosystems produce high versus non-high entrepreneurial performance? Do substitutional relationships exist among different entrepreneurial ecosystem elements and their combinations?

Distinguishing it from existing research, this paper attempts to make breakthroughs in three aspects: First, based on entrepreneurial ecosystem theory and considering China's unique institutional arrangements, we construct a regional and systematic rural entrepreneurial ecosystem model. Second, we clarify the complex causal mechanisms between rural entrepreneurial ecosystems and entrepreneurial performance, while revealing the complementary and substitutional relationships among rural entrepreneurial elements. Third, using rural entrepreneurial activities in the first batch of 100 typical counties of entrepreneurship and innovation announced by China's Ministry of Agriculture and Rural Affairs as case studies, we advance entrepreneurship and innovation research at the regional level.

The rest of this paper is structured as follows. The second section integrates six major elements of the rural entrepreneurial ecosystem and elaborates on the complex causal relationships between rural entrepreneurial ecosystems and entrepreneurial performance from a theoretical perspective. The third section introduces the research methodology, sample selection, and variable choices, while the fourth section processes the data using fsQCA software and analyzes the results. The final section discusses the conclusions, implications, and limitations of this study and directions for future research.

## 2. Theoretical Foundation and Model Construction

The concept of regional entrepreneurial ecosystems stems from Spilling's (1996) entrepreneurial ecosystem theory, which adopts an ecological perspective to analyze regional entrepreneurial activities and processes. This approach views all factors affecting entrepreneurial performance as an organic system [12]. Due to the complex scientific characteristics of entrepreneurial ecosystems, academia has not yet reached complete consensus on its connotation but generally agrees that an entrepreneurial ecosystem is an organic system composed of entrepreneurial entities and the environment that provides conditions for their development. Dunn (2005) constructed an entrepreneurial ecosystem based on dozens of MIT projects, featuring bidirectional communication between student entrepreneurs and external enterprises in collaboration with internal role models [13]. Ghio et al. (2015) pointed out, based on the knowledge spillover theory of entrepreneurial ecosystems, that accessible hardware facilities can promote the exchange and collision of entrepreneurs' ideas and knowledge, serving as a crucial component of the entrepreneurial ecosystem [14]. Through literature analysis, Adner (2017) deconstructed the connotation of entrepreneurial ecosystems, arguing that market size significantly impacts economic development and employment [15]. Noelia, using a horizontal mixed analysis model of 4319 Spanish companies, found that among 911 startups, a well-developed entrepreneurial ecosystem in the company's location significantly reduced barriers to enterprise creation, and discovered that financial support within the ecosystem had significant priority in maintaining startup vitality [16]. In summary, existing scholars have identified the market, capital, and facilities as essential components of entrepreneurial ecosystem elements. Mean-

while, institutional theory suggests that institutions, as structures and activities that provide stability and meaning through regulatory, normative, and cognitive dimensions, are key environmental components [17]. In China's dual-track system of macro-control and market regulation, government arrangements significantly influence entrepreneurial ecosystems, primarily through implementing targeted policies to support or restrict regulatory forces that adjust the entire ecosystem. Therefore, it is necessary to incorporate policies into the entrepreneurial ecosystem.

Based on the above analysis, this study categorizes rural entrepreneurial ecosystem elements into four dimensions: market, capital, facilities, and policies. The market dimension primarily encompasses local demand, with market scale attracting significant attention from entrepreneurship scholars due to its impact on economic development and employment. The capital dimension comprises both human capital, providing intellectual support for entrepreneurial activities, and financial capital, offering crucial funding. In terms of facilities, traditional infrastructure mainly includes hardware facilities such as transportation and recreational spaces. With the proliferation of digital infrastructure in rural areas, information infrastructure like internet and 5G base stations has provided informational and platform conditions for entrepreneurship, enhanced credit accessibility, significantly improved entrepreneurs' motivation [18], and notably promoted rural entrepreneurial performance [19]. Among these, digital infrastructure supporting key technologies such as cloud computing and big data is considered the most crucial software facility in the digital economy era. The policy dimension primarily refers to the institutional arrangements implemented across various regions that either facilitate or impede entrepreneurial activities. In China's government-regulated economy, the scale of government expenditure is viewed as an effective indicator of regional differences in taxation and public service policies. Considering these factors and the unique characteristics of rural entrepreneurship, we propose an integrated framework comprising six key elements of the rural entrepreneurial ecosystem: market scale, human capital, financial capital, hardware facilities, software facilities, and government scale. Through this framework, we aim to elucidate the complex causal relationships between the rural entrepreneurial ecosystem and entrepreneurial performance.

(1) Market scale. A substantial market scale fosters the development of diverse and personalized product and service demands, creating high-value entrepreneurial opportunities for nascent businesses [12]. In the context of rural entrepreneurship, the market's pivotal role in resource allocation is accentuated due to constraints such as urban–rural economic dualism, price distortions, and supply–demand imbalances. Consequently, the influence of market size on rural entrepreneurial performance has become increasingly pronounced. Larger markets typically signify higher regional demand, potentially enhancing the success rate of rural entrepreneurial ventures. Moreover, rural entrepreneurs tend to gravitate towards more expansive demand markets, as these reflect favorable economic conditions conducive to business survival and growth. This environment enables potential entrepreneurs to better identify opportunities and encourages rural entrepreneurs to engage more actively in innovative and entrepreneurial pursuits [20].

(2) Human capital. As the cornerstone of a company's intellectual assets, human capital is an essential component in business development [21]. The human capital theory, particularly its concepts of educational productivity and resource allocation capacity, provides a crucial theoretical framework for understanding and evaluating rural entrepreneurial performance. Entrepreneurs with higher educational attainment typically demonstrate enhanced abilities in resource acquisition, processing, and integration. This proficiency enables them to better identify and exploit entrepreneurial opportunities, gaining temporal competitive advantages that ultimately boost their entrepreneurial income and performance [22]. Furthermore, high-quality human capital fosters a greater proportion of innovative entrepreneurial ventures, mitigates disparities arising from variations in the quantity and allocation of scarce resources (such as knowledge) [23], and minimizes com-

munication costs. These factors collectively contribute to the positive promotion of rural entrepreneurial performance.

(3) Financial capital. A robust financial capital environment enhances entrepreneurs' access to financing, thereby increasing the success rate of entrepreneurial ventures and, consequently, promoting entrepreneurial performance [24]. During the nascent stages of entrepreneurship, activities such as new product development and market exploration necessitate substantial financial resources. Rural entrepreneurs, in particular, encounter more acute financing challenges compared to their urban counterparts [25]. This disparity primarily stems from the relatively underdeveloped economies in rural areas, which result in less sophisticated capital markets and less stable financial ecosystems. The underdevelopment of direct financing methods, such as equity and debt financing, further constrains rural entrepreneurs' access to capital. In this context, the availability of adequate regional financial services becomes crucial in facilitating the survival and growth of rural entrepreneurial enterprises, thus significantly influencing entrepreneurial success and performance.

(4) Hardware facilities. Well-developed infrastructure plays a crucial role in reducing operational and transaction costs for businesses, significantly influencing entrepreneurs' location decisions [26]. In the context of rural entrepreneurship, enhanced infrastructure markedly improves the connectivity between rural areas and markets, facilitating the mobility of high-end production factors and fostering the agglomeration of high-quality entrepreneurial ventures in favorable rural environments. Moreover, as the value placed on time efficiency increases, robust infrastructure becomes instrumental in attracting and retaining skilled individuals, such as migrant workers and college graduates, to engage in rural entrepreneurial activities. This influx of human capital contributes substantially to the enhancement of rural entrepreneurial performance.

(5) Software facilities. The maturation of next-generation information technology has catalyzed a shift in rural and agricultural informatization, transitioning from isolated applications of individual technologies to comprehensive, large-scale implementations of multiple technologies. Scholars are increasingly examining how emerging digital technologies and the internet enhance rural entrepreneurial ecosystems and influence entrepreneurial performance [27]. The development of rural entrepreneurial and innovative software infrastructure, exemplified by digital village initiatives, confers significant advantages in resource information acquisition and opportunity identification, thereby expanding business prospects and boosting productivity for entrepreneurs [28]. Moreover, the persistent urban–rural dichotomy has historically resulted in an information disparity, with rural areas often lagging behind urban centers in information access. Digital technology, leveraging its capacity for rapid and cost-effective information dissemination, substantially narrows this urban–rural information gap. Through digital networks, entrepreneurs can promptly access national policies and market intelligence, acquire essential entrepreneurial skills, and identify business opportunities, ultimately enhancing their entrepreneurial performance.

(6) Government scale. The extent of governmental involvement in economic activities is reflected in its scale, with ongoing academic debate regarding the optimal size of government for fostering entrepreneurial performance [29]. While a larger government typically offers enhanced services to entrepreneurial ventures, facilitating market entry and supporting business development, it also presents potential drawbacks. Government operations often necessitate the reallocation of resources from productive sectors to less economically efficient ones, potentially leading to unwarranted market interventions that impede market freedom and discourage entrepreneurial initiatives [30]. This interference can significantly impact entrepreneurial outcomes. In the context of China's pronounced urban–rural productivity disparity, policies encouraging return migration for rural entrepreneurship exhibit both foresight and counter-market characteristics. Consequently, governmental and institutional factors play a crucial role in underpinning, safeguarding, and enhancing rural entrepreneurial performance, ultimately contributing to rural revi-

talization [31]. This nuanced interplay between government scale and entrepreneurial ecosystems underscores the complexity of fostering effective rural development strategies.

In conclusion, rural entrepreneurship is driven by several critical factors: market scale, human capital, financial capital, hardware facilities, software facilities, and government scale. However, the relationships between these factors and entrepreneurial performance extend beyond simple linear correlations, encompassing complex non-linear interactions. Furthermore, the symbiotic and competitive dynamics among these elements may induce non-linear effects on entrepreneurial outcomes. Consequently, the synergistic mechanisms through which the components of the rural entrepreneurial ecosystem drive performance remain an open area of inquiry. Adopting a configurational perspective, this study integrates six key antecedent conditions of the rural entrepreneurial ecosystem to elucidate the collaborative mechanisms and interactive relationships among these elements in driving entrepreneurial performance. Figure 1 presents the theoretical model underpinning this investigation.

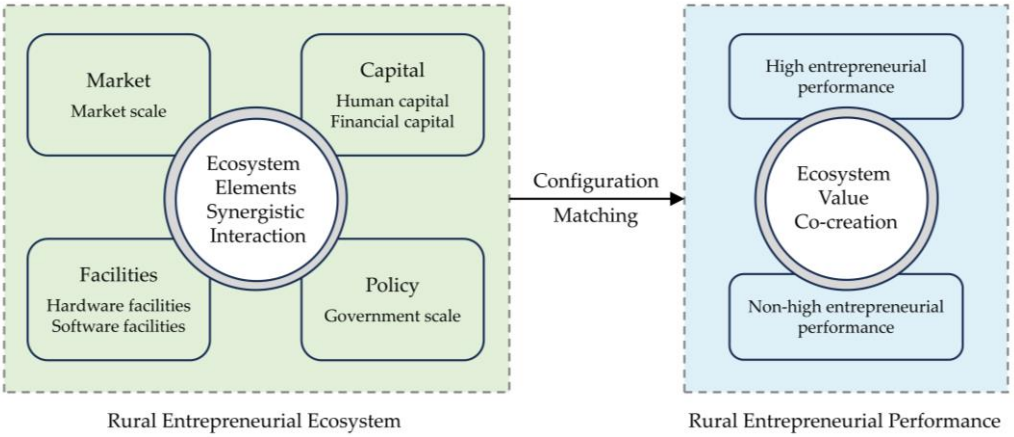


**Figure 1.** Theoretical model of rural entrepreneurial ecosystem driving entrepreneurial performance.

## 3. Research Method and Design

### *3.1. Research Method*

Qualitative comparative analysis (QCA), introduced by Ragin in the 1980s [32], is a case-oriented methodological approach. It employs Boolean algebra and set theory as its foundational principles to facilitate comprehensive case comparison and analysis. QCA possesses unique advantages in analyzing non-linear relationships for several reasons. First, based on set theory rather than traditional correlation coefficients, QCA employs Boolean algebra for analysis, enabling it to transcend the limitations of linear analysis by focusing on combinations of conditions rather than linear effects of single variables [32]. Second, through a multiple configurational perspective, QCA acknowledges that multiple paths can lead to the same outcome; this recognition of equifinality helps identify complex causal relationship patterns. Third, QCA can analyze combinatorial effects, recognizing that interactions exist between conditions, where the effect of one condition depends on the presence or absence of others, thus breaking the assumption of variable independence in traditional linear analysis. These characteristics make QCA a powerful tool for studying complex social phenomena, particularly advantageous in research requiring understanding of non-linear relationships and multiple causal pathways [33], which precisely suits the research questions of this paper. Specifically, (1) the driving force of rural entrepreneurial ecosystems on entrepreneurial performance results from the synergistic interaction and joint effect of multiple elements. Traditional linear regression struggles to analyze the impact of three or more elements on dependent variables, whereas QCA can identify combinatorial relationships among multiple elements, effectively handling the non-linear relationships between entrepreneurial elements and performance. (2) Unlike clustering analysis, factor analysis, and other methods for testing configurational

relationships, QCA can effectively identify interactive relationships between conditions, helping to uncover potential substitutional and complementary relationships among rural entrepreneurial elements. (3) QCA can both precisely locate cases covered by each equivalent configuration, identifying potential differences in entrepreneurial strategy choices across different rural areas, and compare asymmetric antecedents of high versus non-high rural entrepreneurial performance. This helps develop a more comprehensive and in-depth understanding of rural entrepreneurship complexity, providing verified, targeted, and adaptive pathways for improving entrepreneurial performance across different rural areas.

Based on the method of variable valuation, QCA can be classified into three types: crisp-set QCA (csQCA), multi-value QCA (mvQCA), and fuzzy-set QCA (fsQCA). For this study, fsQCA was selected as the primary research method due to its capacity to handle continuous data and its ability to analyze issues pertaining to gradual changes or partial set membership [34]. In fsQCA, the causal relationship between antecedent conditions (and their combinations) and the outcome is evaluated using two key metrics: consistency and coverage. The mathematical expressions for these indicators are presented as follows:

$$consistency(X \leq Y) = \sum \min(x_i, y_i) / \sum x_i, \quad (1)$$

$$coverage(X \leq Y) = \sum \min(x_i, y_i) / \sum y_i, \quad (2)$$

In Equations (1) and (2), $X$ denotes the set of antecedent conditions, while $Y$ represents the outcome set. The variables $x_i$ and $y_i$ indicate the membership degrees of the *i-th* case in combinations $X$ and $Y$, respectively. Conventionally, a consistency value exceeding 0.800 suggests that the condition can be considered sufficient for the outcome [35], whereas a consistency value greater than 0.900 implies that the condition is necessary for the outcome to occur [36,37]. Coverage, on the other hand, is employed to evaluate the explanatory power of a specific condition configuration with respect to the outcome.

### *3.2. Sample Selection*

In recent years, the Chinese government has vigorously promoted rural innovation and entrepreneurship in alignment with the goal of rural industrial revitalization. Therefore, our focus is on entrepreneurial phenomena in rural China. China established the National Typical Counties for Rural Entrepreneurship and Innovation to enhance the rural entrepreneurial ecosystem and attract diverse talent to engage in rural innovation and enterprise development. These counties play a pivotal role in promoting rural entrepreneurship and employment. This study selected 100 such counties, as published on the official website of China's Ministry of Agriculture and Rural Affairs, as research sites, providing a representative and typical sample. Among these, 15 counties (districts and cities) were excluded due to substantial missing data for multiple antecedent factors, including Laobian District in Yingkou City (Liaoning Province), Songjiang District (Shanghai), Jiawang District in Xuzhou City (Jiangsu Province), Yuancheng District in Heyuan City (Guangdong Province), Meilan District in Haikou City (Hainan Province), Beibei District and Fuling District (Chongqing), Qingbaijiang District in Chengdu City and Guang'an District in Guang'an City (Sichuan Province), Chengguan District in Lhasa City (Tibet), Hantai District in Hanzhong City and Weinan Economic and Technological Development Zone (Shaanxi Province), Yuanzhou District in Guyuan City and Xixia District in Yinchuan City (Ningxia), and Jiashipu Farm of Tumxuk City in the Third Division of Xinjiang Production and Construction Corps. The final sample comprised 85 cases, representing 85% of the total sample, which aligns with the requirements of the QCA method for medium-sized samples.

### *3.3. Variable Measurement*

Building upon the preceding theoretical analysis, this study investigates the complex causal mechanisms through which six conditional factors influence entrepreneurial perfor-

mance in rural settings: market scale, human capital, financial capital, hardware facilities, software facilities, and government scale. Considering that the effects of various elements in the rural entrepreneurial ecosystem often require gradual accumulation and release, meaning that the development and expansion of new ventures are subject to delayed preconditions, and given that the average lifespan of new ventures in China is 2–3 years [38], we employed a two-year observation period to determine whether new ventures possess good development potential. Accordingly, entrepreneurial performance data lagged behind precondition data by two years; specifically, entrepreneurial performance data are drawn from 2022, while the data for the six conditional factors are from 2020. The study primarily utilizes data from three sources: the Tianyancha website, the China Statistical Yearbook (Township), and the statistical yearbooks of the respective prefecture-level cities in which each county is situated.

(1) Entrepreneurial performance. While some scholars have employed the number of unicorn companies to assess urban entrepreneurial performance [4,39], this metric is less applicable to rural areas due to the scarcity of such entities. Instead, newly established enterprises, which represent significant growth potential in rural regions, can serve as a proxy for rural entrepreneurial performance. Drawing on relevant scholarly research [40,41], this study utilizes the number of newly established enterprises per county as an indicator of rural entrepreneurial performance. To account for population differences, we adapted the concept of new enterprise density [42], calculating our measure by dividing the number of new enterprises by the permanent resident population. Data on newly established enterprises were primarily sourced from China's Qichacha official website. Using Python web scraping techniques, we extracted information on all new enterprises established in China in 2020 from the Qichacha platform. These data were subsequently mapped to individual counties, providing a comprehensive dataset of new enterprises for the relevant case study counties.

(2) Market scale. While the existing literature commonly employs total population [43] or gross domestic product (GDP) [44] to quantify local market scale, these measures present limitations in rural contexts. The significant population variations among rural areas, stemming from diverse urbanization levels, render total population an inadequate indicator of market scale disparities. To address this issue and ensure data standardization, we adopted GDP per capita as the measurement indicator for market scale. These data were sourced from the China Statistical Yearbook (Township) (2021) for the relevant case study counties, providing a more nuanced and comparable metric for assessing rural market dimensions.

(3) Human capital. Talent resources are crucial determinants in fostering innovation and entrepreneurship. While previous studies have employed various metrics to assess regional human resource conditions, such as average years of education [45] or higher education enrollment figures [23], this study adopts a more comprehensive approach. We argue that average years of education more accurately reflect the long-term educational investment and accumulation in rural areas, thus providing a superior representation of human capital stock. Consequently, we utilize the average years of education in rural areas as our measurement indicator for human capital. The calculation is based on the formula: $6E_1 + 9E_2 + 12E_3 + 16E_4$, where $E_i$ denotes the proportion of the population aged 6 and above who have completed primary school, middle school, high school, and tertiary education, respectively. These data are extracted from the China Statistical Yearbook (Township) (2021). The coefficients 6, 9, 12, and 16 correspond to the typical years of schooling associated with each educational level, allowing for a weighted assessment of the overall educational attainment in the region.

(4) Financial capital. The availability of financial resources is a critical factor in supporting entrepreneurial activities in rural areas. This study focuses on the capacity of rural financial institutions to provide funding for business operations, which serves as an indicator of financial support for entrepreneurship across various rural regions. Following established methodologies in existing research [45], we utilize the balance of deposits in

financial institutions as a proxy for financial capital within the entrepreneurial ecosystem. To account for population variations and ensure comparability across regions, we calculate a per capita measure by dividing the balance of deposits in financial institutions by the permanent resident population for each case study county. Data for this analysis are sourced from the China Statistical Yearbook (Township) (2021). To maintain consistency in data scale and facilitate interpretation, the financial capital metric is expressed in units of ten thousand yuan per person.

(5) Hardware facilities. Consistent with previous research [21], we employ transportation infrastructure, specifically road networks, as a proxy for hardware facilities. In rural contexts, roads constitute the primary mode of transportation and are fundamental to economic development. We quantify this aspect using road density, calculated as the ratio of total road mileage to population.

(6) Software facilities. The advent of the digital era in China has elevated the importance of digital infrastructure in fostering rural industrial growth. The internet, serving as a crucial medium for digital services, has become indispensable for innovation and entrepreneurship initiatives. Aligning with established methodologies [46–48], we assess software infrastructure through the level of internet development. Specifically, we utilize the ratio of internet broadband access users to total population for the relevant case study counties, drawing data from the China Statistical Yearbook (Township) (2021). This metric provides insight into the digital readiness and connectivity of rural areas, factors increasingly vital for economic progress and entrepreneurial success.

(7) Government scale. The extent of government involvement in the local economy can significantly influence the entrepreneurial landscape. A robust government presence, characterized by substantial expenditure, comprehensive functional coverage, and high-quality public services, can effectively mitigate initial costs for entrepreneurial ventures and foster a conducive external environment for their growth and sustainability. To quantify government scale, we adopt a methodology consistent with prior research by Qi [49] and Li [50]. Specifically, we utilize the ratio of local government's general public budget expenditure to GDP for the relevant case study counties, drawing data from the China Statistical Yearbook (Township) (2021). This metric serves as a proxy for government scale, enabling us to assess the potential impact of governmental activities on the local entrepreneurial ecosystem. The relevant variables are shown in Table 1.

**Table 1.** Variable description and data sources.

| Variables | Variable Description | Units | Data Source |
|---|---|---|---|
| Entrepreneurial performance | Number of newly established enterprises | Number | Qichacha official website |
| Market scale | GDP per capita | $10^4$ yuan | China Statistical Yearbook (Township) (2021) |
| Human capital | Average years of education | Years | |
| Financial capital | Financial institution deposit balance divided by permanent resident population | $10^4$ yuan | |
| Hardware facilities | Road density per capita | % | |
| Software facilities | Internet penetration rate | % | |
| Government scale | Ratio of local government general public budget expenditure to GDP | % | |

## 4. Results

### *4.1. Data Calibration*

The qualitative comparative analysis (QCA) methodology, grounded in set-theoretical principles, seeks to identify necessary and sufficient conditions by examining the relationships between various configurations of causal conditions (antecedents) and outcomes. QCA encompasses three distinct variants: csQCA, mvQCA, and fsQCA. While csQCA is specifically designed for dichotomous variables, mvQCA accommodates categorical variables with multiple values, and fsQCA is particularly suited for continuous variables calibrated within the interval [0, 1]. Given that our study primarily deals with continuous

variables, the fsQCA approach emerges as the most appropriate analytical framework for our investigation. In implementing fsQCA methodology, a crucial preliminary step involves the calibration of individual antecedent variables into fuzzy-set membership scores, transforming raw data into standardized values within the [0, 1] interval. The calibration process necessitates the specification of three qualitative anchors: completely affiliated point, crossover point, and completely unaffiliated point. The crossover point represents a critical threshold of maximum ambiguity in set membership, delineating the boundary between cases that are more "in" versus "out" of the set. Following the calibration framework established by Fiss [35], we employ a three-threshold approach using quartile values: the 75th percentile designates full membership, the 50th percentile serves as the crossover point, and the 25th percentile indicates full non-membership. Table 2 presents a comprehensive overview of the calibration anchors and descriptive statistics for all antecedent conditions and the outcome variable, providing transparency and facilitating replication of our analytical procedure.

**Table 2.** Calibration and descriptive statistics of outcome and antecedent conditions.

| Outcome and Antecedent Conditions | Calibration | | | Descriptive Statistics | | | |
|---|---|---|---|---|---|---|---|
| | Completely Affiliated | Crossover Point | Completely Unaffiliated | Mean | SD | Max | Min |
| Entrepreneurial performance | 14.413 | 11.005 | 7.826 | 13.113 | 8.851 | 50.590 | 3.159 |
| Market scale | 4.923 | 3.463 | 2.379 | 4.684 | 4.334 | 27.378 | 1.349 |
| Human capital | 1.074 | 0.891 | 0.760 | 0.916 | 0.243 | 1.574 | 0.421 |
| Financial capital | 4.258 | 3.118 | 2.265 | 3.580 | 2.192 | 13.854 | 0.282 |
| Hardware facilities | 0.654 | 0.372 | 0.181 | 0.811 | 1.982 | 15.971 | 0.075 |
| Software facilities | 1.103 | 0.071 | 0.034 | 0.079 | 0.055 | 0.240 | 0.005 |
| Government scale | 0.354 | 0.223 | 0.150 | 0.270 | 0.207 | 1.660 | 0.069 |

### *4.2. Analysis of the Need for Individual Conditions*

To ascertain whether individual elements of the rural entrepreneurial ecosystem—namely, market scale, human capital, financial capital, hardware facilities, software facilities, and government scale—constitute necessary conditions for entrepreneurial performance, we employed Necessary Condition Analysis. Following Schneider and Wagemann's methodology [37], we utilized consistency scores to evaluate the necessity of each condition. A condition is deemed necessary when its consistency exceeds 0.900. As illustrated in Table 3, none of the ecosystem elements achieved this threshold for either high or non-high entrepreneurial performance outcomes. This finding indicates the absence of any single necessary condition among the antecedent factors in driving entrepreneurial performance in rural contexts. Consequently, our analysis necessitates a comprehensive combinatorial approach, incorporating all antecedent conditions to identify configurations of elements that collectively foster high entrepreneurial performance in rural areas. This holistic examination will provide deeper insights into the complex interplay of factors contributing to rural entrepreneurial success.

**Table 3.** Analysis of necessary conditions.

| High Entrepreneurial Performance | | | Non-High Entrepreneurial Performance | | |
|---|---|---|---|---|---|
| Antecedent conditions | Consistency | Coverage | Antecedent conditions | Consistency | Coverage |
| Market scale | 0.813 | 0.814 | Market scale | 0.278 | 0.278 |
| ~ Market scale | 0.279 | 0.279 | ~ Market scale | 0.814 | 0.813 |
| Human capital | 0.547 | 0.554 | Human capital | 0.524 | 0.529 |
| ~ Human capital | 0.535 | 0.530 | ~ Human capital | 0.558 | 0.552 |

**Table 3.** *Cont.*

| High Entrepreneurial Performance | | | Non-High Entrepreneurial Performance | | |
|---|---|---|---|---|---|
| Financial capital | 0.688 | 0.713 | Financial capital | 0.398 | 0.412 |
| ~ Financial capital | 0.433 | 0.419 | ~ Financial capital | 0.723 | 0.698 |
| Hardware facilities | 0.422 | 0.433 | Hardware facilities | 0.653 | 0.668 |
| ~ Hardware facilities | 0.676 | 0.661 | ~ Hardware facilities | 0.446 | 0.435 |
| Software facilities | 0.585 | 0.570 | Software facilities | 0.550 | 0.534 |
| ~ Software facilities | 0.522 | 0.537 | ~ Software facilities | 0.557 | 0.573 |
| Government scale | 0.397 | 0.394 | Government scale | 0.733 | 0.726 |
| ~ Government scale | 0.724 | 0.731 | ~ Government scale | 0.389 | 0.392 |

Note: ~ stands for not in logical operations.

### *4.3. Sufficiency Analysis of Conditional Configurations*

This study adopts a configurational approach to examine the complex pathways through which rural entrepreneurial ecosystems influence entrepreneurial performance. We employ fsQCA to conduct cross-case comparisons, enabling the identification of distinct configurations within these ecosystems. Following the configurational theorization process, we systematically name and categorize each identified configuration. Recognizing the causal asymmetry inherent in fsQCA, we extend our analysis to configurations associated with non-high rural entrepreneurial performance, thereby providing a comprehensive understanding of the driving mechanisms behind rural entrepreneurial outcomes. Our configuration analysis involves selecting subsets of the outcome set from multiple configurational combinations. In previous studies, the threshold of consistency varied from 0.76 [51] to 0.8 [52] to 0.89 [53], depending on the studied sample. Frequency thresholds should also be determined according to the size of the sample. When the sample size is small, 1 or 2 is generally chosen as the threshold value [54]. In this study, the threshold value was selected based on the four principles that the truth table results 0 and 1 should be covered and roughly balanced, the frequency threshold should cover at least 75% of the observed samples, and the minimum value of consistency should be greater than or equal to 0.75 [54]. The frequency threshold used in this study was ultimately determined to be 2; the consistency threshold was 0.80. Under the complex influences of multiple factors including market scale, human capital, financial capital, hardware and software facilities, and government scale, a qualitative comparative analysis was conducted on all antecedent conditions that lead to the occurrence of results.

Utilizing fsQCA 3.0 software, we derived three types of solutions: complex, intermediate, and parsimonious. In line with established research practices, we primarily report the intermediate solution, supplemented by the parsimonious solution. Conditions appearing in both the parsimonious and intermediate solutions are classified as core conditions, while those present only in the intermediate solution are considered peripheral [54]. As shown in Table 4, three configurational patterns (H1a, H1b, H2) emerge as conducive to high rural entrepreneurial performance. Each configuration exhibits a consistency value exceeding 0.800 [52], indicating their sufficiency in promoting high rural entrepreneurial performance. The overall solution consistency of 0.861 [35] suggests that the combination of antecedent conditions across all cases sufficiently explains high rural entrepreneurial performance. Furthermore, we identified four configurational patterns (NH1a, NH1b, NH1c, NH2) associated with non-high rural entrepreneurial performance, each surpassing the theoretical consistency threshold of 0.800 [52]. The overall solution for non-high performance demonstrates a consistency of 0.882 [35] and a coverage of 0.606, indicating that these four configurations collectively account for 60.6% of the variance in non-high rural entrepreneurial performance outcomes.

**Table 4.** Configurations for high and non-high rural entrepreneurial performance.

| Antecedent Conditions | High Rural Entrepreneurial Performance | | | Non-High Rural Entrepreneurial Performance | | | |
|---|---|---|---|---|---|---|---|
| | **H1a** | **H1b** | **H2** | **NH1a** | **NH1b** | **NH1c** | **NH2** |
| Market scale | ● | ● | | ⊗ | ⊗ | ⊗ | ⊗ |
| Human capital | ⊗ | • | ⊗ | | • | • | • |
| Financial capital | • | • | ⊗ | ⊗ | ⊗ | ⊗ | |
| Hardware facilities | ⊗ | | • | | | ⊗ | • |
| Software facilities | | • | • | ⊗ | | ⊗ | • |
| Government scale | ⊗ | ⊗ | ● | • | • | | ⊗ |
| Consistency | 0.870 | 0.921 | 0.922 | 0.897 | 0.864 | 0.871 | 0.900 |
| Raw coverage | 0.225 | 0.231 | 0.088 | 0.348 | 0.302 | 0.145 | 0.191 |
| Unique coverage | 0.134 | 0.146 | 0.044 | 0.117 | 0.010 | 0.041 | 0.103 |
| Solution consistency | | 0.879 | | | 0.882 | | |
| Solution coverage | | 0.420 | | | 0.606 | | |

Note: ● indicates that the core condition is present; • indicates that the peripheral condition is present; ⊗ indicates that the core condition is missing; ⊗ indicates that the peripheral condition is missing; a space indicates that the condition is optional.

#### 4.3.1. Path Analysis of High Rural Entrepreneurial Performance

A horizontal analysis of the configurations associated with high rural entrepreneurial performance reveals that configurations H1a and H1b share market scale as their core condition, albeit with differing peripheral conditions. In H1a, the presence of financial capital complements the absence of human capital, infrastructure, and government scale in supporting roles, while internet presence is inconsequential. Conversely, H1b features the presence of human capital, financial capital, and internet access, coupled with the absence of government scale as supporting factors, with infrastructure being irrelevant. Configuration H2 diverges, identifying government scale as its core condition, supported by the presence of infrastructure and internet access, and the absence of human capital and financial capital. Drawing from the distinctions in core conditions and their underlying rationales across these three configurations, we propose two primary pathways driving high rural entrepreneurial performance: (1) a market-driven financing–intelligence integration path, and (2) a government-supported infrastructure-assisted path.

(1) Market-driven financing–intelligence integration path. This path, identified through configurations H1a and H1b, utilizes market dynamics as a catalyst to consolidate and integrate key elements of the entrepreneurial ecosystem, such as abundant human resources and efficient financial systems, to enhance rural entrepreneurial performance. This approach primarily relies on large-scale market demand as the driving force behind high rural entrepreneurial performance, even in the face of suboptimal conditions such as limited government intervention or infrastructure deficiencies. The market inherently contains abundant resources including capital and opportunities [55]. However, as new ventures often struggle to attract sufficient funding, they may face financing difficulties. Larger market size typically corresponds to lower entry barriers, which not only provides rural entrepreneurs with psychological motivation but also facilitates greater access to financial support [56]. Consequently, a larger market size is more conducive to enhancing entrepreneurial performance in a region. In the context of substantial market demand, the convergence of high-quality human capital provides crucial intellectual support for nascent ventures, while abundant financial resources offer the necessary backing for expansion. A reduced governmental footprint stimulates entrepreneurial dynamism, and advanced internet technologies enable enterprises to surmount the challenges posed by underdeveloped infrastructure. Consequently, the products and services of these new ventures transcend rural boundaries, potentially achieving nationwide prominence and contributing to enhanced rural entrepreneurial performance. Sheyang County in Jiangsu Province and Tiantai County in Zhejiang Province exemplify this model. Situated in economically vibrant regions of China, both counties benefit from promising market demand

and developmental prospects. Sheyang County capitalizes on its established textile industry to nurture emerging electronic information sectors, forging connections with broader Jiangsu and Nanjing markets. To mitigate financing challenges, the county has amplified the provision of guaranteed loans and instituted specialized funds totaling 105 million yuan, encompassing entrepreneurship support, talent acquisition, loan guarantees, interest subsidies, and risk compensation. The county's streamlined governmental structure fosters a conducive entrepreneurial environment, galvanizing rural entrepreneurship despite suboptimal transportation infrastructure and moderate talent pools. Tiantai County has implemented a comprehensive innovation-driven development strategy, offering financial assistance to rural entrepreneurs through various initiatives, including social security subsidies, employment grants, and entrepreneurial loans. This financial support is augmented by an innovative "Internet+" entrepreneurship training paradigm, seamlessly integrating online learning, offline training, operational simulations, practical experience, and ongoing support. By harnessing cutting-edge internet technologies, the county actively cultivates a cadre of high-caliber, innovative entrepreneurial talent, thereby fostering superior rural entrepreneurial performance.

(2) Government-supported infrastructure-assisted path. This path, identified through configuration H2, is government-led and directs rural entrepreneurship toward rural revitalization through appropriate market intervention measures and infrastructure improvement, thereby attracting rural entrepreneurs. This approach guides rural entrepreneurship towards a trajectory that favors rural industrial integration. In contrast to the market-driven model, this path posits that a more substantial government presence, in conjunction with advanced infrastructure and internet technology, is more conducive to rural entrepreneurship and high performance. The urban–rural dichotomy often places rural entrepreneurs at a disadvantage regarding access to resources and information. A larger government footprint can mitigate these disparities by providing enhanced support for rural entrepreneurial activities [57]. For example, robust government intervention can catalyze financial institution engagement, encouraging village- and town-based financial entities to relax entry barriers and extend financial support to rural entrepreneurs [58]. The auxiliary functions of infrastructure and internet connectivity provide conditions for industrial structure upgrading and transformation within entrepreneurial regions, catalyzing the emergence of high rural entrepreneurial performance [59]. Shanghang County in Fujian Province exemplifies this government-driven approach. The county has vigorously implemented a "Mass Entrepreneurship and Innovation" development strategy, formulating and introducing policy measures to stimulate public creativity. These initiatives include "The Implementation Opinions on Implementing Innovation-Driven Development Strategy and Building an Innovative Shanghang" and "The Notice on Eight Measures to Vigorously Promote Mass Entrepreneurship and Innovation". Predominantly agricultural, Shanghang County exhibits reduced dependence on local demand markets. Its well-developed infrastructure and robust network environment facilitate exploration of external markets, embodying a rural entrepreneurial development path primarily driven by government scale and complemented by advanced infrastructure and internet connectivity.

#### 4.3.2. Path Analysis of Non-High Rural Entrepreneurial Performance

The causal asymmetry inherent in qualitative comparative analysis (QCA) necessitates distinct 'causal combinations' to elucidate the presence or absence of specific outcomes [60]. To comprehensively investigate the mechanisms driving rural entrepreneurial performance, we extended our analysis to configurations associated with non-high entrepreneurial performance. Table 4 reveals that configurations NH1a, NH1b, NH1c, and NH2 are characterized by smaller market scales, suggesting that insufficient market demand in rural enterprises leads to non-high entrepreneurial performance, irrespective of the availability of entrepreneurial resources or government support. Through a nuanced examination of the core conditional differences among these configurations and their underlying rationales,

we identify two primary pathways leading to non-high rural entrepreneurial performance: market–capital suppression and market–government suppression. This approach provides a more holistic understanding of the factors influencing rural entrepreneurial outcomes and the complex interplay between market conditions, capital availability, and governmental involvement.

(1) Market–capital suppression path. The market–capital suppression path, identified through configurations NH1a to NH1c, elucidates the impediments to high rural entrepreneurial performance stemming from limited market scale and insufficient financial resources. Emerging rural enterprises require substantial financial backing for their entrepreneurial initiatives. In environments lacking local financial capital, nascent ventures face significant developmental challenges. This situation is further exacerbated by constrained market scales, which result in inadequate local demand to sustain the growth of new enterprises. The synergistic effect of these dual factors—limited financial resources and restricted market size—intensifies the difficulties associated with rural enterprise establishment, consequently impeding the development and expansion of new ventures. Illustrative cases exemplifying this inhibitory mechanism include Shache and Yining Counties in Xinjiang and Pingyu County in Henan. These regions are characterized by relatively low per capita GDP, a key indicator of rural market scale, when compared to other studied cases. Additionally, they exhibit comparatively low per capita balances of deposits in financial institutions. This combination of factors creates an environment that is not conducive to the emergence of high entrepreneurial performance, effectively suppressing the potential for robust rural entrepreneurial ecosystems.

(2) Market–government suppression path. The market–government suppression path, identified through configuration NH2, elucidates the unfavorable conditions for high rural entrepreneurial performance arising from constrained market scale and diminished government expenditure. This dual constraint manifests in two primary ways. Firstly, a limited market scale signifies poor regional economic prospects, insufficient to generate economies of scale, thereby dampening entrepreneurial enthusiasm. Secondly, reduced government expenditure typically translates to inadequate infrastructure investment, consequently diminishing the availability of critical rural entrepreneurial resources. The synergistic effect of these factors significantly curtails entrepreneurs' propensity to engage in new ventures, thus impeding the emergence of high rural entrepreneurial performance. Illustrative examples of this phenomenon include Yongji County in Jilin Province and Baoqing County in Heilongjiang Province. In these regions, both per capita GDP and the ratio of general public budget expenditure to GDP rank comparatively low within the sample set. This economic landscape creates a challenging environment for rural entrepreneurship, effectively hampering the potential for improved entrepreneurial performance and economic growth in these areas.

### *4.4. Analysis of Substitutional Relationship*

Configurational analysis offers a significant advantage in identifying interactive relationships among conditions [35]. A comparative analysis of high-performance entrepreneurial configurations in rural areas reveals a substitution relationship between market allocation and government intervention under certain circumstances. Comparing configurations H1b and H2 demonstrates that in rural areas with well-developed internet infrastructure, a combination of favorable market size, human capital, and financial capital can substitute for comprehensive hardware facilities and government scale to achieve high entrepreneurial performance (Figure 2). This substitution relationship suggests that in specific rural entrepreneurial ecosystems, both market forces and government intervention can equally drive high entrepreneurial performance. The internet's development has substantially reduced entrepreneurial barriers and costs, providing convenient information access and efficient collaboration tools. When information flow is assured, entrepreneurs can flexibly allocate talent and funds based on market signals, fostering a self-organizing and self-sustaining entrepreneurial ecosystem. Conversely, the government can create a con-

ducive environment for rural entrepreneurship by enhancing infrastructure, implementing talent policies, and offering financial support. This approach provides the necessary human and financial capital, facilitating the alignment of entrepreneurial elements. Through these distinct yet convergent pathways, high rural entrepreneurial performance can be achieved.

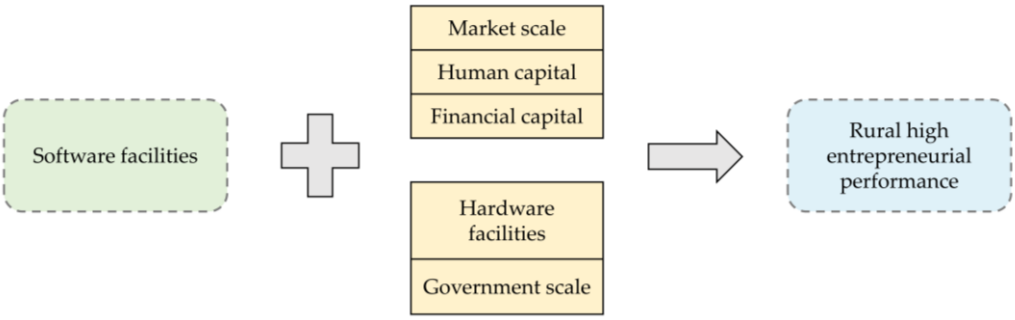


**Figure 2.** Substitutional relationship between market allocation and government intervention.

### *4.5. Robustness Test*

Drawing on Zhang and Du's [61] theoretical analysis of the QCA method, we conducted robustness tests by adjusting the consistency threshold and case frequency to ensure the stability of our findings. Initially, we increased the consistency threshold from 0.800 to 0.850 [62], maintaining the case frequency. Table 5 illustrates that the core conditions of each configuration remained consistent post-adjustment. The elevated consistency threshold improved the overall solution consistency for both high and non-high rural entrepreneurial performance, while marginally decreasing the overall solution coverage. These minor changes, however, were insufficient to support substantially different interpretations, thus indicating the robustness of our conclusions. Subsequently, we performed a second robustness test by adjusting the case frequency threshold from 2 to 3 [30] while retaining the original consistency threshold. As shown in Table 4, this adjustment eliminated the original configurations H1b, H2, NH1a, and NH1c. Despite some variations in the overall solution consistency and coverage, clear subset relationships persisted between the new and original configurations. This further corroborates the robustness of our research findings.

**Table 5.** Robustness tests for adjusting the level of consistency and the case frequency threshold.

| Antecedent Conditions | Original Consistency Threshold = 0.85 | | | | | | | The Case Frequency Threshold = 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | High Rural Entrepreneurial Performance | | | Non-High Rural Entrepreneurial Performance | | | | High Rural Entrepreneurial Performance | Non-High Rural Entrepreneurial Performance | |
| | H1a′ | H1b′ | H2′ | NH1a′ | NH1b′ | NH1c′ | NH2′ | H1a″ | NH1b″ | NH2″ |
| Market scale | ● | ● | | ⊗ | ⊗ | ⊗ | ⊗ | ● | ⊗ | ⊗ |
| Human capital | ⊗ | | ⊗ | | | • | • | | | |
| Financial capital | • | • | ⊗ | ⊗ | ⊗ | ⊗ | | • | ⊗ | |
| Hardware facilities | ⊗ | ⊗ | • | | • | ⊗ | • | ⊗ | • | • |
| Software facilities | | • | • | ⊗ | | ⊗ | • | • | | • |
| Government scale | ⊗ | ⊗ | ● | • | • | | ⊗ | ⊗ | • | ⊗ |
| Consistency | 0.870 | 0.914 | 0.922 | 0.897 | 0.890 | 0.871 | 0.900 | 0.914 | 0.890 | 0.900 |
| Raw coverage | 0.225 | 0.289 | 0.088 | 0.348 | 0.387 | 0.145 | 0.191 | 0.289 | 0.387 | 0.191 |
| Unique coverage | 0.062 | 0.126 | 0.049 | 0.038 | 0.076 | 0.041 | 0.055 | 0.289 | 0.251 | 0.055 |

**Table 5.** *Cont.*

| Antecedent Conditions | Original Consistency Threshold = 0.85 | | | | | | | The Case Frequency Threshold = 3 | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | High Rural Entrepreneurial Performance | | | Non-High Rural Entrepreneurial Performance | | | | High Rural Entrepreneurial Performance | Non-High Rural Entrepreneurial Performance | |
| | H1a′ | H1b′ | H2′ | NH1a′ | NH1b′ | NH1c′ | NH2′ | H1a″ | NH1b″ | NH2″ |
| Solution consistency | 0.906 | | | 0.883 | | | | 0.914 | 0.878 | |
| Solution coverage | 0.400 | | | 0.583 | | | | 0.289 | 0.442 | |

Note: ● indicates that the core condition is present; • indicates that the peripheral condition is present; ⊗ indicates that the core condition is missing; ⊗ indicates that the peripheral condition is missing; a space indicates that the condition is optional.

## 5. Conclusions and Discussions

### *5.1. Conclusions*

Rural entrepreneurship is a critical solution to "rural decline" and a focal point of the "rural revitalization" strategy. The optimization of rural innovation and entrepreneurship environments to enhance performance has garnered increasing attention from academic and political spheres. This study employs fsQCA to explore the synergistic influence of rural entrepreneurial ecosystems on entrepreneurial performance, based on a configurational framework of entrepreneurial ecosystem elements. The research examines six elements—market scale, human capital, financial capital, hardware facilities, software facilities, and government scale—using a sample of 85 typical demonstration counties for rural innovation and entrepreneurship in China. The main conclusions of this paper are presented below.

First, none of the six elements individually constitute necessary conditions for high or non-high rural entrepreneurial performance, indicating limited promotional effects of single entrepreneurial elements. This aligns with Guo et al.'s (2023) observation that various entrepreneurial capital elements are crucial for rural tourism entrepreneurship but only effective when combined, highlighting the diversity of influencing factors and practical paths in rural entrepreneurship [63].

Second, two driving paths for high rural entrepreneurial performance emerge from the analysis: (1) a market-driven financing–intelligence integration path, where large-scale market demand primarily drives performance, even with suboptimal conditions such as small government scale or infrastructure shortages; and (2) a government-supported infrastructure-assisted path, characterized by stronger government intervention, supplemented by convenient internet access and well-developed infrastructure. Notably, a substitution relationship exists between rural entrepreneurial element aggregation and government intervention under certain conditions.

Third, there is a causal asymmetry between high and non-high rural entrepreneurial performance. Antecedent conditions in both market–capital inhibition and market–government inhibition paths are unlikely to yield high-performance rural entrepreneurship. Both paths exhibit smaller market scale characteristics, suggesting that insufficient market demand leads to non-high entrepreneurial performance, regardless of entrepreneurial resources or government input.

### *5.2. Research Contributions*

Recent years have witnessed a proliferation of research on regional entrepreneurial ecosystems. Scholars have increasingly focused on leveraging positive interactions among various elements within these ecosystems to achieve high entrepreneurial performance. This study, grounded in the unique characteristics of rural entrepreneurial activities, delineates the complex influence pathways of rural entrepreneurial ecosystems on entrepreneurial performance. In doing so, it offers theoretical insights to foster robust entrepreneurial development in rural areas. The research makes three primary contributions:

Firstly, this study constructs a regional and systematic rural entrepreneurial ecosystem model, grounded in entrepreneurial ecosystem theory and considering the unique characteristics of Chinese rural entrepreneurship. While existing research has largely focused on examining the linear relationships between individual elements of the rural entrepreneurial ecosystem and rural entrepreneurial activities [11,21,64], this study incorporates multiple conditions within a unified analytical framework. By considering China's unique institutional arrangements, we identify six key conditions influencing rural entrepreneurial performance, thereby establishing a theoretical foundation for empirically analyzing the synergistic impact of multiple factors in rural entrepreneurial ecosystems. This integrative approach facilitates a more nuanced understanding of the macro-context shaping rural entrepreneurial performance.

Secondly, employing a configurational perspective and fsQCA, we empirically examine the synergistic effects of market, capital, infrastructure, and institutional elements across multiple levels within rural entrepreneurial ecosystems. This methodology not only deepens our understanding of symbiotic mechanisms in entrepreneurial ecosystems but also addresses scholarly calls for applying configurational perspectives and qualitative comparative analysis to this complex phenomenon [65]. Furthermore, based on comparative configuration analysis, we reveal substitutional relationships among entrepreneurial elements in explaining high rural entrepreneurial performance. While existing research has primarily focused on the synergistic and complementary relationships between elements within the entrepreneurial ecosystem [63,66,67], the substitutional effects among various factors have rarely been addressed. In this respect, this study advances the understanding of relationships among entrepreneurial ecosystem elements.

Thirdly, by analyzing the first batch of typical counties for innovation and entrepreneurship designated by China's Ministry of Agriculture and Rural Affairs, we provide a more systematic and granular analysis of rural entrepreneurial environments. The cross-validation of theory, cases, and data offers theoretical insights and practical implications for a more nuanced classification of the causal complexity between rural entrepreneurial elements and performance. Xu et al. (2020) call for exploring the antecedents, outcomes, and interactive mechanisms of entrepreneurship under different contextual conditions [68]. While previous research on disparities in rural economic or village industrial development has typically focused on inter-provincial (municipal) comparisons [4], our analytical approach transcends geographical constraints by reclassifying county-level cases based on development status and path logic, enabling practical summarization and theoretical exploration grounded in case-specific trajectories and outcomes. This method provides detailed guidance for exploring and promoting diverse pathways to high rural entrepreneurial performance, advancing beyond the inter-provincial or inter-city comparisons prevalent in previous studies on rural economic or industrial development disparities.

### *5.3. Practical Implications*

The rural entrepreneurial ecosystem, a complex and dynamic entity, influences entrepreneurial performance through the interaction of its internal elements. Our research reveals that market and government scale are crucial in enhancing rural entrepreneurial performance, with the government's role varying under different resource constraints. Consequently, targeted approaches are essential when guiding rural entrepreneurial practices. We propose two main strategies as follows:

(1) In areas with substantial local market demand, governments should minimize intervention in entrepreneurial activities, fostering an environment conducive to entrepreneurial passion and high performance. This approach involves simplifying administrative processes, implementing "one-stop" services, and reducing institutional transaction costs. It also requires establishing fair market competition by eliminating hidden barriers and ensuring equal market access. Furthermore, the development of multi-level, specialized entrepreneurial service platforms offering comprehensive, personalized guidance is crucial. Encouraging social organizations to participate in these services can create a diversified

landscape led by the government, driven by the market, and involving society. Additionally, establishing rural property rights trading markets can revitalize idle assets and promote optimal resource allocation, while encouraging the flow of high-quality urban elements (talent, technology, capital) to rural areas can inject new vitality into rural entrepreneurship.

(2) In regions where local market demand is insufficient to support enterprise growth, government departments should take a leading role in removing obstacles to entrepreneurship. This involves promoting rural infrastructure and internet development, providing supportive fiscal and financial policies, and implementing talent training systems. The focus should be on formulating industry development plans aligned with local resources and potential, guiding rural entrepreneurs towards emerging industries such as agricultural industrialization, product processing, rural tourism, and e-commerce. This approach promotes integrated development across primary, secondary, and tertiary sectors. Constructing rural entrepreneurship parks and incubation bases can provide low-cost operational support for entrepreneurs, while extending innovation and entrepreneurship demonstration bases to rural areas can foster urban–rural synergies. Finally, increased investment in rural infrastructure (transportation, water conservancy, electricity, communication, etc.) is essential, with particular emphasis on accelerating internet infrastructure to leverage "Internet+" applications, thereby expanding market opportunities for rural entrepreneurs.

### *5.4. Research Limitations*

This study, like its predecessors, has certain limitations. First, using China's rural innovation and entrepreneurship demonstration counties as samples to explore the influence mechanisms of entrepreneurial ecosystem element combinations on entrepreneurial performance may have certain constraints. Our research indicates that government support strongly influences rural entrepreneurial activities in China. Chen et al. (2020) also confirm that compared to Western countries, the Chinese government plays a more crucial role in the entrepreneurial ecosystem, directly affecting the success or failure of entrepreneurial ventures through the provision of essential resources such as licenses, land, and funding [69]. This difference primarily stems from the unique nature and degree of Chinese government intervention in the economy on a global scale. Compared to Western market economies, the Chinese government plays a more proactive role in economic activities, not only influencing market directions through policy guidance and resource allocation but also directly participating in economic construction and industrial development. Through this deep involvement, the government more effectively achieves macroeconomic control objectives while potentially affecting the natural laws of market development. Therefore, the rural entrepreneurial ecosystem model constructed in this study may not be applicable to other countries, and future research needs to explore more diverse rural entrepreneurial practices. Second, although our theoretical model integrates six key antecedent conditions within the rural entrepreneurial ecosystem framework, the complexity of entrepreneurship means that some crucial factors—such as cultural influences, individual characteristics, and entrepreneurial platforms—remain underexplored. Subsequent studies could incorporate resource-based theory, innovation theory, and regional coordinated development theory to construct a more comprehensive analysis of rural entrepreneurial ecosystems and obtain more holistic and nuanced research conclusions through diversified data collection methods.

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## References


1. Shi, J.; Yang, X. Sustainable Development Levels and Influence Factors in Rural China Based on Rural Revitalization Strategy. *Sustainability* **2022**, *14*, 8908. [CrossRef]
2. Galvão, A.R.; Mascarenhas, C.; Marques, C.S.E.; Braga, V.; Ferreira, M. Mentoring Entrepreneurship in a Rural Territory–A Qualitative Exploration of an Entrepreneurship Program for Rural Areas. *J. Rural Stud.* **2020**, *78*, 314–324. [CrossRef]
3. Khanani, K.S. Entrepreneurial Ecosystem, Entrepreneurial Activity and Economic Performance. *Bus. Innov. Entrep. J.* **2019**, *1*, 210–220. [CrossRef]
4. Xie, Z.; Wang, X.; Xie, L.; Duan, K. Entrepreneurial Ecosystem and the Quality and Quantity of Regional Entrepreneurship: A Configurational Approach. *J. Bus. Res.* **2021**, *128*, 499–509. [CrossRef]
5. Fotopoulos, G. Knowledge Spillovers, Entrepreneurial Ecosystems and the Geography of High Growth Firms. *Entrep. Theory Pract.* **2023**, *47*, 1877–1914. [CrossRef]
6. Cao, Z.; Shi, X. A Systematic Literature Review of Entrepreneurial Ecosystems in Advanced and Emerging Economies. *Small Bus. Econ.* **2021**, *57*, 75–110. [CrossRef]
7. Osei, C.D.; Zhuang, J. The Effects of Institutional Supports on Farm Entrepreneurial Performance: Exploring the Mediating Role of Entrepreneurial Orientation. *Sage Open* **2024**, *14*, 21582440241227713. [CrossRef]
8. Mahdi, A.; Crick, D.; Crick, J.M.; Lamine, W.; Spence, M. Entrepreneurial Marketing Practices and Rural Wine Producers' Performance: The Moderating Role of Competitive Intensity in an Immediate Post Crisis Period. *J. Rural Stud.* **2024**, *108*, 103277. [CrossRef]
9. Ghouse, S.M.; Barber Iii, D.; Alipour, K. Shaping the Future Entrepreneurs: Influence of Human Capital and Self-Efficacy on Entrepreneurial Intentions of Rural Students. *Int. J. Manag. Educ.* **2024**, *22*, 101035. [CrossRef]
10. Beishenaly, N.; Dufays, F. Entrepreneurial Ecosystem for Cooperatives: The Case of Kyrgyz Agricultural Cooperatives. *Ann. Public Coop. Econ.* **2023**, *94*, 1173–1198. [CrossRef]
11. Douglas, E.J.; Shepherd, D.A.; Prentice, C. Using Fuzzy-Set Qualitative Comparative Analysis for a Finer-Grained Understanding of Entrepreneurship. *J. Bus. Venturing* **2020**, *35*, 105970. [CrossRef]
12. Spilling, O.R. The Entrepreneurial System: On Entrepreneurship in the Context of a Mega-Event. *J. Bus. Res.* **1996**, *36*, 91–103. [CrossRef]
13. Dunn, K. The Entrepreneurship Ecosystem. *Technol. Rev.* **2005**, *8*, 1–17.
14. Ghio, N.; Guerini, M.; Lehmann, E.E.; Rossi-Lamastra, C. The Emergence of the Knowledge Spillover Theory of Entrepreneurship. *Small Bus. Econ.* **2015**, *44*, 1–18. [CrossRef]
15. Adner, R. Ecosystem as Structure: An Actionable Construct for Strategy. *J. Manage.* **2017**, *43*, 39–58. [CrossRef]
16. Noelia, F.-L.; Rosalia, D.-C. A Dynamic Analysis of the Role of Entrepreneurial Ecosystems in Reducing Innovation Obstacles for Startups. *J. Bus. Ventur. Insights* **2020**, *14*, e00192. [CrossRef]
17. Scott, W.R. *Institutions and Organizations: Ideas, Interests, and Identities*; Sage Publications: Thousand Oaks, CA, USA, 2014.
18. Ashmore, F.H.; Farrington, J.H.; Skerratt, S. Community-Led Broadband in Rural Digital Infrastructure Development: Implications for Resilience. *J. Rural Stud.* **2017**, *54*, 408–425. [CrossRef]
19. Prasetyo, P.E.; Setyadharma, A. Digitalization Technology for Sustainable Rural Entrepreneurship and Inequality. *J. Hum. Resour. Sustain. Stud.* **2022**, *10*, 464–484. [CrossRef]
20. Pato, L.; Teixeira, A.A.C. Rural Entrepreneurship: The Tale of a Rare Event. *J. Place Manag. Dev.* **2018**, *11*, 46–59. [CrossRef]
21. Del Olmo-García, F.; Domínguez-Fabián, I.; Crecente-Romero, F.J.; Del Val-Núñez, M.T. Determinant Factors for the Development of Rural Entrepreneurship. *Technol. Forecast. Soc. Chang.* **2023**, *191*, 122487. [CrossRef]
22. Tan, H.; Zhao, T.; Tan, Z. Will Education Promote Farmers' Independent Entrepreneurship? *Econ. Sci.* **2015**, *3*, 103–113. [CrossRef]
23. Yang, L.; Han, X. The Impact of Business Environment Optimization on Entrepreneurship Quality: An Empirical Study Based on SDM Model. *East China Econ. Manag.* **2021**, *35*, 56–65. [CrossRef]
24. Frimanslund, T.; Kwiatkowski, G.; Oklevik, O. The Role of Finance in the Literature of Entrepreneurial Ecosystems. *Eur. Plan. Stud.* **2023**, *31*, 372–391. [CrossRef]
25. Utete, R.; Zhou, S. Re-Imagining the Complexities Faced by Rural Entrepreneurs in South Africa: Implications for Local Economic Development in the Post COVID-19 Pandemic Period. *J. Rural Stud.* **2024**, *105*, 103167. [CrossRef]
26. García Díaz, L.K.; Díaz Casero, J.C. Factores Que Incidieron En El Emprendimiento Rural En Extremadura (España) Durante El Período 2003–2012. *Rev. Lebret* **2018**, *10*, 111–132. [CrossRef]
27. Cheng, J. Research on the Impact of Rural E-commerce on County Economic Development: The Mediating Effect of Entrepreneurial Activity. *J. Bus. Econ. Res.* **2024**, *43*, 189–192.

28. Mack, E.A.; Marie-Pierre, L.; Redican, K. Entrepreneurs' Use of Internet and Social Media Applications. *Telecommun. Policy* **2017**, *41*, 120–139. [CrossRef]
29. Ferrucci, E.; Lissoni, F. Foreign Inventors in Europe and the United States: Diversity and Patent Quality. *Res. Policy* **2019**, *48*, 103774. [CrossRef]
30. Xie, L.; Xie, Z.; Chen, C. Research on the Influence Mechanism of Migrant Population's Entrepreneurial Decision from the Perspective of Configuration. *Chin. J. Manag.* **2021**, *18*, 1363–1370.
31. Li, Z.; Wen, T.; Wei, H.; Du, Z.; Li, C.; Jin, W. Accelerating Agricultural and Rural Modernization: In-depth Interpretation of the Spirit of the No. 1 Central Document by "Agriculture, Rural Areas and Farmers" Experts. *Chin. Rural Econ.* **2021**, *37*, 2–20.
32. Smith, H.L.; Ragin, C.C. The Comparative Method: Moving Beyond Qualitative and Quantitative Strategies. *Popul. Dev. Rev.* **1990**, *16*, 784. [CrossRef]
33. Misangyi, V.F.; Greckhamer, T.; Furnari, S.; Fiss, P.C.; Crilly, D.; Aguilera, R. Embracing Causal Complexity: The Emergence of a Neo-Configurational Perspective. *J. Manag.* **2017**, *43*, 255–282. [CrossRef]
34. Fang, Q.; Xie, H. Configuration Effect of Technology Transfer Policy Supply and Policy Coordination. *Stud. Sci. Sci.* **2022**, *40*, 991–1000. [CrossRef]
35. Fiss, P.C. Building Better Causal Theories: A Fuzzy Set Approach to Typologies in Organization Research. *Acad. Manag. J.* **2011**, *54*, 393–420. [CrossRef]
36. Ragin, C.C. *Redesigning Social Inquiry: Fuzzy Sets and Beyond*; University of Chicago Press: Chicago, IL, USA, 2009.
37. Schneider, C.Q.; Wagemann, C. *Set-Theoretic Methods for the Social Sciences: A Guide to Qualitative Comparative Analysis*; Cambridge University Press: Cambridge, UK, 2012.
38. Economic Daily. Why Is the Average Life Span of Chinese Enterprises Short? Available online: http://paper.ce.cn/jjrb/html/2016-06/01/content_302495.htm (accessed on 1 June 2016).
39. Szerb, L.; Lafuente, E.; Horvath, K.; Pager, B. The Relevance of Quantity and Quality Entrepreneurship for Regional Performance: The Moderating Role of the Entrepreneurial Ecosystem. *Reg. Stud.* **2019**, *53*, 1308–1320. [CrossRef]
40. Acs, Z. How Is Entrepreneurship Good for Economic Growth? *Innov. Technol. Gov. Glob.* **2006**, *1*, 97–107. [CrossRef]
41. Narain, N.; Assenova, V. Entrepreneurial Quality and Startup Growth in India. *SSRN Electron. J.* **2019**, *26*. [CrossRef]
42. Liargovas, P.; Repousis, S. Development Paths in the Knowledge Economy: Innovation and Entrepreneurship in Greece. *J. Knowl. Econ.* **2015**, *6*, 1063–1077. [CrossRef]
43. Krause, K.; Battenfeld, D. Coming Out of the Niche? Social Banking in Germany: An Empirical Analysis of Consumer Characteristics and Market Size. *J. Bus. Ethics* **2019**, *155*, 889–911. [CrossRef]
44. Steingress, W. Market Size and Entry in International Trade: Product versus Firm Fixed Costs. *Rev. Int. Econ.* **2019**, *27*, 1351–1370. [CrossRef]
45. Stuetzer, M.; Audretsch, D.B.; Obschonka, M.; Gosling, S.D.; Rentfrow, P.J.; Potter, J. Entrepreneurship Culture, Knowledge Spillovers and the Growth of Regions. *Reg. Stud.* **2018**, *52*, 608–618. [CrossRef]
46. Xiong, C.; Liang, Y.; Zhang, B. Digital Infrastructure and Urban Entrepreneurship Level. *Appl. Econ. Lett.* **2024**, *31*, 1–8. [CrossRef]
47. Li, Y.; Zhang, J.; Lyu, Y. Does Telecommunications Infrastructure Promote Entrepreneurship in Developing Countries? Evidence from a Quasi-Natural Experiment in China. *Struct. Chang. Econ. Dyn.* **2023**, *66*, 106–119. [CrossRef]
48. Huang, Z.; Tao, Y.; Zhang, Q.; Ye, Y. The Road to Entrepreneurship: The Effect of China's Broadband Infrastructure Construction. *Econ. Anal. Policy* **2023**, *80*, 1831–1847. [CrossRef]
49. Li, Y.; Zeng, C. Government Size, Technological Innovation and High-Quality Development: Research Based on the Mediating Effect of Entrepreneurship. *Fudan J. (Soc. Sci.)* **2019**, *61*, 155–166.
50. Qi, W.; Zhang, Y. The Matthew Effect of Regional Environmental Differences and Entrepreneurship Quality: A Test Based on SYS-GMM of Dynamic Panel Model. *Bus. Manag. J.* **2015**, *37*, 35–44. [CrossRef]
51. Zhang, M.; Chen, W.; Lan, H. How Can Chinese Enterprises Successfully Acquire Foreign High-Tech Companies: A Fuzzy-Set Qualitative Comparative Analysis (fsQCA) Based on 94 Cases. *China Ind. Econ.* **2019**, *36*, 117–135. [CrossRef]
52. Rodrigues, R.; Samagaio, A.; Felício, T. Corporate Governance and R&D Investment by European Listed Companies. *J. Bus. Res.* **2020**, *115*, 289–295. [CrossRef]
53. Zhao, Y.; Tao, K.; Li, Y.; Li, X. Location Choice of Chinese Enterprises' Outward Foreign Direct Investment: A Study on Linkage Effect Based on QCA Method. *China Ind. Econ.* **2020**, *37*, 118–136. [CrossRef]
54. Du, Y.; Jia, L. Configuration Perspective and Qualitative Comparative Analysis (QCA): A New Approach to Management Research. *Manag. World* **2017**, *33*, 155–167. [CrossRef]
55. Dacin, M.T.; Dacin, P.A.; Tracey, P. Social Entrepreneurship: A Critique and Future Directions. *Organ. Sci.* **2011**, *22*, 1203–1213. [CrossRef]
56. Liu, Z.; Xiao, Y.; Zhang, Y. Research on the Influence Mechanism of Prosocial Motivation on Social Entrepreneurship Dual Orientation: A Moderating Model of Marketization Degree and Work Experience Affiliation. *Nankai Bus. Rev.* **2021**, *24*, 184–196.
57. Korosteleva, J.; Belitski, M. Entrepreneurial Dynamics and Higher Education Institutions in the Post-Communist World. *Reg. Stud.* **2017**, *51*, 439–453. [CrossRef]
58. Li, J.; Lin, W. Index Measurement and Influencing Factors of China's Financial Innovation Structure. *Financ. Forum* **2017**, *22*, 13–29. [CrossRef]

59. Xiang, Y.; Qi, Y.; Xiao, Z.; Liu, R.; Zhang, G. Research on the Formation Path of Returning Home Entrepreneurship Ecosystem: Based on fsQCA Analysis of 52 Counties and Cities in Zhejiang Province. *Resour. Dev. Mark.* **2021**, *37*, 1417–1426.
60. Cheng, J.; Luo, J.; Du, Y.; Yan, J.; Zhong, J. When Do Institutional Environment and Psychological Cognition Activate Entrepreneurship?: A Study Based on QCA Method. *Sci. Sci. Technol. Manag.* **2019**, *40*, 114–131.
61. Zhang, M.; Du, Y. Application of QCA Method in Organization and Management Research: Position, Strategy and Direction. *Chin. J. Manag.* **2019**, *16*, 1312–1323.
62. Zhang, G.; Lin, W.; Lang, M. The Mechanism of Local Environmental Governance Behavior under Central Environmental Protection Supervision: Based on fsQCA Analysis of 30 Cases. *Manag. Rev.* **2021**, *33*, 326–336. [CrossRef]
63. Guo, Y.; Zhu, L.; Zhao, Y. Tourism Entrepreneurship in Rural Destinations: Measuring the Effects of Capital Configurations Using the fsQCA Approach. *Tour. Rev.* **2023**, *78*, 834–848. [CrossRef]
64. Dahiya, K.; Taneja, S.; Özen, E. To Analyse the Impact of Multi-Media Technology on the Rural Entrepreneurship Development. In *Contemporary Studies of Risks in Emerging Technology, Part A*; Grima, S., Sood, K., Özen, E., Eds.; Emerald Publishing Limited: Bradford, UK, 2023; pp. 221–240.
65. Fainshmidt, S.; Witt, M.A.; Aguilera, R.V.; Verbeke, A. The Contributions of Qualitative Comparative Analysis (QCA) to International Business Research. *J. Int. Bus. Stud.* **2020**, *51*, 455–466. [CrossRef]
66. Romero-Castro, N.; López-Cabarcos, M.A.; Piñeiro-Chousa, J. Finance, Technology, and Values: A Configurational Approach to the Analysis of Rural Entrepreneurship. *Technol. Forecast. Soc. Chang.* **2023**, *190*, 122444. [CrossRef]
67. Luo, S.; Zhou, P.; Shen, Y. How Can New Farmers Improve Their Entrepreneurial Performance? Qualitative Comparative Analysis Based on Fuzzy Sets. *Front. Sustain. Food Syst.* **2024**, *8*, 1372250. [CrossRef]
68. Xu, H.; Zhang, Y.; Zhai, Y. Review and Prospect of Social Entrepreneurship Research. *Bus. Manag. J.* **2020**, *42*, 193–208. [CrossRef]
69. Chen, J.; Cai, L.; Bruton, G.D.; Sheng, N. Entrepreneurial Ecosystems: What We Know and Where We Move as We Build an Understanding of China. *Entrep. Reg. Dev.* **2020**, *32*, 370–388. [CrossRef]


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