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The Impact of Political Efficacy on Citizens' E-Participation in Digital Government

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Abstract: Citizens' e-participation determines the successes and failures of digital government or e-government. However, its results to date have not been satisfactory. IT adoption models dominate previous studies. However, citizens' psychological factors have been overlooked. The field has fallen into the trap of "technological solutionism." This research focuses on political efficacy and collected self-reported data from 388 respondents through an online questionnaire. Partial Least Squares Structural Equation Modeling was carried out for data analyses. The results showed that e-participation intention positively affects e-participation behavior. Both internal political efficacy and external political efficacy have a positive significant relationship with e-participation intention. Additionally, descriptive analysis results revealed the relationships between citizens' demographic factors and their influence on e-participation, including gender, age, monthly income, education level, political affiliation, and occupation. This research provides further empirical evidence and insightful knowledge for scholars, enriching political efficacy theory. Government officials can benefit from this research where targeted measures can be developed.

Keywords: political efficacy; e-participation; digital government; China; PLS-SEM

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1. Introduction

Citizens' e-participation determines the successes and failures of digital government or e-government (United Nations, 2020a), since citizens can participate in government policymaking and political agendas through digital government in addition to receiving public services (Macintosh, 2004). Furthermore, e-participation mechanisms can increase government accountability, better respond to citizens' needs, and improve policies and legislative measures (Peixoto & Fox, 2016). Therefore, countries' digital governments in the world have paid much attention to improving citizens' e-participation (United Nations, 2020b), including China's digital government (CNNIC, 2023).

E-participation is expected to increase the interaction between citizens and the government, but the results to date are unsatisfactory (United Nations, 2020b). For instance, European Union citizens' participation in electronic consultations and votes (national or local) has remained largely silent between 2014 and 2019 (United Nations, 2020b). In the Irish government's portal *OpenConsult*, citizens are underutilizing services (Connaughton, 2022). The same situation is occurring in China. The report released by the E-Government Research Center in the Chinese Academy of Governance showed that the user usage level of digital government nationwide is still very low in China. Only 15 regions exceeded the mean value of the user-usage indicator among 32 provincial governments in China, accounting for only 46.88% (Wang, 2022). Additionally, a survey conducted by Zheng et al. (2022)

showed that 64.89% of 11,719 respondents had never participated in relevant activities through the digital government platform, indicating a low level of citizens' e-participation.

The low level of citizens' e-participation remains a significant risk for e-participation initiatives (Islam, 2008). Despite the platform's best efforts, citizens did not participate at the expected level or quality, meaning that the digital platform did not achieve the expected results, and its success was limited (Wirtz et al., 2018). Critics argue that such e-participation initiatives are entirely government-centric (Pirannejad et al., 2019) and cannot achieve their goals (Alarabiat et al., 2021).

Previous scholars have put much effort into studying e-participation in digital government (Zolotov et al., 2018; Adnan et al., 2022). The research has essentially approached this from two perspectives: technical and non-technical (Adnan et al., 2022). IT adoption theories dominate previous studies, such as the Unified Theory of Acceptance and Use of Technology (UTAUT) (Venkatesh et al., 2003), the Technology Acceptance Model (TAM) (Davis, 1985), the Diffusion Of Innovation (DOI) (Rogers, 2003), and Information System Success Model (ISSM) (Delone & Mclean, 2003). Therefore, the belief that "neutral" (digital) technology can solve societal problems and challenges is the core of contemporary academic and policy thinking on e-participation.

However, critics have argued that the field has fallen into the trap of "technological solutionism" (Lember, 2022). Using a single IT adoption model hardly provides a strong theoretical foundation (Medaglia, 2012; Susha & Gronlund, 2012) and has an insufficient explanatory power for factors other than IT. Technology is generally neutral, and it is up to the citizens who use it to achieve its designated effects. As human groups, citizens do not focus only on the technology itself when using it. The psychological dynamics involved are also influenced by many factors of the society in which they live. This reminds us that we need to analyze and interpret citizens' e-participation behavior from the perspective of social psychology and draw on other theories to study e-participation.

Behavior is usually determined by intention (Malhotra & McCort, 2001). Therefore, a growing number of scholars have focused on investigating how to increase citizens' e-participation intention (EPI) (Naranjo-Zolotov et al., 2019; Oliveira & Garcia, 2019; Panopoulou et al., 2021). However, previous studies have mostly been conducted on social media (Oser et al., 2022) or other platforms (Novo Vázquez & Vicente, 2019). They lacked investigation on digital government platforms in China. Social media is different from digital government platforms. As a newly official and important channel for citizens' political participation, research on digital government platforms in China needs more attention.

In addition, evidence has shown that political efficacy influences e-participation intention (Novo Vázquez & Vicente, 2019; Oni et al., 2017). E-participation has similar characteristics to traditional offline participation (Sanchez-Nielsen & Lee, 2013) and is also influenced by political efficacy (Chan & Guo, 2013; Park, 2015; Sharoni, 2012; Yao et al., 2022). However, previous studies have not provided more insights. Scholars commonly measure political efficacy only as a holistic concept. Political efficacy has two dimensions, i.e., internal political efficacy and external political efficacy (Prats & Meunier, 2021; Oser et al., 2022). They are different, and hence cannot be measured and exprobrated together. Moreover, the relationships between them and e-participation on digital government platforms are unclear and need to be investigated. Certainly, citizens' socio-demographic characteristics are control variables that warrant attention, as they do have an impact on political efficacy (Wolak, 2018; Wu, 2003).

Therefore, this research is dedicated to answering four research questions. Research Question 1: What is the effect of citizens' e-participation intention on e-participation behavior on China's digital government platform? Research Question 2: How does citizens' internal political efficacy influence e-participation intention? Research Question 3:

How does citizens' external political efficacy affect e-participation intention? Research Question 4: What is the relationship between citizens' demographic factors and their influence on e-participation? This research constructs a quantitative model to investigate the impact of both internal and external political efficacy on citizens' e-participation in China's digital government platforms. It fills the research gaps in the empirical study of e-participation and the theory of political efficacy. It benefits scholars and government officials by providing knowledge of the relationship between political efficacy and citizens' e-participation. More insightful measures thus can be formulated to improve citizens' e-participation on digital government platforms.

2. Literature Review and Hypotheses Development

2.1. E-Participation on the Digital Government Platform

An early definition of e-participation refers to "*a relationship based on partnership with government in which citizens actively engage in defining the process and content of policy-making*" (OECD, 2003, p. 55). Macintosh (2006, pp. 364–369) defined e-participation as "*the use of information and communication technologies to broaden and deepen political participation by enabling citizens to connect with one another and with their elected representatives*," while a definition from Sæbø et al. (2008) emphasized the stakeholders of e-participation, which referred to a social activity, mediated by ICT, involving interaction between citizens, the public administration, and politicians. The United Nations views e-participation as a branch of e-government; hence, their definition is "the process of engaging citizens through ICTs in policy, decision-making, and service design and delivery so as to make it participatory, inclusive, and deliberative" (United Nations, 2020b). The definition of e-participation continues to evolve with the developing technology over time. We can easily observe from previous definitions that scholars have emphasized the key role of citizens in it. As the demand side of digital government e-participation initiatives (United Nations, 2020a), citizens' participation determines the success or failure of these undertakings (Gummerus et al., 2012). Bottom-up participation from citizens to the government becomes an important complement to top-down government initiation methods on digital government platforms (van Waart et al., 2016).

The ladder of citizen participation proposed by Arnstein (1969) served as an important basis for classifying the stages of e-participation. They were summarized by scholars in three stages: informing, consultation, and placation-affiliate (Pristl & Billert, 2022). Based on this, different scholars put forward different levels of e-participation. For instance, Macintosh (2004) considered that e-participation includes three levels: e-Enabling, e-Engaging, and e-Empowering. The further evolvement of the classification of e-participation by Santamaria-Philco et al. (2019) denoted three levels for e-participation, i.e., e-informing, e-consultative, and e-collaboration. However, most of these classifications are based on the perspective of the e-participation service provider, i.e., the government, and not purely on the citizens' perspective.

The United Nations divided e-participation into three levels: E-information, E-consultation, and E-decision-making (UN, 2014, p. 63). This model turns what was passive into active participation. "*E-information enables participation by providing citizens with public information and access to information upon demand. E-consultation engages people in deeper contributions to and deliberation on public policies and services. E-decision-making empowers people through co-design of policy options and co-production of service components and delivery modalities.*" Therefore, this model aims to bring empowerment to the people.

Distinguishing between citizens' e-participation intention and actual e-participation behavior is essential for understanding and improving citizens' engagement through digital government platforms. Citizens' e-participation intention reflects their willingness

and psychological readiness to participate. Actual e-participation behavior encompasses the real actions taken by citizens in response to these intentions (Malhotra & McCort, 2001). However, high intention does not always translate into action; studies indicate that while intentions can explain a portion of the variance in behavior (typically between 18 and 23%), they do not account for all of it, leading to what is known as the intention–behavior gap (Conner & Norman, 2022). Scholars have also demonstrated that while many citizens express a desire to participate in e-participation initiatives, actual participation rates often fall short (Zheng, 2017; Zheng & Schachter, 2017). For instance, the Unified Theory of Acceptance and Use of Technology (UTAUT) identifies constructs like performance expectancy and effort expectancy as significant predictors of intention to use e-participation tools (Naranjo-Zolotov et al., 2019). Understanding these constructs helps in designing better e-participation initiatives that can effectively convert intention into action. For local governments promoting e-participation, recognizing this distinction allows for targeted strategies that not only encourage intention but also facilitate actual participation. Therefore, distinguishing between e-participation intention and actual behavior is vital for developing effective e-participation strategies. It enhances civic engagement and ensure that citizens' voices are genuinely heard in the decision-making processes.

Identically, it is crucial to distinguish the e-participation intention and actual e-participation behavior in the Chinese context. Scholars have argued that the behavioral intention model (the influence of intention on behavior) needs greater explicit cross-cultural assessment even though it is considered to be universally applicable (Malhotra & McCort, 2001). Studies indicate that high e-participation intention does not always translate directly into high e-participation behavior (Choi & Song, 2020). Hence, to understand the actual e-participation behavior, it is important to understand the basis on which individual citizens make their decisions (Zheng & Schachter, 2017). For instance, many social and psychological variables influence whether and how individuals participate, demographic characteristics such as age, gender, education, and political affiliation, and psychological factors such as social capital and political efficacy. It is well known that China is a powerful party state with a top-down political system and a state-regulated media system. Chinese citizens have relatively limited options for traditional offline political participation, and consequently political apathy is widespread. Although citizens may have a strong intention to participate, actual participatory behavior may be reduced due to these factors. E-participation in digital government is complementary to traditional channels of political participation, and it is worth exploring whether it suffers from the same problems among citizens as conventional political participation (Xu et al., 2022). Therefore, it is necessary to explore whether citizens' e-participation intentions translate into actual high levels of e-participation behavior in China. The behavioral intention model has been widely demonstrated in studies of e-government adoption and e-participation (Ahmed et al., 2015; Alryalat et al., 2015; Rana et al., 2015; Thao, 2017). The following hypothesis was assumed to test the same logic on China's digital government platforms.

Hypothesis 1. *Citizens' intention of e-participation has a positive effect on their actual e-participation behaviors on the digital government platform.*

2.2. Political Efficacy

Political efficacy first came from Campbell et al. (1954, p. 187); it referred to "*the feeling that individual political action does have, or can have, an impact on the political process, that is, that it is worthwhile to perform one's civic duties.*" It is a psychological definition and one of the most prominent factors influencing an individual's political behavior (Aish & Jöreskog, 1990). In this definition, the subject of political efficacy is the citizen and the object is politics.

In addition, Campbell views political efficacy as an individual's intrinsically subjective perception of politics and self-measurement regarding his or her own political competence.

Lane (1959) considered that political efficacy should be comprised of two different components: Firstly, internal political efficacy, which means that individuals believe they have more influence over the government when compared with others. Secondly, external political efficacy, which means that a person believes the government will address his or her concerns when confronting the political system. Lane's view is accepted by the majority of scholars (Bene, 2020; Boulianne & Ohme, 2022; Lee, 2006; Prats & Meunier, 2021; Wu et al., 2022). Internal and external political efficacy levels are not only theoretically distinct (Clarke et al., 2010) but empirical studies have also shown a weak correlation between them (Balch, 1974; Bene, 2020; Prats & Meunier, 2021). Hence, it is necessary to separate political efficacy into two parts.

Internal political efficacy refers to "*beliefs about one's own competence to understand, and to participate effectively in politics*" (Niemi et al., 1991, pp. 1407–1408). It is a crucial precursor to citizens' political participation. Individuals with a stronger internal efficacy believe their political actions can have an impact (Hu, 2016). The more confident people feel in their own political capabilities, the more likely they are to actively engage in the political process. In contrast, those with low internal efficacy may feel powerless and be less likely to get involved, leading to political apathy or cynicism. Evidence has shown that people with higher internal political efficacy are more likely to engage in political activities like voting, conventional political participation, and even unconventional participation (Reichert, 2016). Therefore, internal efficacy shapes both the intention and the actual behavior of citizens when it comes to participating in politics. It helps to motivate people to get involved in the political process.

Likewise, internal political efficacy has a significant influence on citizens' e-participation or online political participation (Oni et al., 2017). The more confident people feel in their internal political efficacy, the more likely they are to engage in online political activities (Chen et al., 2019). The more people feel capable of understanding and influencing politics, the more motivated they are to participate politically through digital channels. It can be considered that internal political efficacy is a key factor driving citizens' e-participation. Therefore, it proposes the following hypothesis:

Hypothesis 2. *Citizens' internal political efficacy has a positive effect on their intention to engage in e-participation.*

External political efficacy refers to "*beliefs about the responsiveness of governmental authorities and institutions to citizens' demands*" (Niemi et al., 1991, pp. 1407–1408). It represents an individual's subjective assessment of the role of citizens within the political system and their ability to influence political processes (OECD, 2021). People with high external political efficacy feel that the political system and actors are responsive to ordinary citizens and allow them to have a say in government actions (Finkel, 1985). The more people feel the political system is attentive to their demands, the more likely they are to get involved in the political process. People with higher external efficacy are more likely to engage in both direct forms of participation (e.g., voting, attending rallies) and indirect forms (e.g., contacting officials) (Mead, 2018). Conversely, low external political efficacy can undermine political engagement (Etzel, 2023). Hence, external political efficacy is considered a crucial factor shaping political participation (OECD, 2023).

External political efficacy has been proven to positively affect both traditional and e-participation (Zaiter et al., 2023). Individuals with higher external political efficacy believe that they can effectively express their views or suggestions to the authorities and receive substantive responses through digital channels. For instance, the research findings from

Novo Vázquez and Vicente (2019) showed that individuals with higher external political efficacy are more likely to engage in e-participation in Spanish smart cities. Therefore, it proposes the following hypothesis to test the same logic in China's digital government.

Hypothesis 3. *Citizens' external political efficacy has a positive effect on their intention to engage in e-participation.*

3. Methodology

3.1. Research Instruments

A 5-point Likert-type scale was employed for the survey. The 5-point Likert-type scale has fewer options and is relatively simple for respondents, thus reducing their level of frustration. Respondents are more likely to understand it and therefore have higher response rates and response quality (Dawes, 2008; Sachdev & Verma, 2004). The scale of e-participation behavior (EPB) is modified from Zheng (2017). It used the frequency of participation to measure. Each item was measured on a 5-point scale ranging from 1 (never) to 5 (always). The e-participation intention (EPI) scale is altered from Mensah et al. (2020). Both the internal political efficacy (IPE) and external political efficacy (EPE) scales are adapted from Liu (2017). All these items were measured ranging from 1 (strongly disagree) to 5 (strongly agree).

3.2. Sampling and Data Collection

Three provincial digital government platforms were selected as the representatives. They are the Guang Dong digital government platform *Yue Sheng Shi (粤省事)*, the Jiang Xi digital government platform *Gan Fu Tong (赣服通)*, and the Shan Xi digital government platform *San Jin Tong (三晋通)*, which fall into three levels: very high, high, and medium, respectively, according to the official report (Wang, 2022). Theoretically, the services of the digital government should cover all citizens, and all citizens should be the target population of the study. However, due to many practical barriers such as facilities and equipment, education level, digital literacy, etc., many citizens are subjectively or objectively unable to use and participate on digital government platforms. Therefore, netizens in these three provinces are the target population of this study. Convenience sampling in non-probability sampling was selected since the target population is extremely large. This approach is uncomplicated, easier to apply, has fewer rule restrictions, a lower cost, and is time-saving (Bhardwaj, 2019; Etikan, 2016; Gerlich et al., 2018; Stratton, 2021). Interested participants can be recruited voluntarily; hence, it can collect their self-reported data (Edgar & Manz, 2017; Winton & Sabol, 2022). According to Krejcie and Morgan (1970), the minimum sample size of this study is identified as 384.

The survey is conducted via an online questionnaire and data are collected on the platform *wj.qq.com*, which is similar to Amazon Mechanical Turk and has 3 million registered samples covering China; thus, it can locate the three provinces precisely. In addition, all the items in the questionnaire are set as compulsory. It prohibits duplicate respondents by blocking the same network IP addresses of the respondents' accounts. Data collection started in August 2023 and ended in October 2023. We offered a reward of RMB 5 (approximately USD 0.7) to respondents who validly completed the survey to incentivize active participation. A total of 534 responses were received. After data screening, 121 responses that did not correctly answer the two attention test items were excluded. After calculating univariate and multivariate outliers (Hair, 2019), 25 cases were removed. Finally, 388 valid responses were identified.

3.3. Data Analysis Technique

The Partial Least Square Structural Equation Model (PLS-SEM) is used for the data analysis. It is more appropriate than Covariance-Based Structural Equation Modeling (CB-SEM) because this study explores the relationships and explains a theory that was not yet developed (Rigdon, 2012). Moreover, PLS-SEM has more advantages than CB-SEM, such as its capacity to be used with small sample sizes and non-normal data distributions (Civelek, 2018; Hair et al., 2011). SPSS 27.0 and Smart PLS 4.0 were adopted to execute statistical analyses.

4. Results

4.1. Socio-Demographic Characteristics of Respondents

The results reveal that respondents were evenly distributed among the three provinces surveyed, respondents in Guang Dong province comprised 35.6%, those in Jiang Xi province 32%, and those in Shan Xi province 32.5%. Male respondents comprised 42.8% and female respondents 57.2%. The majority of respondents were between the ages of 20 and 29, which comprised 61.1%. Respondents with a monthly income of RMB 3001 to 5000 comprised 30.7%, followed by respondents with a monthly income of RMB ≥5001 (27.1%), 1001–3000 (25.8%), and ≤1000 (16.5%). Most respondents were well educated with a college degree, 38.9%, and a bachelor's degree, 37.1%, together constituting more than half of all respondents. In terms of political affiliation, the vast majority, 88.7%, of respondents had no affiliation. Respondents working in private companies comprised 31.7%, followed by students (26.5%) and those working in state companies (19.8%), etc. Table 1 displays a summary of respondents' profiles. According to the newest Statistical Report on China's Internet Development (CNNIC, 2024), as of June 2024, the ratio of men to women for internet users in China was 50.8:49.2. The proportion of the internet user group aged 50 and above was 33.3% and much less than those aged below 50. However, due to time and financial constraints, as well as the online questionnaire used, it was not possible to precisely control the proportion of the sample distribution. Overall, the sample distribution is relatively balanced and consistent with the socio-demographic characteristics profile when compared with the national statistics, thus making it representative.

Table 1. Socio-demographic characteristics of respondents.

Variables	Categories	Frequency	Percent (%)
Province	Guang Dong Province	138	35.6
	Jiang Xi Province	124	32
	Shan Xi Province	126	32.5
Gender	Male	166	42.8
	Female	222	57.2
Age	≤19	46	11.9
	20–29	237	61.1
	30–39	77	19.8
	40–49	15	3.9
	50–59	12	3.1
	≥60	1	0.3
Monthly income	≤1000	64	16.5
	1001–3000	100	25.8
	3001–5000	119	30.7
	≥5001	105	27.1

Table 1. *Cont.*

Variables	Categories	Frequency	Percent (%)
Education level	Middle school and below	24	6.2
	High school	51	13.1
	College	151	38.9
	Bachelor	144	37.1
	Postgraduate and above	18	4.6
Political Affiliation	the Chinese Communist Party (CCP)	36	9.3
	Democracy Party	8	2.1
	No affiliation	344	88.7
Occupation	Government	2	0.5
	State companies	77	19.8
	Private companies	123	31.7
	Self-employed	54	13.9
	Unemployed	25	6.4
	Retired	4	1
	Student	103	26.5

4.2. Measurement Model

Detecting and addressing non-response bias is crucial in survey research as it helps to ensure the validity and reliability of the data collected. It can not only assess the representativeness of the sample but can also enhance the generalizability of the findings (Cheung et al., 2017; Halbesleben & Whitman, 2013). An independent samples t-test was adopted in this study to detect non-response bias. By comparing the means between the two groups of early response and late response, the differences between the predictors and criterion variables were found (Koch & Blohm, 2016). This study sequenced the 388 valid samples according to their response time and took the first 20% and the last 20% as the two groups for comparison analysis. From the independent samples t-test results, it can be found that there is no significant difference ($p > 0.05$) in the statistical results between early response (n = 78) and late response (n = 78). Therefore, there is no non-response bias in this study.

Common method variance (CMV) may exist, since all data were collected from one source in this research. It may threaten the validity of the conclusions about the relationship between measurements (Podsakoff et al., 2003). Two approaches were conducted to detect CMV. Harman's single-factor test is one of the most popular methods. In this research, the single factor accounted for 19.66% of the variance. Hence, it is not greater than 50%, indicating a good result (Podsakoff et al., 2012). According to the suggestions from Kock et al. (2012) and Kock (2015), in PLS-SEM, a full collinearity assessment method based on variance inflation factor (VIF) is recommended to detect CMV. In this approach, all variables are regressed against a common random variable, and single-source data are free of bias if the VIF $\leq$ 3.3. After calculation, all constructs had VIF values less than 3.3. Based on the above results, there is no CMV in this research.

Subsequently, the PLS algorithm was carried out for measurement model analysis. According to Hair et al. (2019), factor loadings above 0.708 are recommended. Meanwhile, values from 0.40 to 0.70 are acceptable and retention depends on the ability to increase the AVE value (Hulland, 1999; Wong, 2013). Since all the constructs' average variance extracted (AVE) in this research is greater than threshold of 0.5, indicating a good result, there is no need to remove the items whose loadings are between 0.40 and 0.70. A Cronbach's alpha ranging from 0.70 to 0.95 is acceptable (Tavakol & Dennick, 2011). Results of the composite reliability criterion between 0.70 and 0.95 indicate satisfactory to good reliability levels (Sarstedt et al., 2021). Details are shown in Table 2, where all results present good reliability.

Table 2. Measurement model results.

Constructs	Code	Items	Loadings	Cronbach's Alpha	CR	AVE
E-Participation Behavior (EPB)	EPB1	To browse, find, post, and forward political and policy information on the digital government platform.	0.655	0.903	0.919	0.560
	EPB2	To write articles with political and policy content on the digital government platform.	0.642			
	EPB3	To upload photos and videos with political and policy content on the digital government platform.	0.740			
	EPB4	To communicate with officials online on the digital government platform.	0.729			
	EPB5	To discuss political or policy topics with others on the digital government platform.	0.727			
	EPB6	To express views and opinions on programs and policies on the digital government platform.	0.802			
	EPB7	To participate in various surveys issued by officials and give feedback or vote on public affairs on the digital government platform.	0.794			
	EPB8	To petition for certain public programs and issues on the digital government platform.	0.803			
	EPB9	To express suggestions through messages when the government seeks opinions on policy revisions on the digital government platform.	0.819			
E-Participation Intention (EPI)	EPI1	I intend to use the digital government platform to engage in e-participation in the future.	0.811	0.900	0.926	0.714
	EPI2	I predict I would use the digital government platform to engage in e-participation in the future.	0.830			
	EPI3	I plan to use the digital government platform to engage in e-participation in the future.	0.874			
	EPI4	I will always use the digital government platform to engage in e-participation.	0.819			
	EPI5	Overall, I will continue to use the digital government platform to engage in e-participation.	0.890			
Internal Political Efficacy (IPE)	IPE1	I know more about politics than most people my age.	0.740	0.901	0.922	0.628
	IPE2	When political issues or problems are being discussed, I usually have something to say.	0.804			
	IPE3	I am able to understand most political issues easily.	0.799			
	IPE4	I consider myself well qualified to participate in politics.	0.802			
	IPE5	I feel that I have a pretty good understanding of the important political issues facing our country.	0.812			
	IPE6	I think that I am better informed about politics and government than most people.	0.841			
	IPE7	I feel that I could do as good a job in public office as most other people.	0.742			
External Political Efficacy (EPE)	EPE1	I don't think public officials care much what people like me think.	0.549	0.798	0.850	0.540
	EPE2	The government cares a lot about what all of us think about new laws.	0.846			
	EPE3	The government is doing its best to find out what people want.	0.854			
	EPE4	The powerful leaders in government care very little about the opinions of people.	0.578			
	EPE5	When people get together to demand change, the leaders in government listen.	0.788			

The Fornell–Larcker criterion and Heterotrait–Monotrait Ratio (HTMT) are used to assess the discriminant validity. For the Fornell–Larcker criterion, the shared variance for all model constructs should not be larger than their AVEs (Hair et al., 2019). As for HTMT, Henseler et al. (2015) suggested it be lower than 0.90 or a stricter threshold of 0.85. Table 3

displays the values of the Fornell–Larcker criterion. Table 4 shows the values of HTMT. All the results are satisfactory. Therefore, this model has good discriminant validity.

Table 3. Results of discriminant validity using the Fornell-Larcker criterion.

	EPB	EPE	EPI	IPE
EPB	0.748			
EPE	0.329	0.735		
EPI	0.317	0.426	0.845	
IPE	0.403	0.318	0.429	0.792

Table 4. Results of discriminant validity using HTMT.

	EPB	EPE	EPI	IPE
EPB				
EPE	0.332			
EPI	0.327	0.442		
IPE	0.437	0.314	0.469	

4.3. Structural Model

First, it is necessary to check the VIF to confirm that the model does not have the collinearity issue. In general, the VIF should not be greater than the maximum threshold of five. Ideally, the threshold should be three (Hair et al., 2019). The result showed that this model has ideal inner VIF values which are all below the threshold of three. Therefore, it has no collinearity issue.

Next, the endogenous construct's coefficient of determination (R^2), the effect size (f^2), and cross-validated redundancy (Q^2) were examined to determine the model's predictive power (Hair et al., 2019). R^2 values range from 0 to 1; the closer to 1, the greater the explanatory power. Generally, it is considered weak if it is below 0.25. However, it depends on the specific discipline (Hair et al., 2011). An R^2 as low as 0.10 is still acceptable in social science empirical modeling (Ozili, 2023). In terms of f^2, a value above 0.02, 0.15, or 0.35 indicates a small, medium, or large effect size, respectively (Hair et al., 2019). As a guideline in the rule of thumb, the model has predictive relevance with Q^2 values larger than 0.0 and it has no predictive relevance with values below 0.0 (Hair, 2019). As Table 5 shows, all the results were satisfactory.

Table 5. R^2, Q^2, and effect sizes (f^2).

Variables	R^2	R^2 Adjusted	Q^2	Effect Sizes (f^2)			
				EPB	EPE	EPI	IPE
EPB	0.100	0.098	0.12				
EPI	0.277	0.274	0.26	0.112			
IPE						0.132	
EPE						0.129	

Furthermore, the final step is to assess the sizes and significance of the path coefficients. The bootstrapping procedure was executed with 10,000 subsamples to obtain significance (Belanche et al., 2024; Ma et al., 2024). The path is significant when the T value is above 1.96 and the p value is smaller than 0.05 (Hair, 2017). As Table 6 shows, EPI positively affected EPB ($\beta = 0.317$, $T > 1.96$, and $p < 0.05$). IPE had a positive significant relationship with EPI ($\beta = 0.326$, $T > 1.96$, and $p < 0.05$). EPE positively affected EPI as well ($\beta = 0.323$, $T > 1.96$, and $p < 0.05$). Therefore, all the hypotheses were supported. As Figure 1 shows, the final structural equation model was also identified.

Table 6. Hypotheses testing results.

Hypo.	Paths	Path Coefficient (β)	Sample Mean (M)	Standard Deviation (STDEV)	Confidence Intervals		T Values	*p* Values	Results
					2.50%	97.50%			
H1	EPI → EPB	0.317	0.324	0.044	0.237	0.409	7.215	0.000	supported
H2	IPE → EPI	0.326	0.326	0.050	0.226	0.423	6.574	0.000	supported
H3	EPE → EPI	0.323	0.327	0.047	0.233	0.419	6.793	0.000	supported

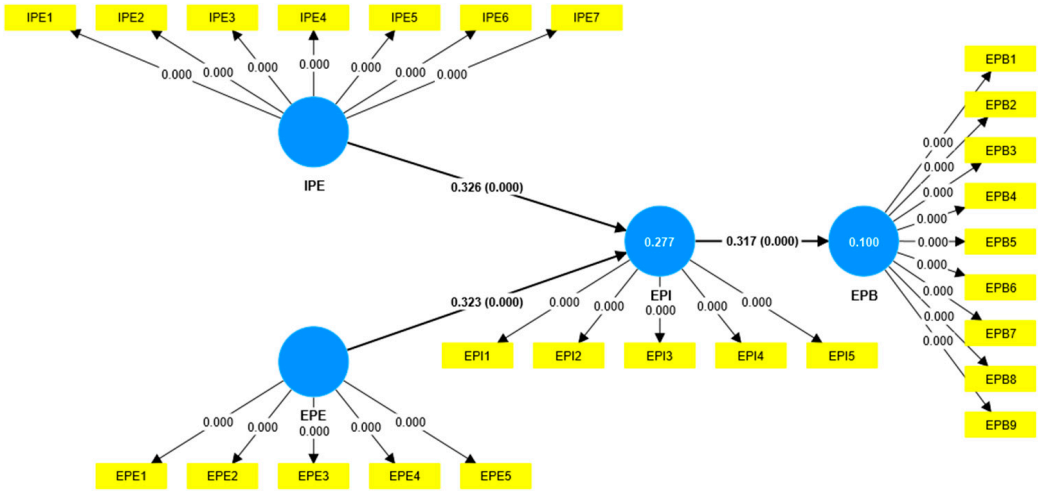

Figure 1. Final structural equation model.

4.4. Descriptive Findings

Tables 7–13 below provide the results of a comparative analysis of the factors influencing citizens' e-participation on digital government platforms by gender, age, monthly income, level of education, political affiliation, and occupation. One-way ANOVA was executed with the least significant difference (LSD) and Tamhane's T2 (T2) as a post-hoc test. It aims to achieve a statistically significant difference between citizens' e-participation based on socio-demographic characteristics. Gender consists of only two categories, so the post-hoc test is not necessary. To determine the homogeneity of variance, Levene's test was used before ANOVA. LSD is used when the variances are equal, while T2 is appropriate when the variances are unequal between groups.

Table 7. Factors influencing citizens' e-participation by province.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.	LSD	T2
EPB	Guang Dong Province	138	1.8744	0.70475	0.05999	2	1.743	0.176		
	Jiang Xi Province	124	2.0376	0.68784	0.06177					
	Shan Xi Province	126	1.9612	0.73102	0.06512					
EPI	Guang Dong Province	138	3.8014	0.57819	0.04922	2	0.753	0.472		
	Jiang Xi Province	124	3.8032	0.65219	0.05857					
	Shan Xi Province	126	3.8857	0.65357	0.05822					
IPE	Guang Dong Province	138	3.1056	0.68855	0.05861	2	0.798	0.451		
	Jiang Xi Province	124	3.0611	0.65178	0.05853					
	Shan Xi Province	126	3.1667	0.64845	0.05777					
EPE	Guang Dong Province	138	3.3826	0.68412	0.05824	2	1.401	0.248		
	Jiang Xi Province	124	3.521	0.66495	0.05971					
	Shan Xi Province	126	3.4127	0.73702	0.06566					

Concerning the province, there is no significant difference in citizens' e-participation behavior, e-participation intention, internal political efficacy, and external political efficacy ($p > 0.05$) (see Table 7).

As shown in Table 8, there is no significant difference in citizens' e-participation behavior and e-participation intention regarding their gender ($p > 0.05$). However, there is a significant difference in internal political efficacy and external political efficacy in terms of their gender ($p < 0.05$). Men have better internal political efficacy than women, while women have better external political efficacy than men.

In terms of age, Table 9 shows that there is no significant difference in citizens' e-participation behavior, e-participation intention, internal political efficacy, and external political efficacy ($p > 0.05$).

Table 8. Factors influencing citizens' e-participation by gender.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.
EPB	Male	166	1.9726	0.7459	0.0579	1.000	0.182	0.670
	Female	222	1.9414	0.6824	0.0458			
EPI	Male	166	3.7867	0.6694	0.0520	1.000	1.343	0.247
	Female	222	3.8613	0.5927	0.0398			
IPE	Male	166	3.2203	0.6989	0.0543	1.000	7.984	0.005
	Female	222	3.0296	0.6253	0.0420			
EPE	Male	166	3.2747	0.7410	0.0575	1.000	16.294	0.000
	Female	222	3.5577	0.6366	0.0427			

Table 9. Factors influencing citizens' e-participation by age.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.	LSD	T2
EPB	≤19	46	1.8961	0.62915	0.09276	5	1.498	0.189		
	20–29	237	2.0131	0.69399	0.04508					
	30–39	77	1.9149	0.80405	0.09163					
	40–49	15	1.6667	0.55397	0.14303					
	50–59	12	1.713	0.7468	0.21558					
	≥60	1	1.1111							
EPI	≤19	46	3.8478	0.63831	0.09411	5	0.476	0.794		
	20–29	237	3.8295	0.60448	0.03927					
	30–39	77	3.8545	0.66383	0.07565					
	40–49	15	3.72	0.75138	0.19401					
	50–59	12	3.8	0.68755	0.19848					
	≥60	1	3							
IPE	≤19	46	3.1087	0.66883	0.09861	5	0.576	0.719		
	20–29	237	3.0886	0.59977	0.03896					
	30–39	77	3.2078	0.79287	0.09036					
	40–49	15	2.9619	0.91865	0.2372					
	50–59	12	3.1071	0.64502	0.1862					
	≥60	1	3.4286							
EPE	≤19	46	3.4913	0.6821	0.10057	5	1.173	0.322		
	20–29	237	3.4819	0.69176	0.04493					
	30–39	77	3.2753	0.72695	0.08284					
	40–49	15	3.4	0.7329	0.18923					
	50–59	12	3.45	0.5535	0.15978					
	≥60	1	3							

As Table 10 shows, there is also no significant difference in citizens' e-participation behavior, e-participation intention, internal political efficacy, and external political efficacy regarding their monthly income ($p > 0.05$).

Table 10. Factors influencing citizens' e-participation by monthly income.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.	LSD	T2
EPB	≤1000	64	1.8438	0.60655	0.07582	3	1.165	0.323		
	1001–3000	100	2.0078	0.62201	0.0622					
	3001–5000	119	1.9113	0.75423	0.06914					
	≥5001	105	2.0212	0.78705	0.07681					
EPI	≤1000	64	3.8406	0.5488	0.0686	3	0.219	0.883		
	1001–3000	100	3.822	0.64504	0.0645					
	3001–5000	119	3.7983	0.65845	0.06036					
	≥5001	105	3.8648	0.62419	0.06091					
IPE	≤1000	64	3.0491	0.48643	0.0608	3	1.311	0.270		
	1001–3000	100	3.1014	0.61631	0.06163					
	3001–5000	119	3.06	0.6784	0.06219					
	≥5001	105	3.2163	0.77163	0.0753					
EPE	≤1000	64	3.4687	0.65632	0.08204	3	1.588	0.192		
	1001–3000	100	3.554	0.62916	0.06292					
	3001–5000	119	3.3697	0.71147	0.06522					
	≥5001	105	3.381	0.75576	0.07375					

With regard to the education level, there is no significant difference in citizens' e-participation intention ($p > 0.05$). However, there is a significant difference in citizens' e-participation behavior, internal political efficacy, and external political efficacy in terms of education level ($p < 0.05$). Citizens having a bachelor's degree have greater e-participation behavior than those in the middle school and below group. As for internal political efficacy, citizens in the high school group score lower than those having a college education and bachelor's degree. In terms of external political efficacy, citizens in the high school group score lower than those having a college education and bachelor's degree as well as in the middle school and below group. Table 11 displays all the details.

Table 11. Factors influencing citizens' e-participation by education level.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.	LSD	T2
EPB	Middle school and below	24	1.6806	0.45907	0.09371	4	2.426	0.048		4 > 1
	High school	51	1.8192	0.6648	0.09309					
	College	151	1.9286	0.70918	0.05771					
	Bachelor	144	2.054	0.74946	0.06245					
	Postgraduate and above	18	2.1296	0.65374	0.15409					
EPI	Middle school and below	24	3.65	0.43439	0.08867	4	1.671	0.156		
	High school	51	3.7373	0.60331	0.08448					
	College	151	3.8013	0.64725	0.05267					
	Bachelor	144	3.8986	0.62668	0.05222					
	Postgraduate and above	18	4.0111	0.68418	0.16126					
IPE	Middle school and below	24	3.0595	0.50537	0.10316	4	2.69	0.031	2 < 3, 4	
	High school	51	2.8768	0.64461	0.09026					
	College	151	3.0899	0.64831	0.05276					
	Bachelor	144	3.2192	0.68874	0.05739					
	Postgraduate and above	18	3.1587	0.69795	0.16451					
EPE	Middle school and below	24	3.4417	0.65933	0.13458	4	3.982	0.004	2 < 1, 3, 4	
	High school	51	3.098	0.70583	0.09884					
	College	151	3.4675	0.64576	0.05255					
	Bachelor	144	3.4931	0.72629	0.06052					
	Postgraduate and above	18	3.6778	0.65848	0.15521					

From the political affiliation point, there is no significant difference in citizens' e-participation intention, internal political efficacy, and external political efficacy in terms

of their political affiliation ($p > 0.05$). However, there is a significant difference in citizens' e-participation behavior based on their political affiliation ($p < 0.05$). Citizens with no affiliation score lower than those in the Chinese Communist Party (CCP) and Democracy Party (see Table 12).

Table 12. Factors influencing citizens' e-participation by political affiliation.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.	LSD	T2
EPB	CCP	36	2.1852	0.755	0.12583	2	7.23	0.001	3 < 1, 2	
	Democracy Party	8	2.7083	0.51755	0.18298					
	No affiliation	344	1.9131	0.69549	0.0375					
EPI	CCP	36	3.8222	0.64459	0.10743	2	0.069	0.933		
	Democracy Party	8	3.75	0.85356	0.30178					
	No affiliation	344	3.832	0.62131	0.0335					
IPE	CCP	36	3.1429	0.66394	0.11066	2	2.728	0.067		
	Democracy Party	8	3.6429	0.48894	0.17287					
	No affiliation	344	3.0955	0.66347	0.03577					
EPE	CCP	36	3.5111	0.77893	0.12982	2	0.406	0.667		
	Democracy Party	8	3.575	0.57009	0.20156					
	No affiliation	344	3.4256	0.69117	0.03727					

Table 13. Factors influencing citizens' e-participation by occupation.

Variables	Groups	N	Mean	Std. Deviation	Std. Error	df	F	Sig.	LSD	T2
EPB	Government	2	2.6111	0.07857	0.05556	6	2.433	0.025		1 > 2, 3, 4, 5, 7
	State companies	77	2.1328	0.81091	0.09241					
	Private companies	123	1.8907	0.68405	0.06168					
	Self-employed	54	1.9198	0.71012	0.09664					
	Unemployed	25	1.6889	0.55277	0.11055					
	Retired	4	1.3611	0.57646	0.28823					
	Student	103	1.9914	0.6677	0.06579					
EPI	Government	2	4.5	0.70711	0.5	6	3.338	0.003	1, 2, 7 > 5, 6	
	State companies	77	3.9506	0.5975	0.06809					
	Private companies	123	3.748	0.63753	0.05748					
	Self-employed	54	3.7593	0.64002	0.0871					
	Unemployed	25	3.552	0.57236	0.11447					
	Retired	4	3.3	0.4761	0.23805					
	Student	103	3.9476	0.60258	0.05937					
IPE	Government	2	2.6429	1.3132	0.92857	6	2.026	0.061		
	State companies	77	3.2523	0.71349	0.08131					
	Private companies	123	3.1475	0.70816	0.06385					
	Self-employed	54	2.9841	0.66641	0.09069					
	Unemployed	25	2.8114	0.53567	0.10713					
	Retired	4	3.1786	0.72257	0.36129					
	Student	103	3.1082	0.5567	0.05485					
EPE	Government	2	3.3	0.42426	0.3	6	4.032	0.001	2, 7 > 3, 4, 5	
	State companies	77	3.6286	0.65189	0.07429					
	Private companies	123	3.3447	0.71851	0.06479					
	Self-employed	54	3.237	0.64436	0.08769					
	Unemployed	25	3.136	0.72277	0.14455					
	Retired	4	3.15	0.19149	0.09574					
	Student	103	3.5942	0.67473	0.06648					

In terms of occupation, there is no significant difference in citizens' internal political efficacy ($p > 0.05$). However, there is a significant difference in citizens' e-participation behavior, e-participation intention, and external political efficacy based on their occupation ($p < 0.05$). In terms of e-participation behavior, citizens working in the government score

higher than those who are working in state companies, working in private companies, self-employed, unemployed, and students. As for e-participation intention, citizens working in the government, those working in state companies, and students score higher than those who are unemployed and retired. Regarding external political efficacy, citizens working in state companies and students score higher than the unemployed, retired, and those working in private companies. Table 13 shows the details.

5. Discussion

The purpose of this study is to present a rationale and empirical evidence on how political efficacy affects citizens' e-participation in digital government. In order to achieve this objective, it was hypothesized that citizens' e-participation intention would positively influence actual e-participation behavior. Two separate hypotheses were also established, i.e., internal political efficacy and external political efficacy would positively influence citizens' e-participation intention, respectively. Finally, the data collected from 388 respondents were statistically analyzed using PLS-SEM.

Research Question 1 was, "What is the effect of citizens' e-participation intention on e-participation behavior on China's digital government platform?" The related Hypothesis 1 explored the relationship between e-participation intention and actual behavior. It found that citizens' e-participation intention has a significant positive relationship with e-participation behaviors ($\beta = 0.317$, $t = 7.215$, $p < 0.05$). This indicates that citizens who have a stronger intention to engage in e-participation will be more likely to perform e-participation behaviors. This finding is consistent with the previous studies of ElKheshin and Saleeb (2016) and Hooda et al. (2022). It confirms and reinforces that intention is the key issue in enhancing behavior. Therefore, enhancing citizens' e-participation intention is the focal point needed to address the low e-participation rate.

Research Question 2 was, "How does citizens' internal political efficacy influence e-participation intention?" and the related Hypothesis 2 explored the relationship between internal political efficacy and e-participation intention. It found that internal political efficacy has a significant positive relationship with e-participation intention ($\beta = 0.326$, $t = 6.574$, $p < 0.05$). It indicates that citizens with a higher level of internal political efficacy will have a stronger e-participation intention. This finding is consistent with the previous studies of Gil de Zúñiga et al. (2017), Koo et al. (2016), Lai and Beh (2024), and Lebrument et al. (2021). Citizens have more political information and greater self-confidence in participating in political activities, which leads to a stronger intention to participate in political activities. This has been verified not only in traditional forms of political participation but also in e-participation, a form of political participation based on new technologies.

Research Question 3 was, "How does citizens' external political efficacy affect e-participation intention?" and the related Hypothesis 3 explored the relationship between external political efficacy and e-participation intention. It found that external political efficacy has a significant positive relationship with e-participation intention ($\beta = 0.323$, $t = 6.793$, $p < 0.05$). This result indicates that citizens with a higher external political efficacy will have a stronger e-participation intention. This finding is also consistent with the previous studies of Koo et al. (2016), Lai and Beh (2024), and Lebrument et al. (2021). Citizens' trust in government authorities is based on the government's responsiveness to citizens' demands in a timely and effective manner. Stronger trust further strengthens citizens' intention to participate in political activities, including e-participation.

Research Question 4 was, "What is the relationship between citizens' demographic factors and their influence on e-participation?" The results found there is a significant difference in internal political efficacy and external political efficacy based on gender. Men have better internal political efficacy than women. This finding is in line with the previous

studies of Fraile and de Miguel Moyer (2022), Fraile and Marinova (2024), Grasso and Smith (2022), and Matthieu (2023). The current result indicates that there is a persistent gender gap in internal political efficacy, where women tend to have lower levels of perceived competence and ability to participate in politics compared to men. On the contrary, women have better external political efficacy than men. This finding is not consistent with the previous studies of Heger and Hoffmann (2021) and Mulder (2023), whose findings showed no significant relationship between gender and external political efficacy. The current result indicates that Chinese women have a stronger belief in government authorities than Chinese men. However, there is no significant difference in citizens' e-participation behavior, e-participation intention, internal political efficacy, and external political efficacy based on their age. In terms of citizens' monthly income, there is also no significant difference in citizens' e-participation behavior, e-participation intention, internal political efficacy, and external political efficacy regarding their monthly income.

Regarding the education level, there is a significant difference in citizens' e-participation behavior, internal political efficacy, and external political efficacy. Higher levels of education are associated with greater political efficacy, both internal efficacy and external political efficacy. This finding is consistent with the previous studies of Petersen (2018), Mulder (2023), and Schulz (2005). The cognitive and motivational effects of education, such as providing individuals with greater political knowledge and skills, contribute to enhancing their political efficacy. In addition, citizens possessing a higher degree of education have greater e-participation behavior than those without. This finding is in line with the previous studies of Larreguy and Marshall (2013) and Persson (2013, 2015). It indicates that individuals with higher levels of education tend to participate in politics to a greater extent than those with lower levels of education.

In terms of political affiliation, there is a significant difference in citizens' e-participation behavior based on their political affiliation. Citizens with no affiliation are lower than those in the CCP and the Democracy Party. This finding is consistent with the previous studies of Jiang (2023), Kim and Chen (2016), and Paudel et al. (2018). Political affiliation can strongly influence individuals' political behaviors. It found that being affiliated with a political party can cause people to change their views on political issues and their voting behavior.

In addition, there is a significant difference in citizens' e-participation behavior, e-participation intention, and external political efficacy based on their occupation. Citizens working in the government have greater e-participation behavior than those who are working in state companies or private companies, self-employed, unemployed, and students. Nevertheless, the results of e-participation intention, internal political efficacy, and external political efficacy are almost the same. The findings indicate that people working within the public sector will have greater political participation behavior and intention, as well as a higher (internal and external) political efficacy than those working outside the public sector, while those with job earnings will have greater political participation behavior and intention, as well as a higher (internal and external) political efficacy, compared with those without. This indicates occupational salary does provide more autonomy, control, or higher participation levels of political efficacy, while precarious or unstable employment can diminish people's sense of political influence and engagement. These findings are consistent with Azzollini and Macmillan (2023), Prats and Meunier (2021), Ni et al. (2022), and Sobel (1993).

6. Conclusions

This study provides empirical validation of the factors influencing Chinese citizens' behavior and intention to engage in e-participation on digital government platforms.

Previous studies of citizens' e-participation have focused on technology adoption and lacked psychological factors. This study focused on citizens' political efficacy, investigating both internal and external political efficacy. In addition, most previous research on e-participation has focused on social media and rarely on digital government platforms. This study investigated the impact of political efficacy on e-participation on digital government platforms. Therefore, it contributes to filling the research gaps in the field of e-participation on digital government platforms.

This study validated the applicability of political efficacy in the Chinese context. The concept of political efficacy originated in the West, and most studies have also been based on Western contexts, while research in the Chinese context is still relatively rare. This study effectively validated political efficacy in the Chinese context, thus contributing to a more applicable context for research. Moreover, this study clearly distinguished two dimensions of political efficacy for validation, achieving a higher granularity of research, which has often been overlooked and missing in previous studies. Therefore, this study expanded the research boundaries of political efficacy.

This study also provides some valuable implications for government sector administrators. First, citizens' e-participation intention directly affects e-participation behavior. Hence, it is necessary to take some measures to enhance citizens' e-participation intention to use the digital government platform. Administrators can conduct comprehensive research to understand citizens' needs, preferences, and challenges, which can help to design a platform that meets citizens' expectations. They can also conduct regular testing of the platform to identify and resolve any problems in its usage as well as provide an accessible environment, including approaches such as disability-oriented and multilingual design, to meet the needs of different groups. The government can also enhance the propaganda of the digital government platform to raise awareness of its existence and benefits, and simultaneously organize digital skills training seminars to empower citizens on how to use the digital government platforms. In addition, the government can also launch incentive programs or reward policies for citizens who actively use digital government platforms. Due to the popularity of mobile devices, attention should be paid to the optimization of the mobile-use platforms such as mobile apps, and others such as the WeChat mini program. Further, policies and regulations on data security and privacy can be enhanced to guarantee users' trust in the security of their personal information, simplifying the process to avoid redundant data input and enhance the user's interactive experience. To ensure continual usage, citizens can be encouraged to be regularly involved to continuously improve and update the platform. By adopting the above strategies, citizens can be further encouraged to engage in e-participation on digital government platforms.

Second, political efficacy (internal and external) has been demonstrated to have a significant impact on citizens' e-participation on digital government platforms. Therefore, administrators need to pay great attention to enhancing citizens' internal and external political efficacy. Several proven approaches can be implemented such as comprehensive civic education programs in schools to teach students about the political system, government structures, and the importance of civic engagement. Campaigns can be launched to disseminate information about political processes, policies, and the role of citizens in them. Such steps also demonstrate that government transparency does occur by providing easy access to information, government documents, and decision-making processes via town hall meetings and forums where citizens can interact with officials, ask questions, and express concerns. Citizens can also access information about government activities and policies and through workshops on topics such as how to navigate government websites, understand policy proposals, and effectively communicate with elected people's representatives by utilizing social media and other online platforms to engage citizens in

discussions, share information, and gather feedback on policies. Such moves can promote a sense of ownership and involvement, distinguish between reliable and unreliable sources, and understand different perspectives. At the same time, we recommend that initiatives are supported on fact-checking information and promoting accuracy in political discourse. Such support also provides avenues for citizens to get involved in volunteering work and community service, fostering a sense of civic responsibility. This further demonstrates that policies and initiatives are inclusive and that the diverse needs and perspectives of the population can be considered. By combining these approaches, administrators can contribute to building a more politically informed, engaged, and efficacious citizenry.

There are some limitations and future directions of this study. Firstly, the data in this study are non-tracking survey data; thus, it is difficult to longitudinally examine the trends and characteristics of citizens' political efficacy on e-participation intention over time. It is recommended that future research conduct a longitudinal study to observe the changing effects on e-participation intention over time.

Secondly, limited by time and finance, internet users were randomly selected for the study; thus, the conclusions should be cautiously generalized to the whole country. Future research can try to conduct a nationwide survey, though it has to be institution-based.

Lastly, this study only investigated the influence of political efficacy on citizens' e-participation on digital government platforms. However, the influences on citizens' e-participation in digital government are multifaceted and comprehensive, including both technological and non-technological. Future research could explore the influence of more factors, such as combining the technology adoption models, TAM, UTAUT, etc. Alternatively, knowledge could be gained from other disciplines for interdisciplinary research, such as regional economic development indicators.

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