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How Social Fairness Perception Affects Youth Political Participation：The Moderating Effect of Internet Use

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Article

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Abstract

Youth political participation is a cornerstone of democratic political development. Utilizing data from the 2021 China Social Survey (CSS2021), this study empirically investigates the mechanisms linking social fairness perception, internet use, and youth political participation. Results show that social fairness perceptions and internet use exert distinct effects on institutionalized and non-institutionalized political participation among young people. Specifically, a stronger sense of social fairness among youth is associated with a greater inclination toward institutionalized political participation, while a weaker sense is linked to a higher propensity for non-institutionalized participation. Furthermore, more intensive internet use predicts stronger non-institutionalized political participation, yet has no significant bearing on institutionalized participation. Further analysis indicates that internet use does not moderate the relationship between social fairness perception and institutionalized participation; however, it significantly amplifies the association between social fairness perception and non-institutionalized participation. These results advance our understanding of the drivers behind youth political engagement and the nuanced role of the internet in this process, offering theoretical and practical insights for guiding youth toward orderly political involvement.

1.Introduction

Political participation is a classic subject of political inquiry and is frequently seen as a key marker of political modernization. Since the launch of reform and opening-up,accompanying the sustained progress of economic and social modernization, political participation among Chinese citizens has continued to expand in both breadth and depth (Cui et al., 2015). The report to the 20th National Congress of the Communist Party of China underscored the imperative to “improve the system of institutions through which the people run the country and expand their orderly political participation.”As the future backbone of national and societal development, the political engagement of young people mirrors not only the contemporary political environment but also presages future political trajectories.China is currently undergoing profound changes unseen in a century and is in a phase of deep social transformation, where restructuring interests and reconciling diverse demands have emerged as central governance challenges. As pivotal stakeholders, the avenues through which youth express themselves politically have drawn considerable scrutiny.Directing young people to engage in the political process normatively through institutionalized channels represents a vital aspect of advancing democratic development and modernizing governance.Consequently, a systematic examination of the intrinsic mechanisms driving youth political participation carries substantial theoretical and policy relevance for fostering their orderly engagement and deepening the implementation of whole-process people's democracy.

The determinants of political participation have attracted considerable scholarly attention in recent years. Existing research has concentrated on variables including social capital (Putnam,1994), civic culture (Almond & Verba, 1963), democratic support (Song & Ai, 2025), perceptions of social fairness (Svensson, 2015), political efficacy (Zhan & You, 2024), political trust (Miao et al., 2022), and internet use

(Bode, 2012). Within this body of work, the mechanisms by which social fairness perceptions and internet use shape political participation have emerged as key research themes, though scholarly consensus on their effects remains limited. Some researchers contend that internet use exerts a significant positive effect on political participation (S.J.Kim,2023), whereas others report only a modest positive association (Bakker & de Vreese, 2011; Boulianne, 2015, 2019), or even argue that there is no robust relationship, or possibly a suppressive one (Gil de Zúñiga et al., 2010). These disagreements can be largely attributed to variations in how political participation is conceptualized and measured (Gibson & Cantijoch, 2013).By comparison, greater consensus exists concerning the link between social fairness perception and political participation. Scholars widely agree that social fairness perception—an individual's subjective evaluation of distributive justice—significantly shapes political behavior (Hou & Liu et al., 2023; Zheng, 2014, 2019).

While existing scholarship offers important insights, several avenues remain open for further investigation. First, research on youth political participation remains relatively limited. Although studies have examined political engagement among specific groups such as rural residents (Hou et al., 2023) and urban dwellers (He et al., 2022), most tend to treat the population as homogeneous, leaving the distinctive political participation patterns of Chinese youth underexplored. Thus, the behavioral profile of Chinese youth political participation, as well as whether their responsiveness to social fairness perceptions and internet use differs from that of other groups, still requires systematic analysis.Second, the interactive relationships among social fairness perception, internet use, and political participation are not yet well understood. Most studies either examine these factors in isolation or introduce them as separate controls, rarely integrating social fairness perception and internet use within a unified analytical framework to assess their joint effects. Whether these two variables moderate or reinforce one another, and whether such interactions exert differential impacts on institutionalized versus non-institutionalized political participation, calls for more rigorous empirical inquiry.

Against this backdrop, this study focuses specifically on youth, distinguishing between institutionalized and non-institutionalized forms of political participation. Using data from the 2021 Chinese Social Survey (CSS2021) and applying regression analysis alongside tests for moderation effects, we systematically examine how perceptions of social fairness and internet use shape youth political engagement. A central aim is to investigate whether internet use moderates the relationship between social fairness perception and youth political participation. Through this analysis, we seek to clarify the underlying mechanisms of youth political engagement in the digital age and to offer theoretical and policy insights for fostering their orderly participation in political life.

2.Literature review and research hypotheses

2.1 Institutionalized political participation and non-institutionalized political participation

Political participation, a central concept in political science, has been variably defined in the literature. Huntington and Nelson (1989) characterize it as activities undertaken by private citizens to influence government decisions, while Van Deth (2014) highlights its nature as voluntary citizen engagement with the state. Early scholarship concentrated primarily on institutionalized participation. As market reforms have deepened, however, non-institutionalized participation has attracted growing scholarly interest, driven by increased demands for interest articulation (Cai, 2005). Consequently, the traditional voting-centric model is increasingly giving way to more diverse modes of engagement (Van Deth, 2021).

In terms of typology, Sabucedo and Arce (1991) distinguish between electoral (institutionalized) and non-electoral (non-institutionalized) political participation—a classification widely employed in subsequent research (Putnam, 2000; Copeland, 2014; Theocharis & Quintelier, 2016). Institutionalized participation encompasses conventional, routinized forms of engagement such as voting or attending public hearings, typically characterized by interest articulation and deliberative communication (Liu et al., 2021). Non-institutionalized participation, by contrast, involves extra-institutional or confrontational actions—including collective petitions, protests, and demonstrations—to advance claims (Wang & Yang, 2011). Guided by this framework, the present study adopts the dichotomy of institutionalized versus non-institutionalized political participation.

2.2 Social fairness perceptions and political participation

Social fairness entails the distribution of societal benefits and responsibilities according to principles of equity and justice, thereby protecting the fundamental rights of diverse societal actors (Rothmund & Becker,2016). Social fairness perception refers to individuals' subjective assessment of the fairness prevailing in society (Cao et al.,2017). As a core psychological factor, it reflects not only an individual's cognitive appraisal of institutional arrangements but also significantly shapes their value orientations and political behaviors (Hou & Liu et al., 2023).

Research on the linkage between social fairness perception and political participation falls into two broad streams. The first examines their direct relationship. Lin and Xiao (2019) report a significant association, indicating that individuals with a stronger sense of social fairness are more inclined toward institutionalized political participation. This finding is corroborated by Su and Yao (2022) in an empirical study using five waves of Chinese General Social Survey (CGSS) data, which shows that rural residents' social fairness perception positively predicts institutionalized participation. Conversely, Niu et al.(2017) contend that heightened perceptions of unfairness increase the likelihood of collective action, implying that lower social fairness perception is linked to a greater propensity for non-institutionalized political participation.

The second stream of research focuses on the indirect role of social fairness perception in political participation. For instance, Neufeind et al.(2014) demonstrate that social fairness perception significantly moderates the link between political socialization and participation. Zheng (2014) further argues that both procedural and distributive fairness perceptions positively moderate the relationship

between political trust and political engagement. Additionally, social fairness perception has been shown to moderate the connection between political knowledge and individual voting behavior (Zheng,2019).

The reviewed literature underscores that social fairness perception constitutes an important determinant of political participation. Although scholarly discussion on this topic is well established, research focusing specifically on youth political engagement remains notably limited.

Therefore, this paper proposes the following research hypotheses:

H1-1:The higher young people's social fairness perceptions, the stronger their institutionalized political participation;

H1-2:The lower young people's social fairness perceptions, the stronger their non-institutionalized political participation.

2.3 Internet use and political participation

The influence of social fairness perception on youth political participation may also be mediated by other factors, among which internet use is a particularly salient variable. The rapid proliferation of the internet has enabled young people to access political information and voice their opinions online. As a medium of information dissemination, the internet can shape political engagement; however, scholarly opinion remains divided on the direction of this influence—specifically, whether internet use fosters or discourages participation.

Proponents of the internet’s mobilizing role contend that it strengthens individuals’ ability to acquire information (Bimber et al.,2015), reduces the costs (Brundidge, 2010) and logistical hurdles of engagement (Willnat et al., 2013), and enables easier affiliation with ideologically aligned political groups (Neubaum & Weeks, 2023), collectively enhancing political participation. In the Chinese context, where online media frequently emphasize positive propaganda, Chen and Zang (2015) show that media use significantly increases political participation among rural residents.

Conversely, a substantial body of scholarship argues that internet use may suppress political participation or exert only negligible effects. Putnam (2001) contends that internet use expands time devoted to entertainment, crowding out public political engagement. The commercial and entertainment-driven nature of digital platforms, moreover, may erode individuals’ capacity for political involvement (Bakker & de Vreese, 2011), ultimately dampening their motivation to participate (Bimber et al., 2015). Other studies suggest that the internet’s practical impact on fostering mass political engagement remains modest (Norris, 2002; Theocharis & Quintelier, 2016).

Based on this, the following research hypotheses are proposed:

H2-1:The stronger young people's internet usage, the stronger their institut-

ionalized political participation;

H2-2:The stronger young people's internet usage, the stronger their non-in-

stitutionalized political participation.

2.4 Moderation effects of internet use

Given the significant impact of social fairness perception on political participation, the internet—as a key channel for information diffusion and social exchange—may moderate this relationship. Practical evidence further suggests that internet development plays an important role in addressing public needs and promoting social well-being (Pan et al.,2019). Young people frequently access political information, articulate opinions, and join public discourse online. The extent and manner of their internet use could thus amplify or attenuate the effect of social fairness perception on their political engagement. Studies indicate that the internet does not directly determine participation levels but operates by conditioning individual psychological mechanisms and behavioral pathways (Theocharis & Quintelier, 2016).

Specifically, internet use may positively moderate the relationship between social fairness perception and institutionalized political participation. When young people regularly consume political information online, the internet's informational features can bolster their political awareness and efficacy, reinforcing a sense of civic responsibility. This, in turn, makes them more likely to engage through formal channels such as voting or contacting officials (Zheng, 2014). Under these conditions, a strong sense of social fairness, coupled with high-frequency information exposure, is expected to further encourage institutionalized participation.

In contrast, within non-institutionalized pathways, the internet may magnify feelings of relative deprivation stemming from low social fairness perceptions, using online networks to facilitate rapid mobilization and collective action (Niu et al., 2017).

Based on this, the following research hypotheses are proposed:

H3-2: Youth internet use exerts a positive moderating effect on the relationship between social fairness perceptions and institutionalized political participation;

H3-3: Youth internet use exerts a negative moderating effect on the relationship between social fairness perceptions and non-institutionalized political participation.

- Based on the aforementioned theoretical framework and research hypotheses, this paper constructs a diagram of the theoretical model illustrating the influence mechanism of youth political participation (Fig. 1).

3.Data and methods

This study employs data from the 2021 Chinese Social Survey (CSS2021), a nationally representative, continuous survey project administered by the Institute of Sociology at the Chinese Academy of Social Sciences. The survey covers 151 counties (districts/cities) across 31 provincial-level units in China. Its

target population is urban and rural residents aged 18–69, yielding a total of 10,136 valid responses.Guided by the youth age range (14–35 years) defined in China's Medium- and Long-Term Youth Development Plan (2016–2025) and considering the structure of the CSS2021 sample, we limit our analysis to respondents aged 18–35. To sharpen the focus of the inquiry, the raw data were filtered according to study-specific criteria, primarily age (18–35) and internet use status. To ensure data quality, observations that were irrelevant to the research aims or contained excessive missing values were removed.After these procedures, 2,019 valid cases were retained for empirical analysis. This sample size fulfills the basic requirements for model estimation and hypothesis testing in this study and offers reasonable representativeness and analytical reliability.

3.1 Explained variable

This study uses political participation as the dependent variable, representing the political participation of research subjects. Drawing on Zhang et al. (2024), political participation is measured through questionnaire item H2a: "In the past two years, have you participated in any of the following activities?" Specifically, it includes: "Reporting social issues to media outlets such as newspapers, radio stations, or online forums"; "Submitting opinions to government departments (including via phone, email, etc.)"; "Expressing personal views on government policies through various channels"; "Discussing political issues with others or online users"; "Participating in collective online/offline rights protection actions"; "Engaging in discussions on major decision-making processes within your village/community or workplace"; and "Attending public hearings on public policies organized by government departments." "Expressing personal opinions on government policies through various channels," "Discussing political issues with others or online users," "Participating in collective rights defense actions online/offline," "Participating in major decision-making discussions in your village/community or workplace," and "Attending public policy hearings organized by government departments." The second explanatory variable is "voting participation," measured by the item H3b: "Did you vote in the most recent election (village committee/neighborhood committee election)?" "Did you vote in the most recent election (neighborhood committee/village committee election)?"

First, principal component analysis was applied, followed by factor analysis using the maximum variance method on the eight items. This extracted two common factors with eigenvalues greater than 1 (Table 1). The table shows that the items "Reporting social issues to newspapers," "Expressing opinions to the government, ""Expressing personal views on policies,""Discussing political issues,"and "Participating in rights defense actions" loaded heavily on Common Factor 1, while "Participating in major decision discussions,""Participating in neighborhood committee voting," and "Attending hearings" loaded heavily on Common Factor 2. Therefore, based on the corresponding item meanings, Common Factor 1 was named "Non-institutionalized Political Participation," and Common Factor 2 was named "Institutionalized Political Participation."

Table 1
Factor loading analysis of political participation scale

Report social issues to newspapers and periodicals (online forums)	**Ingredient 1**	**Ingredient 2**
	0.604	**-0.104**
Report opinions to government departments	0.586	0.273
Express personal opinions on policy	0.536	0.154
discuss political issues	0.549	-0.115
Participate in online/offline collective rights protection actions	0.505	-0.029
Participate in major decision-making discussions in the village	-0.013	0.744
Participate in voting in village committee elections	-0.175	0.615
attend hearing	0.240	0.587
KMO sampling suitability quantity	0.617	
Bartlett's test of sphericity approximates chi-square	738.195	
Significance	0.000	
Rotation load square percentage	20.524	17.493

3.2 Explanatory variables

The explanatory variable in this study is social fairness perceptions. Following the methodology of Liu & Wang (2023), social fairness perceptions is measured through questionnaire item F3a: “How fair do you perceive the following aspects of contemporary social life to be?” This includes eight indicators: “college entrance examination system,” “political rights,” “judicial and law enforcement,” “public healthcare,” “employment opportunities,” “income distribution,” “social security benefits,” and “urban-rural disparities.” The original scoring for each indicator is defined as follows: “extremely unfair = 1, somewhat unfair = 2, fair = 3, extremely fair = 4, and unsure=-1.” This study converted the original scores into a scale where “extremely unfair = 1, somewhat unfair = 2, hard to say = 3, somewhat fair = 4, extremely fair = 5.” Higher scores indicate a stronger social fairness perceptions

3.3 Moderator variable

This study selects internet usage as a moderating variable to further explore the relationship between social fairness perceptions and youth political participation. Internet usage encompasses both internet

access and frequency of use. Given the characteristics of this research and practical considerations, only a very small minority of young people do not use the internet at all. Therefore, “internet usage” here primarily refers to “internet usage frequency,” excluding samples that do not use the internet. Following Tang & Ye (2022), the measurement of “frequency of engaging in the following online activities” is conducted through item D5b: “How often do you engage in the following activities online?” to measure seven indicators: “Browsing political news,” “Entertainment and leisure,” “Chatting and making friends,” “Business and work,” “education, ” “online services,” and “investment and financial management.” Response options were coded as follows: “almost daily = 1, multiple times per week = 2, at least once per week = 3, at least once per month = 4, several times per year = 5, and never = 0.” Raw scores were converted to: “almost daily = 6, multiple times per week = 5, at least once per week = 4,at least once per month = 3,several times per year = 2, and never = 1.” Summing all items and taking the average yields a score where higher values indicate stronger internet usage.

3.4 Control variables

The control variables selected by this study to reflect the individual characteristics of the research subjects include gender, age, educational attainment, marital status, political identity, household registration status, and employment status. The specific assignment rules are shown in Table 2.

Table 2
Variable assignment and descriptive statistics (N = 2019)

Variable	Question	Assignment	Mean (standard deviation)	
gender	Male = 1; Female = 0		0.422(0.494)	
education level	Junior high school and below = 1; high school (technical secondary school and higher vocational school) = 2; college and above = 3		2.233(0.849)	
Marital status	Married = 1; Unmarried = 0		0.516(0.500)	
working status	Working = 1; Not working = 0		0.497(0.500)	
political outlook	Party member (Democratic Party) = 1; non-party member = 0		0.367(0.482)	
Household registration	Agricultural household registration = 1; non-agricultural household registration = 0		0.597(0.491)	
institutionalized political participation	Participate in major decision-making discussions	Participated = 1; Never participated = 0	0.123 (0.200)	0.065(0.246)
	Participate in village committee voting			0.283(0.450)
	attend hearing			0.022(0.146)
non-institutionalized political participation	Report social issues to newspapers and periodicals		0.094 (0.150)	0.044(0.205)
	Report opinions to the government			0.066(0.248)
	Comment on policy			0.038(0.192)
	discuss political issues			0.292(0.455)
	Participate in rights protection actions			0.030(0.171)

Variable	Question	Assignment	Mean (standard deviation)	
Internet Use	Browse current affairs information	Original assignment: almost every day = 1, many times a week = 2, at least once a week = 3, at least once a month = 4, several times a year = 5, never = 0; Assigned values after conversion: almost every day = 6, many times a week = 5, at least once a week = 4, at least once a month = 3, several times a year = 2, never = 1	3.953 (0.891)	4.514(1.611)
	entertainment, leisure			5.291(1.199)
	Chat and make friends			5.407(1.182)
	business or work			2.904(2.225)
	study education			3.832(1.947)
	Online shopping and life services			4.098(1.341)
	Investment and financial management			1.625(1.358)
perceptions of social justice	college entrance examination system	Original assignment: very unfair = 1, not very fair = 2, relatively fair = 3, very fair = 4, hard to say=-1; Assignment after conversion: Very unfair = 1, Not very fair = 2, Hard to say = 3, Fairly fair = 4, Very fair = 5	3.712 (0.707)	4.118(0.977)
	political rights			3.847(1.023)
	Justice and Law Enforcement			3.965(0.939)
	public health			3.918(0.871)
	Employment opportunities			3.468(1.073)
	income distribution			3.292(1.154)
	social security benefits			3.767(0.963)
	Urban and rural differences			3.358(1.155)

4.Results

4.1 Sample descriptive statistical analysis

Of the 2,019 respondents included in the analysis, 851 (42.1%) were male and 1,168 (57.9%) were female, indicating a modest over-representation of women. In terms of education, 547 (27.1%) had completed junior high school or less, 455 (22.5%) had attained senior high school (including vocational/technical secondary education), and 1,017 (50.4%) held a college degree or higher—the largest subgroup. Married respondents slightly outnumbered unmarried ones. Employment status was nearly evenly split between those with and without work. Most respondents did not belong to the Communist Party or Communist Youth League. Agricultural hukou holders outnumbered non-agricultural hukou holders. (See Table 3.)

Descriptive statistics were generated using SPSS 26 (see Table 2). The results indicate that the overall mean scores for institutionalized and non-institutionalized political participation are 0.123 and 0.094, respectively—both below the scale midpoint of 0.5—reflecting a generally low level of political engagement among youth. The mean score for the independent variable, social fairness perception, is 3.712, above the midpoint of 3.0, suggesting that youth, on average, perceive society as relatively fair. Scores for all specific fairness dimensions exceeded the midpoint, with perceptions of fairness in the college entrance examination (Gaokao) system rated highest. The mean for the moderating variable, internet use, is 3.953, above the midpoint of 3.5, indicating comparatively high levels of internet engagement among young people. Item-level scores reveal that youth internet activity is concentrated mainly in entertainment/leisure, social communication, and browsing news/political information.

Table 3
Basic situation of the sample (N = 2019)

Name	Category	Frequency (%)	Name	Category	Frequency (%)
gender	male	851(42.1)	working status	Have a job	1004(49.7)
	female	1168(57.9)		no job	1015(50.3)
education level	Junior high school and below	547(27.1)	political outlook	party member	741(36.7)
	High school (technical secondary school and vocational school)	455(22.5)		non-party members	1278(63.3)
	University and above	1017(50.4)	Household registration	Agricultural household registration	1206(59.7)
Marital status	married	1041(51.6)		Non-agricultural household registration	813(40.3)
	Unmarried	978(48.4)			

4.2 Regression analysis

This study uses hierarchical linear regression to analyze the effects of social fairness perception and internet use on youth institutionalized and non-institutionalized political participation separately. All models control for demographic and socioeconomic covariates: gender, age, education, employment status, political affiliation, and household registration (hukou). Model 1 (institutionalized participation) and Model 4 (non-institutionalized participation) include only control variables. Model 2 and Model 5 add the independent variable, social fairness perception, to Models 1 and 4, respectively. Model 3 and Model 6 further incorporate the moderating variable, internet use, building on Models 2 and 5 (see Table 4).

As shown in Models 2 and 5, social fairness perception significantly predicts both forms of youth political participation. Its coefficient for institutionalized participation is 0.018 ($p < 0.01$), indicating a positive effect: youth with a stronger sense of social fairness are more likely to engage through institutionalized channels such as voting or contacting officials. Hypothesis H1-1 is therefore supported. For non-institutionalized participation, the coefficient is − 0.031 ($p < 0.001$), revealing a negative relationship: lower perceived fairness is associated with a greater propensity for extra-institutional

actions like collective petitions or protests, confirming hypothesis H1-2.These results underscore social fairness perception as a pivotal psychological driver shaping how youth choose to engage politically. When young people view society as relatively fair, they favor institutionalized modes of participation; when they perceive unfairness, they are more inclined toward unconventional, non-institutionalized forms of expression.

Models 3 and 6 show that the coefficient for internet use on institutionalized political participation is 0.010 ($p > 0.05$), which is not statistically significant, indicating no meaningful effect. By contrast, its coefficient for non-institutionalized participation is 0.027 ($p < 0.001$), reflecting a strong positive association: more frequent internet use corresponds to higher levels of non-institutionalized political engagement. Thus, hypothesis H2-1 is rejected, while H2-2 is supported. These findings suggest that internet use does not foster institutionalized participation but does markedly amplify non-institutionalized involvement.

Several control variables also show significant associations. Male youth exhibit higher levels of both institutionalized and non-institutionalized participation than females. Age is positively related to institutionalized participation but unrelated to non-institutionalized forms. Educational attainment does not significantly predict institutionalized participation, yet higher education is associated with greater non-institutionalized engagement. Marriage is linked to lower non-institutionalized participation, suggesting a suppressive effect. Being employed is associated with higher institutionalized participation, though employment status does not affect non-institutionalized involvement. Party/League membership predicts greater engagement in both participation types. Finally, youth with agricultural hukou show higher institutionalized participation than those with non-agricultural hukou, while hukou type has no bearing on non-institutionalized participation.

Table 4
The impact of social justice perception and Internet use on youth political participation

Variable	Institutionalized political participation			Non-institutionalized political participation		
	Model1	Model2	Model3	Model4	Model5	Model6
gender (Female = 0)	0.025** (0.009)	0.025** (0.009)	0.025** (0.009)	0.017* (0.007)	0.018* (0.007)	0.018* (0.007)
age	0.009*** (0.001)	0.009*** (0.001)	0.009*** (0.001)	−0.009 (−0.309)	−0.035 (−1.149)	−0.042 (−1.395)
education level	−0.039 (−1.501)	−0.043 (−1.649)	−0.043 (−1.649)	0.030*** (0.004)	0.031*** (0.004)	0.019*** (0.005)
Marital status (Single = 0)	0.057(1.816)	0.059 (1.882)	0.059 (1.822)	−0.019* (0.008)	−0.025** (0.008)	−0.027*** (0.008)
working status(no work = 0)	0.021* (0.010)	0.020* (0.010)	0.020* (0.010)	0.016 (0.693)	0.014 (0.628)	−0.014 (−0.638)
political identity (Non-party member = 0)	0.039*** (0.010)	0.037*** (0.010)	0.037*** (0.010)	0.024** (0.008)	0.0279** (0.008)	0.025* (0.008)
Household registration (non-agricultural = 0)	0.031** (0.009)	0.031** (0.009)	0.031** (0.009)	−0.029 (−1.336)	−0.027 (−1.236)	−0.016 (−0.723)
social justice perception		0.018** (0.006)	0.018** (0.006)		−0.031*** (0.005)	−0.033*** (0.005)
Internet usage			0.010 (0.439)			0.027*** (0.004)

Note: *P<0.05, **P<0.01, ***P<0.001; numbers in brackets are standard errors.

Variable	Institutionalized political participation			Non-institutionalized political participation		
	Model1	Model2	Model3	Model4	Model5	Model6
sample size	2019	2019	2019	2019	2019	2019
constant	−0.166	−0.243	−0.243	0.021	0.135	0.068
F	25.876	22.955	22.955	39.444	41.433	42.632
R2	0.060	0.064	0.064	0.073	0.093	0.113
Note: *P<0.05, **P<0.01, ***P<0.001; numbers in brackets are standard errors.						

4.3 Moderating effect analysis

To further examine whether internet use moderates the relationship between social fairness perception and youth political participation, a moderation analysis was conducted using the Process 2.16.3 in SPSS 26. The detailed results are presented in Table 5.

Table 5
Test results of the moderating effect of Internet use on the relationship between social justice and political participation

Variable	Institutionalized political participation			Non-institutionalized political participation		
	Model7			Model8		
	β	SE	95%CI	β	SE	95%CI
gender (Female = 0)	0.028**	0.009	[0.011,0.047]	0.018**	0.007	[0.005,0.031]
age	0.008***	0.001	[0.006,0.010]	−0.001	0.001	[−0.003,0.001]
education level	−0.011	0.007	[−0.024,0.002]	0.018***	0.005	[0.009,0.028]
Marital status (Single = 0)	0.020	0.013	[−0.005,0.045]	−0.019*	0.009	[−0.038,0.001]
working status(no work = 0)	0.021*	0.010	[0.001,0.041]	−0.001	0.007	[−0.015,0.014]
political identity (Non-party member = 0)	0.047***	0.011	[0.025,0.069]	0.023**	0.008	[0.007,0.040]
Household registration (non-agricultural = 0)	0.028**	0.009	[0.010,0.046]	−0.005	0.007	[−0.018,0.008]
social justice perception	0.017**	0.006	[0.005,0.030]	−0.035***	0.005	[−0.044,0.026]
Internet usage	0.006	0.006	[−0.005,0.017]	0.026***	0.041	[0.018,0.034]
Int_1	−0.006	0.006	[−0.018,0.006]	−0.011*	0.005	[−0.020,−0.002]
Note: *P<0.05, **P<0.01, ***P<0.001; numbers in brackets are standard errors.						

Variable	Institutionalized political participation			Non-institutionalized political participation		
	Model7			Model8		
	β	SE	95%CI	β	SE	95%CI
sample size	2019			2019		
F	14.531			26.445		
R^2	0.068			0.116		
Note: *P<0.05, **P<0.01, ***P<0.001; numbers in brackets are standard errors.						

As displayed in Table 5, the direction of each variable's effect on youth political participation remains largely consistent with the patterns shown in Table 4, though coefficient magnitudes differ slightly. Model 7 shows that the interaction between social fairness perception and internet use on institutionalized political participation is − 0.006 ($p > 0.05$), indicating no significant moderating effect. Hypothesis H3-1 is therefore not supported. In Model 8, the corresponding interaction term for non-institutionalized participation is − 0.011 ($p < 0.05$), confirming a significant moderation effect. Hypothesis H3-2 is thus supported.

To probe this moderation further, a simple-slopes analysis was performed, categorizing internet use into high (M + 1 SD) and low (M−1 SD) groups (see Fig. 2). The results reveal that the negative relationship between social fairness perception and non-institutionalized political participation is significantly stronger among youth with high internet use. This indicates a reinforcing moderating effect: more frequent internet use amplifies the extent to which social fairness perception suppresses non-institutionalized political engagement.

5.Conclusion and discussion

Drawing on CSS2021 data, this study distinguishes between institutionalized and non-institutionalized forms of political participation. Through hierarchical regression and moderation analysis, we empirically demonstrate a non-linear relationship between social fairness perception and youth political engagement, as well as a differential moderating role of internet use. These findings offer a fresh analytical lens for understanding the mechanisms shaping youth political participation in a period of social transformation.

5.1 Research conclusion

First, the findings confirm that social fairness perception significantly influences both institutionalized and non-institutionalized youth political participation, and that internet use moderates the link between social fairness perception and non-institutionalized participation Specifically:1)Social fairness

perception positively predicts institutionalized political participation and negatively predicts non-institutionalized participation. That is, higher perceived fairness is associated with greater institutionalized engagement, while lower perceived fairness correlates with stronger non-institutionalized involvement.2)Internet use does not significantly affect institutionalized participation but exhibits a positive association with non-institutionalized participation. Thus, internet use appears ineffective in promoting institutionalized engagement, while potentially amplifying non-institutionalized forms.

Second, moderation tests reveal that internet use does not significantly moderate the relationship between social fairness perception and institutionalized political participation, but it does significantly strengthen the link between social fairness perception and non-institutionalized participation. On the one hand, internet use neither enhances nor suppresses the effect of social fairness perception on institutionalized engagement. On the other hand, under conditions of high internet use, the negative association between social fairness perception and non-institutionalized participation becomes more pronounced. In other words, when youth perceive lower social fairness and use the internet more frequently, their non-institutionalized political participation intensifies.

5.2 Practical inspiration

Based on the above research findings, this study suggests that the following aspects warrant attention in promoting orderly political participation among youth.

First, advancing social fairness in a comprehensive manner is essential. Given that social fairness perception is a key determinant of youth political engagement, strengthening that perception is critical to promoting more orderly participation among young people. Constructing social fairness requires establishing a multidimensional institutional framework designed to counteract the mechanisms that produce structural inequality. Such an effort fundamentally entails aligning institutional justice, opportunity structures, and participatory efficacy into a mutually reinforcing system.

At the level of institutional justice, it is imperative to strengthen the capacity of institutions to respond normatively to diverse social claims. Enhancing the equity and accessibility of basic public services—such as education, healthcare, and employment—can alleviate feelings of “absolute deprivation” among youth. At the same time, improving redistributive mechanisms to provide targeted compensation for urban–rural, regional, and inter-generational disparities would help mitigate experiences of “relative deprivation.”

With respect to opportunity structures, a holistic employment lifecycle management system should be developed. Multifaceted measures ought to be taken to expand youth employment channels, improve rights protection and professional development regimes, strengthen sector-specific talent cultivation, and deliver re-employment support. Complementarily, refining lifelong learning systems can narrow the mismatch between young individuals’ capabilities and available opportunity structures.In the domain of participatory efficacy, the interests and demands of youth should be systematically integrated into the

government's policy agenda. Hearings, deliberative consultations, and other participatory mechanisms can build consensus and help shift youth from passive policy targets to active governance actors. In short, a multidimensional strategy is needed to raise youth perceptions of social fairness, bolster their identification with institutions, and ultimately foster a virtuous cycle between perceived fairness and orderly political participation.

The role of internet use—a key variable shaping youth non-institutionalized political participation—cannot be overlooked. As digital natives, contemporary young people increasingly engage politically through means that transcend traditional institutional channels, reflecting a clear "mediatized turn." This trend contains dual potential: it may enhance political efficacy in positive ways, yet it also carries structural risks that could challenge governance order.

On the one hand, the internet—functioning as a decentralized platform for information exchange—enables young people to access policy information promptly, interact with government bodies, broaden their social and political awareness, and accelerate political socialization. On the other hand, the immediacy, viral spread, and affective mobilization inherent in online communication can magnify governance tensions in a risk society, raise the likelihood of non-deliberative expression, and even precipitate online collective actions, thereby posing substantive challenges to state governance systems.

Consequently, the regulation and guidance of the online content ecosystem must be reinforced. First, a tiered and categorized content governance system should be instituted, supported by a dynamically adjusted mechanism for assessing content quality, with particular emphasis on curbing disinformation, incendiary rhetoric, and extremist discourse. Second, by harnessing artificial intelligence and big-data analytics, fine-grained behavioral "profiling" of youth online activity can inform tailored, audience-sensitive political communication strategies aligned with their information preferences. Moreover, in light of youth characteristics, government transparency and the timeliness of public communication should be elevated. By channeling legitimate youth demands through institutionalized avenues, "technological empowerment" can be converted into "governance effectiveness," steering youth toward political participation within an orderly framework. The ultimate objective is to realize a mutually reinforcing dynamic between political stability and youth agency.

5.3 Research limitations

This study represents a preliminary inquiry into the connections between social fairness perception, internet use, and youth political participation. Several limitations should, however, be noted.First,limited operationalization of political participation.Relying on secondary data constrained the measurement of political participation to eight specific items. As a result, the analysis does not cover the full range of possible engagement forms—such as campaign volunteering, membership in civic associations, or innovative digital activism. Future research would benefit from developing more comprehensive and varied measures to better capture the diversity and complexity of youth political involvement. Second,narrow range of control variables.The control variables were largely confined to individual-level

socio-demographic characteristics (e.g., gender, education, political affiliation). Potentially important external and contextual factors—including the influence of significant others (family, peers), broader socio-political conditions, and qualitative features of the online environment (e.g., misinformation prevalence, platform design)—were not considered. Subsequent studies should incorporate a wider set of such variables to provide a more holistic and nuanced account of the drivers of youth political participation.

Declarations

Competing interests

The authors declare no competing interests.

Ethical approval

Ethical approval was not required for this study as it utilized publicly accessible data from the 2021 China Social Survey (CSS2021)

Additional information

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Author Contribution

Y Develop an overall research plan and revise the thesisW Collect data and draft the initial version of the paper

Data Availability

The data that support the findings of this study are available from the 2021 China Social Survey (CSS2021)

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Figures

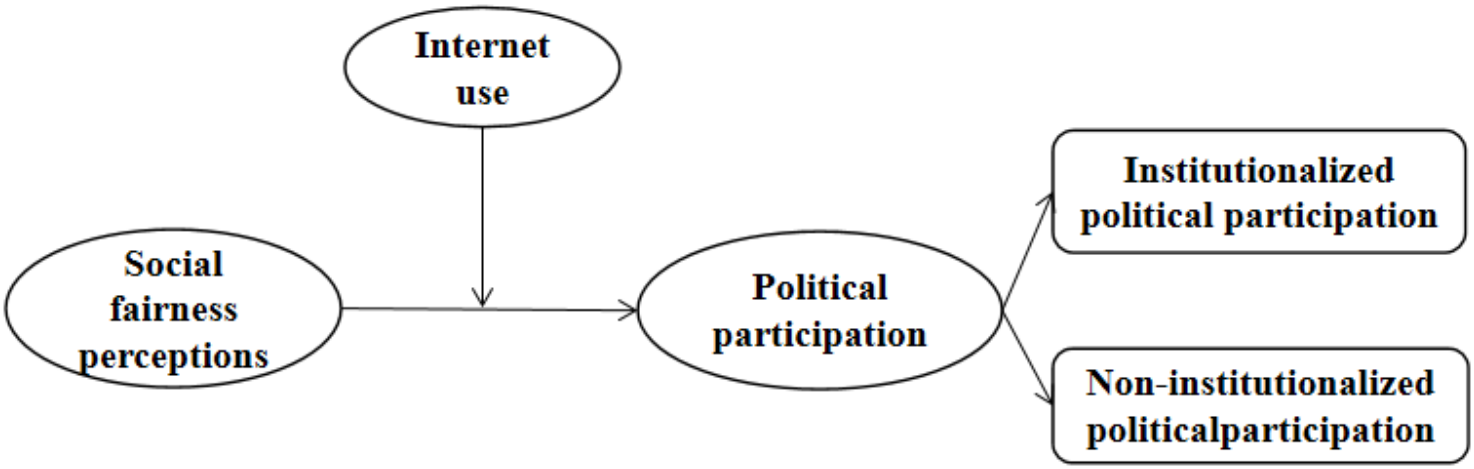

Figure 1

Theoretical model diagram

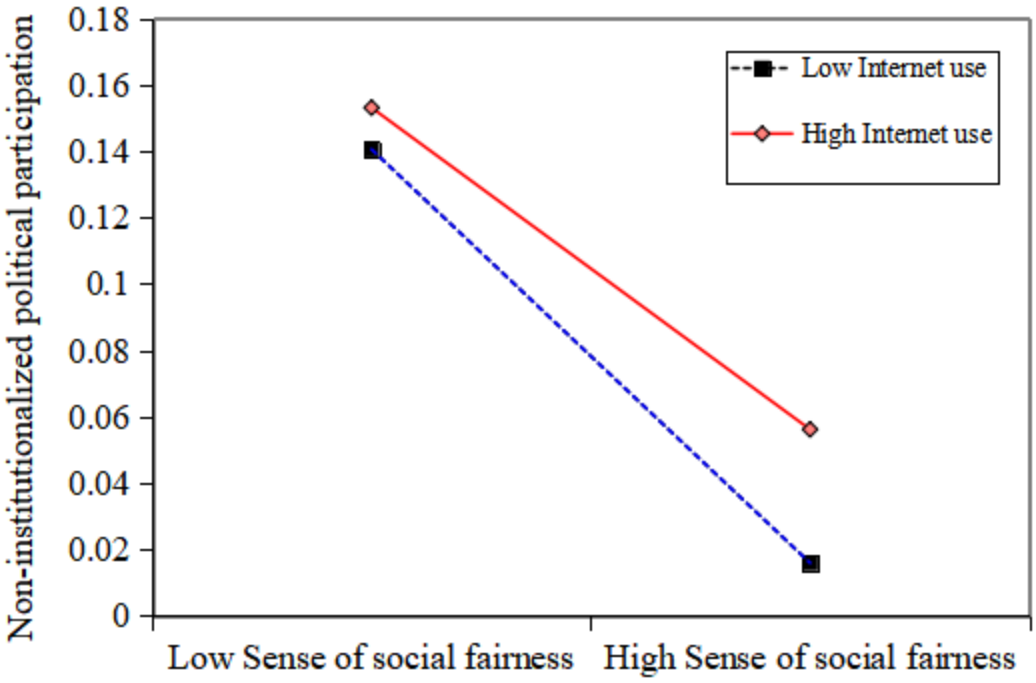

Figure 2

The Moderating Role of Internet Usage in the Relationship Between Perceived Social Equity and Youth's Non-Institutionalized Political Participation

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