

Article

Interaction Between Virtual and Real Systems: Can Social Organization Participation Mitigate the Negative Impact of Internet Use on Government Trust?

Yanyan Li ¹, Junqing Li ², Xiaohan Chen ¹ and Yiqing Su ^{1,3,*} 

¹ School of Public Policy and Management, Guangxi University, Nanning 530004, China; 2001301028@st.gxu.edu.cn (Y.L.)

² School of National Security, Minzu University of China, Beijing 100081, China

³ Regional Social Governance Innovation Research Center, Guangxi University, Nanning 530004, China

* Correspondence: suyiqing@gxu.edu.cn

Abstract

The spread of internet infrastructure has created a virtual social system of interactions. It facilitates communication. It also brings new challenges to state governance. Political stability relies on citizen trust in the government. Therefore, political trust is a key issue in public administration. However, this virtual system of social exchange influences the formation of trust in government. This study uses social exchange theory. Based on 5547 survey responses, it employs an ordinal regression model and an instrumental variables approach. It examines the relationship between internet use, social organization participation, and government trust. Empirical results show two main findings. First, internet use has a significant negative impact on government trust. Second, participation in social organizations reduces this negative impact. This mitigating effect is more pronounced in central and western provinces, among rural residents, the Han ethnic group, and women. Therefore, future internet governance should enhance citizen participation in social organizations. It should also develop diverse channels for public affairs management. These findings offer insights for improving state governance in the digital era.

Keywords: government trust; internet use; social organization participation; virtual systems; real systems

1. Introduction

Political trust constitutes the foundation of modern state governance. This trust plays a key role in maintaining government legitimacy, promoting effective decision-making, and implementing public policies, while ensuring the stable and smooth operation of the political system [1]. Conceptually, government trust refers to citizens' belief or confidence that government operations will produce outcomes consistent with their expectations, reflecting public recognition and support for governmental governance [2]. Regarding its formation, government trust develops through interactions between governments and citizens, originating from citizens' subjective perceptions of government performance, institutional capacity, legitimacy, and trustworthiness [3]. Such trust emerges when governments fulfill their responsibilities and meet citizens' expectations. Declining government trust increases administrative costs, reduces the efficiency of policy implementation, and undermines the government's image and authority, potentially trapping governments in the "Tacitus Trap", in which citizens distrust the government regardless of its performance [4]. This negative



Academic Editor: Matthias Beck

Received: 18 November 2025

Revised: 17 December 2025

Accepted: 23 December 2025

Published: 24 December 2025

Copyright: © 2025 by the authors.

Licensee MDPI, Basel, Switzerland.

This article is an open access article distributed under the terms and conditions of the [Creative Commons Attribution \(CC BY\)](https://creativecommons.org/licenses/by/4.0/) license.

impact on trust inevitably exacerbates local governance dilemmas, undermines social stability, and ultimately triggers crises of governmental legitimacy. Therefore, government trust remains a core issue in public administration research.

The development of internet technology drives public administration reform. This technological progress adds uncertainty to government efforts to build trust [5]. China's internet industry shows rapid growth. The country's internet infrastructure is developing quickly. These developments profoundly change citizen lifestyles. These changes also transform social operational norms. The internet gradually becomes a virtual space where contemporary citizens exchange information. People spend increasing time online. Therefore, citizen–government interactions occur within overlapping environments. These environments blend virtual and real spaces. The China Internet Network Information Center released its 55th Statistical Report on 17 January 2025. This report provides an overview of China's internet development. China's internet user population reached 1.108 billion in December 2024. This figure represents the growth of 104 million users since March 2020. The internet penetration rate rose to 78.6%. The Chinese central government states a clear position. Cybersecurity and informatization are central to the Party's long-term governance. These factors affect national stability and sustainable development. They influence economic and social progress. They impact people's wellbeing. Passing the internet test is essential. Otherwise, the government cannot achieve long-term governance. This statement demonstrates the Chinese government's close attention. The government prioritizes trust construction in network environments. Academic discussions present two opposing views on the impact of the internet. These views concern government trust. Scholars identify them as “media malaise theory” and “virtuous circle theory” [6,7]. The virtuous circle theory proposes positive effects. The internet has a positive effect on public trust in government. Citizens obtain positive government information through virtual interactions. More exposure to such information stimulates trust development. Reducing information asymmetry also promotes public trust in government [3]. However, the media malaise theory holds a different perspective. This theory suggests that negative news receives selective amplification online. Citizens are increasingly accessing negative information about the government. This exposure easily generates public doubt. This situation may cause a crisis of government trust [8]. Developed countries' experiences provide supporting evidence. The popularization and deepening of the internet coincide with a decline in public trust in government. For example, the United States faces serious challenges with public trust in government. Canada confronts similar government trust issues. Japan and European countries face trust issues with their governments. The internet plays a significant role in these trends [9,10]. Internet users show enthusiasm for posting negative news. These users seek to gain online attention. Negative government information spreads at exponential speed. Positive news mainly circulates through a few official media. This selective amplification effect creates tremendous pressure. Governments face challenges in maintaining trust online.

Social organizations are social groups formed voluntarily by citizens who pursue common interests. These organizations exhibit characteristics of being non-governmental, non-profit, relatively independent, and voluntary. The functions of Chinese social organizations include mobilizing social volunteer resources and providing public welfare services. Chinese social organizations also organize social communication, expression, and participation. This serves as a bridge for interaction and facilitates social coordination and public governance. Furthermore, these organizations actively participate in the formulation and implementation of relevant public policies. Their participation helps increase the inclusivity of public policies. Under China's institutional context of “strong government–weak social”, social organizations provide citizens with channels to participate in public affairs

governance. They also promote norms of reciprocity and trust among their members as substantive entities.

The Chinese central government proposes that social organizations should undertake suitable public affairs governance tasks. These organizations represent important social governance actors. They also serve as vehicles for social autonomy. This background makes social interactions in physical organizations an effective path. Such interactions can mitigate the negative impacts of the internet on government trust. China's social organizations have demonstrated explosive growth since the country's reform and policy of opening up. The country has registered nearly 900,000 social organizations by 2025. In social interactions, social organizations function as crucial real-world platforms for citizen participation in social governance. By joining social organizations, citizens participate actively in social governance. Meanwhile, social organizations perform deliberative functions in practice. These organizations act as communication bridges between governments and citizens. They reconstruct government–citizen interaction relationships. From the citizens' perspective, participation in social organizations enables the exercise of voice and the expression of opinions. Social organizations transmit citizens' wills and demands to the government level. From the government's perspective, social organizations focus on public policy formulation, implementation, and performance. These organizations help citizens understand and comply with public policies. This assistance enhances policy influence. Therefore, social organizations promote interactions between citizens and governments in public affairs governance. They build connections between government governance and citizen appeals. This achieves communication, interaction, and mutual understanding between both parties. Thus, social organizations act as bonding agents between governments and citizens. They also function as shock absorbers for social problems. Utilizing social organizations can provide potential pathways to mitigate the potential negative impacts of the internet on government trust.

The purpose of this study is to clarify whether an irreconcilable contradiction exists between internet use and citizens' trust in government, given the internet's inevitable and deepening integration into daily life. Accordingly, this paper poses two specific research questions. First, does internet use have a significant negative impact on citizens' trust in government? Second, can citizens' participation in social organizations mitigate the negative impacts of internet use on government trust? It remains unclear how to mitigate this negative impact in an increasingly pervasive digital environment. Few studies have investigated the influence of overlapping virtual and real social interactions on government trust. Moreover, research has not yet focused on the potential for participation in social organizations (a form of real social interaction) to enhance government trust. Therefore, this paper provides a detailed discussion of the interactive effects of internet use and participation in social organizations on government trust. By examining government trust formed through both virtual online interactions and physical social organization activities, this research may offer a reference for addressing the decline in government credibility in the digital environments.

The existing literature has extensively discussed the negative effects of internet use on government trust. However, fewer studies have focused on how to mitigate these negative impacts. The marginal contribution of this paper lies in integrating "social organization participation"—a key factor known to foster social trust—into the theoretical framework. This study empirically tests its critical role in the relationship between internet use and government trust. The findings of this study propose that the social interactions arising from participation in social organizations during public affairs governance play a significant role in enhancing government trust. This study provides new empirical evidence and policy

insights for strengthening political stability within China's institutional context of a strong government and a developing civil society.

2. Literature Review

This study focuses on the relationships among internet use, participation in social organizations, and government trust. Following the three key elements of the research questions, the literature review is structured along a logical thread: (1) The review first summarizes existing research on the factors influencing government trust. The purpose is to clarify how government trust is generated. (2) Based on the core independent variable "internet use" in the research questions, the review synthesizes the known impacts of internet use on government trust. (3) Regarding the other variable, "social organization participation", the review summarizes the potential effects that participation in social organizations may have on government trust.

2.1. Research on the Factors Influencing Government Trust

Existing research on factors influencing government trust primarily falls into two categories: rational choice and social-cultural environment. First, based on the rational economic actor assumption, citizens' trust in government depends on their rational evaluation of government performance and governance quality [11,12]. On the one hand, regarding performance outcomes, citizens' trust is contingent upon government performance in governance [13,14]. Performance that enhances citizen welfare—such as economic growth, improved public services, and public safety—can increase public trust in government. Conversely, trust declines when government performance fails to meet public expectations [15]. On the other hand, in the governance process, trustworthy characteristics of government officials also affect trust levels. These traits include administrative competence, work ethic, and personal integrity [16]. Such attributes can positively influence citizens' trust in the government.

Second, the social-cultural environment is a significant factor influencing government trust. This environment includes traditional culture, social capital, values, and group norms. Trust in government often stems from a group's traditional cultural norms. This trust is transmitted through national culture. Simultaneously, social capital can also foster citizens' trust in the public sector. Social capital achieves this by promoting cooperation among people and improving government operations and management [17,18]. Furthermore, socio-economic development leads to changes in people's values and group norms. These changes can alter citizens' political awareness and behavior. Consequently, they impact the level of trust in government.

2.2. Research on the Impact of Internet Use on Government Trust

Existing research on the relationship between internet use and government trust often begins at the micro-individual level. This research analyzes how internet use influences individuals' subjective perceptions. It specifically examines the impacts on happiness perception and fairness perception, and how these perceptions subsequently affect trust in government.

First, the internet has reshaped how citizens interact socially. This change affects individual happiness, which in turn influences trust in government. On the one hand, internet use can increase citizen interaction and communication. This can promote the accumulation of social capital and enhance subjective wellbeing. Consequently, it may lead to greater trust in government [19]. On the other hand, virtual online interaction replaces face-to-face, real-world interaction. This reduction in physical social contact can weaken real social bonds. This weakening may result in a decline in citizens' trust in

government [20,21]. Simultaneously, the social interactions fostered by internet use vary across different groups. Individuals with lower levels of education may experience digital exclusion. This differential access can lead to varied impacts on government trust among different population segments [22].

Second, the internet broadens the scope for social comparison. Internet use influences government trust through perceptions of fairness. Only when public policies effectively address fairness concerns, such as income inequality, can the perception of a fair system enhance trust in government [23]. However, information circulating online about unequal educational resource distribution, wealth gaps, and urban–rural disparities can alter citizens’ perceptions of social fairness. This information often negatively affects citizens’ trust in government [24,25].

2.3. Research on the Impact of Social Organization Participation on Trust

Social organizations play a central role in building social trust. Their members extend trust as a habitual form into other domains. This practice not only increases overall societal trust but also influences cohesion and trust levels within the broader social system, including trust in government [26,27]. Social organizations are typically established to pursue specific goals. They provide a stable environment for social interaction. Members engage in long-term interactions based on shared values. These organizations bring together individuals of different ages, ethnicities, educational backgrounds, and political views. Participation in collective actions oriented towards common values fosters the formation of social trust [28]. Consequently, members of social organizations perceive society as more united and trustworthy. They exhibit higher levels of trust [29]. Furthermore, participating in different types of social organizations has varying effects on promoting trust. Organizations that facilitate political socialization, such as trade unions and political parties, have a more substantial effect on enhancing trust. In contrast, recreational social organizations have a relatively weaker effect [30]. Moreover, existing research recognizes that participation in social organizations is a significant factor in enhancing citizens’ government trust [31].

Overall, existing research has provided an in-depth analysis of the factors influencing government trust and the mechanisms of trust formation. This offers a valuable theoretical foundation for studying how to promote government trust within the complex systems of the internet era. However, current studies can be extended in the following two aspects. On the one hand, existing research has paid limited attention to the impact of participation in social organizations on government trust. Studies have noted that such participation can enhance social trust and extend members’ trust to other societal systems. Therefore, participation can influence government trust, both through the extension of social trust and through direct interactions between these organizations and the government. However, the relationship between social organizations and government trust remains underexplored. On the other hand, while existing literature has discussed the potential negative impact of internet use on government trust, there is a lack of research on how to mitigate this effect. In particular, no study has examined the role of real-world, face-to-face social interaction conducted through social organizations. Specifically, research has not addressed whether such participation can counteract the negative impact of virtual online interaction on government trust. Therefore, this paper aims to examine the relationships among internet use, social organization participation, and government trust within a complex system blending virtual and real-world interactions. This research seeks to extend and supplement existing findings.

3. Theoretical Analysis and Research Hypotheses

Social exchange theory is widely applied in political and sociological research. Scholars frequently employ this framework to examine government–citizen interactions. The theory also analyzes relationships between governments and social groups. For instance, governments deliver public services to citizens. Citizens reciprocate this provision with political trust. They may also offer governmental support. Academic circles have conducted extensive research on this theory. These efforts establish comprehensive theoretical frameworks. The frameworks explain social interactions across complex scenarios. Modern social exchange theory characterizes social interaction as exchange relationships. These exchanges involve not only material benefits. They also include psychological rewards. Such rewards encompass social support and political trust. Social exchange processes help participating parties build trust. These processes establish profound social connections [32–34]. Social exchange theory maintains flexible variables. Researchers can adjust these variables according to specific contexts. Investigation purposes also guide variable selection. Research questions determine theoretical extensions. Internet development generates increasing online interactions. These interactions give rise to numerous social exchange activities. Virtual environments host these exchange processes. This research focuses on the effects of internet use and examines the impacts of participation in social organizations. Both factors influence government trust levels. The study investigates trust-maintenance mechanisms that operate through the intertwining of virtual and real interactions.

3.1. Internet Use and Government Trust

The open, decentralized nature of the internet poses challenges to political stability [35,36]. The internet increases the convenience of accessing political information. It also changes how citizens communicate with the government [37,38]. First, internet use amplifies perceptions of government performance, negatively affecting trust. Government trust is linked to government performance. Improvements in citizens' living standards from policy implementation determine their level of trust [39]. The internet provides extensive information for questioning and evaluating public policies. Citizens can better understand deficiencies in government performance. They may also raise further criticism of the government's capabilities. These actions can weaken trust in the government [40]. Furthermore, prolonged economic growth raises public expectations for performance. Even without a real decline in performance, slower growth can negatively affect citizens' evaluations. This reduction negatively impacts government trust [41].

Second, internet use exposes citizens to a contentious and negative online information environment. This exposure negatively affects trust in government. The difficulty of regulating online information presents a significant obstacle. From the perspective of information disseminators, online media exhibit trends such as massive volume, decentralization, information autonomy, and low professionalism [42]. These trends create the dilemma of "information cocoons". This situation increases the difficulty for public authorities in effectively monitoring online information. Consequently, it reduces the authenticity and reliability of political information on the internet. From the perspective of information recipients, citizens tend to pay more attention to negative government information. Thereby leading to widespread, unverified, and clearly negative opinions in online spaces [43]. Extensive exposure to false or negative information about the government fosters critical scrutiny among citizens. This scrutiny lowers trust in government [44]. Furthermore, the public dissemination of sensitive topics online, such as government corruption, amplifies exposure to corruption reports. This amplification significantly heightens citizens' perception of government corruption [45]. Such heightened perception may trigger public questioning of the government [46].

Third, internet use triggers social comparison, which affects citizens' perception of fairness. This perception negatively impacts trust in government. Social problems such as rising housing prices, widening wealth gaps, and unequal public service provision are widely discussed online. The dissemination of such information may shift citizens' mindset towards negativity. A heightened sense of unfairness can threaten their trust in the government [47]. Therefore, internet use has a negative effect on government trust [48,49]. Based on this analysis, the following research hypothesis is proposed:

H1: *Internet use exerts a significant negative effect on citizens' government trust.*

3.2. Social Organization Participation and Government Trust

According to social exchange theory, trust requires continuous interaction to develop. Increasing relational connections through interaction is a key factor in building citizens' trust in government [50]. From the perspective of social interaction in trust generation, citizens' participation in social organizations plays a crucial role in mitigating the negative impact of internet use on government trust. This mitigating effect manifests in three specific aspects.

First, participation in social organizations enhances government trust by improving the process of public policy formulation and implementation. This participation increases citizens' perception of policy performance and their satisfaction with it. Social organizations provide channels for citizens to engage in public affairs governance. Through these organizations, citizens, social groups, and the government achieve communication during collaborative governance. This positive interaction helps refine policymaking and execution. It aligns public policies with public expectations. Consequently, it improves citizens' positive perception of government policy performance. This improvement then raises their trust in the government [51]. Furthermore, when citizens genuinely engage in addressing social issues through these organizations, they gain a clearer understanding of the complexities of public governance. This effective participation allows citizens to align their performance expectations more closely with reality. It also increases the perceived credibility of government performance. These outcomes ultimately foster greater trust in government [52].

Second, social organizations employ face-to-face interaction. This form of interaction breaks the "information cocoons" prevalent in online virtual spaces. Consequently, it weakens the negative impact of false and negative online information on government trust. Social organizations connect individuals of different ages, ethnicities, educational backgrounds, and political views. Members of these organizations have varied preferences for the online information they consume. Therefore, the information pool within a social organization is more diverse and richer. Furthermore, guided by the organization's norms, information exchange among members during real-world social interactions helps dispel online rumors. This process reduces the negative influence of conflictual and negative online information on government trust [28,53].

Third, participation in social organizations may enhance trust in government by reducing citizens' sense of unfairness and increasing social capital. On the one hand, participation provides members with opportunities for interaction based on shared values. Decision-making within these organizations often occurs through mutual respect, assistance, and egalitarian interaction among members [29,54]. The firsthand experience of fairness within these social interactions contrasts with the perceived macro-level social inequalities often encountered online. This contrast can partially offset feelings of unfairness. It thereby weakens the negative impact on government trust stemming from perceptions of unfairness fostered by internet use [26]. On the other hand, social organizations serve as carriers of social capital. They can foster trust and reciprocity among their members. The interpersonal

trust generated within an organization can diffuse outward. It extends to other domains of the social system. This extension influences cohesion and trust levels within the broader social context. Ultimately, it contributes to increased trust in government [28,39]. Therefore, this study proposes research hypothesis 2:

H2: *Social organization participation can mitigate the negative impact of internet use on government trust.*

4. Methodology

4.1. Data Sources

The data for this study are sourced from the Chinese General Social Survey (CGSS), conducted by Renmin University of China. The CGSS is a large-scale, continuous national sampling survey project. Its purpose is to systematically and comprehensively collect information on Chinese behavioral patterns, thinking modes, lifestyles, and social change. This data collection occurs within the context of China's rapid social transformation. The survey provides detailed and reliable data for academic and policy research. The project aims to promote the development of international comparative studies through scientific, standardized, and internationally aligned survey methods. It also seeks to summarize long-term trends in social change. Furthermore, it strives to enhance the openness and sharing of research within the Chinese social sciences.

The CGSS has established a comprehensive standardized system. This system encompasses sampling design, interviewer training, field execution, and data processing. It ensures standardized survey data. The survey employs a stratified sampling method and is conducted biennially as a cross-sectional study. The most recent publicly released dataset from the project team dates back to 2023. The 2023 CGSS covered 30 provinces, autonomous regions, and municipalities across China. This included 85 cities, 141 counties, and 560 villages/urban communities. The survey team organized 497 professional interviewers to conduct the fieldwork. After six months of research, a total of 11,326 valid questionnaires were obtained. The sample exhibits a broad geographical distribution. The questionnaire covers a wide range of topics at the individual and household levels. These include demographic attributes, housing, health, migration, lifestyle, social attitudes, class identity, political participation and attitudes, individual cognitive ability, the labor market, and social security. The data encompasses variables related to education, economics, behavior, and attitudes. It provides comprehensive data support for academic research.

Based on the research questions of this study: Does internet use have a significant negative impact on citizens' trust in government, and can social organization participation mitigate this negative impact? We selected the analytical sample from all respondents according to the following criteria to ensure the variables align with our research hypotheses: (1) Respondents needed to have answered questions from the "Political Participation Behavior and Attitudes" module, which includes the government trust variable. Out of the 11,326 questionnaires collected in 2023, a total of 5583 respondents completed this module. The reduction in sample size is primarily due to some respondents not answering the required module. (2) Respondents needed to have answered questions related to "internet use" within the lifestyle module of the questionnaire.

Consequently, the final analytical sample for this study consists of 5547 respondents from 16 provinces, autonomous regions, and municipalities in China. Regarding the key demographic characteristics of the sample, females constitute 55% and males 44%. In terms of age distribution, individuals aged 18–44 make up 26%, those aged 45–60 make up 35%, and those aged 60+ make up 39%. The sample covers a broad age range. The proportion of respondents with a college diploma or higher education is 18%, which is

close to the 2023 national figure of 19.2%. Overall, the research sample demonstrates good representativeness across key demographic features, including the gender ratio, age structure, and educational level.

4.2. Variable Selection

4.2.1. Dependent Variable

This study selects “trust in local government (no trust at all–very high trust = 1–4)” (GT) as the variable for measuring government trust. For the robustness check section, trust in central government (no trust at all–very high trust = 1–4)” serves as an alternative dependent variable.

4.2.2. Independent Variable

This study measures individual internet use with the question: “In the past year, how often did you use the internet (never–very frequently = 1–5)” (IU). For the robustness check, we use an alternative variable for the core independent variable. This variable is “Frequency of internet use in leisure time (Several times a year or less–Daily = 0–3)”. We measure individual participation in social organizations with the question: “Have you participated in social welfare organizations or consumer rights organizations (Yes = 1 and No = 0)” (SOP).

4.2.3. Control Variable

This study includes control variables to ensure robust findings. Following existing research [55,56], we account for factors that may influence government trust. The controls include individual demographic characteristics. These are gender, age, education level, family size, labor income, household registration type, and life satisfaction. Furthermore, ethnicity, religious belief, fairness perception, and social capital also affect individual government trust. Therefore, these socio-economic attributes are also included as control variables. The model additionally incorporates province dummy variables. These variables control for potential regional differences in estimation results. Table 1 presents the specific conditions of all selected variables. The table also presents descriptive statistics.

Table 1. Descriptive statistics of variables.

Variables	Description	Mean	SD	Min	Max
Dependent variable (N = 5547)					
GT	trust in local government (no trust at all–very high trust = 1–4)	2.910	0.760	1	4
Core independent variable					
IU	In the past year, how often did you use the internet (never–very frequently = 1–5)	3.562	1.535	1	5
SOP	Have you participated in social welfare organizations or consumer rights organizations (Yes = 1 and No = 0)	0.131	0.337	0	1
Control variable					
Family size	How many people are in your family	3.257	1.891	1	18
Gender	Gender of interviewee (Male = 1; Female = 0)	0.449	0.497	0	1
Age	Age of interviewee	54.546	16.334	18	94
Ethnicity	Are you of Han ethnic (yes = 1; no = 0)	0.907	0.291	0	1
Religious beliefs	Do you have religious beliefs (yes = 1; no = 0)	0.080	0.272	0	1
Education	Educational attainment (illiterate–postgraduate or above = 1–13)	5.055	3.100	1	13
Economic	Labor income last year (in millions)	0.520	2.154	0	10
Household registration	Household registration status (rural = 1; non-rural = 0)	0.605	0.489	0	1
Residence	Area of daily residence (rural = 1; urban = 0)	0.580	0.494	0	1
Fairness perception	In our society, children of workers and farmers have the same opportunities to become wealthy and attain status as others (yes = 1; no = 0).	0.760	0.427	0	1
Life evaluation	Perceived life status relative to the average person (better = 1, worse = 3)	2.209	0.365	1	3
Social capital	Trust in strangers (very trusting–not very trusting = 1–4)	3.343	0.656	1	4

4.3. Methods

Based on our hypotheses, the empirical section tests the relationships between internet use (IU), social organization participation (SOP), and government trust (GT). For the model specification, we use three equations. Equation (1) describes the relationship between internet use (IU) and government trust (GT). Equation (2) describes the relationship between social organization participation (SOP) and government trust (GT). Equation (3) includes an interaction term (JH) between internet use (IU) and participation in social organizations (SOP). It tests their combined effect on government trust. In these equations, X represents control variables that may influence these relationships. The symbols β_0 , β_1 , and β_2 are parameters to be estimated. The symbols ε_1 , ε_2 , and ε_3 are error terms.

$$GT_i = \alpha_0 + \alpha_1 IU_i + \alpha_2 X_i + \varepsilon_1 \quad (1)$$

$$GT_i = \beta_0 + \beta_1 SOP_i + \beta_2 X_i + \varepsilon_2 \quad (2)$$

$$GT_i = \theta_0 + \theta_1 JH_i + \theta_2 IU_i + \theta_3 SOP_i + \theta_4 X_i + \varepsilon_3 \quad (3)$$

The dependent variable we selected in our research is a discrete, naturally ordered variable, and its distribution does not meet the OLS model's assumptions. Therefore, it must be processed in the ranking model, like Ordered Probit Regression.

5. Results

5.1. Baseline Regression Results

Given the potential strong correlation between social organization participation and internet use, this study conducts a multicollinearity test before performing regression analysis. The test examines the regression equation containing government trust, internet use, social organization participation, and relevant control variables. The results show that all models have a mean Variance Inflation Factor below 10. Table 2 presents these results. This finding indicates that social organization participation, internet use, and other explanatory variables do not exhibit significant multicollinearity. Therefore, variable correlations will not affect the subsequent empirical results.

Table 2. Multicollinearity test.

Variables	VIF	1/VIF
Education	1.86	0.539
Age	1.79	0.560
Household registration	1.69	0.591
Residence	1.58	0.633
IU	1.49	0.670
Family size	1.08	0.928
SOP	1.07	0.936
Social capital	1.05	0.951
Life evaluation	1.05	0.953
Ethnicity	1.05	0.957
Fairness perception	1.04	0.962
Gender	1.04	0.963
Religious beliefs	1.03	0.971
Economic	1.00	0.998
Mean VIF	1.27	

This study uses Stata 17.0 to examine whether participation in social organizations reduces the negative impact of internet use on government trust. The dependent variable measures government trust as a discrete variable ranging from 1 to 4. The baseline regres-

sion applies an Ordered Probit model. The model includes an interaction term between social organization participation and internet use. This term tests the proposed hypothesis. Table 3 presents the empirical results. Models 1–3 gradually introduce control variables and province dummy variables. Internet use shows a negative and statistically significant coefficient. This result indicates that internet use negatively affects government trust. Therefore, Hypothesis H1 receives support. Models 4–6 incorporate control variables and province dummy variables. Social organization participation demonstrates a significantly positive effect on government trust. This finding means social organization participation helps strengthen government trust. Models 7–9 sequentially add control variables and province dummy variables. The results demonstrate how the interaction between social organization participation and internet use affects government trust. Internet use maintains a negative coefficient with statistical significance. This pattern confirms the significant negative impact of internet use on government trust. Meanwhile, the interaction term between social organization participation and internet use shows a positive coefficient. This coefficient achieves statistical significance. This finding indicates that participation in social organizations reduces the negative impact of internet use on government trust. Thus, Hypothesis H2 obtains confirmation. The results with complete control variables are shown in Appendix A.

Table 3. Results of Oprobit and IV-Oprobit regression.

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	IV-Oprobit
IU	−0.054 *** (0.010)	−0.019 (0.012)	−0.022 * (0.012)				−0.061 *** (0.010)	−0.028 ** (0.012)	−0.031 ** (0.012)	−0.097 *** (0.035)
SOP				0.030 (0.044)	0.128 *** (0.045)	0.135 *** (0.047)	−0.179 (0.147)	−0.173 (0.148)	−0.170 (0.149)	−0.143 (0.149)
JH							0.060 * (0.035)	0.076 ** (0.035)	0.077 ** (0.035)	0.070 ** (0.035)
Control variable	Uncontrolled	Controlled	Controlled	Uncontrolled	Controlled	Controlled	Uncontrolled	Controlled	Controlled	Controlled
Province	Uncontrolled	Uncontrolled	Controlled	Uncontrolled	Uncontrolled	Controlled	Uncontrolled	Uncontrolled	Controlled	Controlled
Observations	5547	5547	5547	5547	5547	5547	5547	5547	5547	5547
<i>p</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: (1) Robust t statistics in parentheses; (2) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

5.2. Endogeneity Issue Test

Endogeneity issues, such as omitted variables and reverse causality, may lead to inconsistent and biased estimates in Ordered Probit regressions. Two specific problems exist. First, the baseline regression might omit controls for other factors affecting government trust. Cultural traditions represent one such factor. Second, a reverse causal relationship may exist between internet use and government trust. Specifically, citizens' trust in the government influences their selective browsing of government information online. Lower government trust makes citizens more inclined to search for information online that confirms their suspicions about the government. These citizens use the internet more frequently to access negative information. This increased exposure further strengthens their distrust in the government, creating a vicious cycle [57]. This study uses the instrumental variable approach to address endogeneity. The method controls for endogeneity bias in empirical results. Wooldridge (2015) states that the introduction of instrumental variables can control for endogeneity in estimates [58]. An effective instrumental variable must satisfy three necessary conditions. First, the correlation criterion requires that the instrumental variable causally affects the independent variable. Second, the independence criterion means that

there is no confounding between the instrumental variable and the dependent variable. Third, the exclusion criterion dictates that the instrumental variable affects the outcome only through the independent variable. The instrumental variable cannot directly influence the dependent variable. Therefore, this study introduces an IV-Oprobit regression based on the Ordered Probit framework. This approach eliminates the endogeneity bias caused by explanatory variables.

The analysis selects two instrumental variables to address potential endogeneity in the baseline regression. The first variable measures the respondent's distance from the urban center. The second variable represents the county-level average frequency of internet use. The selection follows three justifications. First, distance from the urban center is a geographical variable. This variable remains objective and constant. It is unaffected by natural conditions or social factors. Areas closer to urban centers typically have better infrastructure. Individuals in these areas can access superior internet facilities. Second, county-level internet usage represents an aggregate measure. Peer effects influence individual behavior. Individuals in high-usage environments show a higher probability and frequency of internet use. Therefore, these instrumental variables correlate with internet use. Third, survey results demonstrate observable variation in government trust across different regions. Both high and low trust levels appear in areas near urban centers. The same pattern occurs in remote areas. High and low trust also exist in countries with different internet usage levels. Therefore, the instrumental variables "respondent's distance from the urban center" and "county-level average internet use" do not directly affect an individual citizen's trust in government. These variables influence an individual citizen's trust in government indirectly by affecting their personal internet use. The distance variable "respondent's distance from the urban center" may influence regional inequality. This influence could indirectly affect government trust. Following the approaches of Gabriel (2022) and Su et al. (2024) [59,60], this study controls for two categories of control variables: regional effects and fairness perception (see Table 1). In the econometric models, province dummy variables are introduced. These variables control for potential regional differences at the provincial level. Furthermore, individual-level control variables are included. These controls encompass income, education, and fairness perception. They capture potential socio-economic inequalities that sample individuals may face. Consequently, the chosen instrumental variables in this study are more likely to satisfy the exclusion restriction.

To test the validity of the instrumental variable, this paper uses the 2SLS first-stage regression to assess the correlation between the instrumental variables and the core independent variables. The statistical value of the F-test is 64.38, which satisfies the empirical rule that the statistical value of the first-stage F-test should exceed 10 [58]. This result indicates that the instrumental variables are well correlated with the core independent variables and that there is no weak-instrument problem. To further verify whether the instrumental variable is uncorrelated with the stochastic disturbance term, the overidentification test for all instrumental variables produces a Sargan statistic p -value greater than 0.1. This result indicates that the test fails to reject the null hypothesis of exogeneity of the instruments. Therefore, the instrumental variables are unrelated to other unobserved factors.

Model 10 presents the instrumental variable regression results. Internet use shows a negative coefficient with statistical significance. This finding indicates that internet use significantly negatively affects government trust. Hypothesis H1 receives confirmation again. The interaction term between social organization participation and internet use shows a positive, significant coefficient. This result demonstrates that participation in social organizations reduces the negative impact of internet use on government trust. Thus, Hypothesis H2 is again validated.

5.3. Robustness Test

5.3.1. Robustness Test with Alternative Variables

This study conducts robustness checks to verify the baseline and instrumental variable results. The analysis employs variable replacement methods to test whether participation in social organizations reduces the negative impact of internet use on government trust. Specifically, the study uses “trust in central government officials” as an alternative dependent variable. The study also uses “frequency of internet use during leisure time” as an alternative independent variable. These replacements re-examine the baseline regression results. Table 4 presents the results after controlling for regional differences and relevant control variables. Models 11–12 show the robustness check with the replaced dependent variable. Internet use shows a negative, statistically significant coefficient. This finding indicates that internet use significantly reduces trust in government. The verification results for research Hypothesis H1 demonstrate robustness. The interaction term between social organization participation and internet use shows a positive and significant coefficient. This result means social organization participation helps reduce the negative impact of internet use on government trust. The testing results for Hypothesis H2 also demonstrate robustness. Models 14–16 present the robustness check with the replaced independent variable. Internet use maintains a negative and statistically significant coefficient. This finding confirms that internet use significantly reduces trust in government. The interaction term between social organization participation and internet use remains positive and significant. This pattern indicates that participation in social organizations reduces the negative impact of internet use on government trust. Both variable replacement approaches again confirm the robustness of the baseline regression and instrumental variable results.

Table 4. The results of the robustness test (alternative variables)

Variables	Replace Dependent Variable			Replace Independent Variable		
	(11)	(12)	(13)	(14)	(15)	(16)
IU	−0.071 *** (0.010)	−0.026 ** (0.012)	−0.026 ** (0.013)			
SOP	−0.248 * (0.150)	−0.260 * (0.151)	−0.243 (0.152)			
JH	0.076 ** (0.035)	0.092 ** (0.036)	0.09106 ** (0.036)			
IU				−0.089 *** (0.024)	−0.057 ** (0.025)	−0.064 ** (0.026)
SOP				−0.290 (0.184)	−0.270 (0.186)	−0.282 (0.187)
JH				0.131 ** (0.066)	0.149 ** (0.066)	0.158 ** (0.066)
Control variable	Uncontrolled	Controlled	Controlled	Uncontrolled	Uncontrolled	Controlled
Province	Uncontrolled	Uncontrolled	Controlled	Uncontrolled	Controlled	Controlled
Observations	5547	5547	5547	4179	4179	4179
<i>p</i>	0.000	0.000	0.000	0.000	0.000	0.000

Note: (1) Robust t statistics in parentheses; (2) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

5.3.2. Robustness Test with Alternative Estimation Methods

This study further employs three different estimation methods to test the robustness of the baseline regression results. First, a clustering approach is used to address potential correlations among individuals within the same village or community. Under the assumption that such correlations exist, the results in Model 17 of Table 5 show that internet use still has a significant negative impact on government trust. The coefficient for the interac-

tion term between internet use and social organization participation remains positive and significant at the 5% level. These findings are consistent with the baseline results. Second, the Oprobit model used in the baseline regression is replaced with an Ologit model, which has a different error distribution. This tests the sensitivity of the results to assumptions about the distribution of the error term. The results in Model 18 of Table 5 show that the core independent variable remains significantly negative at the 1% level. The interaction term coefficient is also positive and significant. This outcome consistency matches the baseline findings. Third, the dependent variable is recoded. The original four-category government trust variable is transformed into a binary variable. Both Probit and Logit models are then used for estimation. The results from these two regression models (Models 19 and 20 in Table 5) both indicate that internet use continues to have a significant negative impact on government trust. The coefficient for the interaction term remains positive and significant at the 1% level. The outcomes from all three alternative estimation methods are consistent with the baseline regression results. This agreement demonstrates the robustness of the findings.

Table 5. The results of the robustness test (estimation methods).

	(17)	(18)	(19)	(20)
	Cluster	Ologit	Probit	Logit
IU	−0.031 ** (0.013)	−0.068 *** (0.022)	−0.040 ** (0.016)	−0.068 ** (0.028)
SOP	−0.157 (0.149)	−0.255 (0.262)	−0.281 (0.201)	−0.489 (0.352)
JH	0.075 ** (0.034)	0.124 ** (0.062)	0.127 *** (0.048)	0.226 *** (0.084)
Control variable	Controlled	Controlled	Controlled	Controlled
Province	Controlled	Controlled	Controlled	Controlled
Observations	5547	5547	5547	5547
<i>p</i>	0.038	0.039	0.091	0.092

Note: (1) Robust t statistics in parentheses; (2) ** $p < 0.05$, *** $p < 0.01$.

5.4. Heterogeneity Analysis

China shows significant regional differences in government performance. The country also exhibits substantial gaps in urban–rural development. China contains numerous ethnic groups. These factors influence political trust levels [55]. This study conducts a heterogeneity analysis after demonstrating that participation in social organizations reduces the negative impact of internet use on government trust. The analysis explores whether this reducing effect differs across development regions, household registration types, ethnic groups, and gender groups. Table 6 presents the results of the heterogeneity analysis. The regional heterogeneity analysis shows eastern provinces have insignificant coefficients for internet use, social organization participation, and their interaction term. Central and western provinces show a significantly negative coefficient for internet use. These provinces also display a significantly positive interaction term coefficient. This pattern indicates that participation in social organizations reduces the negative impact of internet use on government trust in central and western provinces. The household registration heterogeneity analysis shows that rural households have a significantly negative coefficient for internet use. The interaction term between social organization participation and internet use shows a significantly positive coefficient. This finding indicates that participation in social organizations reduces the negative impacts of internet use among rural residents. Urban households show an insignificant coefficient for internet use. However, the interaction term remains significantly positive. The ethnic heterogeneity analysis shows minority

groups have insignificant coefficients for both internet use and the interaction term. The Han ethnic group shows a significantly negative coefficient for internet use. The Han ethnic group also displays a significantly positive interaction term coefficient. This result confirms that participation in social organizations reduces the negative impacts of internet use among the Han ethnic group. The gender heterogeneity analysis shows male groups have insignificant coefficients for both internet use and the interaction term. Female groups show a significantly negative coefficient for internet use. Female groups also display a significantly positive interaction term coefficient. This finding indicates that participation in social organizations reduces the negative impacts of internet use among females.

Table 6. The results of heterogeneity Test.

	Regions		Household Registration		Ethnic Groups		Gender Groups	
	Eastern Provinces	Central and Western Provinces	Rural Households	Urban Households	Ethnic Minority	Han Ethnic Group	Male	Female
IU	−0.001 (0.021)	−0.036 ** (0.016)	−0.040 * (0.021)	−0.010 (0.016)	−0.056 (0.045)	−0.0223 * (0.013)	−0.010 (0.017)	−0.041 ** (0.019)
SOP	−0.073 (0.228)	−0.333 (0.208)	−0.401 * (0.219)	−0.164 (0.219)	−0.106 (0.441)	−0.319 * (0.163)	−0.101 (0.221)	−0.437 ** (0.212)
JH	0.034 (0.052)	0.126 ** (0.050)	0.010 ** (0.050)	0.103 * (0.053)	0.131 (0.111)	0.101 *** (0.038)	0.040 (0.051)	0.157 *** (0.051)
Control variable	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Province	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled	Controlled
Observations	2195	3352	2189	3358	518	5029	3059	2488
<i>p</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: (1) Robust t statistics in parentheses; (2) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

6. Discussion

Virtual social interaction, facilitated by the internet, is becoming increasingly prevalent. However, virtual interactions often contain false or negative information. This issue arises from the difficulty of monitoring online content and the exponential spread of such information. Consequently, virtual social interaction triggers a crisis of government trust [41,49]. Therefore, recent research has begun exploring ways to counter the government trust crisis arising from virtual interaction [61]. For instance, Lim et al. (2024) suggest that new forms of social governance, like e-government, can help alleviate government trust crises [62]. Overall, most research on this topic focuses on monitoring and improving the online environment. It aims to bridge information gaps and increase government transparency. In contrast, social organizations formed around shared real-world goals offer different potential. Compared to virtual interaction guided by information algorithms, these organizations provide a promising avenue for reducing government trust crises.

The main goal of this study is to examine the impact of internet use and participation in social organizations on government trust. We use social exchange theory to analyze how virtual and real-world social interactions affect trust. We used 5547 survey responses from China in 2023. We empirically tested the effects of internet use, social organization participation, and their interaction on government trust. We also examined heterogeneity in these effects. Our key finding is that virtual social interaction online has a significant negative impact on government trust. This finding aligns with existing studies. These studies note that the internet amplifies the spread of false, controversial, and emotional information. Such amplification leads to a decline in citizens' trust in government [63–65]. However, our conclusion contradicts studies [48,66]. Those studies argue that state-controlled internet infrastructure, through censorship and official media, filters information and promotes

positive state narratives. They claim this can enhance public trust in the government. Furthermore, we find that participation in social organizations can mitigate the negative impact of internet use on trust. Face-to-face interaction offers higher contact density and reciprocity. Such interaction better facilitates the formation and enhancement of government trust.

In China's context of "strong government-weak social", Chinese social organizations operate under state oversight. The Chinese government regulates these organizations to ensure legal compliance and standardize their operations. As an effective means for citizens to participate in public affairs governance, Chinese social organizations mobilize members to actively engage in community building, local self-governance, and the formulation and implementation of public policies. Consequently, Chinese social organizations primarily perform functions like communication and coordination. These functions facilitate positive interactions between citizens and the government. This helps mitigate the negative impact of internet use on public trust in government. In contrast, in Western nations such as the United States, Canada, and the EU, social organizations are legally defined as non-political and non-partisan. However, in practice, some Western social organizations exhibit political leanings. Examples include advocating for "anarchism", opposing "non-democratic states", or promoting "democracy export". Therefore, the relationship between social organizations and governments in Western countries is highly complex. It encompasses both cooperative and adversarial dynamics. This variation in the state-society relationship leads to different outcomes regarding how organizations mediate citizen-government relations and enhance government trust. When Western social organizations resemble their Chinese counterparts—enabling civic participation in policymaking and acting as complementary partners to the government—their participation can also serve as a practical pathway to enhancing government trust in the digital age. However, when Western organizations exhibit an adversarial stance, aiming to check governmental power or channel public discontent into demands for government accountability, the dynamic changes. Over time, such sustained confrontation can erode the legitimacy of political institutions. In these cases, the role of social organization participation in fostering government trust may diminish or even cease.

Further heterogeneity analysis shows the mitigating effect varies across regions and groups. (1) China has achieved remarkable economic growth and poverty reduction. However, unbalanced development creates disparities in regional economies and individual living standards. This imbalance also leads to decreased citizen trust in government [50,67,68]. For provincial and household registration heterogeneity, the effect is not significant in eastern provinces and among urban residents. A possible reason is that these groups generally experience better living conditions. They are more satisfied with the government's economic performance. Therefore, online negative information has less impact on their trust. In central/western provinces and among rural residents, participation in social organizations significantly mitigates the negative impact of internet use. A possible reason is that these less developed areas have greater needs. These needs include income, education, and infrastructure. Online information highlighting these gaps can foster a sense of deprivation and government underperformance. Thus, they are more likely to voice public service demands through social organizations. This participation helps offset the negative impact on trust from perceived online inequalities. (2) In multi-ethnic nations, ethnicity is a key factor shaping public trust in government. For instance, trust in the U.S. government exhibits a non-uniform distribution [69]. This variation is strongly associated with ethnic identity. Differences in perceptions of fairness and security are the primary reasons for the disparate levels of political trust across ethnic groups. While democratic theory in the United States advocates for equality, in practice, ethnic minorities often face unequal treatment. They frequently occupy disadvantaged positions in areas such as wealth, healthcare, and employment. Consequently, this sense of unfairness leads

ethnic minorities in the U.S. to be skeptical of the principle of equality. It also results in lower levels of trust in the U.S. government [70]. However, our heterogeneity tests show a different pattern in China. Among ethnic minorities in China, the coefficients for internet use and the interaction term are not significant. The mitigating effect of social organization participation is only significant within the Han ethnic group. A possible explanation lies in the link between government trust and perceived political and economic performance. China has implemented long-term supportive policies for ethnic minorities and their regions. Examples include the “Revitalizing Border Areas and Enriching Residents” program and paired assistance policies. These efforts continuously improve public services, such as education and healthcare, in minority areas. Therefore, ethnic minorities may directly perceive government performance through these specific benefits. This direct perception might reduce the relative importance of social organization participation for building their trust. (3) Lissitsa (2021) notes that men generally show higher trust in political systems than women [39]. Our gender-heterogeneity test also shows that the mitigating effect is significant only among women. A possible reason is that social organizations provide women with more opportunities to engage in public affairs governance. This increased interaction with the government enhances their understanding and trust in it.

The findings of this study, within the Chinese context, confirm that participation in social organizations can mitigate the negative impact of internet use on government trust. This contributes to the theoretical discourse in two main dimensions. On one hand, the study supplements the theoretical understanding of government trust in the internet era. It demonstrates that trust in the digital environment is not solely determined by digital technology itself but is significantly influenced by the social interaction context. The results reveal that the internet’s effect on government trust is embedded within specific social interactions. Within social organizations, guided by organizational norms and member oversight, individuals engage in long-term, frequent, and face-to-face interactions in the real world. These interactions, focused on addressing shared political and economic issues, ultimately enhance public trust in government. By extending Social Exchange Theory to the study of government trust, this research provides new evidence for the application of social interaction theory in blended virtual and physical environments. On the other hand, classic social capital theory posits that trust generated through social interaction has a spillover effect, increasing trust within broader social systems. However, it remains unclear whether this spillover extends to government trust. This study provides empirical evidence from China that addresses this question. The increase in trust fostered through social interaction can extend to trust in the government. This finding broadens the applicable boundaries of social capital theory.

7. Conclusions, Implications and Limitations

This study uses survey data from 5547 respondents in 16 Chinese provinces. It investigates the relationship between internet use, social organization participation, and government trust. The empirical findings are as follows. First, internet use has a significant negative impact on government trust. Second, participation in social organizations can mitigate the negative impact of internet use on government trust. Third, this mitigating effect shows heterogeneity across different groups. It is significant in central and western provinces, among rural residents, within the Han ethnic group, and for female respondents.

The findings of this study offer several policy implications for enhancing government trust in the complex digital environment. First, the policy should focus on the bridging function of social organizations. Governments need to establish institutionalized channels for participation. Social organizations can break cocoons of information through targeted rumor refutation. These organizations should utilize their community penetration to dis-

pel false information. Social organizations should also strengthen policy interpretation functions. This approach helps citizens enhance their understanding and recognition of public policies through participation. Second, governments should optimize collaborative relationships with social organizations. Such optimization creates governance synergy. Institutional design can incorporate different types of social organizations into public affairs governance. Key areas include education, healthcare, and employment. Governments should encourage cooperation with social organizations. Such cooperation leverages social organizations' governance participation and trust enhancement functions. Third, digital governance requires improvement. Such improvements enhance citizens' participation in digital governance and their capabilities. Governments can establish digital platforms for citizen participation in governance. These platforms promote direct citizen involvement in public affairs governance. Such involvement increases citizen understanding and acceptance of government work. Digital platforms directly increase interaction between citizens and governments. Such interaction enables governments to respond more quickly and effectively to citizens' needs. This responsiveness subsequently strengthens citizen trust in government. Fourth, the internet environment needs optimization. Governments should strengthen online supervision. Such supervision prevents the exponential spread of false information and negative discourse.

This study also has some limitations. First, this study uses data from a leading Chinese database. The sample is sufficient and representative. However, the survey data is cross-sectional from 2023. It cannot capture the dynamic evolution of how participation in social organizations affects government trust. This study's measurement of social organization participation does not distinguish between different motivations, frequencies, or types of organizations involved. In reality, participation behavior is far more complex and diverse than our variable captures. Due to data availability constraints, participation is measured solely based on involvement in two specific types of organizations: social welfare organizations and consumer rights organizations. This operationalization cannot encompass the full spectrum of possible social organization types. Furthermore, it cannot fully capture nuances such as the frequency of participation or the underlying willingness to engage. Therefore, future research needs to obtain richer data on social organization participation. This would enable a more systematic investigation into how different dimensions—such as the type of organization, frequency of participation, and motivation for involvement—specifically affect the relationship between internet use and government trust. Second, data and sample limitations prevent a more detailed mechanism analysis. Our research only answers “if” social organization participation mitigates the negative impact. It does not explain “why” this happens. The underlying mechanism remains unexamined. Therefore, future research should use longitudinal panel data. Such data would allow observation of the long-term interactive relationships between social organization participation, internet use, and government trust. Such an approach would help analyze the dynamic pathways for enhancing government trust.

Author Contributions: Conceptualization, Y.L.; methodology, Y.L.; software, Y.L.; validation, Y.L.; formal analysis, Y.L.; investigation, Y.L.; resources, Y.L.; data curation, Y.L.; writing—original draft preparation, Y.L.; writing—review and editing, Y.L.; visualization, Y.S.; supervision, J.L.; project administration, X.C.; funding acquisition, X.C. All authors have read and agreed to the published version of the manuscript.

Funding: This research is supported by the project “Innovation Project of Guangxi Graduate Education” (Grant No.: YCBZ2025070; Funder: Education Department of Guangxi Zhuang Autonomous Region).

Data Availability Statement: The data that support the findings of this study are available in the Chinese General Social Survey. The link to the Chinese General Social Survey is as follows: <https://www.cnsda.org/index.php?r=site/datarecommendation>, accessed on 19 November 2025.

Conflicts of Interest: The authors declare no conflicts of interest.

Appendix A

Table A1. Results of Oprobit and IV-Oprobit regression (with all control variables).

	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)
	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	Oprobit	IV-Oprobit
IU	−0.054 *** (0.010)	−0.019 (0.012)	−0.022 * (0.012)				−0.061 *** (0.010)	−0.028 ** (0.012)	−0.031 ** (0.012)	−0.097 *** (0.035)
SOP				0.030 (0.044)	0.128 *** (0.045)	0.135 *** (0.047)	−0.179 (0.147)	−0.173 (0.148)	−0.170 (0.149)	−0.143 (0.149)
JH							0.060 * (0.035)	0.076 ** (0.035)	0.077 ** (0.035)	0.070 ** (0.035)
Family size		0.009 (0.008)	0.007 (0.007)		0.009 (0.008)	0.007 (0.008)		0.009 (0.008)	0.007 (0.008)	0.006 (0.008)
Gender		−0.017 (0.030)	−0.018 (0.031)		−0.018 (0.030)	−0.019 (0.031)		−0.017 (0.030)	−0.018 (0.031)	−0.019 (0.031)
Age		0.002 (0.001)	0.002 (0.001)		0.002 ** (0.001)	0.003 ** (0.001)		0.001 (0.001)	0.002 (0.001)	−0.001 (0.002)
Ethnicity		−0.074 (0.052)	−0.067 (0.059)		−0.073 (0.052)	−0.065 (0.059)		−0.071 (0.052)	−0.061 (0.059)	−0.047 (0.059)
Religious beliefs		0.005 (0.055)	0.037 (0.056)		−0.004 (0.055)	0.033 (0.056)		−0.003 (0.055)	0.031 (0.056)	0.030 (0.056)
Education		−0.014 ** (0.006)	−0.008 (0.007)		−0.017 *** (0.006)	−0.012 * (0.007)		−0.017 ** (0.006)	−0.011 * (0.007)	−0.007 (0.007)
Economic		−0.011 (0.007)	−0.009 (0.007)		−0.010 (0.007)	−0.009 (0.007)		−0.011 (0.007)	−0.009 (0.007)	−0.010 (0.007)
Household registration		0.164 *** (0.039)	0.141 *** (0.040)		0.174 *** (0.039)	0.151 *** (0.04)		0.168 *** (0.039)	0.144 *** (0.040)	0.130 *** (0.041)
Residence		0.196 *** (0.038)	0.160 *** (0.040)		0.204 *** (0.038)	0.163 *** (0.040)		0.197 *** (0.038)	0.157 *** (0.040)	0.140 *** (0.040)
Fairness perception		0.269 *** (0.035)	0.255 *** (0.035)		0.268 *** (0.035)	0.254 *** (0.035)		0.270 *** (0.035)	0.255 *** (0.036)	0.255 *** (0.035)
Life evaluation		−0.101 ** (0.042)	−0.107 ** (0.042)		−0.089 ** (0.042)	−0.094 ** (0.042)		−0.096 ** (0.042)	−0.103 ** (0.042)	−0.120 *** (0.043)
Social capital		−0.192 *** (0.023)	−0.169 *** (0.024)		−0.192 *** (0.023)	−0.168 *** (0.024)		−0.192 *** (0.023)	−0.168 *** (0.024)	−0.166 *** (0.024)
Province	Uncontrolled	Uncontrolled	Controlled	Uncontrolled	Uncontrolled	Controlled	Uncontrolled	Uncontrolled	Controlled	Controlled
Observations	5547	5547	5547	5547	5547	5547	5547	5547	5547	5547
<i>p</i>	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: (1) Robust t statistics in parentheses; (2) * $p < 0.1$, ** $p < 0.05$, *** $p < 0.01$.

References

1. Kang, S.; Zhu, J. Do people trust the government more? Unpacking the distinct impacts of anticorruption policies on political trust. *Polit. Res. Q.* **2021**, *74*, 434–449. [CrossRef]
2. Grimmelikhuisen, S. Linking transparency, knowledge and citizen trust in government: An experiment. *Int. Rev. Adm. Sci.* **2012**, *78*, 50–73. [CrossRef]
3. Wang, Q.; Guan, Z. Can sunlight disperse mistrust? A meta-analysis of the effect of transparency on citizens' trust in government. *J. Public Adm. Res. Theory* **2023**, *33*, 453–467. [CrossRef]
4. Wu, J.; Li, Y.; Song, C. Temporal dynamics of political trust in China: A cohort analysis. *China Inf.* **2020**, *34*, 109–136. [CrossRef]
5. Grimmelikhuisen, S. Explaining why the computer says no: Algorithmic transparency affects the perceived trustworthiness of automated decision-making. *Public Adm. Rev.* **2023**, *83*, 241–262. [CrossRef]

6. Robinson, M.J. Public affairs television and the growth of political malaise: The case of “The Selling of the Pentagon”. *Am. Polit. Sci. Rev.* **1976**, *70*, 409–432. [\[CrossRef\]](#)
7. Norris, P. Does television erode social capital? A reply to Putnam. *PS Polit. Sci. Polit.* **1996**, *29*, 474–480. [\[CrossRef\]](#)
8. Kaid, L.L. Effects of political information in the 2000 presidential campaign: Comparing traditional television and Internet exposure. *Am. Behav. Sci.* **2003**, *46*, 677–691. [\[CrossRef\]](#)
9. Jensen, C.; Piatak, J. Public service motivation and trust in government: An examination across the federal, state, and local levels in the United States. *Am. Rev. Public Adm.* **2024**, *54*, 107–118. [\[CrossRef\]](#)
10. Córdova, A.; Layton, M.L. When is “delivering the goods” not good enough? How economic disparities in Latin American neighborhoods shape citizen trust in local government. *World Polit.* **2016**, *68*, 74–110. [\[CrossRef\]](#)
11. Hetherington, M.J. The political relevance of political trust. *Am. Polit. Sci. Rev.* **1998**, *92*, 791–808. [\[CrossRef\]](#)
12. Yang, J.; Dong, C.; Chen, Y. Government’s economic performance fosters trust in government in China: Assessing the moderating effect of respect for authority. *Soc. Indic. Res.* **2021**, *154*, 545–558. [\[CrossRef\]](#)
13. Newton, K. Trust, social capital, civil society, and democracy. *Int. Polit. Sci. Rev.* **2001**, *22*, 201–214. [\[CrossRef\]](#)
14. Qi, L.; Gong, H. Local government performance: Promoting trust in local government and reducing trust gap. *Local Gov. Stud.* **2025**, *51*, 726–746. [\[CrossRef\]](#)
15. Miller, A.H. Political issues and trust in government: 1964–1970. *Am. Polit. Sci. Rev.* **1974**, *68*, 951–972. [\[CrossRef\]](#)
16. Bélanger, F.; Carter, L. Trust and risk in e-government adoption. *J. Strateg. Inf. Syst.* **2008**, *17*, 165–176. [\[CrossRef\]](#)
17. Keele, L. Social capital and the dynamics of trust in government. *Am. J. Polit. Sci.* **2007**, *51*, 241–254. [\[CrossRef\]](#)
18. Myeong, S.; Seo, H. Which type of social capital matters for building trust in government? Looking for a new type of social capital in the governance era. *Sustainability* **2016**, *8*, 322. [\[CrossRef\]](#)
19. Mansoor, M. Citizens’ trust in government as a function of good governance and government agency’s provision of quality information on social media during COVID-19. *Gov. Inf. Q.* **2021**, *38*, 101597. [\[CrossRef\]](#)
20. Sabatini, F.; Sarracino, F. Online networks and subjective well-being. *Kyklos* **2017**, *70*, 456–480. [\[CrossRef\]](#)
21. Castellacci, F.; Tveito, V. Internet use and well-being: A survey and a theoretical framework. *Res. Policy* **2018**, *47*, 308–325. [\[CrossRef\]](#)
22. Zheng, Y.; Walsham, G. Inequality of what? An intersectional approach to digital inequality under COVID-19. *Inf. Organ.* **2021**, *31*, 100341. [\[CrossRef\]](#)
23. Frydman, J.L.; Gelfman, L.P.; Goldstein, N.E.; Kelley, A.S.; Ankuda, C.K. The digital divide: Do older adults with serious illness access telemedicine? *J. Gen. Intern. Med.* **2022**, *37*, 984–986. [\[CrossRef\]](#)
24. Zhu, Z.; Ma, W.; Sousa-Poza, A.; Leng, C. The effect of internet usage on perceptions of social fairness: Evidence from rural China. *China Econ. Rev.* **2020**, *62*, 101508. [\[CrossRef\]](#)
25. Miao, J.; Kuang, J.; Yang, L.; Chen, M.; Tian, X. Internet use and social trust: Empirical analysis based on CGSS2021. *Front. Sociol.* **2025**, *9*, 1422731. [\[CrossRef\]](#)
26. Schüttoff, U.; Pawlowski, T.; Downward, P.; Lechner, M. Sports participation and social capital formation during adolescence. *Soc. Sci. Q.* **2018**, *99*, 683–698. [\[CrossRef\]](#)
27. Parr, C.S. Does social media undermine trust? Institutional trust in civil society and governance institutions. *J. Public Policy* **2025**, *45*, 737–760. [\[CrossRef\]](#)
28. Van Ingen, E.; Bekkers, R. Generalized trust through civic engagement? Evidence from five national panel studies. *Polit. Psychol.* **2015**, *36*, 277–294. [\[CrossRef\]](#)
29. Sønderskov, K.M. Does generalized social trust lead to associational membership? Unravelling a bowl of well-tossed spaghetti. *Eur. Sociol. Rev.* **2011**, *27*, 419–434. [\[CrossRef\]](#)
30. Burrmann, U.; Braun, S.; Mutz, M. In whom do we trust? The level and radius of social trust among sport club members. *Int. Rev. Sociol. Sport* **2020**, *55*, 416–436. [\[CrossRef\]](#)
31. Song, E.E. How outsourcing social services to NGOs bolsters political trust in China: Evidence from Shanghai. *Soc. Sci. Q.* **2024**, *9*, 36–62. [\[CrossRef\]](#)
32. Schultz-Jones, B. Examining information behavior through social networks: An interdisciplinary review. *J. Doc.* **2009**, *65*, 592–631. [\[CrossRef\]](#)
33. Gouldner, A.W. The norm of reciprocity: A preliminary statement. *Am. Sociol. Rev.* **1960**, *25*, 161–178. [\[CrossRef\]](#)
34. Mitchell, M.S.; Cropanzano, R.S.; Quisenberry, D.M. Social exchange theory, exchange resources, and interpersonal relationships: A modest resolution of theoretical difficulties. In *Handbook of Social Resource Theory: Theoretical Extensions, Empirical Insights, and Social Applications*; Springer: New York, NY, USA, 2012; pp. 99–118. [\[CrossRef\]](#)
35. Enikolopov, R.; Makarin, A.; Petrova, M. Social media and protest participation: Evidence from Russia. *Econometrica* **2020**, *88*, 1479–1514. [\[CrossRef\]](#)
36. Little, A.T. Communication technology and protest. *J. Polit.* **2016**, *78*, 152–166. [\[CrossRef\]](#)

37. da Silva Neto, V.J.; Chiarini, T. Technological progress and political systems: Non-institutional digital platforms and political transformation. *Technol. Soc.* **2021**, *64*, 101460. [\[CrossRef\]](#)
38. Blanco, L.; Ruiz, I. The impact of crime and insecurity on trust in democracy and institutions. *Am. Econ. Rev.* **2013**, *103*, 284–288. [\[CrossRef\]](#)
39. Lissitsa, S. Effects of digital use on trust in political institutions among ethnic minority and hegemonic group—A case study. *Technol. Soc.* **2021**, *66*, 101633. [\[CrossRef\]](#)
40. Gainous, J.; Wagner, K.M.; Abbott, J.P. Civic disobedience: Does internet use stimulate political unrest in East Asia? *J. Inf. Technol. Polit.* **2015**, *12*, 219–236. [\[CrossRef\]](#)
41. Zhou, D.; Deng, W.; Wu, X. Impacts of internet use on political trust: New evidence from China. *Emerg. Mark. Financ. Trade* **2020**, *56*, 3235–3251. [\[CrossRef\]](#)
42. Tsfati, Y. Online news exposure and trust in the mainstream media: Exploring possible associations. *Am. Behav. Sci.* **2010**, *54*, 22–42. [\[CrossRef\]](#)
43. Zhu, Z.; Liu, Y.; Kapucu, N.; Peng, Z. Online media and trust in government during crisis: The moderating role of sense of security. *Int. J. Disaster Risk Reduct.* **2020**, *50*, 101717. [\[CrossRef\]](#)
44. You, Y.; Yu, S.; Xiao, S. Once Accessing the Internet, Less Trusting of Local Officials? Evidence from a Panel Survey in China. *Society* **2022**, *59*, 723–734. [\[CrossRef\]](#)
45. Zhu, J.; Lu, J.; Shi, T. When grapevine news meets mass media: Different information sources and popular perceptions of government corruption in mainland China. *Comp. Polit. Stud.* **2013**, *46*, 920–946. [\[CrossRef\]](#)
46. Gebrihet, H.G. The effects of the perception of corruption on public trust in government in Africa: A comparative analysis. *Politikon* **2024**, *51*, 18–39. [\[CrossRef\]](#)
47. Li, Y.; Shang, H. How does e-government use affect citizens' trust in government? Empirical evidence from China. *Inf. Manag.* **2023**, *60*, 103844. [\[CrossRef\]](#)
48. Lu, J.; Qi, L.; Yu, X. Political trust in the internet context: A comparative study in 36 countries. *Gov. Inf. Q.* **2019**, *36*, 101386. [\[CrossRef\]](#)
49. Lu, H.; Tong, P.; Zhu, R. Does Internet use affect netizens' trust in government? Empirical evidence from China. *Soc. Indic. Res.* **2020**, *149*, 167–185. [\[CrossRef\]](#)
50. Lin, X.; Zeng, R. Trust in E-government as a Tool to Shape Political Trust Between Urban and Rural Residents: An Empirical Study Based on Trust Theories. *SAGE Open* **2025**, *15*, 21582440251382154. [\[CrossRef\]](#)
51. Yang, K.; Holzer, M. The performance–trust link: Implications for performance measurement. *Public Adm. Rev.* **2006**, *66*, 114–126. [\[CrossRef\]](#)
52. Hu, A. Outward specific trust in the balancing of hierarchical government trust: Evidence from mainland China. *Br. J. Sociol.* **2021**, *72*, 774–792. [\[CrossRef\]](#)
53. Smith, G.; Maloney, W.; Stoker, G. Building social capital in city politics: Scope and limitations at the inter-organisational level. *Polit. Stud.* **2004**, *52*, 508–530. [\[CrossRef\]](#)
54. Seippel, Ø. Sport and social capital. *Acta Sociol.* **2006**, *49*, 169–183. [\[CrossRef\]](#)
55. Li, P.; Wang, L. Does political trust matter for charitable giving? The antecedence and consequence of trust in local officials. *Voluntas* **2023**, *34*, 1160–1171. [\[CrossRef\]](#)
56. Ye, Y.; Yu, P.; Zhang, X. More trust in central government during the COVID-19 pandemic? Citizens' emotional reactions, government performance, and trust in governments. *Int. J. Disaster Risk Reduct.* **2024**, *108*, 104555. [\[CrossRef\]](#)
57. AlAwadhi, S. Trust as a leveraging factor for civic engagement. *Electron. Gov. Int. J.* **2023**, *19*, 356–375. [\[CrossRef\]](#)
58. Wooldridge, J.M. Control Function Methods in Applied Econometrics. *J. Hum. Resour.* **2015**, *50*, 420–445. [\[CrossRef\]](#)
59. Gabriel, C.; Kinsley, C.T.; Amanda, D.; Faganello, M.A. Conditional cash transfers and child labor. *World Dev.* **2022**, *152*, 105768. [\[CrossRef\]](#)
60. Su, Y.; Chen, X.; Li, Y.; Wang, Y. The robustness mechanism of the rural social-ecological system in response to the impact of urbanization—Evidence from irrigation commons in China. *World Dev.* **2024**, *178*, 106565. [\[CrossRef\]](#)
61. Hu, Q.; Pu, Y. Official media use, political participation, and government trust structure. An empirical study based on the attitude of Chinese netizens. *Ration. Soc.* **2024**, *36*, 528–557. [\[CrossRef\]](#)
62. Lim, E.T.K.; Tan, C.W.; Cyr, D.; Pan, S.L.; Xiao, B. Advancing public trust relationships in electronic government: The Singapore e-filing journey. *Inf. Syst. Res.* **2012**, *23*, 1110–1130. [\[CrossRef\]](#)
63. Schulte-Cloos, J.; Anghel, V. Right-wing authoritarian attitudes, fast-paced decision-making, and the spread of misinformation about COVID-19 vaccines. *Polit. Commun.* **2024**, *41*, 608–626. [\[CrossRef\]](#)
64. Ariely, G. Does commercialized political coverage undermine political trust? Evidence across European countries. *J. Broadcast. Electron. Media* **2015**, *59*, 438–455. [\[CrossRef\]](#)
65. Mihelj, S.; Kondor, K.; Štětka, V. Establishing trust in experts during a crisis: Expert trustworthiness and media use during the COVID-19 pandemic. *Sci. Commun.* **2022**, *44*, 292–319. [\[CrossRef\]](#)

66. Chen, C.; Li, L.; Ye, J. Unofficial Media, Government Trust, and System Confidence Evidence from China: An Empirical Exploration of the Attitudes of Netizens Based on the Dual Moderating Effect. *Front. Psychol.* **2022**, *12*, 763658. [[CrossRef](#)]
67. Zhang, B.; Zhu, Y. Comparing attitudes towards adoption of e-government between urban users and rural users: An empirical study in Chongqing municipality, China. *Behav. Inf. Technol.* **2021**, *40*, 1154–1168. [[CrossRef](#)]
68. Zhai, Y. Exploring the Horizontal Dimension of Political Trust in China. *Public Adm. Dev.* **2025**, *45*, 404–416. [[CrossRef](#)]
69. Rosenberg, D. Use of e-government services in a deeply divided society: A test and an extension of the social inequality hypotheses. *New Media Soc.* **2019**, *21*, 464–482. [[CrossRef](#)]
70. Noor, Z.; Wasif, R.; Siddiqui, S.; Khan, S. Racialized minorities, trust, and crisis: Muslim-American nonprofits, their leadership and government relations during COVID-19. *Nonprofit Manag. Leadersh.* **2022**, *32*, 341–364. [[CrossRef](#)] [[PubMed](#)]

Disclaimer/Publisher’s Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.