

Governmental Trust, New Media Use and NIMBY Facility's Acceptance: Evidence from China

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ABSTRACT

In recent years, the increasing number of NIMBY (Not in My Back Yard) conflicts has had some negative impact on society and has also drawn the attention and research focus of scholars on the influencing factors of NIMBY acceptance. This study presents new evidence of governmental trust in NIMBY facility acceptance by introducing the moderating variable of citizens' new media use and using OLS, Ordered Probit and Ordered Logit data analysis methods. Based on Chinese Social Survey (CSS) data from 2019, the empirical results show the following: (1) Greater governmental trust can increase citizens' acceptance of NIMBY facilities and thus reduce NIMBY conflicts. (2) Citizens' new media use plays a positive moderating role in the effect of governmental trust on citizens' acceptance of NIMBY facilities, and the moderating effect is more significant in semiofficial and unofficial media. (3) The moderating effect of citizens' new media use on the effect of governmental trust on NIMBY acceptance is more significant at the district and township government levels but not at the central government level. (4) Relative to urban residents, citizens in rural households are more receptive to NIMBY facilities. In light of the findings, policymakers should improve the public's perception of trust in the government by expanding citizen participation and improving information disclosure and transparency. At the same time, the government should regard new media as a platform to release timely and effective information, reduce rumors, and provide some specific and supportive policies to urban citizens within the NIMBY construction.

INTRODUCTION

Since the 1970s and 1980s, with the rapid development of urbanization and environmental problems, citizens' perceptions of economic development have changed; their awareness of rights has gradually awakened, and their conflicts with the owners of NIMBY (Not In My Back Yard) projects have intensified. The U.S Environmental Protection Agency (EPA) referred to the phenomenon of public rejection of garbage and waste disposal facilities from the 1970s onward as the "Not In My Backyard" phenomenon, or the NIMBY effect. O'Hare (1977) first introduced the concept of NIMBY to describe the construction of facilities that bring overall social benefits but

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have negative impacts on surrounding residents. The conflicts with local residents and their effects caused by the location and installation of avoidance facilities are collectively referred to as “NIMBY conflicts”. [1]

Since the introduction of the concept, the NIMBY effect has occurred repeatedly in different countries and regions around the world. For example, since 1996, environmental incidents in China have been growing at an average annual rate of 29% [2], with the rapid growth of NIMBY incidents, such as the Panyu waste incineration plant incident in 2009, the Dalian PX incident in 2011, the Maoming PX incident in 2014, and the anti-nuclear incident in Lianyungang, Jiangsu Province in 2016, all of which have sparked a heated debate with large-scale, violent clashes. The NIMBY movement, which has been dormant in the garbage incineration industry for several years, has recently been staged again in Beijing: in July 2021, the People’s Government of Fengtai District in Beijing released that it would establish a garbage incineration plant project construction project in the circular economy industrial park. After the news came to light, it was met with joint resistance from people in many surrounding neighborhoods, and residents around the area reflected their problems through the 12345 mayor’s hotline and message board comments on the Beijing government website, as well as organizing protests to the relevant departments (China Biodiversity Conservation and Green Development Foundation, 2021 [3]).

However, China is not alone. In January 2011, residents of Dangma Ward in Nara Prefecture formed a petition against the construction of a new waste incineration plant and submitted a petition to the mayor of Katsura City to oppose the construction of a waste incineration facility nearby. In July of the same year, 70 residents filed a lawsuit against the project. The reason for their opposition was that the residents were concerned about the surrounding environment and health issues and were dissatisfied with the government’s failure to meet its obligation to explain the decision process in transparency and to announce and explain the project through the media or other platforms for five years. [4]

Through these cases, it can be found that the public acceptance of NIMBY facilities is influenced by many factors, such as the level of public trust in the government and exposure to new media. Therefore, this paper mainly aims to explore how governmental trust and the public’s new media use affect the public acceptance of NIMBY facilities.

Trust is a psychological expectation between people, so governmental trust can be understood as a psychological expectation and belief of the public that the government can represent their interests. The author believes that governmental trust includes three major aspects: trust in public officials, trust in government institutions and trust in public goods provided by governments. Some scholars have further generalized this concept as public support for and confidence in core political institutions (Van der Meer 2017 [5]). Previous studies demonstrated that a higher level of governmental trust was associated with a greater willingness to follow a range of government recommendations and prosocial behaviors. (Taniguchi & Marshall, 2018) [6].

Regarding the definition of new media, different experts have different opinions. In the early days, UNESCO had a definition of new media: new media is online media. = Martin Lister and others say it is a new form of media that has emerged in response to

economic and social development, and it is a term that has broad cultural resonance, rather than a narrow technologist or specialist application. With this conceptual understanding, Martin Lister and others believe new media is new in the following six aspects: New textual experiences, New ways of representing the world, New relationships between subjects (users and consumers) and media technologies, New experiences of the relationship between embodiment, identity and community, New conceptions of the biological bodies relationship to technological media and New patterns of organization and production, and it demonstrates the characteristics of digital, interactive, hypertextual, virtual, networked, and simulated. Therefore, any form of communication delivered digitally and associated with the Internet can be considered a new medium. [7] Compared with traditional media, new media not only acts as an intermediate link and a system of emotional promotion but also plays an important role in shaping the response of social movements and the government through the perception of public attention [8] (Morris et al., 1992).

By examining the literature in this field, the author divides it into the following three major categories in terms of content: first, the impact of governmental trust on public acceptance of NIMBY facilities; second, the impact of the development of new online media on public acceptance of NIMBY facilities; third, the impact of the development of new online media on the construction of governmental trust. The literature search in this category spanned the period 1983-2022, with the largest number of publications in this area in the last decade. Studies related to “the impact of governmental trust on public acceptance of NIMBY facilities” show that governmental trust is a critical factor influencing the occurrence of neighborhood avoidance events (Liu et al., 2017 [9]). Increasing information disclosure and citizen participation and promoting communication between the government and the public are conducive to improving governmental trust, which in turn increases citizens’ acceptance of NIMBY facilities (Hu et al., 2022 [10]; Liu et al., 2019 [11]).

Studies related to “the impact of the development of new online media on the public acceptance of NIMBY facilities” showed that the development of new online media improved the efficiency of information dissemination but did not significantly advance the public acceptance of NIMBY facilities due to the complexity of the information disseminated (Wang et al., 2019 [12]; Cao et al., 2021 [13]). The influence of the development of new online media on the public acceptance of NIMBY facilities mainly depends on the information sources and information tendencies. On the one hand, positive information from official media is beneficial to increasing the public acceptance of NIMBY facilities (Zhao et al., 2022 [14]). On the other hand, the spread of rumors and information about NIMBY conflicts created by interest groups will reduce the public acceptance of neighborhood facilities (Liu et al., 2021 [15]). According to the statistical analysis of 150 environmental mass incidents in China, excluding 24 cases with unknown information, 20% of the 126 effective samples had rumors spread, and rumors mainly occurred in PX projects and waste incineration projects (Rong et al., 2015 [16]).

“Research on the development of new online media on building governmental trust” shows that, on the one hand, the development of new online media is conducive to the positive shaping of the government’s image by official media, increasing the

government's information disclosure and improving the government's service level, thus further strengthening citizens' trust in the government. On the other hand, if the government does not control the new media, it will lead to mixed information in cyberspace and increase the output of rumors and negative and discontented information, thus increasing citizens' distrust and suspicion of the government (Yu et al., 2021 [17]).

However, although the literature has carefully studied the above three aspects, the author believes that there are still three shortcomings. First, the literature on "public acceptance of NIMBY facilities" primarily explores multiple factors, mainly by making comprehensive inferences and analyses of all possible factors triggering NIMBY conflicts, but there is less specific and in-depth research on individual factors. Second, the literature on this topic is mainly based on case studies and independent questionnaire studies and lacks the application of large nationwide databases, so there are certain geographical limitations and information source limitations. Furthermore, in the study of the factors influencing the public acceptance of NIMBY facilities, there is a lack of consideration of the public's use of new media and a lack of attention to the public's Internet participation in the new media era.

In light of these facts, this paper aims to fill the academic gap related to three main issues. First, this paper selects the moderating variable of public new media use and classifies it into official new media and semiofficial new media to explore its moderating role in governmental trust affecting public acceptance of NIMBY avoidance facilities. Second, the paper verifies the applicability of differential governmental trust theory to the moderating variable of public new media use and confirms that different levels of government play different moderating roles in trust. Finally, this paper selects a large CSS national database and selects a macroscopic sample to investigate the relationship between governmental trust, new media use, and public acceptance of NIMBY avoidance.

The structure of this paper is as follows: the second part is the hypothesis; the third part is the methodology; the fourth part is the empirical results; and the fifth part is the conclusion and implications.

HYPOTHESIS

Whether the public agrees to have NIMBY avoidance facilities at their own doorstep depends heavily on their risk perception status. The lower the perceived risk of the public is, the higher the acceptance of neighborhood avoidance facilities (Zhang, 2021 [18]). Improving political governance and communication has a significant negative effect on the risk perception effect of citizens (Yu et al., 2021 [19]). Therefore, the author argues that NIMBY facilities, as public constructions with negative externalities for surrounding residents but positive effects on the overall region, cannot be set up without the active role of the government. Increasing communication between the government and the public, promoting the degree of information disclosure, and improving the government's governance capacity are important ways to strengthen the governmental trust (Hu et al., 2022 [20]). Therefore, strengthening governmental trust facilitates the reduction of

citizens' risk perceptions. At the same time, established studies have shown that the higher the trust in government, the more willing citizens are to accept a range of government advice and prosocial behavior (Rubin et al., 2009 [21]) and the more likely they are to accept government regulation, which in turn reduces the spread of NIMBY risk (Hu et al., 2022 [22]).

Considering these facts, we propose Hypothesis 1:

Hypothesis 1: Greater governmental trust can increase citizen acceptance of NIMBY facilities.

The development of technology and the progress of the times have promoted the rise of new media as a new information dissemination channel. As it continues to develop and grow, new media has increasingly become the main medium for the public to search for and obtain information and an important way for citizens to learn about the government. New media can be divided into at least two categories, official new media and unofficial new media, which play different roles in the dissemination of information. Official new media are dominated by the government, uphold mainstream values, disseminate timely and accurate information, and emphasize the important position and role of the government in social governance, so citizens' use of official new media helps to positively shape the government's image and increase governmental trust (Xu et al., 2020 [23]). At the same time, after the occurrence of NIMBY incidents, official new media will cautiously release news and correct the deviations in the gossip to stabilize citizens' psychological expectations, reduce citizens' unwarranted panic, and maintain social stability. Therefore, citizens' use of official new media does not significantly exacerbate their risk perceptions (Xu, 2021 [24]). However, although unofficial new media may disseminate a large amount of false and distorted information to attract attention or seek commercial interests, the current state regulation of unofficial new media has been gradually strengthened, so lots of negative and inaccurate information has been filtered and screened, and its role in reducing citizens' trust in government and increasing citizens' risk perceptions has been gradually weakened. Therefore, we propose Hypothesis 2:

Hypothesis 2: Citizens' new media use plays a positive moderating role in the role of governmental trust in influencing citizens' acceptance of NIMBY facilities.

Chinese scholar Li Lianjiang proposed the concept of differential order government trust. He argues that most citizens have hierarchical trust in government, i.e., they trust the central government more than the local government (Li, 2013 [25]). Meanwhile, with the growth of new media, it has become the main way for people to obtain information. Therefore, the government information received, identified by the public on new media, also affects governmental trust. However, since the new media reports on the central government are relatively macro and positive, the public is relatively less familiar with the central government. Influenced by the government reputation effect, the public's impression of the central government is biased toward positive and fixed (João Campos et al., 2016 [26]), so the moderating effect of new media exposure on the trust of the central government is not significant. Street bureaucracy theory states that district and township government workers are public officials who interact directly with citizens and have substantial discretionary power (Lipsky, 2010 [27]). Therefore, compared to the

central government, local governments mainly deal with specific matters that are of immediate interest to citizens, and the public is more connected to and familiar with the district and township governments. Moreover, local government news exposed by new media is more comprehensive and diverse, so the moderating effect of new media exposure on district, county, and township governments is more obvious.

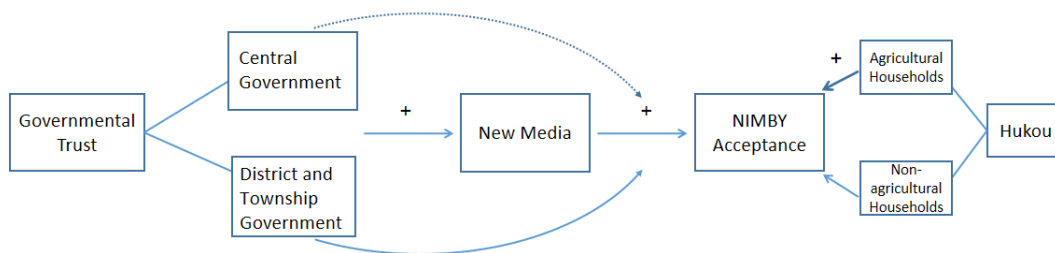
Hence, we propose Hypothesis 3:

Hypothesis 3: The moderating effect of citizens' new media use on trust in different levels of government affects citizens' acceptance of NIMBY facilities differently, where the moderating effect of citizens' new media use on trust in district and township governments is more significant, while the moderating effect on trust in central government is not.

Geographical type and living environment may influence people's daily habits, ways of thinking and cognitive levels. Therefore, citizens' acceptance and range of acceptance of NIMBY facilities vary depending on the local environment and the "value" of the land (D Van der Horst, 2007 [28]). Therefore, the author deduces that for citizens in rural areas, the environment itself has more contact with NIMBY facilities, and they may experience the existence of NIMBY facilities near their living environment. At the same time, considering the poor infrastructure and living environment in rural areas, citizens living in rural areas are more likely to improve their environment through the construction of NIMBY facilities for the purpose of cleaning up the environment and optimizing the infrastructure level. Therefore, citizens living in rural areas are less likely to reject NIMBY facilities. However, due to the rapid development and construction of cities, most citizens living in cities are not familiar with NIMBY facilities, and the "labeling" of NIMBY facilities intensifies their fear and exclusion of NIMBY facilities. Therefore, urban residents are less receptive to NIMBY facilities. Thus, we propose hypothesis 4.

Hypothesis 4: Citizens with rural households are more receptive to NIMBY facilities than urban residents.

The theoretical framework of this paper is as below.



Note: “+” indicates positive impact, “-” indicates negative impact.

Figure 1. Theoretical Framework of The Research.

METHODOLOGY

Data

The present research used secondary data from the CSS (Chinese Social Survey) from the Institute of Sociology, Chinese Academy of Social Sciences. The data were for 2019. Our collected sample is at the individual level and includes 10283 citizens.

Variables

The main dependent variable in this paper is NIMBY, which indicates citizens' acceptance of NIMBY facilities. The source of the NIMBY measurement is the 2019 Chinese Social Survey. The question in the questionnaire to indicate the variable NIMBY is "If a government department plans to build a garbage disposal station near my neighborhood, I will definitely voice my opposition".

Based on the five answer options of totally agree, partially agree, hard to say, partially disagree, and totally disagree, we set the variable Acceptance and point it 1-5 from totally agree to totally disagree.

In this paper, the independent variable is Trust, which indicates the level of citizens' trust in the government. In this questionnaire, the level of public trust in the central government, local government and gross root were measured separately. The questions in the questionnaire to indicate the level of citizen trust are "Do you trust the central government?" "Do you trust the local government?" and "Do you trust the gross root?" Based on the five answer options of total distrust, partially distrust, hard to say, partially trust, and totally trust, we set trust 1-5 from total distrust to totally trust.

The moderation variable in this paper is New Media, which indicates citizens' new media use. The following three questions are used to measure the moderation variable New Media.

TABLE I. DETAILED QUESTIONNAIRE ITEMS.

Questions	Items
Do you usually use the Internet? (e.g., read news on your computer or cell phone, use Wechat)	1-use 0-do not use 0-never 1-several times a year
How often do you browse the Internet for official affairs information (e.g., watch party political news)	2-at least once a month 3-at least once a week 4-times a week 5-almost everyday
Have you joined any online industry, peer, or association groups in the least two years?	1-Yes 0-No

The chosen control variables are listed below in Table 2.

TABLE II. THE LIST OF ALL CONTROL VARIABLES.

Name	Questionnaire Source	Calculation Method
Political Affiliation	What is your political affiliation?	If belongs to CCP (Chinese Communist Party) member, set=1; If not belongs to CCP member, set=0
Hukou	What is the nature of your current household?	1-Agricultural households 0-Nonagricultural households
Gender	What is your gender?	1-Male 0-Female
		1-Not in school
		2-Elementary school
		3-Middle School
		4-High School
Level of education	What is your current highest level of education?	5-Secondary school
		6-Vocational high school and technical school
		7-College
		8-Undergraduate
		9-Postgraduate
		0-Other, not sure
Age	What is your age?	
Annual Income	What is your total personal income last year in 2018?	
Marital status	What is your current marital status?	1-Married 0-Not married
Ethnic group	What is your ethnic group?	1-Han nationality 0-Ethnic minority
Religious	What is your religious affiliation?	1-Believe in religion 0-Do not believe in religion

Source: CSS 2019

Model

Because our data are cross-sectional data for 2019, we use the ordinary least squares (OLS) model. Hence, the main basic empirical equation is an ordinary least squares (OLS) model:

$$NIMBY_i = \alpha_1 + \alpha_2 Trust + \alpha_5 Control + \mu_i$$

where i represents individual; NIMBY represents NIMBY facilities' acceptance; Trust represents governmental trust; Control is the control variables; and μ_i is the residual.

To test the moderation effect of the usage of new media for citizens, we changed the model into:

$$NIMBY_i = \alpha_1 + \alpha_2 Trust + \alpha_3 NewMedia + \alpha_4 NewMedia * Trust + \alpha_5 Control + \mu_i$$

where NewMedia represents citizens' frequency and preference for new media use; *NewMedia * Trust* means the intersection of NewMedia and Trust. In addition, the dependent variable *Nimby_i* is an ordered dummy variable. Hence, OLS may cause bias. Instead, to decrease calculation management bias, we further use the Ordered Logit/Ordered Probit model to calculate the equation.

EMPIRICAL RESULTS

Main Model Test

First, Hypothesis 1 is proven. The regression results are as follows.

TABLE III. REGRESSION RESULTS OF CENTRAL GOVERNMENT TRUST ON NIMBY ACCEPTANCE.

DV	(1) NIMBY OLS	(2) NIMBY Probit	(3) NIMBY Logit	(4) NIMBY OLS	(5) NIMBY Probit	(6) NIMBY Logit	(7) NIMBY OLS	(8) NIMBY Probit	(9) NIMBY Logit
Trust in Central Government	0.116*** (3.892)	0.080*** (3.920)	0.135*** (3.947)						
Trust in District and County Governments				0.128*** (6.633)	0.089*** (6.681)	0.151*** (6.695)			
Trust in Township Government							0.114*** (6.489)	0.081*** (6.679)	0.137** * (6.652)
Gender	0.159*** (3.306)	0.101*** (3.077)	0.173*** (3.162)	0.190*** (3.991)	0.123*** (3.744)	0.206*** (3.790)	0.191*** (4.004)	0.123*** (3.754)	0.205** * (3.785)
Age	-0.007*** (-3.388)	-0.004*** (-2.937)	-0.007*** (-3.095)	-0.006*** (-3.000)	-0.004** (-2.526)	-0.006*** (-2.657)	-0.006*** (-2.798)	-0.003** (-2.319)	-0.006** (-2.446)
Highest Education Level	0.016 (1.014)	0.007 (0.663)	0.011 (0.612)	0.014 (0.884)	0.006 (0.527)	0.008 (0.457)	0.016 (1.044)	0.007 (0.700)	0.011 (0.657)
Marital Status	-0.157** (-2.484)	-0.108** (-2.504)	-0.169** (-2.374)	-0.149** (-2.367)	-0.103** (-2.390)	-0.163** (-2.275)	-0.155** (-2.467)	-0.107** (-2.491)	-0.170** (-2.380)
Ethnic Group	-0.127(-1.502)	-0.115*(-1.988)	-0.181*(-1.874)	-0.107(-1.266)	-0.102*(-1.755)	-0.161*(-1.660)	-0.099(-1.175)	-0.097*(-1.662)	-0.154(-1.585)
Political Affiliation	0.169** (2.060)	0.113** (2.018)	0.192** (2.081)	0.146* (1.789)	0.098* (1.747)	0.168* (1.813)	0.142* (1.733)	0.094* (1.681)	0.163* (1.760)
Hukou	0.174*** (3.134)	0.111*** (2.925)	0.181*** (2.926)	0.181*** (3.271)	0.116*** (3.056)	0.187*** (3.031)	0.189*** (3.410)	0.121*** (3.206)	0.198** * (3.197)
Religious Belief	-0.108 (-1.597)	-0.083* (-1.811)	-0.136* (-1.793)	-0.104 (-1.553)	-0.081* (-1.758)	-0.131* (-1.720)	-0.102 (-1.518)	-0.080* (-1.726)	-0.128* (-1.681)
Annual Income	-0.000 (-1.128)	-0.000 (-1.407)	-0.000 (-1.261)	-0.000 (-1.131)	-0.000 (-1.402)	-0.000 (-1.250)	-0.000 (-1.132)	-0.000 (-1.404)	-0.000 (-1.267)
N	4815								

t statistics in parentheses

* p<0.1, ** p<0.05, *** p<0.01

In the following table, models (1), (4), and (7) are OLS models, models (2), (5), and (8) are probit models, and models (3), (6), and (9) are logit models. Among them, models (1)-(3) measure the relationship between citizens' NIMBY acceptance and central government trust, models (4)-(6) measure the relationship between citizens' NIMBY acceptance and district and county government trust, and models (7)-(9) measure the relationship between citizens' NIMBY acceptance and township government trust.

Table 3 shows that Trust of models (1)-(9) is significant at the 1% level, and the absolute value is 0.08-0.151, which indicates that for each additional unit of governmental trust, citizens' acceptance of NIMBY facilities increases by 8 to 15.1%. The coefficient of the central government is 0.08-0.135, the coefficient of the local government is 0.089-0.151, and the coefficient of the gross root is 0.081-0.137.

This proved Hypothesis 1, which states that greater governmental trust can increase citizens' acceptance of NIMBY facilities.

TABLE IV. THE MODERATION EFFECT OF NEW MEDIA ON THE CAUSALITY OF TRUST AND NIMBY'S ACCEPTANCE (I).

DV	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	NIMBY OLS	NIMBY Probit	NIMBY Logit	NIMBY OLS	NIMBY Probit	NIMBY Logit	NIMBY OLS	NIMBY Probit	NIMBY Logit
NewMedia1*Trust in Central Government	-0.001 (-0.047)	-0.003 (-0.399)	-0.003 (-0.242)						
NewMedia1*Trust in District and County Governments				0.035** (2.511)	0.022** (2.247)	0.037** (2.326)			
NewMedia1*Trust in Township Government							0.028* (1.960)	0.017* (1.694)	0.029* (1.786)
Gender	0.182*** (3.810)	0.118*** (3.606)	0.202*** (3.734)	0.186*** (3.879)	0.120*** (3.662)	0.206*** (3.791)	0.186*** (3.880)	0.120*** (3.659)	0.205*** (3.787)
Age	0.006*** (-2.594)	-0.003** (-2.283)	-0.006** (-2.376)	-0.004* (-1.688)	-0.002 (-1.344)	-0.004 (-1.456)	-0.004* (-1.889)	-0.002 (-1.544)	-0.004* (-1.651)
Highest Education Level	0.020 (1.246)	0.010 (0.969)	0.016 (0.900)	0.012 (0.761)	0.005 (0.478)	0.008 (0.436)	0.014 (0.910)	0.007 (0.623)	0.010 (0.584)
Marital Status	-0.161** (-2.534)	-0.109** (-2.520)	-0.174** (-2.423)	0.176*** (-2.776)	0.120*** (-2.773)	0.190*** (-2.654)	0.172*** (-2.721)	0.118*** (-2.719)	0.186*** (-2.605)
Ethnic Group	-0.133 (-1.573)	-0.119** (-2.048)	-0.186* (-1.923)	-0.136 (-1.602)	-0.121** (-2.086)	-0.191** (-1.970)	-0.133 (-1.573)	-0.120** (-2.062)	-0.188* (-1.948)
Political Affiliation	0.180** (2.197)	0.123** (2.185)	0.208** (2.242)	0.162** (1.977)	0.110* (1.953)	0.185** (1.992)	0.165** (2.008)	0.112** (1.988)	0.188** (2.030)
Hukou	0.181*** (3.238)	0.114*** (3.005)	0.188*** (3.029)	0.195*** (3.500)	0.125*** (3.278)	0.206*** (3.305)	0.193*** (3.451)	0.123*** (3.228)	0.203*** (3.257)
Religious Belief	-0.108 (-1.599)	-0.083* (-1.803)	-0.134* (-1.766)	-0.110 (-1.634)	-0.084* (-1.835)	-0.136* (-1.787)	-0.109 (-1.616)	-0.084* (-1.820)	-0.135* (-1.772)
Annual Income	-0.000 (-1.189)	-0.000 (-1.460)	-0.000 (-1.348)	-0.000 (-1.290)	-0.000 (-1.564)	-0.000 (-1.433)	-0.000 (-1.263)	-0.000 (-1.539)	-0.000 (-1.414)
N	4815								

t statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 4 measures the moderating effect of “whether citizens usually surf the Internet or not” on the effect of governmental trust on citizens' acceptance of NIMBY facilities. In the following table, models (1), (4), and (7) are OLS models, models (2), (5), and (8)

are probit models, and models (3), (6), and (9) are logit models. The variable NewMedia1 indicates whether citizens are online or not. Models (1)-(3) measure the moderating effect of “citizens’ access to the Internet” on the central governmental trust on citizens’ acceptance of NIMBY. Models (4)-(6) measure the moderating role of “whether citizens usually go online or not” in the trust on district and county governments in influencing citizens' acceptance of NIMBY. Models (7)-(9) measure the moderating effect of “whether citizens surf the Internet or not” on the trust of township governments on citizens’ NIMBY acceptance.

TABLE V. THE MODERATION EFFECT OF NEW MEDIA ON THE CAUSALITY OF TRUST AND NIMBY’S ACCEPTANCE (II).

DV	(1) NIMBY OLS	(2) NIMBY Probit	(3) NIMBY Logit	(4) NIMBY OLS	(5) NIMBY Probit	(6) NIMBY Logit	(7) NIMBY OLS	(8) NIMBY Probit	(9) NIMBY Logit
NewMedia2*Trust in Central Government	0.004 (0.806)	0.003 (0.850)	0.005 (0.835)						
NewMedia2*Trust in District and County Governments				0.012** (2.351)	0.009** (2.483)	0.015** (2.386)			
NewMedia2*Trust in Township Government							0.010* (1.878)	0.007* (1.943)	0.012* (1.864)
Gender	0.138** (2.388)	0.096** (2.382)	0.160** (2.384)	0.143** (2.477)	0.100** (2.471)	0.165** (2.458)	0.143** (2.472)	0.099** (2.465)	0.165** (2.456)
Age	0.010*** (-3.550)	0.006*** (-3.446)	0.011*** (-3.485)	0.009*** (-3.333)	0.006*** (-3.218)	0.010*** (-3.264)	0.009*** (-3.389)	0.006*** (-3.282)	0.010*** (-3.325)
Highest Education Level	0.006 (0.369)	0.003 (0.287)	0.003 (0.163)	0.005 (0.303)	0.003 (0.222)	0.002 (0.109)	0.006 (0.333)	0.003 (0.257)	0.003 (0.147)
Marital Status	0.197*** (-2.578)	-0.123** (-2.307)	-0.202** (-2.292)	0.198*** (-2.596)	-0.124** (-2.328)	-0.204** (-2.316)	0.198*** (-2.595)	-0.123** (-2.324)	-0.204** (-2.309)
Ethnic Group	-0.076 (-0.725)	-0.080 (-1.091)	-0.121 (-0.981)	-0.071 (-0.681)	-0.077 (-1.046)	-0.117 (-0.947)	-0.071 (-0.674)	-0.076 (-1.042)	-0.117 (-0.947)
Political Affiliation	0.190** (2.050)	0.114* (1.778)	0.203* (1.906)	0.192** (2.073)	0.116* (1.803)	0.206* (1.933)	0.190** (2.053)	0.115* (1.781)	0.203* (1.913)
Hukou	0.149** (2.285)	0.097** (2.141)	0.160** (2.144)	0.149** (2.294)	0.097** (2.143)	0.159** (2.135)	0.150** (2.311)	0.098** (2.165)	0.161** (2.163)
Religious Belief	-0.124 (-1.538)	-0.094* (-1.672)	-0.155* (-1.660)	-0.124 (-1.538)	-0.094* (-1.666)	-0.154 (-1.644)	-0.124 (-1.537)	-0.094* (-1.667)	-0.154* (-1.649)
Annual Income	-0.000 (-0.810)	-0.000 (-0.971)	-0.000 (-0.850)	-0.000 (-0.787)	-0.000 (-0.946)	-0.000 (-0.818)	-0.000 (-0.786)	-0.000 (-0.947)	-0.000 (-0.827)
N	3190								

t statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 5 measures the moderating effect of “citizens’ frequency of viewing official affairs news” on the effect of government trust on citizens’ NIMBY acceptance. In the following table, models (1), (4), and (7) are OLS models, models (2), (5), and (8) are probit models, and models (3), (6), and (9) are logit models. NewMedia2 represents the variable “frequency of citizens’ viewing of official affairs news”. Models (1)-(3) measure the moderating effect of “citizens’ frequency of viewing official affairs news” on the influence of central governmental trust on citizens’ NIMBY acceptance. Models (4)-(6) measure the moderating effect of “citizens’ frequency of viewing official affairs

news” on citizens’ NIMBY acceptance by trust in district and county governments. Models (7)-(9) measure the moderating effect of “citizens’ frequency of browsing official affairs information” on the influence of trust in township government on citizens’ NIMBY acceptance.

TABLE VI. THE MODERATION EFFECT OF NEW MEDIA ON THE CAUSALITY OF TRUST AND NIMBY’S ACCEPTANCE (III).

DV	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
	NIMBY OLS	NIMBY Probit	NIMBY Logit	NIMBY OLS	NIMBY Probit	NIMBY Logit	NIMBY OLS	NIMBY Probit	NIMBY Logit
NewMedia3* Trust in Central Government	0.015 (1.019)	0.011 (1.005)	0.019 (1.087)						
NewMedia3* Trust in District and County Governments				0.030* (1.729)	0.021* (1.715)	0.035* (1.758)			
NewMedia3* Trust in Township Government							0.032* (1.742)	0.023* (1.801)	0.039* (1.827)
Gender	0.127** (2.170)	0.089** (2.172)	0.148** (2.167)	0.123** (2.106)	0.086** (2.107)	0.143** (2.104)	0.124** (2.126)	0.086** (2.117)	0.143** (2.113)
Age	0.010*** (-3.556)	0.007*** (-3.463)	0.011*** (-3.506)	0.009*** (-3.490)	0.006*** (-3.399)	0.011*** (-3.451)	0.009*** (-3.489)	0.006*** (-3.391)	0.011*** (-3.441)
Highest Education Level	0.005 (0.267)	0.002 (0.186)	0.001 (0.044)	0.003 (0.165)	0.001 (0.084)	-0.001 (-0.056)	0.003 (0.170)	0.001 (0.081)	-0.001 (-0.053)
Marital Status	0.204*** (-2.657)	-0.127** (-2.385)	-0.211** (-2.379)	0.209*** (-2.722)	-0.131** (-2.452)	-0.217** (-2.444)	0.209*** (-2.721)	-0.131** (-2.457)	-0.217** (-2.449)
Ethnic Group	-0.080 (-0.768)	-0.083 (-1.132)	-0.125 (-1.016)	-0.080 (-0.769)	-0.083 (-1.132)	-0.125 (-1.013)	-0.080 (-0.761)	-0.082 (-1.126)	-0.125 (-1.010)
Political Affiliation	0.182** (1.963)	0.109* (1.689)	0.193* (1.813)	0.177* (1.908)	0.105 (1.633)	0.187* (1.756)	0.175* (1.890)	0.104 (1.609)	0.185* (1.731)
Hukou	0.147** (2.267)	0.096** (2.122)	0.158** (2.119)	0.146** (2.249)	0.095** (2.102)	0.156** (2.095)	0.147** (2.260)	0.095** (2.112)	0.157** (2.108)
Religious Belief	-0.125 (-1.547)	-0.095* (-1.684)	-0.157* (-1.680)	-0.126 (-1.563)	-0.096* (-1.700)	-0.159* (-1.695)	-0.126 (-1.563)	-0.096* (-1.702)	-0.159* (-1.698)
Annual Income	-0.000 (-0.924)	-0.000 (-1.088)	-0.000 (-0.982)	-0.000 (-0.975)	-0.000 (-1.143)	-0.000 (-1.034)	-0.000 (-0.980)	-0.000 (-1.155)	-0.000 (-1.047)
N	3190								

t statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 6 measures the moderating effect of “citizens join semi-official new media organizations such as online trade association groups” on the effect of governmental trust on citizens’ acceptance of NIMBY. In the following table, models (1), (4), and (7) are OLS models, model (2), (5) and (8) are probit models, and models (3), (6) and (9) are logit models, where NewMedia3 is the variable “whether or not citizens join a semi-official new media organization such as an online trade association group”. Among them, models (1)-(3) measure the moderating effect of “citizens’ membership in semiofficial new media such as online trade association groups” on the influence of central governmental trust on citizens’ NIMBY acceptance. Models (4)-(6) measure the moderating effect of “citizens’ joining semiofficial new media such as online trade association groups” in the influence of citizens’ trust on citizens’ NIMBY acceptance by district and county governments. Models (7)-(9) measure the moderating effect of

“citizens’ joining semiofficial new media such as online trade association groups” on the effect of trust in township governments on citizens’ NIMBY acceptance.

Table 4, Table 5 and Table 6 show that NewMedia1* Trust in Central Government, NewMedia2* Trust in Central Government, and NewMedia3* Trust in Central Government of models (1) - (3) are not significant, but NewMedia1* Trust in District and County Governments, NewMedia1* Trust in Township Government, NewMedia2* Trust in District and County Governments, NewMedia2* Trust in Township Government and NewMedia3* Trust in District and County Governments, NewMedia3* Trust in Township Government of models (4)-(9) are significant at least at 10% level, and the absolute value is 0.007-0.039, which indicates an increase of 1 unit NewMedia has the increasing moderation effect of 0.7%-3.9% on the effect of Trust on NIMBY.

This proved Hypothesis 2, which states that the extent of citizens’ use of new media plays a positive moderating role in the role of governmental trust in influencing citizens’ acceptance of NIMBY facilities. At the same time, the author finds that the “frequency of citizens’ viewing of official current affairs news” measured by Newmedia2 in fact reflects the impact of official new media on citizens. The “citizen membership in online trade association groups and other organizations” measured by Newmedia3 in fact reflects the impact of semiofficial media on citizens.

Table 5 and Table 6 show that the coefficient of Newmedia2*Trust in local government (Trust in District and County Governments, Trust in Township Government) is 0.007-0.015, less than the coefficient of Newmedia3* Trust in local government (Trust in District and County Governments, Trust in Township Government), which is 0.021-0.039. This means that an increase of 1 unit in official NewMedia has an increasing moderation effect of 0.7%-1.5% on the effect of local governmental trust on NIMBY, but an increase of 1 unit in semiofficial NewMedia has an increasing moderation effect of 2.1%-3.9% on the effect of local governmental trust on NIMBY. This further illustrates that different types of new media have different moderating roles in influencing the NIMBY acceptance of citizens’ trust in government. Official new media usually plays the role of government and state propagandist, with strong political attributes, as the “mouthpiece” of the government, acting as a “gatekeeper”. Therefore, official news media conveys the mainstream value tendency of society and reports on conflicting and contradictory issues such as the NIMBY incident are relatively rare and dominated by positive single reports. In contrast, the relative independence and autonomy of unofficial media lead to more comprehensive and diverse coverage of NIMBY events through which citizens can gain a three-dimensional perception of NIMBY events. Therefore, the moderating role of semiofficial and unofficial new media in citizens' trust influencing NIMBY acceptance is more significant than that of official new media.

Meanwhile, it proved Hypothesis 3, which states that the moderating effect of citizens' use of new media on trust in different levels of government affects citizens' acceptance of NIMBY facilities differently, with the moderating effect of citizens' new media use being more pronounced for district and township governments but not for the central government. The author argues that this reflects the effect of differential

governmental trust on NIMBY acceptance under the moderating effect of citizens' new media use. Governmental trust cannot be separated from citizens' perceptions of government, and one of the main sources of such perceptions is the dissemination of political information and civil interaction. The advent of the new media era has enriched citizens' information reception and access channels, building a new platform for interaction between the government and the citizens. Ordinary citizens have less direct contact with the central government, and their perception of the central government is mainly through media reports. New media reports about the central government are mainly political propaganda and political news broadcasts, and the content is relatively homogeneous. Besides, the central government hardly intervenes and handles local affairs directly, so the moderating effect of new media use on citizens' trust in the central government is not significant in terms of NIMBY acceptance. However, local governments serve the function of handling region-specific public affairs, and local citizens have more frequent contact with local governments, so they are more knowledgeable and familiar with local governments. At the same time, new media reports about local governments are more comprehensive and specific, and information sources are more widely available, so the moderating effect of new media use on citizens' trust in district and township governments on NIMBY acceptance is significant.

TABLE VII. HETEROGENEITY TEST OF NIMBY.

	(1)	(2)	(3)
	NIMBY OLS	NIMBY Probit	NIMBY Logit
main			
Nature of Household Registration	0.181*** (3.258)	0.116*** (3.059)	0.190*** (3.071)
Gender	0.182*** (3.810)	0.118*** (3.600)	0.202*** (3.731)
Age	-0.006*** (-2.753)	-0.003** (-2.288)	-0.006** (-2.446)
Highest Education Level	0.020 (1.258)	0.010 (0.912)	0.015 (0.871)
Marital Status	-0.161** (-2.553)	-0.111*** (-2.576)	-0.175** (-2.459)
Ethnic Group	-0.134 (-1.574)	-0.119** (-2.057)	-0.187* (-1.931)
Political Appearance	0.180** (2.200)	0.121** (2.161)	0.206** (2.230)
Religious Belief	-0.108 (-1.602)	-0.084* (-1.814)	-0.135* (-1.772)
Income	-0.000 (-1.192)	-0.000 (-1.480)	-0.000 (-1.360)
N	4815	4815	4815

t statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

Table 7 shows that Hukou of models (1)-(3) is significant at the 1% level with absolute values of 0.116-0.190, indicating that, other things being equal, since Hukou is a dummy variable (set to 1 if in rural areas and 0 if in urban areas), citizens with rural registration are 11.6% to 19% more receptive to NIMBY facilities than citizens with urban registration.

This proved Hypothesis 4, which states that citizens in rural areas are more receptive to NIMBY facilities than urban residents. Rural areas are less modernized than urban areas in terms of infrastructure, and the construction of waste incineration plants and sewage treatment plants is relatively late. Compared to traditional inefficient and polluting waste and sewage disposal methods, the overall benefits and acceptability of NIMBY facilities are higher for citizens living in rural areas and play a positive role in improving the overall environment and other aspects. For urban dwellers, the adverse effects of NIMBY facilities have a “magnifying glass” effect in the highly urbanized environment. Meanwhile, the strong resistance of some urban citizens or social groups to NIMBY facilities and the exposure of negative information about NIMBY facilities by some unofficial media have led to greater sensitivity and resistance of urban citizens to NIMBY facilities. However, long-term rural residents have less diversified information sources than their urban counterparts, and the development of various advocacy groups, environmental protection organizations, and new media channels is slower in rural areas, which leads to a lower level of environmental awareness, risk perception, and feng shui identification at the individual level and a weaker environmental tolerance. As a result, citizens with rural households are less sensitive to NIMBY facilities than citizens with urban households, and their NIMBY acceptance is higher.

Robustness check

TABLE VIII. THE ROBUSTNESS CHECK OF TRUST ON NIMBY.

	(1)	(2)	(3)
	NIMBY	NIMBY	NIMBY
Robust Trust	0.371***	0.267***	0.484***
	(26.164)	(24.888)	(25.516)
Control	Yes	Yes	Yes
N		5112	

t statistics in parentheses

* p < 0.1, ** p < 0.05, *** p < 0.01

The independent variable used to perform robustness checks is Robust Trust. The source of Robust Trust is the 2019 Chinese Social Survey. The question in the questionnaire to indicate it is “I do not believe the government department’s statement that ‘the pollution from the dump is minimal and has no impact on residents’”. “Based on the five answers’ option: totally agree, partially agree, hard to say, partially disagree, totally disagree, we set the variable, and point it 1-5 from totally agree to totally disagree. Table 8 shows that Robust Trust [29] is significant at the 1% level, and the absolute

value is 0.27-0.48, which indicates that for each unit increase in the level of trust of citizens in the government's statement that "the pollution from the refuse collection point is minimal and has no impact on residents", citizens' acceptance of NIMBY facilities increases by 27% to 48%, proving the robustness of the original hypothesis and remaining consistent with the results of the previous main model test.

CONCLUSION AND IMPLICATION

This paper presents new evidence of governmental trust in NIMBY facilities' acceptance. In previous studies, the moderating variable of citizens' new media use has rarely been used to investigate its role in governmental trust's influence on NIMBY acceptance. In contrast, this paper presents the effect of governmental trust in citizens' acceptance of NIMBY facilities and introduces the moderating variable of NewMedia to explore the moderating role of different types of new media on differential governmental trust on Nimby acceptance. The details are as follows.

First, strengthening trust in the government can increase citizens' acceptance of NIMBY facilities, which proves Hypothesis 1. This recalls the past research of Renée J. Johnson [30] et al., who affirm that citizens who trust the government are less likely to resist landfills than those who do not trust the government. Therefore, building trust between the government and citizens is an effective measure to reduce NIMBY conflicts and increase citizens' acceptance of NIMBY facilities.

The practical implication of Hypothesis 1 is that the government should adopt various approaches to enhance citizens' perception of trust. First, as the "protector" of the public interest in the construction of NIMBY facilities, the government must not only play the role of protecting citizens' independent choices but also empower them to participate as partners (Gillroy, 1991 [31]). Therefore, the government should promote orderly and effective citizen participation in the construction of NIMBY from two perspectives: the breadth of participation and the depth of participation. On the one hand, the government should expand the scope of citizen participation, open up the channels of citizen participation, and let the subjects of citizen participation not only be limited to social organizations such as environmental groups (Ibitnyo & Pijawka, 1999 [32]), let the channels for citizen participation also include online and offline. On the other hand, the government should strengthen the depth of citizen participation so that citizen participation throughout the whole process from site selection to later operation of NIMBY facilities to ensure the whole process of people's democracy. Second, the government should strengthen information disclosure and improve the transparency of information on the construction of NIMBY facilities. Governments can disclose information about the construction of NIMBY through official websites, newspapers, magazines, and multimedia to expand the scope of information dissemination and improve the quality of information dissemination to protect citizens' right to know (Zhang, 2020 [33]).

Second, citizens' new media use plays a positive moderating role in the role of governmental trust in influencing citizens' acceptance of NIMBY facilities. The

moderating role of semiofficial new media, unofficial new media, is more significant in township and county governments but not in the central government. Thus, Hypotheses 2 and 3 are also verified. In the author's opinion, playing the role of new media well is another major initiative to improve governmental trust, increase citizens' acceptance of NIMBY, and mitigate the NIMBY effect.

The practical implication of Hypothesis 2-3 is that new media should play a positive and essential role in shaping the image of the government and reducing NIMBY conflict, especially in grassroots government. First, the sensitivity of NIMBY events, high attention and information ambiguity lead to mixed news and make it difficult to distinguish the true from the false. A large amount of information on the network platform will reduce the public's subjective judgment of the real information about NIMBY facilities, and the spread of rumors will make the public opinion environment more complicated, which will easily trigger extreme public emotions and generate NIMBY conflicts (Sun et al., 2020 [34]). Therefore, the government should improve the information filtering mechanism of semiofficial and unofficial new media, establish a rumor monitoring system to prevent rumors from spreading widely and punish them by law (Wang et al., 2021 [35]). Moreover, the grassroots government should make good use of the official new media platform, establish national governmental new media with good information sharing and communication between the government and the people, release real information about the NIMBY facilities in a timely manner, respond effectively to the public's questions and needs, and grasp the leading communication power (Wang, 2017 [36]; Yu et al., 2021 [37]). At the same time, the grassroots governments are expected to improve interaction and cooperation with news organizations, strengthen the supervision of media practitioners with influential opinion leaders, and compete for the right to speak on the dissemination of NIMBY information so as to attract the public's attention and increase the public's governmental trust and NIMBY acceptance (Wang et al., 2019 [38]; Wang et al., 2021 [39]).

Third, we found that citizens with rural households are more receptive to NIMBY facilities than urban ones, and there are more likely to trigger NIMBY effects in cities, which is consistent with Hypothesis 4. Therefore, the author believes that it is vitally essential to concentrate on reducing NIMBY conflicts in cities.

The practical implication of Hypothesis 4 is that the government should pay more attention to NIMBY construction in cities and make certain policy inclinations. Risk perception will negatively affect public NIMBY acceptance, while benefit perception will positively affect citizens' receptivity of NIMBY (Cao et al., 2021 [40]; Zhang et al., 2021 [41]). Therefore, on the one hand, the governments are supposed to establish and coordinate the information exchange and risk communication mechanism between urban citizens and the NIMBY construction units so that the public could have a more comprehensive and objective understanding of the NIMBY facilities by means of popularizing professional knowledge, visiting NIMBY facilities, etc., and citizen own uncertainty about NIMBY risk will be reduced as well (Hu et al., 2022 [42]). Simultaneously, the NIMBY construction units ought to maintain the safety of the surrounding public by improving the technical level and strengthening safety precautions, and the government should strengthen the supervision of the NIMBY

construction units (Li et al., 2018 [43]; Wu et al., 2014 [44]). On the other hand, it is high time that governments put emphasis on strengthening economic, political, and ecological compensation for urban citizens (Hu et al., 2022 [45]) to enhance citizens' perception of benefits and correct negative externality, thus increasing urban residents' acceptance of NIMBY facilities and reducing NIMBY conflicts.

The limitations of this paper are as follows. First, due to the limitation of the secondary database, this paper only selects one kind of NIMBY facility to measure citizens' NIMBY acceptance and lacks the distinction between other kinds of polluting NIMBY facilities and risk aggregation types. Second, in future studies, further heterogeneity should be examined in terms of the distance between citizens and NIMBY facilities and the magnitude of the negative externality of NIMBY facilities. Third, deeper NIMBY conflict case studies in typical regions may be useful for big data empirical studies. Finally, this study could be a starting point for exploring the relationship between governmental trust, new media and NIMBY facility acceptance.

REFERENCES

1. O'Hare M. Not in My Back, You Don't: Facility Siting and the Strategic Importance of Compensation. *Public Policy*, 1977.25(4): 407-458.
2. Wang S. Prison Law and Other 7 Laws Revised in 18 Places [N], *BJNews*, 2012-10-27.
3. <https://mp.weixin.qq.com/s/aYv-pPhsFHVePlisb3YFFw>
4. <https://www.asahi.com/sp/articles/ASP9872HQP98POMB009.html>
5. Van der Meer, T. W. (2017). Political trust and the "crisis of democracy". In *Oxford research encyclopedia of politics*.
6. Rubin, G. J., Amlôt, R., Page, L., & Wessely, S. (2009). Public perceptions, anxiety, and behaviour change in relation to the swine flu outbreak: cross sectional telephone survey. *Bmj*, 339.
7. Flew, T. (2008). *New media: An introduction*. Oxford University Press.
8. Mueller, C. M. (1992). *Frontiers in social movement theory*. Yale University Press.
9. Liu, F., Lyu, T., Pan, L., & Wang, F. (2017). Influencing factors of public support for modern coal-fired power plant projects: An empirical study from China. *Energy Policy* 105, 398-406.
10. Hu, J., Li, J., Pu, D., & Sun, J. (2022). Research on System Dynamics Simulation for NIMBY Risk Diffusion of the 'One Belt and One Road' Energy Investment. *Forest Chemicals Review*, 1146-1164.
11. Liu, Y., Ge, Y., Xia, B., Cui, C., Jiang, X., & Skitmore, M. (2019). Enhancing public acceptance toward waste-to-energy incineration projects: Lessons learned from a case study in China. *Sustainable Cities and Society*, 48, 101582.
12. Wang, Y., Li, H., Zuo, J., & Wang, Z. (2019). Evolution of online public opinions on social impact induced by NIMBY facility. *Environmental Impact Assessment Review*, 78, 106290.
13. Cao, M., Zhao, W., & Liu, Y. (2021, November). The Situational Factors and Influencing Paths of Residents' Perception of Risks in NIMBY Facilities Based on Experimental Analysis. In *2021 International Conference on Big Data, Artificial Intelligence and Risk Management (ICBAR)* (pp. 45-50). IEEE.
14. Zhao, H., Ge, Y., & Zhang, J. (2022). Evaluation of the implementation effect of public participation in the decision-making of NIMBY facilities. *PloS one*, 17(2), e0263842.
15. Liu, H., Song, S., Hu, S., & Wang, T. (2021). Evolution of the Public's Attitude toward NIMBY Incidents based on Opinion Dynamics Theory: An Agent-based Model. In *Journal of Physics: Conference Series* (Vol. 1746, No. 1, p. 012032). IOP Publishing.

16. T. Rong and G. Xie, "occurrence, dissemination and response of environmental mass incidents: an Empirical analysis of 150 major environmental mass incidents in China from 2003 to 2014", *Shanghai Journalism Review*, vol. 82, pp. 72–79, 2015.
17. Yu, J., Zhang, C., Huang, D., Shao, Y., & Ren, H. (2021). Explore the conflict and resolution of pollution NIMBY facility construction in the context of new media: an evolutionary game theoretical approach. *Complexity*, 2021.
18. Zhang, Y., Liu, Y., & Zhai, K. (2021). Identifying the Predictors of Community Acceptance of Waste Incineration Plants in Urban China: A Qualitative Analysis from a Public Perspective. *International Journal of Environmental Research and Public Health*, 18(19), 10189.
19. Yu, J., Zhang, C., Huang, D., Shao, Y., & Ren, H. (2021). Explore the conflict and resolution of pollution NIMBY facility construction in the context of new media: an evolutionary game theoretical approach. *Complexity*, 2021.
20. Hu, J., Li, J., Pu, D., & Sun, J. (2022). Research on System Dynamics Simulation for NIMBY Risk Diffusion of the 'One Belt and One Road' Energy Investment. *Forest Chemicals Review*, 1146-1164.
21. Rubin, G. J., Amlôt, R., Page, L., & Wessely, S. (2009). Public perceptions, anxiety, and behavior change in relation to the swine flu outbreak: cross sectional telephone survey. *Bmj*, 339.
22. Hu, J., Li, J., Pu, D., & Sun, J. (2022). Research on System Dynamics Simulation for NIMBY Risk Diffusion of the 'One Belt and One Road' Energy Investment. *Forest Chemicals Review*, 1146-1164.
23. Xu, T., & Sattar, U. (2020, August). Conceptualizing COVID-19 and public panic with the moderating role of media use and uncertainty in China: an empirical framework. In *Healthcare* (Vol. 8, No. 3, p. 249). MDPI.
24. Xu, T. (2021, November). Media, trust in government, and risk perception of COVID-19 in the early stage of epidemic: an analysis based on moderating effect. In *Healthcare* (Vol. 9, No. 11, p. 1597). MDPI.
25. Li, L. (2013). The magnitude and resilience of trust in the center: evidence from interviews with petitioners in Beijing and a local survey in rural China. *Modern China*, 39(1), 3-36.
26. Campos, J., Braga, V., & Correia, A. (2018). Public policies for entrepreneurship and internationalization: Is there a government reputation effect?. *Journal of Science and Technology Policy Management*.
27. Lipsky, M. (2010). *Street-level bureaucracy: Dilemmas of the individual in public service*. Russell Sage Foundation.
28. Van der Horst, D. (2007). NIMBY or not? Exploring the relevance of location and the politics of voiced opinions in renewable energy siting controversies. *Energy policy*, 35(5), 2705-2714.
29. Here, robusttrust refers to a proxy variable for the independent variable trust, which is derived from the question in css2019, i.e., for every unit increase in citizens' trust in the government's statement that "the pollution from the refuse collection point is minimal and has no impact on the residents".
30. Johnson, R. J., & Scicchitano, M. J. (2012). Don't call me NIMBY: Public attitudes toward solid waste facilities. *Environment and Behavior*, 44(3), 410-426.
31. Gillroy, J. M. (1991). Moral considerations and public policy choices: Individual autonomy and the NIMBY problem. *Public Affairs Quarterly*, 5(4), 319-332.
32. Ibitayo, O. O., & Pijawka, K. D. (1999). Reversing NIMBY: an assessment of state strategies for siting hazardous-waste facilities. *Environment and Planning C: Government and Policy*, 17(4), 379-389.
33. Zhang, Z. (2020, February). Study on Environmental Protection Based on Urban NIMBY Facilities. In *IOP Conference Series: Earth and Environmental Science* (Vol. 450, No. 1, p. 012071). IOP Publishing.
34. Sun, J., Xu, L., Pu, D., & Hu, J. (2020, August). Analysis On the Process and Influencing Factors of NIMBY Risk Diffusion in 'One Belt and One Road' Energy Investment. In *2020 4th International Seminar on Education, Management and Social Sciences (ISEMSS 2020)* (pp. 750-753). Atlantis Press.
35. Wang, Y., Zheng, L., & Zuo, J. (2021). Online rumor propagation of social media on NIMBY conflict: Temporal patterns, frameworks and rumor-mongers. *Environmental Impact Assessment Review*, 91, 106647.

36. Wang, L. (2017, December). The Qualitative Comparative Analysis of Chinese NIMBY. Based on the Perspective of Mediated Contention. In 3rd International Conference on Economics, Management, Law and Education (EMLE 2017) (pp. 422-426). Atlantis Press.
37. Yu, J., Zhang, C., Huang, D., Shao, Y., & Ren, H. (2021). Explore the conflict and resolution of pollution NIMBY facility construction in the context of new media: an evolutionary game theoretical approach. *Complexity*, 2021.
38. Wang, Y., Li, H., Zuo, J., & Wang, Z. (2019). Evolution of online public opinions on social impact induced by NIMBY facility. *Environmental Impact Assessment Review*, 78, 106290.
39. Wang, Y., Zheng, L., & Zuo, J. (2021). Online rumor propagation of social media on NIMBY conflict: Temporal patterns, frameworks and rumor-mongers. *Environmental Impact Assessment Review*, 91, 106647.
40. Cao, M., Zhao, W., & Liu, Y. (2021, November). The Situational Factors and Influencing Paths of Residents' Perception of Risks in NIMBY Facilities Based on Experimental Analysis. In 2021 International Conference on Big Data, Artificial Intelligence and Risk Management (ICBAR) (pp. 45-50). IEEE.
41. Zhang, Y., Liu, Y., & Zhai, K. (2021). Identifying the Predictors of Community Acceptance of Waste Incineration Plants in Urban China: A Qualitative Analysis from a Public Perspective. *International Journal of Environmental Research and Public Health*, 18(19), 10189.
42. Hu, J., Li, J., Pu, D., & Sun, J. (2022). Research on System Dynamics Simulation for NIMBY Risk Diffusion of the 'One Belt and One Road' Energy Investment. *Forest Chemicals Review*, 1146-1164.
43. Li, W., Zhong, H., Jing, N., & Fan, L. (2019). Research on the impact factors of public acceptance toward NIMBY facilities in China-A case study on hazardous chemicals factory. *Habitat International*, 83, 11-19.
44. Wu, Y., Zhai, G., Li, S., Ren, C., & Tsuchida, S. (2014). Comparative research on NIMBY risk acceptability between Chinese and Japanese college students. *Environmental monitoring and assessment*, 186(10), 6683-6694.
45. Hu, J., Li, J., Pu, D., & Sun, J. (2022). Research on System Dynamics Simulation for NIMBY Risk Diffusion of the 'One Belt and One Road' Energy Investment. *Forest Chemicals Review*, 1146-1164.