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RECEIVED 15 December 2024

ACCEPTED 17 June 2025

PUBLISHED 03 July 2025

CITATION

Wang J, Liu K, Yuan R, Kuang X and Qiu H (2025) Impact of participation in rural digital governance on grassroots political trust among high-quality farmers—analysis using survey data from 899 high-quality farmers in Jiangxi Province. *Front. Sustain. Food Syst.* 9:1543354. doi: 10.3389/fsufs.2025.1543354

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Impact of participation in rural digital governance on grassroots political trust among high-quality farmers—analysis using survey data from 899 high-quality farmers in Jiangxi Province

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Rural revitalization cannot be achieved without effective governance. Using the Oprobit model, instrumental variables, moderating-effects model and mediating-effects model, this study investigated the impact of participation in rural digital governance on high-quality grassroots political trust and its mechanism using micro-survey data from 899 high-quality farmers in Jiangxi Province. This study demonstrated that participation in rural digital governance significantly enhances grassroots political trust among high-quality farmers, and both robustness and endogeneity tests yielded consistent conclusions. Further analysis revealed that organizational membership and human expenditure play positive and negative moderating roles, respectively, in the impact of participation in rural digital governance on grassroots political trust among high-quality farmers, and that there are differences in the identity of rural elites in the facilitating effect of participation. Mechanism analysis revealed that participation in rural digital governance promotes grassroots political trust among high-quality farmers by enhancing their subjective social status, and its effect accounts for 11.8% of the total effects. Accordingly, policy recommendations should be made to increase the promotion of rural digital governance, strengthen farmers' participation and supervision, enhance transparency and effectiveness, support the membership of high-quality farmers' organizations, reduce the burden of favors and promote overall trust.

KEYWORDS

rural digital governance, high-quality farmers, grassroots political trust, subjective social status, organizational accession, human expenditure, rural elite

1 Introduction

Successful implementation of the rural revitalization strategy relies on positive interaction between the government and grassroots communities (Peng et al., 2023). Political trust is the degree of public trust in the government, reflecting the public's basic evaluation of the trustworthiness of the government and its emotional orientation. It is an important indicator of the relationship between the public and the government (Marcinkowski and Starke, 2018; Kumagai and Ilorio, 2020). In general, a government with a higher level of public political trust

has stronger executive power, better policy implementation and a more harmonious and stable social environment (Zhao and Hu, 2017). A decline in public political trust poses challenges to government legitimacy, national competitiveness and public compliance with government policies (Im et al., 2014). However, the perceived distance and information gap between the public and the government appear to be some of the main factors that contribute to the decline in public trust in government (Welch et al., 2005). Currently, digital technology is accelerating its integration into all areas of economic and social development, which not only comprehensively changes people's lifestyles but also continues to influence and shape the relationship between the government and the public, effectively narrowing the information gap and increasing public trust in the government. As General Secretary Xi Jinping pointed out, digitalization is not only a revolution in technology but also a profound change in governance, involving an all-round systematic reshaping of the governance system and capacity. In response to new trends in rural transformation, the state and related departments have issued a series of policy documents. The No. 1 document of the Central Committee in 2018 clearly put forward the 'implementation of the digital rural strategy', vigorously promoting the comprehensive planning and strategic deployment of digital rural construction. In May 2019, the General Office of the Central Committee of the Communist Party of China and the General Office of the State Council jointly issued the 'Outline of Digital Rural Development Strategy', which proposes to develop the rural digital economy and enhance the scientific and technological innovation capacity of agriculture and rural areas. In January 2020, the Ministry of Agriculture and Rural Development and the Central Internet Information Office jointly issued the Digital Agriculture and Rural Development Plan (2019–2025), which focuses on promoting the in-depth fusion of digital technology with agriculture and rural areas and improving the level of agricultural and rural intelligence and digitization. In 2024, the state issued the Key Points for Digital Rural Development in 2024, emphasizing on enhancing the digital effectiveness of rural social governance and the capacity of intelligent emergency management. In addition, Central Document No. 1 of 2019–2024 also continuously calls for strengthening the digital empowerment of agriculture and rural areas, promoting the comprehensive integration of digital technology with agricultural and rural development, giving full play to the role of informatization as a basic pillar in rural governance and promoting the construction and improvement of a digital governance system to provide an important driving force for the realization of the goal of 'effective governance' in the countryside (Su et al., 2023). At the same time, high-quality farmers, as the guardians of food security at the grassroots level, leaders in industrial development and the main force in rural revitalization (Wang H. et al., 2023), play a key role in promoting policy implementation, improving governance and promoting economic development. Therefore, in the context of the digital village strategy, exploring the impact of participation in rural digital governance on the grassroots political trust among high-quality farmers and exploring the mechanism behind it is a proper way to strengthen social governance and maintain social stability in the digital era, which can not only describe and illustrate the new changes brought about by digital technology but also explore the possible options for coping with such changes.

The factors influencing political trust have been the focus of academic research, and existing studies can be divided into two main categories. The first category focuses on individual factors, including

demographic characteristics such as age, gender and education (Chao et al., 2017); public satisfaction with public services (Zhao and Hu, 2017); public expectations of government (Seyd, 2011); and cultural values (Dalton, 2019). The second category focuses on the impact of national public policy measures [Organisation for Economic Co-operation and Development (OECD) Staff, 2017], such as agricultural subsidies and loans (Anzia et al., 2022), market price support for agricultural products (Ergun, 2019), new rural social pension insurance (Huang and Zhang, 2021) and land reform and rights (Chen et al., 2025). Public policies in China are implemented through a mechanism of 'centralized decision-making and implementation at the grassroots level'. Research shows structural differences in farmers' political trust at different levels of government, with farmers usually trusting the relatively 'abstract' central government, which is characterized by 'strong central government and weak local government'. This differs significantly from the 'concentric circles' model in foreign countries (Li, 2004). However, most existing research has focused on whether public policies affect farmers' trust in the government but has neglected the issue of farmers' political trust in grassroots village-level organizations.

Since the introduction of rural digital governance, mainstream literature has paid considerable attention to its conceptual connotation, subject object, governance mechanism and effect assessment and other research aspects. From the conceptual connotation, digital governance emphasizes the use of digital tools to improve and make up for the many shortcomings of the traditional rural governance model (OECD, 2021). From the perspective of the main object, researchers have analyzed the roles of the government (Liu and Liu, 2024), enterprises (Li and Ding, 2020) and villagers (Ren et al., 2024) in rural digital governance. From the viewpoint of governance mechanisms, rural digital governance improves governance efficiency and transparency through policy innovation and supervision (Qi and Qi, 2023). From the viewpoint of effect evaluation, the literature assesses the contribution of the actual effect of rural digital governance to the development of rural construction and further discusses the improvement of the rural digital governance system (Monda et al., 2023; Mao et al., 2024). Therefore, although the existing literature provides a useful reference for this study, there is still a lack of quantitative research on rural digital governance, particularly studies that focus on the political trust effect of participation in rural digital governance on high-quality farmers. In addition, there has been controversy in the academic community about the impact of rural digital governance on farmers' political trust at the grassroots level. Some scholars believe that rural digital governance empowered by digital technology not only improves the level of governance but also enhances farmers' grassroots political trust (Cao et al., 2022; Qi and Qi, 2023). On the contrary, some scholars believe that rural digital governance is gradually detached from farmers' actual needs, leading to insufficient participation and endogenous resource utilization (Ren et al., 2024). At the same time, problems such as data privacy leakage and information overload have weakened farmers' trust in the government (Wei and Lu, 2023). These theoretically contested views make exploring how participation in rural digital governance affects grassroots political trust among high-quality peasants increasingly emphasize its practical value and academic significance.

In view of this, this study uses micro-research data from 899 high-quality farmers in Jiangxi Province and adopts the Oprobit model, instrumental variables, moderating-effects model and

mediating-effects model to examine the role of participation in rural digital governance on high-quality grassroots political trust and the mechanisms involved. The findings intend to contribute to the development of a new model of rural digital governance in the era of big data and to help improve the modernization level of rural governance, providing reliable empirical data and empirical evidence.

2 Theoretical analysis and research hypothesis

2.1 Impact of participation in rural digital governance on grassroots political trust among high-quality farmers

Political trust refers to the public's confidence in the government and its institutions in the exercise of public power, the fulfillment of duties and the provision of public services. It reflects individuals' evaluation of the legitimacy and normative functioning of political institutions (Robbins, 2016). As an essential expression of personal values, trust conveys an individual's expectation of the credibility of others' commitments and behavior and serves as an institutional adhesive in grassroots society. Although grassroots village-level organizations are formally defined as self-governing and self-serving entities, they often assume administrative and service functions akin to those of "miniature governments" in practice (Kan and Ku, 2023). The performance of village organizations directly affects villagers' political identification and institutional evaluations, making political trust particularly critical at this level (Peng et al., 2023). Prior research has shown that poor decision-making, abuse of power and unfulfilled promises are major causes of declining political trust at the grassroots level (You, 2018; Poertner and Zhang, 2024), while the long-standing absence of discourse power and oversight mechanisms further erodes villagers' trust in grassroots governance.

The introduction of digital technologies brings the possibility of a structural reconfiguration of traditional rural governance. Digital governance is not merely an update in administrative tools; it represents an evolution in institutional logic. Within the OECD's (2021) framework of digital governance, legitimacy is reconstructed through the chain of "information accessibility – procedural normativity – public feedback," aiming not only to improve governance efficiency but also to rebuild trust between the government and citizens. Institutional theories of political trust also suggest that trust is not solely based on performance outputs, but also on the openness of input mechanisms—namely, whether citizens can effectively participate in governance and receive institutional responses (Easton, 2017). Political trust is thus a dynamic process composed of "procedural participation – social identification – institutional internalization" (Zmerli and Newton, 2008), where individual experience and feedback play a decisive role, especially in grassroots governance.

In rural settings, digital platforms such as village WeChat groups and open village affairs platforms provide high-quality farmers with low-cost, high-frequency access to information and channels for expression. These platforms enable proactive participation in various local matters—such as village affairs management, party-mass education and democratic supervision—allowing high-quality farmers to receive greater social feedback, recognition and institutional respect. Such participation not

only enhances their sense of subjective efficacy but also reinforces psychological identification with institutional rules, thereby forming a closed loop of "digital engagement – institutional embeddedness – trust generation" (Hovik and Giannoumis, 2022). Specifically, on the one hand, digital governance platforms can efficiently gather public opinion and improve grassroots self-governance organizations' responsiveness to community needs (Zimmerman, 1990); on the other hand, the regulated operation of institutional platforms enhances transparency in village affairs, party affairs and financial management, thereby strengthening procedural justice and public accountability in grassroots governance (Li J. et al., 2022). Overall, rural digital governance reshapes the interaction mechanism between high-quality farmers and grassroots organizations and, through institutionalized technological pathways, integrates a sense of participation, respect and feedback—thereby significantly enhancing political trust at the grassroots level. Based on this, the following hypotheses are proposed:

H1: Participation in rural digital governance positively affects grassroots political trust among high-quality farmers.

H1(a): Participation in digital party education positively affects grassroots political trust among high-quality farmers.

H1(b): Participation in digital village management positively affects grassroots political trust among high-quality farmers.

H1(c): Participation in digital democratic monitoring positively affects grassroots political trust among high-quality farmers.

2.2 Path analysis of the impact of participation in rural digital governance on grassroots political trust among high-quality farmers

Rural digital governance provides high-quality farmers with an interactive platform for participating in village-level decision-making and governance. This enables them to effectively express their demands, engage in consultations, and significantly enhance their sense of community identity and subjective social status (He, 2023). Subjective social status, as an individual's self-assessed position within the social hierarchy, not only reflects one's social identity and sense of belonging but also constitutes a key psychological mechanism in the construction of political trust—especially salient in grassroots governance contexts. Specifically, an enhanced sense of status increases individual self-efficacy and the perceived influence over public affairs. According to social identity theory, active participation in digital governance strengthens institutional affiliation and political efficacy. Meanwhile, self-efficacy theory posits that this enhanced sense of social status reinforces individuals' perceived control over governance processes, thereby fostering institutional trust. When high-quality farmers' opinions are heard and adopted via digital platforms, their influence is recognized, which in turn strengthens their perception of having a constructive role in society and trust in grassroots governance systems (Rudolph and Evans, 2005). In summary, subjective social status establishes a mediating path between rural digital governance and political trust, forming a psychological bridge of "identity recognition – perceived efficacy – institutional trust." It is through this mechanism

that digital participation is translated into trust in institutions. Based on this, the following hypothesis is proposed (Figure 1):

H2: Participation in rural digital governance positively affects grassroots political trust among high-quality farmers by improving their subjective social status.

3 Materials and methods

3.1 Data sources

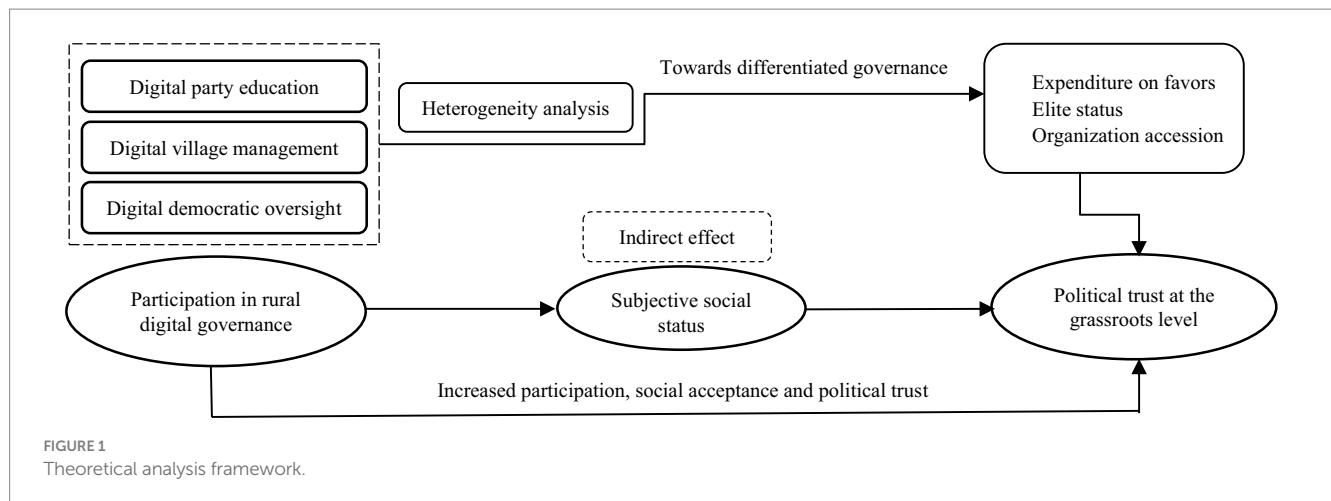
Jiangxi Province, an important agricultural province and a major grain-producing area in China, has always emphasized the cultivation of rural talent. The province has fostered several local university students and rural governance talents by closely integrating the actual needs of agricultural, rural and farmer development. The data used in this study were drawn from a special questionnaire survey on the academic upgrading of high-quality farmers, which was conducted from September to December 2022 by the subject group of the Jiangxi Provincial Education Science Planning Project. The research team took the opportunity of a concentrated learning event for high-quality farmers to distribute questionnaires to the farmers participating in the academic qualification improvement. In this study, the term ‘high-quality farmers’ refers to those who have obtained a certificate for specialized training or have a documented training record in the information system of the county’s agricultural and rural bureaus. To collect data, semi-structured interviews and questionnaires were administered. The group distributed 1,000 questionnaires to high-quality farmer trainees participating in the Jiangxi Province Academic Upgrading Program through simple random sampling, and 948 questionnaires were eventually recovered. When cleaning the data, blank or incorrect questionnaires were excluded. Finally, 899 valid samples were obtained, resulting in an effective rate of 94.83%. The questionnaire survey mainly covered personal characteristics, family situation and the production of high-quality farmers (Figure 1).

3.2 Variable selection

1. **Explained variable:** grassroots political trust. Grassroots political trust refers to the public’s normative expectations and trust in the way grassroots village organizations operate, reflecting the public’s overall evaluation and emotional attitude toward grassroots village organizations (Qin, 2023). Existing studies usually measure the level of political trust by investigating public trust in government (Kumagai and Ilorio, 2020). In rural areas, village collectives play a key role as a bridge and link between the party and government and the farmers. Therefore, this study uses the degree of trust that high-quality farmers have in village collectives as a proxy variable for trust in grassroots politics. The values of this variable ranged from 1 to 5, indicating ‘very distrustful’, ‘relatively distrustful’, ‘average’, ‘relatively trustful’ and ‘very trustful’, respectively.
2. **Explanatory variable:** participation in rural digital governance. Drawing on relevant studies (Su and Peng, 2022) and the OECD (2021) digital governance framework, this study defines “participation in rural digital governance” as the institutionalized

engagement of farmers in rural public affairs through digital tools. This form of participation is reflected in three dimensions: information acquisition, participatory consultation, and supervisory feedback. Specifically, respondents are considered to have participated in digital governance if they engaged in any of the following activities: (1) digital party education, such as taking part in remote learning organized by village-level organizations or using platforms like *Xuexi Qiangguo* for political learning; (2) digital village management, including participating in village decision-making, voting, or discussion via platforms such as WeChat groups or village affairs applications; and (3) digital democratic supervision, such as reporting public issues online or engaging in exchanges on village-level monitoring platforms. This variable is constructed as a binary indicator, coded as 1 if the respondent participated in any of the three dimensions, and 0 otherwise. These three dimensions correspond to the core functional components of digital governance—information access, consultative expression, and supervisory feedback—demonstrating clear institutional embeddedness and a cognitive-behavioral foundation. This approach allows for a more accurate assessment of high-quality farmers’ level of engagement in rural digital governance.

3. **Control variables.** This study draws on established research and selects control variables from two dimensions: personal and family characteristics (Li D. et al., 2022). Personal characteristics include age, political profile, education level and social capital, whereas family characteristics include family members’ experiences of working outside the home and the number of people in the family.
4. **Mediating variable:** subjective social status. Subjective social status reflects an individual’s self-perception and critical identification with the social class in which he or she lives, reflecting his or her sense of class belonging (Wang B. et al., 2023). This study measured respondents’ social status by asking the question ‘Which social class do you think you currently belong to?’ and setting a scale from 1 to 10, with higher scores indicating a higher class.
5. **Instrumental variable:** level of digital economy participation. Referring to the County Digital Village Index (2020), this study measures the level of farmers’ digital economy participation through the digital footprints generated by their economic activities in the process of digital transformation. Specifically, the digital economic participation of high-quality farmers is characterized by three aspects: digital production, digital supply and marketing and digital finance (Wang et al., 2024). The digital footprints of these three dimensions are summarized to provide a comprehensive measure of the level of digital economy participation of high-quality farmers. The level of digital economic participation, as an instrumental variable in this study, does not directly affect grassroots political trust on the one hand and is closely related to rural digital governance on the other. Specifically, the level of digital economy participation measures the extent to which farmers apply digital technologies in their economic activities. These farmers are typically driven by improving production efficiency, market competitiveness and access to financial services, rather than by political motivations. Moreover, digital economic participation requires not only farmers’ ability to use digital tools but also their willingness to



participate in digital rural governance. This participation reflects their recognition of digital rural governance and, thus, their indirect trust in grassroots politics. Therefore, this variable meets two basic conditions for an instrumental variable: strong correlation with the explanatory variable (participation in digital rural governance) and no direct causal relationship with the dependent variable (grassroots political trust). Table 1 presents specific definitions and descriptive statistics for each variable.

3.3 Modeling

To test the effect of participation in rural digital governance on grassroots political trust of high-quality farmers, this study uses the Oprobit model for estimation, which is expressed as follows:

$$T_i = F(\alpha D_i + \beta X_i + \mu_i) \quad (1)$$

where T_i denotes grassroots political trust among high-quality farmers; D_i denotes participation in rural digital governance; X_i is the control variable and denotes other possible factors affecting grassroots political trust among high-quality farmers; α and β are the parameters to be estimated; μ_i is the random error term; and $F(\cdot)$ is a nonlinear function of a specific form, as follows:

$$F(T_i^*) = \begin{cases} 1, & T_i^* \leq r_1 \\ 2, & r_1 < T_i^* \leq r_2 \\ 3, & r_2 < T_i^* \leq r_3 \\ 4, & r_3 < T_i^* \leq r_4 \\ 5, & r_4 < T_i^* \leq r_5 \end{cases} \quad (2)$$

where $r_1 < r_2 \dots r_4 < r_5$ denotes the tangent points, all of which represent the parameters to be estimated. T^* represents T satisfied by the presence of unobservable continuous variables, called latent variables, and is expressed as follows:

$$T_i^* = \alpha D_i + X_i \beta + \mu_i \quad (3)$$

In this equation, T_i^* denotes the first i grassroots political trust of a high-quality farmer, which is used to derive the maximum likelihood estimator. There exists a certain quantitative relationship, and other variables are defined consistent with Equation 1.

To deeply explore the realization path of the promotion effect of participation in rural digital governance on grassroots political trust among high-quality farmers, this study established a specific model as follows, drawing on the mediation effect test (Wen and Ye, 2014):

$$T_i = \alpha_1 D_i + \beta X_i + \mu_i \quad (4)$$

$$M = \alpha_2 D_i + \beta_1 X_i + \mu_i \quad (5)$$

$$T_i = \alpha_3 D_i + \alpha_4 M + \beta_2 X_i + \mu_i \quad (6)$$

where M represents the mediating variable, namely, the subjective social status; $\alpha_1, \alpha_2, \alpha_3$ and α_4 are parameters to be estimated; β_1 and β_2 are the control variable coefficients; and the remaining variable definitions are consistent with those in Equation 1 and will not be repeated.

4 Results

4.1 Analysis of baseline regression results

Table 2 presents the results of the benchmark regression. In Model 1, the effect of participation in rural digital governance on grassroots political trust among high-quality farmers was tested, following the model specification outlined in Equations 1–3. Results indicate that the coefficient of participation in rural digital governance is positive at the 1% significance level, indicating that participation in rural digital governance significantly enhances grassroots political trust among high-quality farmers, which verifies H1. Specifically, digital governance improves institutional responsiveness and transparency at the grassroots level by strengthening information disclosure, streamlining service delivery, and expanding channels for public participation, thereby enhancing villagers' institutional trust in the governance system. In Models 2, 3 and 4, the effects of participation in rural digital governance on the three subdimensions of digitalized village affairs management, digital democratic supervision and digital

TABLE 1 Descriptive statistics of the variables.

Variable category	Variable name	Variable definition and assignment	Mean	SD	Min	Max
Explanatory variable	Political trust at the grassroots level	Degree of trust in the village collective: 1–5, indicating very distrustful to very trustful	3.285	0.954	1	5
Explanatory variable	Participation in rural digital governance	Have you participated in digital party education, village management or digital democratic supervision? 0 = No and 1 = Yes	0.785	0.411	0	1
	Participation in digital party education	Have you participated in distance education learning organized by the village or online using party education platforms, such as Xuexi Qiangguo? 0 = No and 1 = Yes	0.702	0.458	0	1
	Participation in digital village management	Have you participated in discussions on village affairs, such as elections, voting, consultation and deliberation, through platforms, such as village WeChat groups and Beneficial Agricultural Information Societies? 0 = No and 1 = Yes	0.523	0.500	0	1
	Participation in digital democratic oversight	Do you participate in democratic supervision of environmental hygiene, collective projects and the protection of your legitimate rights and interests through social platforms, such as village WeChat or QQ groups? 0 = No and 1 = Yes	0.611	0.488	0	1
Instrumental variable	Level of participation in the digital economy	Is there any participation in digital production, digital supply and marketing and digital finance? The value ranges from 0 to 3.	1.605	1.202	0	3
Intermediary variable	Subjective social status	What class of society do you believe you currently belong to? 1–10, with higher scores indicating a higher class	4.305	2.269	1	10
Control variable	Age	Age of respondents (years)	34.779	6.851	18	59
	Political profile	Are you a party member? 0 = No and 1 = Yes	0.227	0.419	0	1
	Educational attainment	What was your level of education before enrolment? 1 = elementary school; 2 = junior high school; 3 = high school, junior high school, middle school, vocational school, technical school; 4 = university college; 5 = university undergraduate degree	2.828	0.503	1	5
	Experiences of family members working outside the home	Have any of your family members worked outside the home? 0 = No and 1 = Yes	0.721	0.449	0	1
	Number of household members	Number of people in your household	4.942	1.473	1	12
	Social capital	Number of WeChat friends, pcs (divided by 1,000)	0.832	2.335	0.001	50
Interaction variable	Organization accession	Have you ever joined a new professional farmers' organization (e.g., the New Professional Farmers' Association or the Farmers' College Students' Entrepreneurship Association)? 0 = No and 1 = Yes	0.181	0.385	0	1
	Expenditure on favors	Annual per capita household expenditure on gifts: 1 = ¥1,000; 2 = ¥1,000–3,000; and 3 = greater than \$3,000	2.329	0.689	1	3

TABLE 2 Results of benchmark regression.

Variable	Model 1	Model 2	Model 3	Model 4
Participation in rural digital governance	0.364***			
	(0.09)			
Participation in digital party education		0.297***		
		(0.08)		
Participation in digital village management			0.330***	
			(0.07)	
Participation in digital democratic oversight				0.388***
				(0.08)
Age	−0.011**	−0.011**	−0.011**	−0.012**
	(0.01)	(0.01)	(0.01)	(0.01)
Party membership	0.420***	0.409***	0.427***	0.407***
	(0.10)	(0.10)	(0.10)	(0.10)
Educational attainment	−0.048	−0.059	−0.048	−0.025
	(0.07)	(0.07)	(0.07)	(0.07)
Experience of family members working outside the home	−0.085	−0.080	−0.101	−0.088
	(0.08)	(0.08)	(0.08)	(0.08)
Number of household members	0.018	0.015	0.019	0.015
	(0.02)	(0.02)	(0.02)	(0.02)
Social capital	−0.043***	−0.043***	−0.042***	−0.045***
	(0.01)	(0.01)	(0.02)	(0.01)
N	899	899	899	899
Pseudo R ²	0.0247	0.0233	0.0263	0.0288

*, ** and *** indicate 10, 5 and 1% significance levels, respectively; values in parentheses are standard errors. The following table is the same.

party education, respectively, on high-quality farmers’ grassroots politics were tested. The coefficients of the three subdimensions are all significantly positive, indicating that these three subdimensions have a significant contributing effect on enhancing high-quality farmers’ grassroots political trust, which verifies H1a, H1b and H1c. Among the three subdimensions, the effect of digital democratic supervision on enhancing high-quality farmers’ grassroots political trust is particularly significant. This may be because the core goal of rural digital governance is to provide villagers with more convenient and efficient access to information, expression of opinions and supervision of village affairs (Xu et al., 2023).

From the perspective of control variables, first, as high-quality farmers grow older, they may have experienced more social and political changes, leading to more complex and diversified political perceptions, which may, in turn, reduce their level of trust in grassroots government. Second, high-quality farmers with party membership tend to exhibit higher levels of trust in grassroots authorities. This may be attributed to their deeper institutional embeddedness, which enables more accessible channels for acquiring

TABLE 3 Results of the moderating-effects analysis.

Variable	Model 5	Model 6
Participation in rural digital governance × Organizations join	0.562*	
	(0.30)	
Participation in rural digital governance × Human expenditure		−0.231*
		(0.13)
Participation in rural digital governance	0.307***	0.892***
	(0.09)	(0.31)
Organization of new professional farmers	−0.466	
	(0.28)	
Expenditure on favors		0.203*
		(0.11)
Control variable	Control	Control
Pseudo R ²	0.0262	0.0262
N	899	899

*, **, and *** denote significance levels at the 10%, 5%, and 1% levels, respectively.

policy resources and institutional feedback, thereby fostering greater trust in government. In addition, social capital shows a significant negative association, possibly because individuals with stronger social networks have better access to alternative resources and discourse power, which reduces their dependence on and trust in formal institutions. In summary, the empirical findings validate rural digital governance as an institutional pathway for the “reproduction of political trust,” wherein digital participation translates into institutional trust by enhancing transparency, improving governance efficiency, and strengthening individual engagement in political processes.

4.2 Analysis of moderating effects

4.2.1 From an organizational accession perspective

Model 5 in Table 3 shows the regression results of the interaction between participation in rural digital governance and membership in high-quality farmers’ organizations (e.g., the New Professional Farmers’ Association and the Farmers’ College Students’ Entrepreneurship Association). The results show that the regression coefficient of ‘participation in rural digital governance’ on ‘grassroots political trust among high-quality farmers’ is significantly positive, and the regression coefficient of ‘Participation in rural digital governance × Organization membership’ on ‘grassroots political trust of high-quality farmers’ is significantly positive, indicating that organization membership of high-quality farmers plays a significant positive moderating role in the influence of participation in rural digital governance on their grassroots political trust. This may be attributed to the critical role played by social organizations—such as the Farmers’ College Students’ Entrepreneurship Association—in the empowerment process. These organizations not only provide high-quality farmers with platforms and resources to participate in digital governance, but also enhance their governance skills and institutional awareness through training, collaboration, and information sharing.

This, in turn, strengthens their sense of political efficacy and institutional belonging, thereby contributing to an increase in their political trust in grassroots government.

4.2.2 Expenditures based on favors

Model 6 in Table 3 shows the regression results of the interaction term between participation in rural digital governance and favor spending. The results show that the regression coefficient of 'participation in rural digital governance' on 'grassroots political trust of high-quality farmers' is significantly positive, whereas the regression coefficient of the interaction term of 'Participation in rural digital governance \times Human expenditure' on 'grassroots political trust of high-quality farmers' is significantly negative, indicating that interpersonal expenditure has a significant negative moderating effect on the impact of participation in rural digital governance on high-quality farmers' political trust at the grassroots level. This may be due to the dual impact of favor-related expenditures. On the one hand, high levels of such spending impose a heavier financial burden on the households of high-quality farmers; on the other hand, they may also lead to a subjective perception of unfair resource distribution. The combined effect of economic pressure and psychological imbalance undermines farmers' recognition of the effectiveness of rural digital governance and weakens the foundation of their trust. As a result, at the mechanism level, it significantly inhibits the positive impact of digital governance on enhancing political trust.

4.3 Heterogeneity analysis

Rural elites often exhibit significant endowment effects in the political and economic spheres because of their high concentration of resources. Under traditional governance structures, rural elites ensure their dominance in the decision-making process by controlling diverse resources (Peng et al., 2023; Yin and Rui, 2023). However, the core advantage of rural digital governance lies in its ability to realize collaborative governance, which prompts ordinary farmers who were originally in a marginal and passive position in the governance system to become active participants. This change has facilitated the transformation of the governance model from traditional single-authority governance to a more inclusive multi-game governance model, enabling farmers who are not rural elites to actively

participate in rural governance through the use of digital platforms.

To further test the impact of participation in rural digital governance on grassroots political trust of high-quality farmers, this study refers to existing research and divides the sample into two groups with and without village elite status based on whether or not high-quality farmers have village cadre status (Su and Peng, 2022). By conducting separate empirical analyses of different sample groups, we examine whether there is heterogeneity in the promotional effect of participation in rural digital governance on grassroots political trust, as shown in Table 4. This may be attributed to the structural differences in political information access and participatory capacity among high-quality farmers. For those with rural elite status, their existing social networks and resource channels already enable them to access political information and express their interests effectively. With a relatively strong sense of political self-efficacy, rural digital governance does not significantly enhance their level of political trust. In contrast, for high-quality farmers without rural elite status, the openness and accessibility of digital governance platforms provide new formalized avenues for participation. These platforms enable this traditionally underrepresented group to articulate their demands more effectively and become more engaged in the governance process, thereby significantly enhancing their trust in and satisfaction with the political system.

4.4 Endogeneity test

In view of the possible endogeneity of participation in rural digital governance on grassroots political trust among high-quality farmers, this study adopted respondents' level of digital economic participation as an instrumental variable and conducted regression analyses using conditional mixed process (CMP) estimation to control for model endogeneity. The regression results are detailed in Table 5. The first-stage results show that respondents' level of digital economy participation is highly correlated with participation in rural digital governance at the 1% level, validating the correlation condition of the instrumental variable. The second-stage results show that the endogeneity test parameter is not significantly zero, indicating that an endogeneity problem (e.g., mutual causation)

TABLE 4 Heterogeneity analysis.

Variable	Model 7	Model 8
	Having a rural elite status	No rural elite status
Rural digital governance	0.490 (0.46)	0.336*** (0.10)
Control variable	Control	Control
LR chi-squared value	4.46	37.94***
Pseudo R ²	0.0164	0.0193
N	111	788

*, **, and *** denote significance levels at the 10%, 5%, and 1% levels, respectively.

TABLE 5 Endogeneity test results.

Variable	Phase I Rural digital governance	Phase II Political trust at the grassroots level
Participation in rural digital governance		0.588*** (0.188)
Level of participation in the digital economy	0.455*** (0.044)	
Control variable	Control	Control
atanhrho_12	−0.208* (0.13)	
F-value	23.93	
Wald's cardinality	66.00***	
N	899	899

*, **, and *** denote significance levels at the 10%, 5%, and 1% levels, respectively.

TABLE 6 Robustness test results.

Variable	Model 9	Model 10
	Political trust at the grassroots level	Policy satisfaction
Participation in rural digital governance	0.647*** (0.161)	0.531*** (0.090)
Control variable	Control	Control
Pseudo R^2	0.025	0.040
N	899	899

*, **, and *** denote significance levels at the 10%, 5%, and 1% levels, respectively.

TABLE 7 Mechanism test regression results.

Variable	Model 13	Model 14
	Subjective social status	Political trust at the grassroots level
Participation in rural digital governance	0.710*** (0.18)	0.266*** (0.08)
Grassroots leadership		
Subjective social status		0.05*** (0.01)
Z value of the Sobel test		2.64***
Bootstrap confidence interval		[0.014, 0.067]
Percentage of intermediary effects		11.8%
Control variable	Control	Control
Pseudo R^2	0.041	0.076
N	899	899

Bias-corrected and accelerated confidence intervals were used, with a sample size of 1,000.

*, **, and *** denote significance levels at the 10%, 5%, and 1% levels, respectively.

exists between participation in rural digital governance and grassroots political trust, at which point the CMP estimation is more accurate. Specifically, participation in rural digital governance significantly increases grassroots political trust among high-quality farmers at the 1% level, with a coefficient that is approximately 1.6 times higher than the baseline regression results. This indicates that the CMP estimation results are better than the benchmark regression results, further validating H1.

4.5 Robustness tests

To further test the robustness and reliability of the promotional effect of participation in rural digital governance on grassroots political trust among high-quality farmers, this study re-estimated the model using two methods (see Table 6). First, in Model 9, the baseline regression model is replaced with the Ologit model. The results are basically consistent with the baseline regression, indicating that participation in rural digital governance still significantly enhances grassroots political trust among high-quality farmers. Second, in Model 10, the dependent variable is replaced with policy satisfaction among high-quality

farmers. The results of the study still hold, further proving the robustness of the findings.

4.6 Mechanism analysis

As shown in Model 13 in Table 7, participation in rural digital governance has a significant positive effect on subjective social status. In Model 14, the coefficients of participation in rural digital governance and subjective social status remain positive at the 1% significance level when they are included at the same time, consistent with the mediation effect test framework specified in Equations 4–6. According to the mediation-effects test, subjective social status plays a partial mediating role in the impact of rural digital governance on grassroots political trust among high-quality farmers. The p value of the Sobel test was less than 0.05, and the mediation effect accounted for 11.8% of the total effect, which verifies H3. This may be because rural digital governance has expanded both the depth and breadth of high-quality farmers' participation in public affairs, significantly enhancing their voice and agency in decision-making processes. As a result, their social status and influence within the community are elevated, which in turn increases their trust in grassroots government and promotes greater transparency and accountability in governance.

5 Discussion and conclusions

5.1 Discussion

This study, based on a sample of high-quality farmers in Jiangxi Province, China, systematically analyzes the impact of participation in rural digital governance on grassroots political trust. The findings not only offer micro-level evidence on how digital technologies are reshaping the relationship between the state and rural individuals but also provide insights into how digital transformation can be implemented in grassroots governance across developing regions.

First, this study expands the theoretical boundaries of existing research on digital governance and political trust. Prior literature has primarily focused on urban residents and examined how digital governance influences institutional identification or political satisfaction (Grimmelikhuijsen and Meijer, 2014), while limited attention has been paid to the role of high-quality farmers—who represent a “critical intermediary class”—in the construction of political trust. By incorporating this group into the analytical framework, this study enriches the theoretical pathways linking participatory behavior and institutional trust. It also addresses the applicability of Easton's input–output model (Grimmelikhuijsen and Meijer, 2014) and the OECD's governance logic in rural contexts of developing countries (OECD, 2020). This approach contributes new empirical evidence for understanding the evolution of the “participation–identification–trust” mechanism in non-Western settings and resonates with international academic concerns surrounding inclusive digital governance and the promotion of democratic legitimacy.

Second, the study reveals the paradox of social capital and the differentiated trust logic shaped by identity structure. The empirical results indicate that social capital has a significant negative effect on political trust, suggesting that while enhanced information access may improve governance oversight, it also increases individuals'

awareness of institutional shortcomings and fosters more critical attitudes. This finding aligns with international research on the erosion of trust within “structural hole” social networks (Bizzi, 2013). Further heterogeneity analysis shows that the positive impact of digital governance is more pronounced among non-elite rural groups. This suggests that digital platforms are breaking down traditional participation barriers caused by resource monopolies through institutional embedding. Such an empowerment effect corresponds with findings from studies on rural digital governance in countries like India and Indonesia, offering a meaningful theoretical and empirical dialogue across development contexts (Bhatnagar, 2009).

Third, this study highlights the role of subjective identification and psychological mechanisms in digital governance. Mediation analysis shows that participation in rural digital governance enhances grassroots political trust by improving individuals’ perceived social status, institutional belonging, and political efficacy. This finding indicates that the core of digital governance lies not only in “technological empowerment” but also in “perceived empowerment” achieved through thoughtful platform design. This conclusion aligns with international experiences—such as those in Estonia and South Korea—where e-governance initiatives emphasize the synergy between user experience, identity formation, and institutional trust (Chung et al., 2022; Espinosa and Pino, 2025). Therefore, policymakers should place greater emphasis on farmers’ feedback and perceived value throughout the process of digital participation and aim to build responsive, emotionally resonant institutional platforms that foster a virtuous cycle between digital tools and political trust.

5.2 Conclusion

Using micro-research data from 899 high-quality farmers in Jiangxi Province, this study empirically examined the impact and mechanism of participation in rural digital governance on highly qualified grassroots political trust using the Oprobit model, instrumental variables, moderating-effects model and mediating-effects model. The main conclusions are as follows:

1. Participation in rural digital governance can effectively enhance grassroots political trust among high-quality farmers, and both the endogeneity and robustness tests yielded the same conclusions. The regression coefficients of the three subdimensions of digitalized party education, digitalized village management and digitalized democratic supervision are also significantly positive, further indicating that participation in rural digital governance helps enhance the trust of high-quality farmers in grassroots politics.
2. Organizational affiliation and expenditure on favors affect grassroots political trust among high-quality farmers by influencing their participation in rural digital governance through positive and negative moderating roles. Specifically, high-quality farmers’ organization membership significantly strengthens the promotional effect of participation in rural digital governance on grassroots political trust, and high-quality farmers’ expenditure on favors significantly weakens the promotional effect of participation in rural digital governance on grassroots political trust.
3. The facilitating effect of participation in rural digital governance on grassroots political trust among high-quality farmers varies according to rural elite status. This study shows that the effect of rural digital governance on the promotion of grassroots political trust for high-quality farmers without rural elite status is significantly greater than the promotional effect on high-quality farmers with rural elite status.
4. Participation in rural digital governance can enhance high-quality farmers’ trust in grassroots politics by improving their subjective social status. Mechanism analysis shows that participation in rural digital governance enhances grassroots political trust by raising the subjective social status of high-quality farmers and increasing their sense of social identity, social comparison and self-efficacy.

5.3 Recommendations

Based on the above findings, the following countermeasures are proposed:

1. The promotion of digital governance in villages should be intensified. Specific measures include the following: strengthening digital party education to enhance farmers’ awareness and capacity for political participation, optimizing digital village management to enhance the transparency and efficiency of grassroots affairs and strengthening digital democratic supervision to safeguard farmers’ right to supervise grassroots governance. In addition, more digital equipment and technical support should be provided to ensure the popularization and efficient application of digital governance tools in rural areas and to promote farmers’ deep participation and trust.
2. High-quality farmers should be encouraged and supported to actively join various rural organizations, such as cooperatives and farmers’ associations, for their complete participation rural digital governance, thereby enhancing political trust at the grassroots level. Moreover, farmers should be guided to reduce unnecessary expenditure on favors and reduce the negative impact of human pressure on political trust. Governments can provide training and policy guidance to help farmers establish rational consumption attitudes, so that rural digital governance can better play its role in promoting grassroots political trust.
3. The focus should be on increasing support for high-quality farmers who are not rural elites to participate in rural digital governance. Specific measures include providing more digital training and policy favoring for this group and increasing participation channels. Furthermore, farmers with rural elite status are encouraged to play a leading role in promoting the participation of the entire community in digital governance, forming a broad trust-enhancing mechanism and promoting the healthy development of the overall rural political ecology.
4. Digital governance in villages should be further promoted to enhance political trust at the grassroots level by raising the subjective social status of high-quality farmers. Specific measures include the following: strengthening digital governance capacity training for grassroots cadres to enhance leadership and governance transparency, promoting openness and democratic participation in village affairs through digital tools and enhancing farmers’ sense of self-efficacy and social identity. At the same time, publicity and education should be stepped up to help farmers understand the benefits of digital

governance, improve their perception of their social status and enhance their trust in and participation in grassroots governance.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors without undue reservation.

Author contributions

JW: Formal analysis, Writing – original draft, Writing – review & editing. KL: Investigation, Writing – original draft. RY: Conceptualization, Methodology, Writing – review & editing. XK: Validation, Writing – review & editing. HQ: Conceptualization, Methodology, Writing – original draft.

Funding

The author(s) declare that financial support was received for the research and/or publication of this article. This work was supported by the National Social Science Foundation of China (No. 22CGL027), Jiangxi Provincial Social Science Planning Project (No. 22GL48), East China

References

- Anzia, S. F., Jares, J. A., and Malhotra, N. (2022). Does receiving government assistance shape political attitudes? Evidence from agricultural producers. *Am. Polit. Sci. Rev.* 116, 1389–1406. doi: 10.1017/S0003055422000314
- Bhatnagar, S. (2009). *Unlocking e-government potential: concepts, cases and practical insights*. New Delhi, India: SAGE Publications India Pvt Ltd.
- Bizzi, L. (2013). The dark side of structural holes: A multilevel investigation. *J. Manag.* 39, 1554–1578. doi: 10.1177/0149206312471385
- Cao, L., Niu, H., and Wang, Y. (2022). Utility analysis of digital villages to empower balanced urban-rural development based on the three-stage DEA-Malmquist model. *PLoS One* 17:e0270952. doi: 10.1371/journal.pone.0270952
- Chao, N., Yuan, G., Li, Y., and Yao, Q. (2017). The internet ecological perception, political trust and political efficacy of Chinese netizens. *Telemat. Inf.* 34, 715–725. doi: 10.1016/j.tele.2016.05.014
- Chen, X., Xu, J., Yi, Y., and Zhuge, A. (2025). Land reform, emerging grassroots democracy and political trust in China. *World Development*. 185:106792. doi: 10.1016/j.worlddev.2024.106792
- Chung, C.-S., Choi, H., and Cho, Y. (2022). Analysis of digital governance transition in South Korea: focusing on the leadership of the president for government innovations. *J. Open Innov. Technol. Market Complex.* 8:2. doi: 10.3390/joitmc8010002
- Dalton, R. J. (2019). “Political culture and values” in *The United States and Canada: how two democracies differ and why it matters*. ed. P. J. Quirk (New York, USA: Oxford University Press).
- Easton, D. (2017). “A systems analysis of political life” in *Systems research for behavioral science* (London, UK: Routledge), 428–436.
- Ergun, E. (2019). *Role of politically linked agricultural policy and trade on the performance of Turkish agriculture*. Fargo, North Dakota, USA: North Dakota State University.
- Espinosa, V. I., and Pino, A. (2025). E-government as a development strategy: the case of Estonia. *Int. J. Public Admin.* 48, 86–99. doi: 10.1080/01900692.2024.2316128
- Grimmelikhuijsen, S. G., and Meijer, A. J. (2014). Effects of transparency on the perceived trustworthiness of a government organization: evidence from an online experiment. *J. Public Admin. Res. Theory* 24, 137–157. doi: 10.1093/jopart/mus048
- He, Z. (2023). How does perceptions of social justice affect farmers' political participation?—evidence from China. *PLoS One* 18:e0295792. doi: 10.1371/journal.pone.0295792
- Hovik, S., and Giannoumis, G. A. (2022). “Linkages between citizen participation, digital technology, and urban development” in *Citizen participation in the information society: Comparing participatory channels in urban development* (Cham: Springer International Publishing), 1–23.
- Huang, W., and Zhang, C. (2021). The power of social pensions: evidence from China's new rural pension scheme. *Am. Econ. J. Appl. Econ.* 13, 179–205. doi: 10.1257/app.20170789
- Im, T., Cho, W., Porumbescu, G., and Park, J. (2014). Internet, trust in government, and citizen compliance. *J. Public Admin. Res. Theory* 24, 741–763. doi: 10.1093/jopart/mus037
- Kan, K., and Ku, H. B. (2023). Social organizations in rural China: from autonomy to governance. *China Q.* 256, 871–885. doi: 10.1017/S0305741023000668
- Kumagai, S., and Ilorio, F. (2020). *Building trust in government through citizen engagement*. Washington, DC, USA: World Bank.
- Li, L. (2004). Political trust in rural China. *Modern China* 30, 228–258. doi: 10.1177/0097700403261824
- Li, X., and Ding, Y. (2020). Holistic governance for sustainable public services: reshaping government-enterprise relationships in China's digital government context. *Int. J. Environ. Res. Public Health* 17:1778. doi: 10.3390/ijerph17051778
- Li, J., Zhan, G., Dai, X., Qi, M., and Liu, B. (2022). Innovation and optimization logic of grassroots digital governance in China under digital empowerment and digital sustainability. *Sustain. For.* 14:16470. doi: 10.3390/su142416470
- Li, D., Zhu, W., and Chen, J. (2022). Application of agricultural machinery and farmers' non-agricultural entrepreneurship—analysis based on CLDS (2018) data. *Agric. Econ. Manag.* 3, 42–53.
- Liu, M., and Liu, H. (2024). The influence and mechanism of digital village construction on the urban-rural income gap under the goal of common prosperity. *Agriculture* 14:775. doi: 10.3390/agriculture14050775
- Mao, Z., Zhu, X., Zou, Q., and Jin, W. (2024). How can digital villages improve basic public services delivery in rural areas? Evidence from 1840 counties in China. *Agriculture* 14:1802. doi: 10.3390/agriculture14101802
- Marcinkowski, F., and Starke, C. (2018). Trust in government: what's news media got to do with it? *Stud. Commun. Sci.* 18, 87–102. doi: 10.24434/j.scoms.2018.01.006
- Monda, A., Feola, R., Parente, R., Vesci, M., and Botti, A. (2023). Rural development and digital technologies: a collaborative framework for policy-making. *Transf. Gov. People Process Policy* 17, 328–343. doi: 10.1108/TG-12-2022-0162
- OECD (2020). “The OECD digital government policy framework: Six dimensions of a digital government”, in: *OECD public governance policy papers*. (Paris: OECD Publishing).
- OECD (2021). *The E-leaders handbook on the governance of digital government*. Paris, France: OECD Publishing.
- Open University Alliance 2024 Research Project (No. ECOUA2024-1). The funders had no role in study design, data collection and analysis, decision to publish, or preparation of the manuscript.

Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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- Organisation for Economic Co-operation and Development (OECD) Staff (2017). Trust and public policy: how better governance can help rebuild public trust. Paris, France: OECD.
- Peng, Y., Peng, X., Li, X., Lu, M., and Yin, M. (2023). Effectiveness in rural governance: influencing factors and driving pathways—based on 20 typical cases of rural governance in China. *Land* 12:1452. doi: 10.3390/land12071452
- Poertner, M., and Zhang, N. (2024). The effects of combating corruption on institutional trust and political engagement: evidence from Latin America. *Polit. Sci. Res. Methods* 12, 633–642. doi: 10.1017/psrm.2023.4
- Qi, B., and Qi, T. (2023). Research on the development of rural governance based on digital technology. *Agric. Forest. Econ. Manag.* 6, 53–63. doi: 10.23977/agrfem.2023.060309
- Qin, Y. (2023). Grassroots governance and social development: theoretical and comparative legal aspects. *Human. Soc. Sci. Commun.* 10, 1–9. doi: 10.1057/s41599-023-01830-8
- Ren, J., Chen, X., Shi, L., Liu, P., and Tan, Z. (2024). Digital village construction: a multi-level governance approach to enhance agroecological efficiency. *Agriculture* 14:478. doi: 10.3390/agriculture14030478
- Robbins, B. G. (2016). What is trust? A multidisciplinary review, critique, and synthesis. *Sociol. Compass* 10, 972–986. doi: 10.1111/soc4.12391
- Rudolph, T. J., and Evans, J. (2005). Political trust, ideology, and public support for government spending. *Am. J. Polit. Sci.* 49, 660–671. doi: 10.2307/3647738
- Seyd, B. (2011). “An expectations-disconfirmation model of political trust”: Exeter, Great Britain: annual conference of the elections. *Public Opin. Parties' Sub-Group*.
- Su, L., and Peng, Y. (2022). Farmers' digital literacy, elite identity and participation in rural digital governance. *J. Agrotech. Econ.* 1, 34–50. doi: 10.13246/j.cnki.jae.2022.01.004
- Su, L., Zhao, X., and Peng, Y. (2023). Research on the impact of farmer digital governance participation on the effectiveness of rural governance. *E-Government* 7, 57–72. doi: 10.16582/j.cnki.dzzw.2023.07.005
- Wang, H., Dong, H., Zhang, T., and Zhong, T. (2023). A study on psychological capital of cultivating high-quality professional farmers in the background of rural revitalization. *Psychology* 13, 511–521. doi: 10.17265/2159-5542/2023.11.001
- Wang, J., Liao, W., and Kuang, X. (2024). Impact of digital economy participation on high-quality farmers' entrepreneurial behavior and its mechanism: based on the special survey data of high-quality farmers in Jiangxi Province. *J. China Agric. Univ.* 29, 67–80. doi: 10.11841/j.issn.1007-4333.2024.04.06
- Wang, B., Zhao, H., Shen, H., and Jiang, Y. (2023). Socioeconomic status and subjective well-being: the mediating role of class identity and social activities. *PLoS One* 18:e0291325. doi: 10.1371/journal.pone.0291325
- Wei, S., and Lu, Y. (2023). How does internet use affect the farmers' trust in local government: evidence from China. *Agriculture* 20:3489. doi: 10.3390/ijerph20043489
- Welch, E. W., Hinnant, C. C., and Moon, M. J. (2005). Linking citizen satisfaction with e-government and trust in government. *J. Public Admin. Res. Theory* 15, 371–391. doi: 10.1093/jopart/mui021
- Wen, Z., and Ye, B. (2014). Analyses of mediating effects: the development of methods and models. *Adv. Psychol. Sci.* 22:731. doi: 10.3724/SPJ.1042.2014.00731
- Xu, X., Zhu, M., and Wu, B. (2023). Interaction, trust and integration: practical mechanism of rural grassroots digital governance revealed by a case study of Laohu Village, Hangzhou. *China Rural Surv.* 2, 16–33. doi: 10.20074/j.cnki.11-3586/f.2023.02.003
- Yin, J., and Rui, J. (2023). Sustainable endogenous development path based on rural local elite governance model: a case study of Xiamen. *Sustain. For.* 15:8882. doi: 10.3390/su15118882
- You, J.-S. (2018). “Trust and corruption” in The Oxford handbook of social and political trust. ed. E. M. Uslaner (Oxford, United Kingdom: Oxford University Press).
- Zhao, D., and Hu, W. (2017). Determinants of public trust in government: empirical evidence from urban China. *Int. Rev. Adm. Sci.* 83, 358–377. doi: 10.1177/0020852315582136
- Zimmerman, M. A. (1990). Taking aim on empowerment research: on the distinction between individual and psychological conceptions. *Am. J. Community Psychol.* 18, 169–177. doi: 10.1007/BF00922695
- Zmerli, S., and Newton, K. (2008). Social trust and attitudes toward democracy. *Public Opin. Q.* 72, 706–724. doi: 10.1093/poq/nfn054