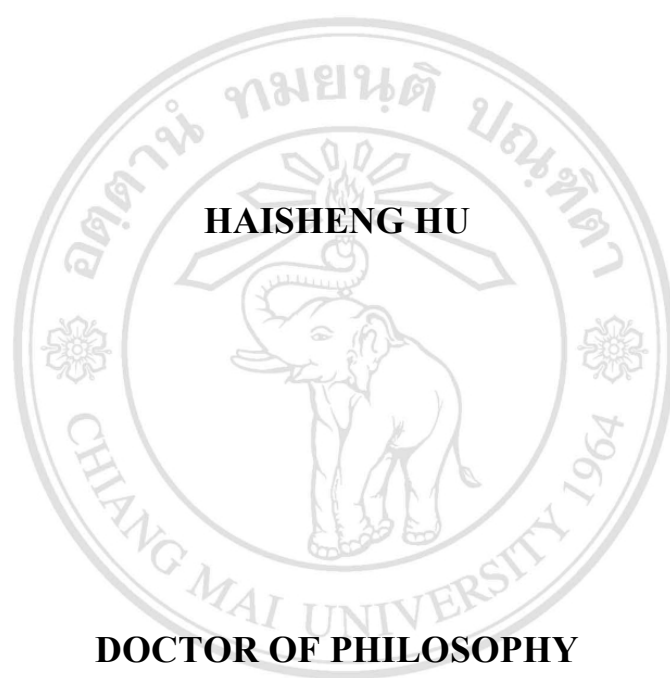


**ONLINE PARTICIPATION IN THE POLICY
PROCESS: A STUDY OF EDUCATION
POLICY IN CHINA**



DOCTOR OF PHILOSOPHY

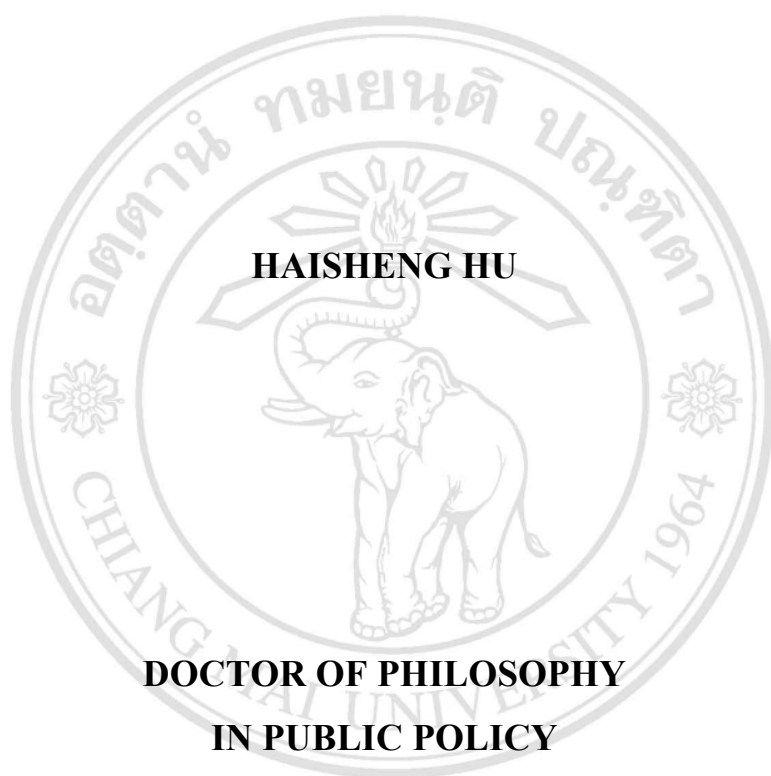
IN PUBLIC POLICY

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CHIANG MAI UNIVERSITY

FEBRUARY 2024

**ONLINE PARTICIPATION IN THE POLICY PROCESS:
A STUDY OF EDUCATION POLICY IN CHINA**



HAISHENG HU

**DOCTOR OF PHILOSOPHY
IN PUBLIC POLICY**

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**CHIANG MAI UNIVERSITY
FEBRUARY 2024**

**ONLINE PARTICIPATION IN THE POLICY PROCESS:
A STUDY OF EDUCATION POLICY IN CHINA**

HAISHENG HU

**A DISSERTATION SUBMITTED TO CHIANG MAI UNIVERSITY IN PARTIAL
FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY**

IN PUBLIC POLICY

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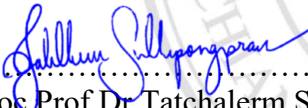
A STUDY OF EDUCATION POLICY IN CHINA


HAISHENG HU


THIS DISSERTATION HAS BEEN APPROVED TO BE A PARTIAL FULFILLMENT
OF THE REQUIREMENTS FOR THE DEGREE OF
DOCTOR OF PHILOSOPHY
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23 February 2024

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Acknowledgment

"Finally, after three long years of hard work, I have completed the initial draft of my entire doctoral dissertation. As I flipped through the pages, I was transported back to the past, and each page held unique stories of my journey.

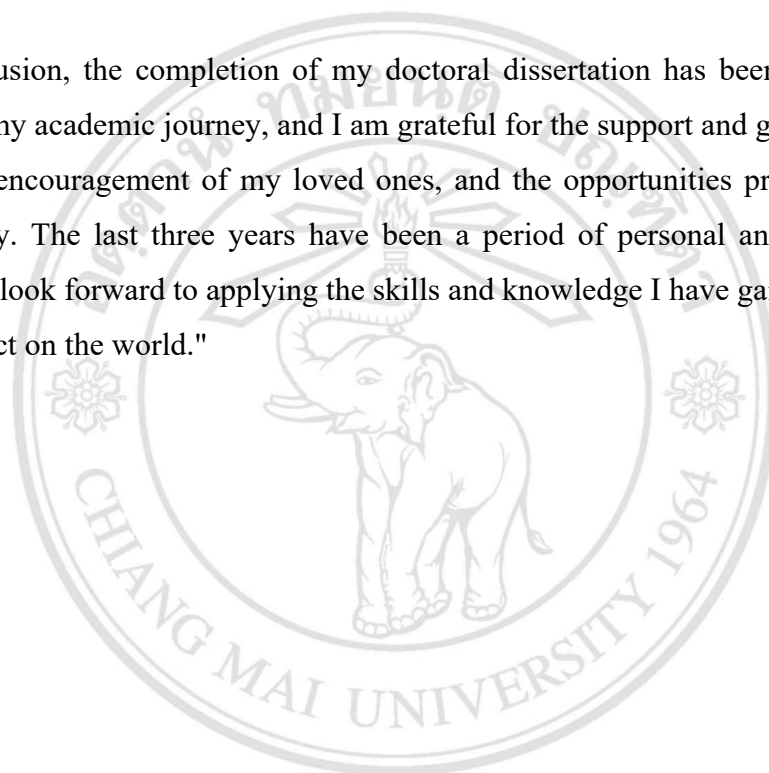
The last three years have been a time of unprecedented challenges for everyone, with the outbreak of the pandemic affecting all aspects of life. From lockdowns and quarantine measures to nucleic acid tests, vaccines, and material shortages, the world has experienced unprecedented changes. I am grateful to have spent most of my time in Singapore, a country where policy-making and policy were well-managed and effective. The efficient public policy-making system allowed for the country to navigate through the crisis with minimal disruption, which had a significant impact on the lives of the people. I had the opportunity to witness the impact of effective public policymaking on social governance goals and outcomes. This experience has further strengthened my belief in the importance of research and development in shaping the world's future.

I would like to express my heartfelt gratitude to my Supervisors, Asst. Prof. Ora-orn Poocharoen, Dr. Samuel Amponsah Odei, and Asst. Prof. Supanika Leurcharusmee. They have been the guiding lights throughout my academic journey, providing patient and meticulous assistance in areas such as literature review, research question and objective setting, research model design, data collection, and analysis. Their valuable guidance has enabled me to develop a systematic understanding and analysis of the application of public policy theory and development, qualitative and quantitative research, and, most importantly, nurtured my philosophical thinking. They have equipped me with the essential qualities of a researcher and inspired me to continue learning and growing in my field.

Although I was not able to fully enjoy the beautiful campus of Chiang Mai University and the warm and friendly atmosphere of the School of Public Policy, I know

that this place will always hold a special place in my heart. It is here that I started my academic research journey and discovered the value and importance of continuous learning and development. As I look back on the last three years, I am filled with a sense of gratitude for the experiences and opportunities that have come my way. I am excited about the future and the possibilities that await me as I continue to explore and learn in my field.

In conclusion, the completion of my doctoral dissertation has been a significant milestone in my academic journey, and I am grateful for the support and guidance of my mentors, the encouragement of my loved ones, and the opportunities presented to me along the way. The last three years have been a period of personal and professional growth, and I look forward to applying the skills and knowledge I have gained to make a positive impact on the world."



Haisheng Hu

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หัวข้อคุณูปพันธ์	การมีส่วนร่วมทางออนไลน์ในกระบวนการนโยบายสาธารณะ :	
	นโยบายการศึกษาของประเทศไทย	
ผู้เขียน	นาย ไข่เจิง หู	
ปริญญา	ปรัชญาดุษฎีบัณฑิต (นโยบายสาธารณะ)	
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	Dr. Samuel Amponsah Odei	อาจารย์ที่ปรึกษาร่วม

บทคัดย่อ

การพัฒนาอย่างรวดเร็วของเทคโนโลยีอินเทอร์เน็ตนำมาซึ่งการเปลี่ยนแปลงในชีวิตประจำวันของคน รวมถึงการเปลี่ยนแปลงในการบริหารจัดการของรัฐบาล ตลอดจนการมีส่วนร่วมของประชาชนในกิจกรรมสาธารณะ งานวิจัยนี้ศึกษาการมีส่วนร่วมทางออนไลน์ของภาคประชาชนในประเด็นด้านนโยบายสาธารณะ โดยเฉพาะอย่างยิ่ง หลังจากการสรุปผลการศึกษาก่อนหน้านี้ที่เกี่ยวข้องกับนโยบายสาธารณะและการมีส่วนร่วมของประชาชน งานวิจัยนี้ได้นำนโยบายการศึกษาของจีนมาสะท้อนผ่านความคิดเห็นสาธารณะทางออนไลน์ เพื่อเป็นตัวอย่างในการรวบรวมข้อมูลที่เกี่ยวข้องผ่านการสำรวจแบบประเมินความคิดเห็น และอภิปรายผลกระทบของความคิดเห็นทางอินเทอร์เน็ต (ระดับการรับรู้, การรับรู้ ความคาดหวัง และทัศนคติทางสังคม) ต่อการกำหนดนโยบายสาธารณะ (การเปิดกว้างของรัฐบาล และความโปร่งใสของรัฐบาล) โดยพิจารณาถึงบทบาทที่เป็นกลางของการรับรู้ นโยบายและการมีส่วนร่วมของประชาชน ผ่านการวิเคราะห์เชิงปริมาณ เช่น การวิเคราะห์ความน่าเชื่อถือ การวิเคราะห์ความถูกต้อง การวิเคราะห์ความสัมพันธ์ และการวิเคราะห์เส้นทางภายใต้โมเดลสมการโครงสร้าง (SEM) โดยใช้ SPSS และ Amos ซึ่งผลลัพธ์หลักของงานวิจัยมีดังนี้ คือ ระดับการรับรู้และคาดหวังมีผลกระทบเชิงบวกทั้งในด้านการเปิดกว้างของรัฐบาลและความโปร่งใสของรัฐบาล อย่างไรก็ตาม ทั้งการรับรู้ นโยบายและการมีส่วนร่วมของประชาชนมีบทบาทเป็นผู้ดูแลในกระบวนการระดับความรู้ความเข้าใจ ซึ่งส่งผลกระทบเชิงบวกต่อการเปิดกว้างของรัฐบาล แต่ไม่ใช่ความโปร่งใสของรัฐบาล

นอกจากนี้การค้นพบโดยรวมจากการศึกษาประสบการณ์ที่ดีจากประเทศอื่นๆ ในสาขานี้ งานวิจัยนี้ได้ให้ข้อเสนอเกี่ยวกับความพยายามในด้านต่อไปนีเพื่อปรับปรุงเพิ่มเติม ได้แก่ การเสริมสร้างโครงสร้างพื้นฐานและสมคุดด้านทรัพยากรข้อมูล การปรับปรุงแพลตฟอร์ม e-government และการเสริมความสามารถของรัฐบาลทางออนไลน์ การสร้างกลไกการจัดการความคิดเห็นของประชาชนทางออนไลน์ที่มีความครอบคลุมมากขึ้น การแนะนำข้อคิดเห็นทางออนไลน์และการทำงานในกระบวนการที่มีมาตรฐาน การให้การรับรองทางกฎหมายและสนับสนุนเทคนิคสำหรับการมีส่วนร่วมทางออนไลน์ การพัฒนาองค์ความรู้ทางการเมืองแก่ประชาชน และการชี้แนะเพื่อปฏิบัติตามจริยธรรมของพลเมือง

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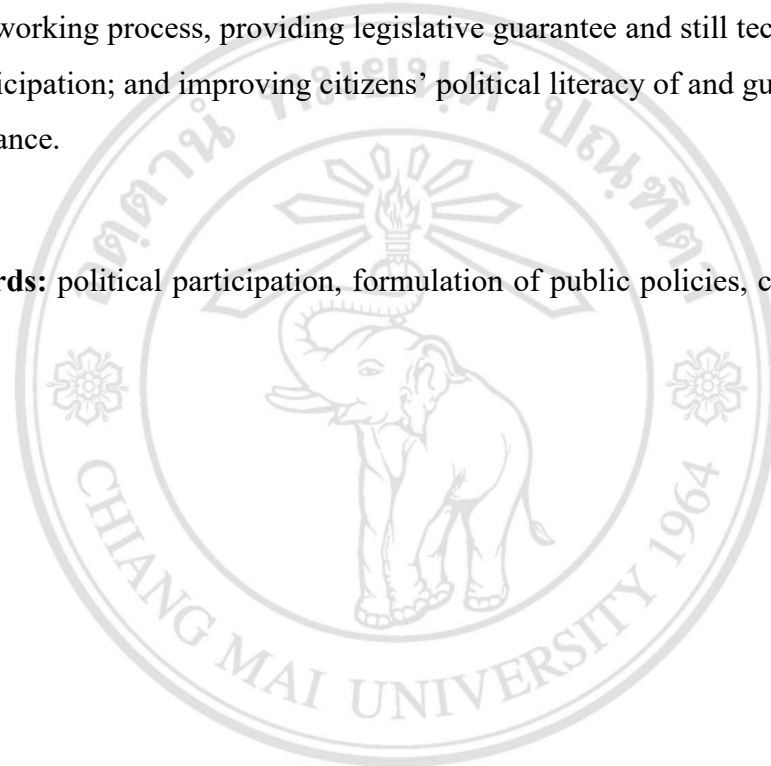
Dissertation Title	Online Participation in the Policy Process : A Study of Education Policy in China	
Author	Mr. Haisheng Hu	
Degree	Doctor of Philosophy (Public Policy)	
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	Dr. Samuel Amponsah Odei	Co-advisor

ABSTRACT

The rapid development of internet technologies brings changes to people's daily life, as well as changes to government management, including citizens' participation in public affairs. This research focused on citizens' participation in public policy in the online environment. Specifically, after the summary of previous studies related to public policies and public participation, this research takes the formulation of the Chinese education policy through the online public opinion as an example to collect the relevant information through the questionnaire survey to explain the impact of Internet public opinion (cognitive level, expectation perception and social attitude) on public policy formulation (government openness and government transparency) with the consideration of the intermediary role of policy perception and citizen participation. Based on the quantitative analysis, namely reliability analysis, validity analysis, correlation analysis, and path analysis under the Structural Equation Model (SEM) using SPSS and Amos, the main findings are as follows: Cognitive level and expectation make the positive impact on both government openness and government transparency, while social attitude only makes the positive impact on government openness but not government transparency. Still, both policy perception and citizen participation play moderator roles in the process of cognitive level making positive impacts on government openness but not government transparency.

Furthermore, combining both the empirical findings and the excellent experiences from other countries in this field, this research proposed to make efforts in the following aspects for further improvements, including strengthening the infrastructure construction and balancing information resources, perfecting the e-government platform and strengthening e-government functions, building the more comprehensive management mechanism of online public opinion, guiding the online public opinion and realizing the standardized working process, providing legislative guarantee and still technical support of online participation; and improving citizens' political literacy of and guiding citizens' moral compliance.

Keywords: political participation, formulation of public policies, citizens' online participation



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ข้อความแห่งการริเริ่ม

ข้าพเจ้ายืนยันว่างานที่ถูกพูดถึงนี้ถูกเขียนโดยข้าพเจ้าด้วยภาษาของข้าพเจ้าเอง ซึ่งหมายความว่ามิได้มีผู้ใดช่วยเขียนงานให้ ทั้งนี้ ไม่รวมถึงข้อเสนอแนะจากกรรมการที่ปรึกษาที่ช่วยชี้แนะเรื่องภาษาและเนื้อหาในงานวิจัยนี้

นอกจากนี้ ข้าพเจ้าได้ใช้ ChatGPT-3.5 ในการแปลบทคัดย่อเป็นภาษาไทยและได้ให้ผู้เชี่ยวชาญทางภาษาไทยช่วยตรวจสอบความถูกต้องของเนื้อหา อีกทั้ง ข้าพเจ้าได้ใช้ซอฟต์แวร์ในการช่วยตรวจสอบหลักไวยากรณ์และคำที่สะกดผิดในบทความที่ปรากฏในงานนี้ นอกเหนือจากนี้ ยังไม่มีการใช้ซอฟต์แวร์อื่นเพื่อสร้างหรือตรวจสอบเนื้อหาใดๆ

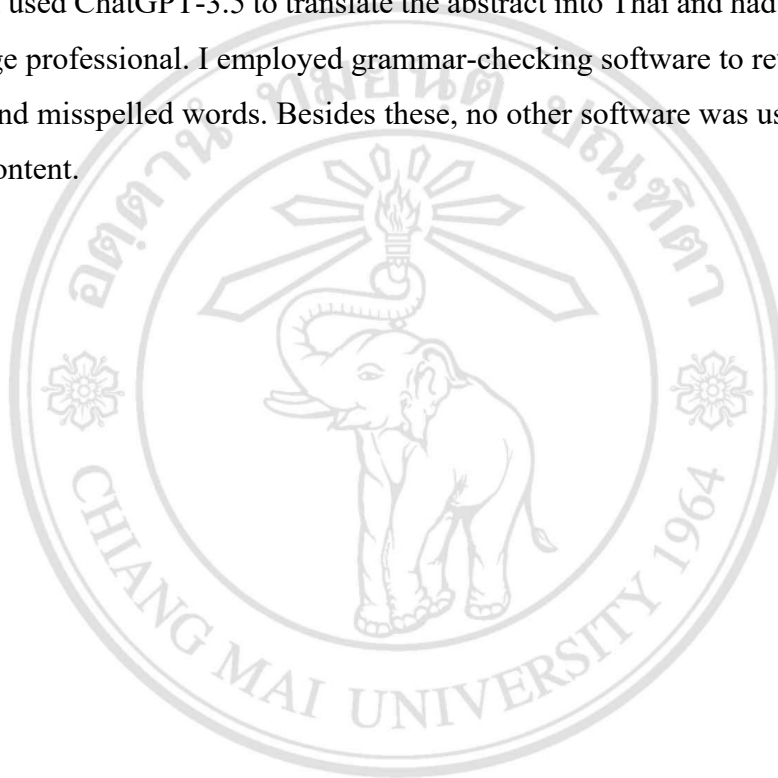


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CHAPTER 1

INTRODUCTION

1.1 BACKGROUND

1.1.1 GROWING AWARENESS OF CITIZENS' PARTICIPATION

From the perspective of macro political system, China's public policy process is highly elitist, and the policy process is relatively closed. The attitude of the government at the top plays a decisive role in the formulation of public policies (Bo & Jaeger, 2008). In other words, the public policy in China is formulated from top to bottom, and the existence of the elite class of policy makers is a fact of political life. Under the basic national conditions of vast territory, large population and uneven development in various regions, such decision-making system ensures the efficiency of decision-making, which is quite conducive to the unity and the stability of policy. However, it must be admitted that there are also many drawbacks in such process of policy formulation. To some extent, Chinese citizens and still the local communities have insufficient influence on government policy making. In some areas, and even most political areas, citizens could only passively accept the political decisions made by the government. The Communist Party of China is absolutely in an authoritative position in the process of public policy formulation (Chen et al., 2012). The leadership of the Communist Party of China was established among several revolutionary struggles. After gaining the power and establishing the Chinese government, the Communist Party of China undertook the historical mission of socialist modernization. However, in decision-making, power is too concentrated on the Communist Party of China, especially in the early days of the founding of the People's Republic of China. The famous Chinese leader Deng Xiaoping has repeatedly proposed to realize the separation of the party and the government and has sharply criticized the decision-making system of concentrating all power is in the party committee, and everything needs to be decided by the leader of the party (Liang & Xiao, 2022). From the perspective of decision-making methods, such kind of decision-making system mainly relies on empirical decision-

making, and decision-makers mainly make decisions based on intuitive judgment and existing experience, lacking strict decision-making procedures and scientific demonstration. From the perspective of policy implementation, such kind of decision-making system easily leads to the insufficient executive power, and the corresponding difficulty in achieving the policy objectives (Chen & Chan, 2017). Taking the fact that public policy implementation is the fundamental way to achieve policy objectives into consideration, it is not difficult to understand the relatively low efficiency and the relatively low effectiveness of public policies in China at that time.

Thus, the question of how citizens could participate in the process of public policy effectively has become a hot issue in the theory and practice of democratic politics. Since China's reform and opening, the socialism with the specific Chinese characteristics had entered a new era, which is presented by the rapid and stable development of the economy and the corresponding improvement of the people's living standards. The release of market economic space and the transfer of corresponding civil society organizations have opened space for the development of civil society, or in other words, provided a rare opportunity for the development of Chinese politics, including both civil political participation and the scientific and democratic decision-making of the government. In addition, the Chinese political system reform has rebuilt the relationship between the state and society, and still the relationship between society and citizens. It should be clear that the socialism with the Chinese characteristics had ushered into a period with different social contradictions, under which the Chinese government would face severe, complex, and long-term tests (Liang & Xiao, 2022). To put it more specifically, since China's reform and opening, China's social and interest structure has undergone fundamental changes. Different stakeholders began to emerge in the country, resulting in the derivation of various social problems and the deepening of social contradictions (Bo & Jaeger, 2008). With the advent of the age of interest game, the profit structure of society has undergone rapid changes, and the original hierarchical structure of society has faced structural changes from the dimensions of system, economy, culture, and technology, all of which has provided quite favorable conditions for the existence of civil society (Liang & Xiao, 2022). All in all, driven by reforms of both the economic development and political system, Chinese civil society has

gradually formed a growing awareness of citizens' participation in public policy formulation.

However, it seems that the traditional channels for citizens to participate in public policy formulation seemed not to be enough. Taking the people's congress system, the most typical channel of Chinese citizens' participation in political affairs, as an example, it seems that this traditional channel for citizens to participate in political affairs could not perfectly meet the citizens' demand (Tang & Zhou, 2018). To be specific, first, the people's congress system, as the basic system of Chinese citizens' political participation, guarantees citizens' basic political rights. Through the people's congress system, citizens participate in political activities including elections, voting, legislative discussions, and other political activities, and influence the process of national policy. Specifically, the representative figure (namely, deputy) is voted as the spokesman of citizens, with the responsibility of reflecting citizens' interests and demands in the form of proposals and suggestions, and thus affecting the public political affairs. With the economic and social development of China, the people's congress system is constantly developing and improving, playing an increasingly important role in the country's political life. However, it should be noted that the current people's congress system is still far from the goal of expanding citizens' political participation. It is not compatible with its legal status in the political system, and it is difficult to fully meet the growing enthusiasm of citizens for political participation. For example, among the deputies, there are a large proportion of elites from the political and business sectors, but quite less ordinary working people (Tang & Zhou, 2018), which easily leads to the lack of public opinion representation. Still, deputies are not a permanent system, and thus, the time, energy, ability, and scope to represent, transmit and strive for the interests of citizens are greatly limited. Furthermore, in general, those deputies lack professional political training, which is not conducive to the full expression of public opinion (Tang & Zhou, 2018). Last but not the least, the contact mechanism between deputies and citizens is not smooth, and the relatively scattered interests of citizens are not effectively integrated (Chen & Chan, 2017). Therefore, it had to be admitted that the traditional channels of citizens' political participation in China need to be further enriched.

1.1.2 THE RAPID DEVELOPMENT OF THE INTERNET

The rapid development of information technology in China provides the advanced technical means for citizens to participate in public political affairs. Compared with newspapers, radio and television, the Internet has been internationally recognized as the 'fourth media' (Agrawal, 2015). With easier and cheaper access to the Internet in China, the number of Chinese Internet users are increasing, and the popularity rate has grown significantly. According to the survey on the development status of the Internet industry led by the China Internet Network Information Centre (CNNIC), the 47th Statistical Report on the Development Status of the Internet in China published in March 2021 showed that the size of China's Internet users had reached 989 million by December 2020, with an increase of 85.4 million compared with March 2020, and the Internet penetration rate had risen to 70.4%, with an increase of 5.9% compared with those for the corresponding period of last year (CNNIC, 2021). Up till Dec. 2022, the number of Internet users in China reached 1.067 billion, an increase of 35.49 million compared to Dec. 2021, and the internet penetration rate reached 75.6% (CNNIC, 2023). All these figures proved that China has made a remarkable achievement in the field of information technology, and of course, the Internet plays an indispensable role in today's modern society.

The Internet is a big platform for social information, and hundreds of millions of Internet users get and exchange information on the Internet, which will have an important impact on their way of seeking knowledge, their way of thinking and their values, especially on their views on the country, society, their work, and their life (Chen, 2019). What's more, the continuous enrichment and improvement of Internet applications, the expansion and enhancement of interactive commentary functions, such as the widespread use of commentary apps like blogs, forums, microblogs, WeChat, and friends' circles, as well as the emergence of various new live broadcast platforms, have made the public opinion on the Internet an important part of social opinion. Obviously, the Internet has created a unique and dynamic space for public discussion and attracted many Internet users to participate in the discussion. The emergence of the Internet has transcended all mass media such as newspapers, radio, and television, and opened a new door in the narrow path of political participation in China. It is not exaggerated to say that the influence of the

public opinion on the Internet has already covered all aspects of Chinese society, for example, daily life, social management, and national governance. The emergence of the Internet has changed the lives and economic activities of human beings (Bukhsh & Weigand, 2012). Information and Communications Technology (ICT) has made significant progress in promoting changes in both government and governance. ICT has been increasingly employed by governments worldwide as a medium to engage citizens in policymaking and democratic practices through a process that is now known as electronic participation (Tambouris et al., 2013). The development of ICT has brought about major changes in social systems. The technological revolution followed the industrial revolution, and internet technology promoted changes in government management systems (Tambouris et al., 2013). The development of the Internet has made the world flatter and interpersonal communication faster. The public and the government relations, inter-governmental relationships, and other social relations are strongly interrelated. As a result, the structure and processes of governance have changed. Public policy as an output of the political system has also changed. As the Internet has enabled the emergence of a new political public space, the public use of Internet tools has changed indirect participation into direct participation. People could have more opportunities to participate and express themselves in public policymaking and can also amplify their voices online and form a common force to realize their interests (Cohen, 2006). Through the Internet, citizens could obtain various kinds of political information, follow the progress of major political events, freely express their own opinions on both national and international politics, and take part in the public political affairs, thus promoting the establishment of the policy agenda, inputting public opinion into the policy making system, and ultimately affecting the output of public policy making. As an effective carrier of information exchange, the Internet has indeed become an effective channel for the people to understand policy information and participate in politics, as well as an important channel for the government to understand public opinion. From this point of view, citizen participation in public policy formulation through the Internet is of great significance for promoting the construction of democratic politics.

Furthermore, it should be clear that the impacts of online political participation in developing countries seems to be more obvious than that in developed countries (Ono, et

al., 2018). In those developed countries, there is a wide range of ways for citizens to participate in politics, and thus, the thrill of Internet users' indulgence on the Internet is not very strong and accordingly, the impact is not quite obvious, while in those developing countries, such as China, many historical and practical reasons limited the avenues for citizens' political participation, and of course, the relatively liberal freedom of the Internet is regarded as an important outlet of civil discourse and civil power. Thus, it is not difficult to understand that the Internet has become a huge conduit for the influx of public opinion and a powerful tool for netizens to intervene in real political life in those developing countries.

Under such social reality, the Chinese government had still been increasingly aware of the important role of the Internet in the management of the country. In its government report, the Chinese government formally proposed to 'strengthen and improve the construction of online content; strengthen the management of the Internet society and promote the standardized and orderly operation of the Internet in accordance with the law'. In today's modern society, the Internet has become an important platform and a way for the Chinese people to express public opinion, discuss public affairs, comment on social phenomena, and participate in government decisions. However, it should always be clear that the Internet has a significant dual role. While promoting the scientific and democratic formulation of public policies, its own shortcomings and negative effects will also make the development of China's democratic political process face a major test. The problems of nonstandard, irrational and unbalanced participation in public policy formulation have some certain negative impact on the effectiveness and of policy formulation. From this point of view, the discussion about how to make better utilization of the Internet for the more rational and more effective online participation of citizens in public political affairs has become an important issue that the government must face up to and confront.

1.1.3 THE CHINESE EDUCATION INDUSTRY

China's education industry has gone through a quite long and bumpy development process. The education has always played a crucial role in China. From the previous private academies to the modern education system, China's education policy has been constantly

changing and improving. It is required to make a brief review of the development of Chinese education industry since the founding of PRC (the People's Republic of China).

From 1949 to 1975, it is the early stages of education industry serving the socialist construction. During the period after the founding of the PRC, the Chinese education system underwent large-scale reforms to support the socialist construction, for example, emphasizing universal education, promoting the development of education in rural and remote areas, establishing the education system including basic education, vocational education, and higher education, formulating the relevant laws and policies, (Yang, 2021). The Chinese education industry during this period mainly focused on the fairness and the inclusiveness.

From 1977 to 1989, the education system reform was further restored and expanded. After China implemented the reform and opening up policy, the education system underwent another profound reform, with the emphasis of liberating the mind, encouraging innovation, and absorbing experience from foreign countries. For example, the Chinese government introduced foreign educational concepts and advanced educational technologies, so as to improve the quality of education, and to promote the close integration of education and economic development (Duan, et al., 2022). Still, during this period, the education system for preschool education, secondary vocational education, and higher education was established and improved, contributing to the creation of a group of well-known universities and institutions (Zhao, 2022).

From 1990 to 2000, the Chinese education industry got rapid development and moved towards the internationalization. This period was a golden period for the development of higher education in China. A large number of universities were established and showed a rapid growth trend. The curriculum of higher education had undergone the comprehensive reforms, opening up more professional fields and providing more diverse research opportunities (Zhao, 2022). Chinese universities had begun to focus on international development, and actively introduced foreign teachers and international cooperation projects to enhance the international influence of education (Yang, 2021).

Since 2001, the focus of the Chinese education industry had been the further national education reform and the further improvement of education quality. The Chinese government had committed to the educational reform and the improving the improvement of education quality, for example, promoting quality education, cultivating students' comprehensive qualities and innovative abilities, strengthening vocational education and skill training, and providing the more practical education and employment opportunities (Duan, et al., 2022). Still, during this period, more and more advanced technologies had been involved in the field of education, for example, distance education and online education, which greatly facilitated research and knowledge acquisition (Yang, 2021).

In terms of education policies, in China, according to Article 11 of the Education Law of the People's Republic of China, in adaption to the needs of the development of socialist market economy and social progress, the Chinese government focuses on promoting the coordinated development and integration of education at all levels, so as to improve the modern national education system and to enhance the modernization level of education. Specifically, China's higher education policies mainly include policies to improve the quality of higher education, expand higher education resources, further strengthen talent cultivation, and so on. After years of effort, China's education industry has achieved great results. However, it cannot be denied that there are still some certain problems. For example, in terms of higher education resources, there is still a significant imbalance in the distribution of China's education resources. Some developed areas have excellent various high-tech equipment and advanced educational concepts, while some poverty-stricken areas still have the outdated educational teaching conditions and relatively weak teaching staff. The phenomenon of unfair knowledge education is very prominent. In addition, many schools pay more attention to the input of student knowledge, leading to a broad range of knowledge but a lack of innovative thinking ability for some students, and further resulting in a lack of opportunities for independent thinking and hands-on practice.

In future, with the continuous progress of technology and changes in social needs, the Chinese education industry and still its education policies will further face new challenges and opportunities, which should be given great importance.

1.1.4 ONLINE PARTICIPATION IN THE FIELD OF EDUCATION

The advent of the Internet has helped overcome technical problems, and citizens could participate in public political affairs through the Internet. Among all citizens, the youth are obviously the most affected group in the Internet era, who spend prolonged times using the Internet, including both teenagers and college students (Vissers & Stolle, 2014). Of course, the Chinese government had still realized the importance of online participation in the field of education. In the field of education, for example, the Chinese government has been listening to public opinion on the development of education under the concept of ‘providing education to the satisfaction of the people’. Since 2009, the Chinese Ministry of Education (MOE) has been collecting opinions and suggestions from the whole society through online media process for the formulating the National Medium and Long-term Education Reform and Development Plan from 2010 to 2020 (Liu, et al., 2019). According to the statistics from CNNIC (2021), more than 11,000 posts were made by netizens through the portal of the Ministry of Education, and still, more than 14,000 emails were made by netizens through the online mailbox of the Ministry of Education. The process of formulating this National Medium and Long-term Education Reform and Development Plan from 2010 to 2020 reflects the government's respect for the public's basic right to political participation.

What's more, to better manage education affairs and provide public education services, the Chinese government has been actively developing new media for education affairs. ‘Weiyang Education’ is a new media for education administration created by the Information Office of the Ministry of Education. In recent ten years, the Chinese government has launched a series of online platform and has become an important choice for the Ministry of Education to release information on education policies, respond to hot issues in a timely manner and provide education e-government services through the Internet. For example, micro-interviews are a brand activity of this ‘Weiyang Education’. Over the past few years, ministers and vice-ministers have entered the interview room more than ten times and interacted with netizens through the new media platform of the ‘Weiyang Education’. In the past few years, those leaders interacted with netizens face-to-face through the new media platform, resulting in the positive interaction between the new

government media and the public. It can be said that the government's construction of new media for education affairs has broadened the feedback channels for education issues and improved the openness of information on education resources (Zhang, et al., 2021).

Taking all the above into consideration, this research tried to focus on the topic 'Research on the effect of online participation in public policy under the online environment' and aims to explore the influence of online citizen participation in public policymaking by taking the education policy making in China as an example. It is expected that the findings in this research could provide some references for the Chinese government to improve public political participation through the Internet.

1.2 RESEARCH OBJECTIVES

With the rapid development of the information technologies, especially in the context of broadband, big data, cloud computing, mobile internet, internet of things, the way and efficiency of publishing information, disseminating information, obtaining information, and commenting on information has changed dramatically. The storm of online information and public opinion brought by such new technologies is gradually affecting and changing people's thinking, lives, work, and social relations. As for the field of the national politics, online public opinion on the formulation of public policies has made the unprecedented and growing impacts with the irreversible trend of informatization.

Citizen participation is an important driving force that affects the political process, and the degree of citizen participation is the main basis for evaluating the modernization of democratic politics. The emergence of the Internet obviously promoted the process of citizens' participation. As a new form of participation, public online participation has incomparable advantages over public participation in the traditional government environment, for example, adding new vitality to citizens' participation, increasing the convenience and feasibility of citizen participation, promoting the public policy agenda, and further resulting in the scientific and democratic policymaking. The development of information technology and the emergence of the Internet have fundamentally broken the

geographical and spatial constraints of information transmission. The public could quickly get various political messages and express their own opinions and comments on social public issues and the formulated public policies, providing a new form for citizens to participate in the formulation of public policies, which is of great important practical significance. However, it should be clearly recognized that although the Internet has built a broader platform for citizens to participate in the formulation of citizen policies, there are still some shortcomings in many aspects because this new form of citizen participation is still in the initial stage of development in China, which will inevitably bring negative impacts and challenges, such as the irrational and non-standard public online participation.

Therefore, it is quite necessary to take advantage of opportunities brought by the Internet and still to better handle with the challenges brought by the Internet, and thus, avoiding the negative impacts on political participation and promoting the democracy of public policies formulated by citizens through the Internet. Taking all the above into consideration, this research aims to focus on the relationship between public policy formulation and citizen online participation. To be specific, this research aims to complete the following three research objectives.

- **To explore the specific correlation between citizens' online participation and public policy formulation.**
- **To examine the various factors related to citizens' online participation contributing to the effectiveness of in public policy formulation in China**
- **To summarize and assess the practices from different countries contributing to real public opinion and public sentiment influencing the formulation of public policies through the channels of the Internet.**
- **To examine how to further promote citizens' online participation in policy formulation in China through the regulation the order of the channels of the Internet, so that public policies can become more scientific and democratized.**

1.3 RESEARCH QUESTIONS

To complete the above-mentioned three research objectives, this research clearly proposes the corresponding research questions to be answered.

- **Firstly, what is the specific correlation between citizens' online participation and public policy formulation? To put it more simply, does citizens' online participation indeed make impacts on policy formulation?**
- **Secondly, as the key of the research, this research aims to make the further exploration, that is, how does citizens' online participation make impacts on policy formulation? This would be the basis for the better utilization of the channels of the Internet to make real public opinion and public sentiment influence the formulation of public policies.**
- **Thirdly, what are the excellent experiences in the field of citizens' online participation in public policy formulation from the foreign countries?**
- **Lastly, what could be done to further promote Chinese citizens' online participation in policy formulation through the regulation of the order of the channels of the Internet for the more scientific and democratized public policies.**

1.4 RESEARCH SIGNIFICANCE

This research opens a new field for the analysis of Internet participation behavior of netizens in the process of policy formulation and enriches and develops quantitative and qualitative research methods for public policy research. It is expected that this research could provide some certain scientific support for the local government to effectively guide the participation of netizens in the public policy formulation process and to broaden the public opinion on the Internet.

1.4.1 THEORETICAL SIGNIFICANCE

On the one hand, this research is of theoretical significance. The public nature of public policies runs through the whole political cycle. To put it more specifically, citizens are required to participate in political events, including introducing, implementing,

evaluating, monitoring, adjusting and finally determining policies. Public policy formulation is the initial stage of the policy cycle, which has an important stage status and determines the scientific and effectiveness of a series of the following procedures. This research focuses on one of the ways in which citizens participate in the policy-making process, that is, the online participation. In fact, the government's administrative work must be open and transparent, so that citizens could supervise and participate, which is an important premise for the government's proper adoption of the opinions put forward by the public. It is required to ensure that all public policies and laws related to citizens represent the interests of people. As the country continues to promote the process of democratization, citizens should be able to reasonably express their own interests and needs through online participation, and continuously realize the maximization of their own interests. Actively promoting citizen online participation in public policy formulation could not only ensure the rationality and effectiveness of public policy formulation, but also promote the scientific and democratic policy formulation. Citizens participate in politics through network channels, which has a profound impact on the formulation of public policies and the construction of democratic politics in China. Targeted at such issue, starting from the basic concepts of public policy making, citizen network participation and so on, this research deeply explores the relevant basic theories of citizen participation in government decision-making, and verifies the hypothesis through the empirical analysis. From the perspective of policy discipline, the discussion about the citizens' participation in policy formulation through the Internet is of great value has greatly enriched the theoretical discussion of public management. From this point of view, this research has important theoretical significance to some extent.

1.4.2 PRACTICAL SIGNIFICANCE

On the one hand, this research is of practical significance. First of all, the emergence of Internet platform complements the traditional forms of participation and makes citizen participation free and convenient. Through the Internet, the government could better understand the needs of public, and thus formulating policy plans and making public policies scientific and democratic. However, the openness of the Internet has still brought a lot of pressure to policy makers. How to judge the main public demands of most people

and how to formulate policies to meet the real needs of people are the important practical direction in this research. Secondly, after understanding the public opinion, the government should guide and standardize the orderly participation of citizens in the political affairs, so as to achieve efficient interaction between the government and citizens, which is conducive to the government mastering public opinion, timely handling the conflict of interests of the people, and helping to ensure the stability of social order. This is also a strong response to the deployment requirements of the CPC on ‘expanding the orderly political participation of citizens and realizing the rule of law in all national work’. This research discussed the potential relations between online participation and policy making, which has important practical significance to this aspect. Still, citizen online participation in the formulation of public policies helps to make public power work transparently, in other words, to make the public supervision effectively. It also helps to establish a balance of interests among all stakeholders, and government decision-making can take full account of the interests of the public. Citizens can also express their interests to the government more smoothly, which greatly increases the public's sense of belonging and identity. Therefore, ensuring that the final public policy conforms to the public interest and promoting the realization of public interest is of great guiding significance for the government to effectively regulate political development. Finally, this research proposes the feasibility of a healthy interaction between online participation and public policy-making, and puts forward specific practical measures in terms of strengthening the ethical quality of public opinion subjects, improving government monitoring methods, and improving relevant regulations, which are of practical application value for better regulating and guiding the development of online public opinion and improving the scientific and procedural aspects of public policy making. Thus, taking all of the above into consideration, it is possible to say that this research is of important practical significance.

1.5 STRUCTURE OF THE DISSERTATION

Under the guidance of the above research objectives and research questions, this research aims to complete the whole dissertation according to the following structured arrangement, including a total of six parts.

Chapter 1

As the start of the dissertation, this chapter will at first make a brief introduction of the whole dissertation, including five parts, that is, research background, research objective, research questions, research significance and research structure. At first, this research will make a review of the research background (the growing awareness of citizens' participation, the rapid development of the Internet and still the online participation in the field of education in China), followed by the specific research objectives and the corresponding research questions. Of course, this chapter will still make a brief discussion on the potential significance of focusing on the relationship between public policy formulation and citizen online participation from both the theoretical aspect and the practical aspect. Lastly, this chapter will summarize the structure of the research, so as to leave a general impression of readers.

Chapter 2

This chapter reviews the previous studies related to participation (from civic participation to citizens' online participation), policy formulation (from public policies to public policy formulation), and still citizens' online participation in public policy formulation (including the irresistible trend, theoretical basis, practical feasibility and still the great significance). Through the review of those previous studies, it is possible to have a deep thought about the main research direction in this research, which is the important premise of the following development of research ideas.

Chapter 3

This chapter is the main presentation of the whole research idea. To be specific, this chapter at first makes a discussion on the research methods, including research rationale,

research methods, sample techniques, sample size and data collection. Under such research logics, this chapter makes the further design and clearly propose the research variables (including independent variables, dependent variable, moderator variables, and moderator variables) and the research hypothesis. Then, a clear research framework is got in the following part. Furthermore, combines with the learnings from literature review, and the realities from interviews, this chapter carefully chooses nine variables (cognitive level, perception of expectations, social attitude, government openness, government transparency, policy perception, citizen participation, individual participation, and government tolerance) and involves the questionnaire for the further exploration of the relative information of these nine variables.

Chapter 4

This chapter is the most important part of the dissertation. In this chapter, the main focus is to verify the hypothesis proposed in the previous chapter through the empirical analysis on the data collected from the questionnaire survey. This chapter analyzes the impact of citizens' online participation on public policy formulation, mainly including the empirical analysis targeted at the solutions to the two questions, that is, what factors affect the extent to which citizens participate in education policy? And still, what mechanisms can effectively explain the effects of online participation in education policy? The findings in this chapter could provide a reliable explanation to the research questions proposed in the first chapter.

Chapter 5

This chapter makes a further discussion on the findings got from the empirical analysis and still the excellent experiences from the foreign countries, to propose some targeted recommendations for the further improvement of the effects of online citizen participation in China. At first, this chapter makes a review of the main empirical findings to get a general understanding of the hypothesis. Furthermore, this chapter makes a brief review of the excellent experiences from the foreign countries, including both Western countries and Asian countries (the typical cases of American citizens' online participation, Singapore citizens' online participation, Korean citizens' online participation and Japan citizens'

online participation). Lastly, combined with the empirical findings in this research and still the excellent experiences from the foreign countries, this chapter proposes targeted recommendations (strengthen the infrastructure construction and balance information resources; perfect the e-government platform and strengthen e-government functions; build the comprehensive management mechanism of online public opinion; guide the online public opinion and realize the standardized working process; provide legislative guarantee and technical support of online participation; and improve citizens' political literacy of and guide citizens' moral compliance).

Chapter 6

At the end of the dissertation, this chapter makes a summary of the whole research, including the brief review of the whole research, the further summary of the main findings in the research, the rational expectations to the future, and still the deep self-examination about the whole research (mainly the possible innovations). From this point of view, this chapter in the dissertation is not only the summary of the existing study but also the prospects for the improvement in the future.

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CHAPTER 2

LITERATURE REVIEW

2.1 PARTICIPATION

2.1.1 CIVIC PARTICIPATION

History

The civic participation has already attracted more and more attention, and still the more in-depth studies by scholars in different fields. It must be admitted that the idea of civic participation has a prominent and important position in today's public governance and public management, from both the theoretical and practical point of view. Still, the transition from traditional society to modern society greatly drives the transition of scholars' focus on policy theory from traditional policy to modern new public management.

Rutgers (1997) proposed that the earliest policy scholars held a hostile attitude towards public participation, typically the dichotomy of politics and administration. To put it more specifically, the dichotomy of politics and administration separates civic participation from public administration, relegating citizens to the realm of politics, away from professional administrators. With the widespread criticism of the academic circles due to the drawbacks brought by the dichotomy of politics and administration, the 'new public administration' theory with the emphasis of the participation of citizens, began to be a popular idea by the public.

Definition

After reviewing the previous studies, it could be found that there had not been a unified definition of civic participation. As a pioneer of the western theory of civic participation, Smith and Owen (2011) believed that 'civic participation is an exercise and a redistribution of civic power, in other words, civic participation realizes, the opinions

of the people who are currently unable to hold power in political, economic and other activities could be systematically taken into account in the future.’

Furthermore, according to the standard definition made by the International Association for Citizen Participation (IAP2), civic participation mainly involves the following main points, firstly, citizens in the policy-making process (mainly administrative decision-making) that affects their lives have the power of expression. Secondly, citizens could have substantial influence on policy making. Thirdly, the interests of all participants in the participation process could be fully communicated, and still, the participation process should meet the needs of participants. Fourthly, the participation process should be open, so as to facilitate the participation of those potentially affected citizen groups. Fifthly, the participation process should clearly define the mechanism and method of citizen participation.

Bishop and Davis (2002) defined civic participation as ‘an individual or group with an interest in a public affairs or policy, being directly involved in the policy process, so as to make impacts on the policy outcome or get the more detailed understandings on the policy information, the process of which could be described as a kind of consulting activity.’

To sum up, in this research, civic participation is understood as a dynamic process in which citizens influence public policy and public life in various ways, still, through this dynamic process, the needs of citizens and public policies could be adapted to each other, which greatly contributes to the realization of public objective of effectively protecting and promoting the rights and interests of citizens (Vega-Tinoco, et al., 2021).

2.1.2 CITIZENS’ ONLINE PARTICIPATION

Development

The wide spread of the Internet has created a unique and dynamic space for public discussion and attracted many Internet users to participate in the public discussion, of course, including public policy and public life. That is to say, the Internet has enabled the

emergence of a new political public space, the public use of Internet tools has changed indirect participation into direct participation. People could participate and express themselves in public policy and public life more efficiently and effectively through the Internet (Cohen, 2006). Such kind of participation though the Internet is just the new form or the new approach of civic participation, namely, citizens' online participation.

Accompanied by the gradual popularization of information technology, network media has gradually played an increasingly prominent role of in citizens' political participation. Irvin and Stansbury (2004) believed that citizen participation is an indispensable part of political and social life in the information age, and still an environment and situation that governments and public managers must face. Citizen participation must profoundly influence and even change the way public managers formulate policies and conduct management. Therefore, in today's information society, whether it is an ordinary citizen or a public administrator, the popularization of the Internet has had a significant impact on their real production and life.

However, it should be always clear that online participation is different from the traditional methods of citizen participation, which are mainly manifested in the falsity of some online information, the virtuality of online participation channels, and the emotionality of citizens participating in the network. Noveck (2000) demonstrated that the group mentality in online participation has a strong false trend. However, despite the many drawbacks of citizen network participation, it is a fact recognized by the academic community that it has immeasurable room for development in the future. Therefore, it is necessary to conduct scientific research and investigation on citizen network participation, so as to objectively judge its position and role in reality.

Main contents

As for the main contents of citizen online participation, generally speaking, scholars considered this new form of political phenomenon as just one of the ways in which citizens and politics are connected. Welzel and Inglehart (2008) believed that the essence of allowing citizens to participate in politics is to redistribute rights. In the views of Welzel and Inglehart (2008), under the current economic background, if the people do not have

the power, even if their opinions are not accepted in a short period of time, their opinions may still be adopted in the future with the development of society. Thus, policy and public policy are more and more active in political participation, which reflects a trend in the development of modern democratic politics. Font and Galais (2011) referred that one is the subject of participation, namely "who participates", the second is the object of participation, namely "what to participate in", and the third is the way of participation, namely "how to participate".

In today's information society, network technology is developing rapidly. The Internet is rapidly spreading in people's daily life. The Internet can facilitate many governments work, such as soliciting the opinions of the public on relevant policies through the Internet. Governments need to understand the critical role of the Internet throughout the process and use it appropriately (Asad & Dantec, 2015). Moon, et al. (2020) proposed that netizens also need to actively participate and express their true views on some public policies, and ultimately achieve good results. When participating in political activities through the Internet, citizens can speak freely, and government departments can also pass these opinions or suggestions, which not only urges the government departments to improve certain work and truly reach out to the masses, but also helps to improve the smooth implementation of policies in the future and still to ensure the legitimate interests of citizens. Therefore, citizens' participation in policy formulation through the Internet is a simple form of political participation, but in the actual process, they use the Internet platform to exercise their rights. Evans and Campos (2013) thought that unlike other methods, the Internet has its own advantages that other methods do not have. It can ensure openness and timeliness, and the interaction between citizens and the government has become clearer. Not only that, through the network, you can break the constraints of time and space. Citizens are always aware of social issues and communicate their views quickly. In this process, citizens' demands for their own interests can be fully expressed. This also reflects that public policy formulation is developing in the direction of scientific and democratization.

From this point of view, online participation is just a change in the way of civic participation. In other words, citizen online participation could be considered as a new

method for citizens to express their individual civil rights and obligations through the online channels. Compared with other methods, it is more convenient, more open, more timely and more interactive. Citizens express their personal opinions and views on major public events of the country in this way, to realize their own interests and demands in this process and promote the democratization and scientific level of public policy formulation. In this research, it is believed that through online channels, such as official Weibo, WeChat public accounts, government websites, and online forums, citizens could express their opinions more boldly, especially discussing some issues in public policy. Because online platforms can quickly disseminate information, citizens can communicate their views in a timely manner through platforms. Roman, et al. (2013) discussed that the platform is also able to interact, and everyone can communicate about the views of others. In addition, relevant government departments can also use the network platform to collect public opinion, strengthen communication with the public, and give feedback quickly. All in all, it is believed that citizen online participation means that citizens put forward their own views and suggestions on some issues in public policy through online platforms, and then affect the process of public policy formulation.

Main characteristics

As for the main characteristics of citizen online participation, it could be summarized as flexibility, equality, virtuality, and low cost. On the first place, it is the flexibility. Different from the information asymmetry between the government and citizens in the traditional public policy formulation process, in the Internet age, netizens could learn quite a lot of information at home. Dong, et al. (2017) put forward that netizens can not only fully understand the relevant government policies from the Internet, but also use the Internet to discuss and express their opinions on the public policies that they are interested in. The emergence of the Internet has greatly improved the degree of citizen participation in the traditional public policy formulation process, and with the development of the Internet, there have also been many new ways for citizens to participate in the Internet, which has greatly improved its flexibility. In the second place, it is the equality, López-de-Ayala, et al. (2021) described that on the online platform, there is no difference in gender, age, region, occupation, education, etc. Any citizen can express his views through the

Internet and conduct equal and open exchanges and communication. On the one hand, the status of the various subjects of netizens is equal. As long as permitted by laws and regulations, each subject can express their opinions on public policies and participate in the formulation process. On the other hand, from a certain point of view, the status between the government and netizens is also equal, their communication is equal and open, and the information between them is exchanged. On the third place, it is the virtuality. Gil de Zúñiga, et al. (2010) analyzed that the biggest difference between the online world and the real world is that it is virtual rather than real. On the one hand, citizens can speak freely without any worries and fully express their views when engaging in political participation through the Internet. On the other hand, the virtual nature of the network will also lead to some illegal or even illegal phenomena. Lastly, the cost involved is low. In the traditional process of citizen participation in public policy making, the cost is high. For example, conducting field visits and investigations and holding consultation meetings for a certain public policy. It will undoubtedly consume a lot of human efforts, material, and financial resources in these processes. Zheng and Schachter (2017) proposed that online platform provides a relatively cheap way. Citizens can use the Internet to participate in the public policy-making process, which saves costs. For example, the government can gather public opinion through government websites and hold online public opinion surveys, and so on, which can lead to higher efficiency and lower cost.

2.1.3 INTERNET PUBLIC OPINION

Public opinion can be simply explained as the publicly expressed content of a person's behavior at a certain time and place, which is the sum of different beliefs, opinions, and attitudes. It is a form of social evaluation and a reflection of social psychology. To put it more simply, public opinion is just a collection of personal opinions, attitudes, and beliefs expressed by a considerable number of people in society regarding a specific topic or a certain event, influencing people's thoughts and actions.

With the comprehensive arrival of the 5G era, the level of informatization, networking, and intelligence has been rapidly improved, and the traditional public opinion ecosystem has undergone disruptive changes. The field of human information exchanging

channels have extended from the real society to the virtual society in multiple directions, gradually achieving the intersection and integration of online and offline (Qu, Zhang & Lan, 2021). Various new media are constantly emerging, and the participation of netizens is constantly increasing, forming a new public opinion pattern. The 5th ‘Statistical Report on the Development of China's Internet Network’ released by CNNIC showed that the number of active IPV6 users in China reached 728 million, with an Internet penetration rate of 96.8%. The strong intervention of internet technology has driven the transformation of the media industry, with a clear trend that the influence of traditional media such as newspapers, radio, and televisions had been greatly weakened. Quite a lot of changes had been appeared, for example, the communication process has shifted from the relatively closed to constructive development, the logic of news narrative has changed, communication channels have become more diverse, audience demands and expression methods have changed, the dominant power of those professional journalists in news information production has been dissipated, objective truth output sometimes even are subjected to algorithmic bias, (Qu, Zhang & Lan, 2021).

In short, the current online public opinion has shown new characteristics, such as the anti-symbiotic nature of the public opinion field, the isomorphism of truth and falsehood in content, and the reverse order of reasoning in judgment (Rasmussen, Romeijn & Toshkov, 2018). These characteristics will to some extent exacerbate the imbalance of public mentality and worsen the ecological environment of online public opinion, increase the difficulty of online public opinion governance, and even lead to frequent public opinion security vulnerabilities (Kai, et al., 2022). Due to the increasingly complex environment of online public opinion, the government's governance and guidance of online public opinion will also face new challenges, not only facing many difficulties such as information dissemination and content supervision and management, but also becoming more complex in the ideological and social organizational structure of real society.

According to the 2021 China Social Public Opinion and Crisis Management Report, the proportion of major crisis events in China that first occurred on the Internet is increasing year by year, and the main sources of public opinion that triggered crisis events are mainly online media represented by Tiktok and Weibo (Kai, et al., 2022). These major

emergencies caused by social conflicts have extended from the Internet to the real social field, profoundly affecting the ecological environment of social opinion and the ideology of the people. From this point of view, while the Internet provides a new field for the public to express public opinion, online public opinion is also showing an increasingly complex development trend, especially in the current period of transformation in China, where social development is uneven and internal contradictions are prominent. In the report of the 20th National Congress of the Communist Party of China, it also emphasized the need to establish a strong online country and a digital China. Therefore, shaping a sound online public opinion ecosystem and guiding citizens to participate in online politics correctly and effectively is an important link in achieving social governance, improving political security, and assisting in the realization of national strategies.

2.2 POLICY FORMULATION

2.2.1 PUBLIC POLICIES

Due to the different social environments and different ideas, there had not been a unified opinion on the definition of public policy. Actually, different scholars involved different theories and methods in their study in the public policies, and finally drawn different conclusions based on different perspectives. Wilson (2017) proposed that public policy comes from the specific operations of politicians and administrators, while the role of laws and regulations is mainly to restrain social behavior. Still, Lasswell, H. D., & McDougal, M. S. (1942) expounded the connotation of public policy from a different perspective and proposed that public policy can be regarded as a detailed plan, which involves values, practices, goals and so on. Gelfand (2019) posits that policy is a way for a country to maintain social order, with close relations with citizens' lives. Easton (1993) pointed out that public policy is the authoritative distribution of the value of the whole society. To be specific, according to the views of Easton (1993), social resources need to be allocated authoritatively, and still, there should be some certain standards for such distribution of social resources. From this point of view, the government can determine the main body of profit and how much the main body benefits in the process of distributing the

value. Torgerson (1985) indicated that public policy is a large program with goals, values, and strategies, indicating that public policy is a value-oriented plan, which clearly clarifies the dynamic nature of public policy. Thus, the rational public policy formulation requires rigorous logic, scientific planning, and rational procedures. Chen (2003) believed that public policy is the code of conduct stipulated by the state, the ruling party and other public authority organizations to achieve certain social, political, economic and cultural goals in a specific period. Still, Chen (2003) made his own definition of public policy, that is, the ruling party, state or other political groups set corresponding goals according to the current political and economic status quo, in other words, public policy could be defined as an action plan to achieve this goal, as well as the rules that behaviors need to follow, which can be laws, regulations, strategies, and so on. Johnson (2010) proposed that public policies are formulated by the corresponding government departments, and the emergence of policies is mostly to deal with some of the existing public problems, so as to better distribute social values through regulating the behavior of organizations and individuals.

In this research, public policy is considered as the regulations (mainly dominated by the authoritative organizations) determine the criteria for the distribution of social benefits.

2.2.2 POLICY FORMULATION

Definition

Public policy is mainly to study the content and process of policy, and the main body and core of policy science is the policy-making process. Traditionally, common people have always been in a dominant position in the process of public policy making. Bukhsh and Weigand (2012) proposed that with the improvement of the democratic legal system and the transformation of the government's service-oriented concept, in the process of public policy formulation, the public's wishes and demands have been paid more and more attention. The formulation of public policy has also gradually changed from the original single top-down approach to the bottom-up approach.

The formation of public policy is the result of the interaction of some factors. Friend and Jessop (2013) proposed that the policy process is divided into several areas. It includes the

formation of problems and the formulation of policy plans, which are the most basic two aspects. There is also related research in China. Chen (2003) pointed out that the whole process is very complicated and can be divided into two stages according to the current situation of China's policy formulation. That is, formulating policy plans and legalizing policies. The content of these two parts is different. When formulating policy plans, it is generally based on the existing problems and purposefully proposes effective measures. Among them, the most important links include identifying problems, determining goals, formulating plans, etc. In some cases, predicting consequences and selecting plans are also essential. In practical work, these links have their own important roles. The legalization of policies refers to making policy plans pass judicial review in accordance with legal regulations and related procedures.

Main process

Regarding the formulation process of public policy, the current research has carried out in-depth research from four aspects.

The first aspect is the identification of policy issues. The policy problem is that a segment of the society has a new dissatisfaction or demand for the society. Therefore, the dissatisfied part of the population wants to ask the government to take action to solve or readjust. Stone (1989) concluded that there are two necessary prerequisites for social conditions to be transformed into policy issues. Firstly, the social situation is manifested as a public problem, and a public problem will have a direct or indirect adverse impact on most people in social life. Secondly, the premise that public problems can be transformed into policy problems is that the government can solve the problem and can take appropriate actions.

The second aspect is the setting of the policy agenda. Among the many public issues that need to be addressed, those that can be put on the policy agenda must be controversial issues or events that require government attention. Agenda building is a competitive process, and ultimately only a small part of it gets on the policy agenda. Kingdon (2014) believed that the setting of the agenda be consisting of three independent streams of activity. At some point they can come together to open a "policy window" that allows

something to enter the government's agenda. In addition to this, political leadership is another important factor influencing the setting of the agenda. Whether motivated by political interest, public interest, or concerns about their political reputation, political leaders pay close attention to policy issues, make them public, and propose solutions.

The third aspect is the proposal of specific plans. Dolowitz and Marsh (1996) clearly put forward policymakers are often faced with solutions to several competing problems. Policy making does not necessarily result in laws, executive orders, or administrative regulations. Also, it is possible for policymakers to take no active action on an issue, or to let it go when consensus is not reached. The planning of policy proposals usually considers the following factors, that is, the technical feasibility of the policy proposal, the rationality of the budgetary cost, the political acceptability of the policy proposal and still the legality of the policy proposal.

The fourth area is the adoption of policy. The main content of the policy adoption phase is not only to choose from several options, but also includes a series of actions to make the choice. When the policy agenda is established and transformed into policy decisions, Anand and Sossin (2018) advanced some policy recommendations are discarded, while others are adopted after modification. Although individual citizens and private organizations also participate in policy decisions, the formal decision-making power rests with public officials. On the premise that administrative officials are endowed with legal rights, and their policy-making behavior conforms to procedural justice or established standards. Decisions made by administrative officials can then be considered legitimate.

Basic dimensions

The formulation of public policy should revolve around the development of democratization, scientific nature, legalization and publicization, which is still the core in the whole process of policy formulation and implementation.

At first, it is the democratization of policy formulation. Kimmerling (2005) discussed that public policy formulation has a special dimension, among which democratization, identification, legalization and publicization are the main dimensions. The direction of

public policy formulation represents the value of the policy and determines the value distribution of public resources at the policy level and the direction of the corresponding policy behavior. Democratization is an important part of the essence of socialism. In the process of socialist political development, democracy is not only an end and a goal, but also a means and a method, and the formulation of public policies is the development of democracy at the practical level. In the process of public policy formulation, first of all, policy makers should pay attention to and respect citizens' opinions and encourage citizens to actively participate in public policy formulation. Policy makers must fully protect citizens' right to express their personal opinions in the process of public policy formulation, and the government must fully respect citizens' right to speak in the process of listening. In the current process of political participation, most of the policies that citizens actively participate in formulating are closely related to their vital interests. The public has the most say, and the government needs to fully respect the wisdom of citizens and create an atmosphere in which policies are made through consultation and consensus-based decision-making. A typical example of citizen participation in policy formulation, such as the listening to suggestions from all walks of life initiated by the Ministry of Education in 2010, eventually collected more than 2.49 million comments and suggestions from various media and online channels (Jun, et al., 2014). Most of the comments were incorporated into the new 12th Five-Year Education Plan outline. Secondly, in the process of policy formulation, various institutionalized and open channels and mechanisms for citizen participation should be established, to absorb as many suggestions and opinions as possible, and effectively attract the public to participate in the formulation of government public policies. To give full play to the enthusiasm, creativity and initiative of citizens' participation. The guarantee and support of systems and mechanisms is an important channel for promoting democratization. The government listens to opinions widely in various ways and provides timely feedback and response to the opinions heard, which can avoid the vicious circle of reducing public participation enthusiasm due to the lack of government response capacity.

Secondly, it is the scientific nature of policy formulation. Public policy requires scientific nature, and thus, scientific nature is one of the important dimensions of public policy formulation. In modern society, due to the increasingly complex public affairs and the

limited capacity of the government itself, it is difficult for the government to make scientific and reasonable public policies. In the process of policy formulation, the participation of citizens' power is more necessary. Traditional public policy formulation has the characteristics of "top-down", and correspondingly, there is a lack of mechanisms and channels for timely communication and feedback between superiors and subordinates. This leads to a lack of communication in the process of policy formulation, and horizontal information for reference is underdeveloped. In addition, the resources for formulating public policies (human, financial, material, and information resources, and so on), the quality of policymakers, policy-making tools, and open and timely feedback mechanisms for policymaking have not been effectively supplied. The current trend of globalization has put forward higher and new requirements for the scientization of policy formulation. Paskaleva (2009) indicated that globalization requires timely interaction and exchange of information for policy making among various stakeholders. This requires citizens' full participation in public policy making and policy makers with a global mindset. Mutual communication and cooperation between the government and citizens can promote the identification of policies, which can increase the acceptance and support of the final public policies among citizens. This is of great significance in reducing the waste of policy resources, improving the mechanism of citizen participation, optimizing the organizational structure of policy formulation, and improving the ability of policy innovation.

Thirdly, it is the legalization of policy formulation. The legalization of public policy is a hot topic in academic circles. There is also currently no unified definition of the legalization of public policy. Miner (2004) believed that the legalization of public policy is the unity of the legalization of form and the legalization of content. The legalization of the form of public policy mainly means that the subject, method, procedure, and content of public policy formulation conform to the provisions of the law and obtain legal status after approval according to the strict requirements of the procedure. The legalization of public policy content refers to obtaining the support and approval of citizens before public policy is published. It requires that in the process of policy legalization, the interests of most citizens should be used as the standard to formulate policies, rather than against the will of the majority from an individual perspective. Therefore, the legalization of public policies is not only a procedural requirement, but also emphasizes a fair game involving various

forces in terms of content. The situation of policy game is not only the game of interest, but also the game of organization, the game of policy-making procedure, and the game between policy effect and policy result. It not only requires subjects with public power to play a full role in policy formulation, but also requires policy subjects outside the system, such as political parties, various interest groups, and citizens. In the practical experience of the West, there are many channels for other stakeholders to participate in policy formulation. Such as public hearings and public lobbying activities of various interest groups, various public policy debates, etc. In the process of participating in the formulation of public policies, there are strict procedures to ensure that policies are effectively participated by citizens (Guasti & Petra, 2016). Government members will only conduct formal votes when they believe that most people will agree. The formulation of public policy in Western society is, at least in form, fair and reasonable. In China, the lack of citizen participation in policy formulation is more serious. In terms of the way of participation, the more prominent hearing system has not fully exerted its effect due to the limitation of various factors. However, due to the different pursuit of interests of various subjects in China's market economy system, it is more important to realize the participation of various subjects in policy formulation, the expression of their own interests and appeals, and the realization of mutual communication and cooperation through various channels.

Lastly, it is the publicization of policy formulation. After entering the 21st century, the public nature of society has undergone qualitative changes, not only putting forward public requirements for the concept of policy, but also higher requirements for the public nature of policy process and policy content. The scientific public policy is to carry out the function and role of encouragement based on reasonable policy goals and appropriate methods and methods under the guidance of public social values. The main role of public policy is to stimulate and meet public needs, protect and protect public rights and interests, and improve and enhance public effects. This new, novel and novel social value is gradually guiding and improving the whole process of public policy in reality, especially in the link of policy formulation. In this situation, Stoker (2006) stated that the balance and integration of forces among various stakeholders has become an inevitable trend of social development, and citizens' participation and supervision in the public policy process has become an important channel for balancing the interests of all parties and resolving

conflicts and contradictions. The main problem of traditional public policy is that there are more norms and restrictions on society, and less leadership and guidance. In the process of policy formulation, there is a lack of publicity, and there is a lack of public value guidance and judgment. The danger of lack of publicity in public policy is that it will lead to the lack of publicity of public policy, and it will become a special interest group, a special class or even an individual who violates the principle of "public". Therefore, the public policy in the new social transition period requires the power integration between the public authority and the public. Express the demands of all parties through various channels, and finally realize the adjustment and reasonable distribution of public interests.

2.3 CITIZENS' ONLINE PARTICIPATION IN PUBLIC FORMULATION

2.3.1 THE IRRESITIBLE TREND

At first, it is the rapid rise of knowledge. The rise of knowledgeable has characterized the 21st century. To measure the advancement of a country is to look at the number and degree of knowledgeable people in this country or city. As an important resource for social development, knowledge has a prominent role in economic and social development effect (Odei, et al., 2021). Knowledge drives and accelerates the process of global resource allocation, making the use of resources more effective and rational. The corresponding need for people who have high-tech knowledge, active learning and active innovation is even more urgent. Knowledge people have formed various knowledge-based enterprises, knowledge-based governments, and knowledge-based organizations through various forms of teams and organizations to gather more wisdom and strength (Odei & Stejskal, 2019). They jointly participate in the process of knowledge production, knowledge innovation and knowledge management organized by the government of the enterprise. Etzkowitz and Klofsten (2005) indicated that the rise of intellectuals is the result of the unification of the subjective needs of citizens seeking self-improvement and self-development through continuous learning with the objective needs of the rapidly developing social reality of the knowledge economy. Sachs and Woo (1994) believed that the rise of Chinese intellectuals is accompanied by the reform of China's economic system. The reform of the economic

system enabled China to successfully realize the combination of public ownership and market economy. The basic economic system with public ownership as the main body and the common development of various economic components accelerates and promotes the circulation and distribution of social resources. Citizens participate in the orderly competition, unified and open modern market economic system. This has not only significantly improved China's economic strength, but also significantly improved its people's living standards. China has become an important member of the world economic system. More importantly, with the strong impact on the thinking of Chinese citizens brought by this open economic wave, a trend of learning new technologies and new knowledge has been formed. A group of new intellectuals with continuous innovation, innovative thinking and ability have stepped onto the stage of the times, and have made remarkable achievements in political, economic, cultural construction and other aspects.

Secondly, it is the rapid rise of political democratization. Marx and Engels (1984) believe that democracy is the realization of the people's sovereignty and the will of the people, that is, the people themselves create, establish, and prescribe the state system, and use this state system to decide their own affairs. Democracy is an important goal of political development, and democratization-oriented reforms promote the progress of Chinese social civilization. The reform of the economic system promotes the rational allocation of government power, promotes the steady development of China's political democratization, and promotes economic prosperity and social stability. The reform of the economic system has effectively protected the rights of citizens, gradually awakened Chinese citizens' awareness of rights, improved the relationship between the Chinese government and citizens, and made public policies more adjustable based on maintaining stability. China's political democratization and corresponding reforms not only focus on the development of electoral voting, but also on the development of deliberative democracy. Political democratization pays attention not only to the progress of grassroots democracy, but also to the development of inner-party democracy (Kopackova, et al., 2022). Political democratization is a development process in which the political system changes from lack of democratic conditions to more democratic conditions, so that citizens' opinions and demands can be more reflected and expressed. The process of political democratization in China shows a gradual characteristic, from the original traditional "rule of man" to the

modern "rule of law", and the current trend of market-oriented society to public society is more fair, open, and just. The democratic and rule of law environment has put forward higher requirements.

Thirdly, it is the rapid rise of the so-called public society. Fioramonti and Naidoo (2007) believed that "Public society" is a brand-new concept of social form, and it is also a new-type social operation mechanism and a guiding social core value system. It is a new, new and novel social form with publicity as the value standard, which is comprehensive, holistic, systematic and organic. "Public society" is a society that pays attention to and pays attention to public products, public facilities, public mechanisms, public power, and public services based on "public economy". "Public society" is a new interpretation of the new stage and new form of social development after the work report of the 17th National Congress of the Communist Party of China. The emergence and formation of "public society" is the result of the deepening and expansion of the degree and scope of publicity in the process of social development to a certain period, which has an overall effect and utility on the society. "Public society" is also an innovative achievement of holistic thinking. Due to factors such as regional integration, economic globalization, and political democratization, the awakening of the consciousness of civil rights has been accelerated. "Public society" makes citizens pay more attention to and pay attention to the realization of public interests related to their vital interests, so it also requires corresponding changes and changes in the consciousness and measures of government administration.

Lastly, it is the rapid development of information technology. Li (2017) indicated that since the first e-mail "Crossing the Great Wall and Going to the World" was sent to the world, China's Internet business has developed rapidly for more than 20 years. But by December 2009, the scale of Chinese netizens had reached 384 million, the number of netizens had increased by nearly 90 million, and the Internet penetration rate had reached 28.9% (CNNIC, 2021). As a new production method, information technology has a huge impact. It is like a "double-edged sword", which has both positive and negative effects. From a positive role, it can speed up the process of allocating resources across the country and the world, speed up the circulation and transmission of information, speed up the pace of human survival, and make society, the country, and the earth more and more closely

connected. This change not only comes from the change of the speed of the form of things, but also brings about the progress of people's ideas and thinking accordingly. The rapid transition from the non-network era to the network era has made the public increasingly feel the integration of society, the impact on public life brought about by a nationally integrated and globally integrated situation. This has changed the "analytical" way of thinking and thinking in the past decades or even hundreds of years and put mankind in a holistic perspective to think and explore the future and destiny. From a negative point of view, this trend of integration and publicization creates a contradiction or even conflict between the desire for private and private interests and the trend of publicization in society. This kind of contradiction and conflict is now more clearly spread in various modern media network forums, and even maliciously exploited. In the Internet age, information is under the rubble, which puts forward higher requirements on citizens' ability to process information. False network information and behaviors are becoming more and more prominent, which have a negative impact on social stability and harmony. This increases the probability of collective events and group events arising from the intensification of social conflicts. At the same time, Beaudreau (2010) believed that the rapid development of information networks has also brought about a major revolution in productivity. As a time-sensitive dissemination technology and dissemination channel, the information network fully guarantees the high-speed dissemination and feedback of information resources. It is not only more and more widely used by the business community, but also increasingly used as a platform and port for the release of government information. The Internet has become not only a way of life, but also a way of production, as well as a way of learning and training. As a result, the public can effectively and timely supervise government affairs through the network, and the service-oriented government and the sunshine government are the forms of government that both Eastern and Western societies and countries are strongly advocating, implementing, and improving. The outstanding manifestation of reality is that the revolution of production and thought brought about by the rapid development of information technology has made the network society a virtual society with a high degree of publicity in the process of operation and development, even to a certain extent. The virtual network society has been in the forefront of the real society in the development of publicity. As an important part of citizens, netizens are becoming

more and more civic qualities, public awareness and fulfilling public obligations under this situation. Therefore, the rapid expansion of the netizen group can popularize the public consciousness in the whole society, and the virtual society with developed publicity can play a demonstrative and exemplary role in the real society.

All in all, under such kind of context, citizens' online participation in public policy formulation has become an irresistible trend, and thus, it is quite necessary to involve more studies for the deep and detailed understandings.

2.3.2 INTERNAL CONSISTENCY

At first, the public nature of the network is consistent with the public nature of the policy. Sandoval-Almazan and Gil-Garcia (2012) referred that networks have a variety of characteristics, among which, publicity is prominent. The low cost and interactivity of online media provide the public with a platform for expressing and exchanging personal opinions, and the participating subjects all represent their own interests, rather than special or specific interest groups and organizations. Citizens can reach consensus in various virtual cyberspaces such as online forums, online blogs, online commentary editorials, etc., to express the public voice. The openness and independence of the Internet provide citizens with a variety of public news. This news not only come from government websites, but also come from non-governmental news that occurs among citizens, which reflects more general and deep-seated social and public issues. This has played an important role for citizens to participate in political life to realize the "right to speak", to get rid of the shackles of political and economic forces, and to realize and form a space for free debate and discussion. Hansen and Jespersen (2013) stated that the essential feature of a policy is its "publicity", which contains the entire process of the policy. The publicity of public policy is not only reflected in the publicity of the policy object, the publicity of the policy subject, and the publicity of the policy process, but also the policy goal is to realize, promote and reasonably distribute the public interests. The public nature of public policy believes that in the process of achieving policy goals, there must be mechanisms and platforms that citizens can participate in together. The biggest difference between the current public policy and the past public policy is the increase in the degree of publicity. In the process

of policy multi-interest game, the opinions of multiple parties can be expressed in a reasonable channel, and a corresponding system and mechanism for citizen participation in the process of public policy shall be established (Heyder, et al., 2021). This is not only reflected in the process of policy formulation, but also in various aspects such as supervision and implementation of policies and evaluation of policy effects. Publicity revolves around all aspects of public policy, and its main role is to stimulate and meet public needs, safeguard, and protect public rights and interests, operate, and maintain public order, expand and defend the public sphere, and improve and enhance public effects. The publicity of the Internet is consistent with the publicity of public policy, and they both contribute to the construction of the public sphere. Habermas, et al. (1974) define the public sphere as "a space for citizens to freely discuss public affairs and participate in politics outside of political power, which is the basic condition of democratic politics". The public sphere is assumed to be a public space between government and society in which citizens can participate in public affairs and political life. Therefore, the equal dialogue mechanism of citizens in this space is particularly important. As an innovation of information technology, the Internet not only realizes the rapid dissemination of information in technology, but also its powerful information dissemination speed, fairer public opinion platform, and timely and rapid response are more popular among citizens in the formulation of public policies. Effective participation provides conditions. This has far-reaching influence on the improvement of people's public awareness, public spirit, and the public construction of society. Its equal dialogue mechanism promotes the development of publicity. The rapid expansion of the group of netizens has increased the number of citizens participating in policy formulation, thus making the publicity of public policies also increased accordingly. This growing trend is spreading to more and more citizens, making the open, fair and just mechanism for formulating public policies more reasonable and perfect under the guarantee of publicity.

Secondly, the integrity of the network is consistent with the integrity of the society. Ziegler (1979) stated that network has integrity, and the network presents different distributions of information at multiple levels, thus showing the overall distribution of different information resources. The integrity of the network is not only reflected in the construction of the overall operating system at the technical level, but also in the

distribution of network resources, the operation of the network and the maintenance of network security. The integrity of the web is an area that is often overlooked by the public and has received very little research. However, careful observation and analysis shows that the network also presents a whole. At the technical level, the integrity of the network requires not only the cooperation of various infrastructures and technologies to run the network, but also the improvement of relevant hardware, and the timely processing and supervision of information during network operation. The integrity of the network requires network administrators to maintain the order of the network, make the exchange of network information civilized and orderly, and avoid the "network paralysis" and network congestion caused by the high click-through rate of some sudden hot issues (Sun et al., 2019). In the process of citizens' use of the Internet, through their own personal practice, it can be found that the distribution of information resources and the construction of various websites show different levels of development. In the distribution of network information, such as current affairs, education, culture, and sports, the degree of development of each network is uneven. Some websites that cover a large amount of information, publish information in a timely manner, and have a comprehensive variety of information can always become leaders in different fields. Although different websites have their own characteristics, they also have overall operating rules. These rules reflect the value orientation of the users who use the Internet, that is, citizens, and are the process of citizens' re-screening and re-processing of Internet information. That's why some information is always in an obvious position for citizens to read, and some information is quickly lost in the overwhelming amount of information. Marx and Engels (1984) believed that any social community that is used as a research object is a "whole system". This requires the society to be viewed, and local, regional, partial, and departmental objects must be raised to a holistic, global, and unified perspective. Judging from the current situation in China, the contradiction between the whole and the part mainly exists between the central and local governments, and different places also show different levels of development. This requires a balance between the power of the whole and the parts, and it is necessary to give full play to people's subjective initiative, and to have overall thinking and overall thinking in the process of integration. In China's policy practice, it is reflected in the idea of "five overall plans", that is, the idea of coordinating urban and rural development, coordinating regional

development, coordinating economic and social development, coordinating the harmonious development of man and nature, and coordinating China's development and opening to the outside world. This is to use the "stimulation" and "incentive" functions of policies to encourage and support different structural and functional parts of society, and to support some underdeveloped areas through the stimulating effect of policies to increase their enthusiasm, and some areas unreasonable social phenomena are regulated (Jiang & Xu, 2009). The integrity of the society is the integration of the local forces of the society, so that the interests of the local parts give way to the overall interests of the whole, to form a benign interaction and complementarity between the whole and the parts. This has played a harmonious and unified role in the transition period of China. Skelcher (2005) proposed that the integrity of the network is consistent with the integrity of the society. The overall operation of the network can reflect the value preferences of citizens and reflect the overall social needs. The integrity of social needs requires that the media of communication and communication also have overall characteristics, requiring a complete transmission and feedback process in the process of information dissemination, rather than a one-way passive information screening and receiving mode. The overall information transmission is the complete process from the information transmitter to the information receiver. The particularity of the network is that it has the characteristics of interaction compared with the traditional media such as radio, newspaper, and television (Chan, 2021). Therefore, in the selection of information, two-way circulation and feedback can be realized, which is an important supplement to the local one-way information flow and is a more favorable way of embodying the overall development of society. The integrity and publicity of society are different characteristics of society, but they are infiltrated with each other. The whole society has more and more public consciousness and trend, and the public society is advancing with the power of the whole, and the whole society has realized the qualitative change in the publicity. The use of the network by citizens' power is a favorable technology to accelerate the overall development of society, and the use of the network is also consistent with the game and interaction of various stakeholders. Therefore, the balance of information hotspots and "unpopular" on the Internet, government websites and private websites is also consistent with the balance of central and local forces in society, and the balance of overall and local forces.

Thirdly, the speed of the network is consistent with the speed of thinking. Chen, et al. (2012) stated that the rapidity of Internet information dissemination has had a profound impact on the way of information dissemination of human beings. It has made information highly unified in time and space. Timely feedback in real time. The rapidity of the Internet has had an important impact on the life of the public, a more obvious example being the rise of electronic shopping. To buy something, people just need to sift through a shopping site. After the buyer communicates with the seller on the Internet, they can take a picture of a certain product, and after electronic payment, they can quickly receive the purchased product through the logistics process. This fast and convenient way of shopping has already had an impact on the traditional way of shopping (Jiang & Xu, 2009). This kind of quickness of the network makes the efficiency of communication faster, the coverage of communication wider, and the influence of communication bigger. Corresponding to the rapidity of the Internet is the rapidity of public thinking. The amount of information on the Internet is so fast that the public also presents the characteristics of rapidity in thinking when facing this rapidly developing medium. The speed of the public's own thinking and logical response also presents the characteristics of synchronous response when facing the Internet. This is not a passive adaptation, but an exploration of human abilities. If you use the Internet for a period, you will find that the amount of information absorbed and reflected during this period is far greater than the information obtained through the traditional media of newspapers, magazines, and television in the same period. The extent to which human beings themselves have explored and exploited the capabilities of the brain is still very limited so far. Young (2012) proposed that fast-paced lifestyles have affected the way people think and react. The life of modern people has been closely linked with the development of fast-paced, high-tech information, and the speed of the Internet is the promotion of the speed of public thinking. In the face of a large and fast amount of information, the speed of the network helps to find the signs of problems that the masses are concerned about in time. Reeves and Read (2009) stated that the Internet is not only one of the ways and methods to promote the public to improve the speed of brain response, but also a timely response to information (including official information and folk information) among the public. The Internet can listen to and understand the opinions of the public most quickly and can reflect the public's views on a specific matter most quickly.

This has important reference significance for the government to take measures quickly and propose and formulate policies and regulations in a targeted manner. The speed of the Internet is in harmony with the speed of public thinking, enabling citizens to respond quickly to network information. It should be noted that in this process, it is also necessary to judge network information, and to screen and distinguish false and emotional information. At the same time, it is necessary to prevent citizens from overreacting to false and vicious information, resulting in negative social impact. This not only requires the improvement of network management level, but also requires citizens themselves to improve their ability to identify and distinguish information. Only by analyzing the authenticity of network information, can the network information be collected and analyzed scientifically, to form a correct and benign rapid response mechanism.

Lastly, the public nature of the Internet is consistent with the democratic nature of politics. Day and Schuler (2004) proposed that the publicity of the network society has the basic characteristics, characteristics, and characteristics of the virtual. The publicity of the network is mainly reflected in five aspects. It is based on the public resources of the network, focuses on the public affairs that citizens are concerned about, and takes interactive communication and exchange as the method. It has a high degree of freedom, and the network also presents a flat characteristic. The public resources of the network not only refer to the public infrastructure that needs to be adapted to the construction of the network, but also refer to the fact that citizens can share public resources through the network and understand the information of the whole country and even the world. In the process of sharing, citizens' attention to public things makes the public construction of the public domain of the Internet more prominent. This interactive information resource exchange and exchange method enables individual opinions and public opinions to be communicated and has a high degree of freedom in citizens' speech and voice (Kapsa & Kaszkur, 2019). The flat network also determines that the publicity of the network is flat. The Internet has flattened the world and brought people from different regions closer to exchange ideas and disseminate ideas. This enables the gradual improvement of policies and regulations related to network management, and the improvement of citizens' personal qualities and public awareness. Free expression and open participation of citizens are the cornerstones of political democratization. Citizens freely express and communicate their

ideas to influence and shape public opinion and party policy are the cornerstones of modern democratic institutions. One of the requirements of political democratization is to give the public enough right to speak and participate, so that the public needs of citizens can be released and expressed through certain channels, to form a society based on the interests of the broadest citizens. system. The development of the public nature of the Internet and the democratization of politics does not only coincide, but also promote each other. The democratization reforms China has carried out in recent years and the formulation and implementation of policies reflect this trend. The relationship between citizens and the government has been reconstructed under the improvement of various channels of expression. The government has formed the ability to respond to social needs more efficiently and quickly. The public nature of the network has played a very good role in balancing all stakeholders in the process of democratic political development. How to make it more effective in a reasonable way requires further regulation of laws and policies. Public development requires an open, fair, and just social environment. As a new technical means, the network is an important technological innovation method that can further promote the public development of the network to be realized and achieved as soon as possible. As a free and equal social information sharing platform, the Internet can promote the equality and openness of management in the exchange and interaction of information and can effectively supervise social affairs with strong public opinion. The publicity of the Internet is spreading from the virtual cyberspace to the real society, making more people become "citizens" with public awareness. The development of the public nature of the network is becoming a breakthrough for the development of the real public society. The public development of society needs the promotion of the network, so that more "people" can become "citizens" and become people in the new era with public awareness and moral literacy (Kapsa & Kaszkur, 2019). The benign operation and gradual expansion of the network society itself is an important support for the realization of social public development, and it is also an important content of public development.

2.3.3 THEORETICAL BASIS

After reviewing the previous studies, it could be found that three theories (governance theory, participatory democracy theory and policy network theory) could constitute the theoretical basis for supporting citizen network participation in public policy formulation.

Governance theory

Wurzel, et al. (2013) stated that the word "governance" is derived from Latin and ancient Greek and originally meant to control, steer, direct, guide and manipulate, and it has been used interchangeably with the word "governance" for a long time. As soon as the concept of governance appeared, there was a tendency to scramble for my use in various fields around the world. European and American business circles, the World Bank, the International Monetary Fund, the Organization for Economic Cooperation and Development, the United Nations, the European Union, and many non-governmental organizations characterized by civil society in the world have all defined the meaning of governance by themselves.

In the field of political science, governance, as a management tool of government, usually refers to national governance. Governance refers to the way the government behaves, and the mechanisms used to regulate the government's behavior through some means, that is, how the government uses state power (governance) to manage the country and society. In the field of business economy, governance generally refers to corporate governance, that is, the management methods and systems of companies and other enterprise organizations. In the field of public administration, Rosenau (2007), one of the main founders of governance theory pointed out that governance is an activity supported by a common goal. The main body of the activity may or may not be the government, and it does not need to rely on the coercive force of the state to achieve it. In other words, compared with rule, governance has a richer connotation, including both formal and governmental administrative mechanisms, as well as informal, non-governmental administrative mechanisms. In different periods of social and historical development, corresponding to different governance models, such as in an agricultural society, the behavioral logic of social governance is a process of ethical politicization, and its

governance model is ruling administration. In the period of industrial society, large-scale industrial production led to social division of labor, scientific management, and the pursuit of modernization, creating a governance model of management-oriented administration. In the period of post-industrial society, service has become the most basic public goods in new social governance, and its governance model is an administrative service.

The governance theory has at first emerged in the West. Scholars have explored the cooperation model between the government and social public affairs management, Hill and Hupe (2008) realized the drawbacks of the monopoly and coercive nature of traditional government administration, and paid attention to the common governance role among various subjects such as the government, enterprises, groups, and individuals. The emergence of public governance theory aims to find more governance tools and effective management methods, which is a new governance model. Public governance means that in the process of dealing with public affairs, we cannot rely solely on the power of the government, but also by means of various governance methods such as negotiation and negotiation. Public governance also needs to give full play to the power of international organizations, the private sector, social organizations, and individual citizens. Among them, organizations other than the government mainly refer to social individuals, scientific research teams, industry associations, private organizations, non-profit organizations, civil organizations, and various public organizations. In the process of governance, it mainly targets a wide range of objects, including all governance affairs in the process of production and life.

Participatory democracy theory

Regarding the background of the emergence of the theory of participation in democracy, the theory of liberalism has long held a dominant position in the field of Western thought and theory. With the changes in the political and economic situation in the West, people need new ideological theories to solve the new problems that arise, followed by the rise and exploration of the theory of participatory democracy. The representative system is no longer suitable for the western political and social development at that time. Lazar, et al. (2010) described that citizens spontaneously organized the demonstrations against the

government previously, and students, women, and workers took to the streets to express their dissatisfaction with the government. They found that the representative system can no longer play a good role in democracy, and the government cannot timely and accurately know the opinions of citizens. The government does not actively solve political problems, the trust in the government decreases, and citizens start to look for new ways to change the political participation situation at that time. At the same time, the shortcomings of the representative system are also exposed in government politics: a small number of government officials hold and exercise power. Most citizens still have no way to exercise political power, resulting in relatively concentrated power. At the same time, under the influence of Western money worship and individualism, government personnel are likely to form small political groups, which is not conducive to the country's political development and stability. The development of science and technology provides a more convenient way for citizens to participate in politics and provides technical support and guarantee for political participation. Van den Ende and Kemp (1999) stated that in the third global scientific and technological revolution, electronic computers and networks were the main development trends, and computer networks provided a platform for citizens to participate in politics. In the information age, citizens can obtain more information through computers and networks. This also increases the channels for citizens' political participation and provides convenience for citizens' political participation. Citizens' autonomy and enthusiasm for political participation has been continuously improved, and the theory of participatory democracy has begun to emerge and develop continuously, causing new changes in western citizens' political participation.

The western theory of participatory democracy starts from democracy and centers on the direct participation of citizens. Citizens achieve political goals and seek political interests through political participation. Levine (2000) summarized that the main representatives work, and theories of participatory democracy include Rousseau's "The Social Contract", Mill's "Representative Government", Patman's equal, extensive, and direct political participation theory. The liberal democratic theory at that time regarded the elite political participation of a few people as the political basis of the government, not the public consciousness of the general citizens. In this regard, Patman (2006) proposed that political participation should be the universal, direct, equal, and extensive participation of citizens.

Effective civic participation can only be achieved by truly transforming the political blueprint shared by the people into the basis for political decision-making. Only when everyone cares about political events and fights for their legitimate rights and interests will society be more democratic and fairer, and political participation will be more orderly. Patman (2006) argued that politics and political participation are reciprocal, and that one can perhaps generalize the mode of participation as maximizing input. Therefore, there is feedback from the output back input. Patman (2006) believed that the political participation of citizens has a positive effect on society, including education and political promotion. "The main function of participation in the theory of participatory democracy is education, and the educational function in a broad sense includes psychological aspects and the acquisition of democratic skills and procedures. In this way, there is no particularity about the stable participation system. Through the educational function of the participatory process, the system can be Keep it up. Participation develops and cultivates the qualities that this system requires. The more deeply individuals are involved, the more they can participate. Citizens actively participate in political activities to reflect and solve problems through legitimate channels. The government improves work efficiency, and actively solve problems for citizens, which is conducive to the establishment of harmonious public relations and social stability.

To sum up, the theory of participatory democracy is the opposite of the theory of liberal democracy. Hart (1972) insisted proponents of participatory democratic theory believe that the main task of democracy is to promote citizen participation in politics, rather than the participation of a minority of elites that is the key to the liberal democratic theory. The indifference of ordinary people to politics is the essence of democracy. The maximum participation of all is at the heart of democracy. The bottom-open values of equal plural subjects participating in democratic theory provide the legitimacy of civic participation. In recent years, due to the improvement of citizens' awareness of participation, the reform of public institutions and the rapid development of the information society and other factors. This has led to the vigorous development of related theories, and a lot of related literatures have been produced, and in-depth research has been carried out on the subject, motivation, path, method, effect, and field of participation.

Policy network theory

Simmons et al. (2006) posit that this is a new theory produced by the introduction of network theory into public policy research by Western political scholars and has been further recognized and accepted by the academic community. The policy network theory is mainly aimed at the stakeholders of different subjects, because of the limited policy resources such as authority, capital, information, knowledge, and so on, the relationship is formed by mutual dependence. This relationship is equal, relatively stable, and interdependent. In addition to the government, there are other stakeholders. These subjects form organizations and interest consortia and conduct equal dialogues and consultations on issues of common concern by establishing institutionalized or non-institutionalized interactive methods. Thus, the policy demands of various subjects can be reflected in the whole process of policy formulation and implementation.

Regarding public policy and policy network, policy network structure is a concept of policy network theory in public policy science. It can be said that policy network structure is not only a part of public policy, but also a perspective for studying public policy. Evans and Campos (2013) stated that the research on the structure of policy network is inseparable from the clarification and research of the concept of public policy. Therefore, this study believes that the structure of the policy network should be based on the understanding of public policy. The public policy academic community also has multiple definitions for the structure of the policy network. According to the findings of Agrawal (2015), network structure refers to the pattern of relationships between actors. This includes the number of actors, the size of the network, the boundaries of network, the nature of stakeholders, the pattern of connections, the density of correlations, the degree of reciprocity, whether the nature of the relationship is conflicting, competitive or cooperative, and so on. Provan and Kenis (2008) believe that the network is essentially a structure formed by interdependent resources. This structure acts on agents. Policy actors interact in the structure to seek mutual interests and thus the interests of the participants are the ties of the network. Movahedi, et al. (2011) believed that "from a static point of view, a policy network is a unity composed of network nodes, network links, network rules, network boundaries, and network environment. Different policy networks are due to the differences in these

elements and their arrangement and combination. Based on the above viewpoints, this study is more inclined to believe that the policy network structure is a collection of relationships formed by policy-related groups on the basis of the policy resources they hold.

2.3.4 PRACTICAL FEASIBILITY

In the transition from the non-network era to the network era, the ways of political participation are becoming more and more diversified. Ekman and Amnå (2012) indicated that Citizen participation has become more important in modern society as a way of political participation, and it has become the trend and trend of the times to reflect more people's voices in the process of public policy formulation through network participation. Citizens' participation in the formulation of public policies through the Internet is to apply the advantages of the Internet to political participation, thereby making up for the insufficiency of traditional civic participation and promoting the scientific and democratization of public policies. It is more and more necessary for citizens to participate in the formulation of public policies through the Internet. This necessity is the result of the unification of citizens' subjective needs and objective real needs. It is a manifestation of progress in citizens' awareness of rights and equality. Participating in public policy through the Internet is an important supplement to the traditional way of civic participation, which not only helps to make up for the limited rationality of the government, but also overcomes corruption in the process of power operation. This can guarantee the scientific nature, democratization, legalization and publicization of public policy.

Advantages of this new online participation

The Internet, involving networking and digitization as the core technology, has various characteristics, which are prominently characterized by low cost, interactivity, and openness. The basic characteristics of the Internet determine that it is different from other traditional information dissemination methods.

At first, it is the low cost of the Internet. Castronova (2001) stated that the Internet itself has the low cost. Anywhere in the world, if you have a computer, you can get any

information about this society through network connection. It is simple, convenient, and ubiquitous. Especially in today's rapid economic development in China and the gradual increase in per capita income levels, the number of people using the Internet is gradually increasing. The number of netizens has accounted for a large proportion of the national population. The Internet has become another new medium as important as television, newspapers, and other media. The huge amount of information disseminated makes citizens more selective in obtaining information, and it has the characteristics of low cost compared with traditional paper media, especially in government agencies. The efficient use of the Internet has become an important way to save government resources, build e-government, and save-type agencies.

Secondly, it is the interactivity of the Internet. The timely feedback and interaction of information is another new feature of the Internet. Obtaining information through online forums, online mailboxes, online communities, online blogs, online voting, online consultation, and video dialogue, and so on, contributes to information interaction and online communication at the same time. This makes the network present immediacy and interactivity that is different from traditional media. Information dissemination usually has three elements: information transmitter, information, and information receiver (Gil, et al., 2009). Authors such as Gvirtz (2020) believed that the network can realize the real-time communication between the transmitter and the receiver, and the interactivity is reflected in this process. That is, the information transmitter can not only send information, but also obtain the effect of dissemination through the feedback of the information receiver. The information receiver can not only play the role of receiving the message, but also make judgments based on his own understanding of the specific message and feedback this judgment to the sender in time. Compared with traditional media, the Internet is more interactive and more time sensitive (Dong, et al., 2017).

Thirdly, it is the openness of the Internet. Savolainen (2006) proposed the in the past, time and space limitations often limited the way and channels for the public to obtain information. The openness, transparency, and wide and rapid dissemination of network information enables it to update information in a timely manner, so that the public can be more aware of events. progress, to break through the barriers of time and space to obtain

important information in a timely manner. The timely exposure and publicity of many incidents that have occurred in recent years have aroused heated discussions among netizens, and thus have received more attention from law enforcement agencies. It also includes that when the "Twelfth Five-Year Plan" was formulated, the government called on citizens to make suggestions and suggestions through major websites, which attracted the attention of tens of thousands of netizens. The openness of the Internet has played a role in promoting the sharing of information, thus condensing more co-construction forces, so that the dissemination of information no longer has regional characteristics.

Disadvantages of traditional participation methods

Meng, et al., (2017) discussed that China's People's Congress and Political Consultative Conference are the main methods of traditional institutionalized citizen participation, in addition to petitions, various hearings, leaders' reception days, and discussions. The traditional institutionalized participation method has played an important supporting role in the construction of China's political democratization. The rise of the Internet is conducive to making up for the shortcomings of traditional participation methods, reducing the problem of information distortion caused by the one-way flow of information, and more fully expressing public opinion.

Citizens' political communication in a non-network environment is mainly through voting and electing representatives to express their wishes and interests, mainly through people's congresses and political consultative conferences, which play a major and important role in the expression of citizens' rights. Shirazi (2013) stated that the communication between the government and citizens is not only limited by the level of socio-economic, political, and cultural development, but also by the political system and communication media. The best way for the government to communicate with citizens is face-to-face communication and negotiation between the government and citizens. However, the development speed of modern society has further expanded the scale of society, so that representative democracy has replaced direct democracy and become the mainstream democratic model of modern times. Shi (1997) proposed that People's congresses and political consultative conferences allow citizens to participate in politics as

much as possible, and thus have a certain degree of rationality. However, the model of representative democracy represented by voting is not only affected by factors such as personal interests, personal values, personal interests, and preferences from the representatives themselves, but also by communication channels and communication methods. At present, this democratic model mainly presents the disadvantages of low communication efficiency, high communication cost, undisclosed communication process, and lack of timeliness and responsiveness. This has also affected the enthusiasm of citizens to participate. In fact, there is a "principal-agent" problem between deputies to the National People's Congress and ordinary citizens (Chan, 2021). Arrow's impossibility theorem is manifested in the formulation of public policies, that is, under the condition that there are multiple alternatives for policy formulation, societies may have policy outcomes that do not satisfy everyone because of the preferences of citizens. Therefore, in the process of changing individual choices to collective choices and individual preferences to social preferences, there are inconsistencies and inconsistencies in interests, which make it difficult to achieve stable results.

The secondary methods of civic participation are mainly petitioning, various hearings, leaders' reception days and various discussions. This kind of communication through petitions or meetings mainly has the problem of one-way flow of information, that is, there is a lack of feedback mechanism in the process of information transmission. Moreover, Agrawal (2015) put forward that due to the limitation of information dissemination content and dissemination channels, the information is relatively closed, the information transmission process is too long, and the information is distorted from time to time. The implementation effect of these forms is also limited by many conditions. For example, there are various problems in the form of hearings. China's hearing system was established relatively late. Although some results have been achieved, the application of hearings mainly focuses on legislation, administrative penalties, and price setting. Among them, administrative hearings are particularly insufficient. At present, hearings of public policy significance are limited to the setting of prices. In addition, Ebdon (2002) indicated that the hearing also has the problems that citizens can participate in a short time and the number of participants is limited, and it is difficult to achieve in-depth dialogue between citizens and the government. This further reduces the effectiveness of the hearing. Moreover, when

there is a gap between the content of the hearing and the knowledge of ordinary citizens and the opinions raised by citizens are not accepted by the government, it will also affect the enthusiasm of citizens to participate in the future. Various symposia also have limited time and number of symposiums, and it is difficult to carry out larger and more representative participation. Whether citizens' petition opinions can be valued by relevant departments is closely related to the work ability and work efficiency of the petition departments, and most of the petitions are individual cases.

Citizens' increasing willingness of political participation

The improvement of citizens' awareness and participation ability is the main aspect to promote the level of citizens' political participation. The level of citizens' political participation promotes the establishment of a deeper and deeper interest expression and coordination mechanism, and also reflects the effect of citizens' participation, so that the needs of citizens' interests from various aspects are expressed and satisfied. The improvement of the level of participation is not only the objective requirement of the rapidly developing information society for citizens, but also the result of citizens' active adaptation to the society.

Zhang and Su (2009) believed that due to the improvement of modern economic level, especially after the reform and opening, the prosperity and development of China's market economy and the acceleration of the democratization process. The government's investment in relevant educational conditions and educational facilities has gradually increased, and the educational level and extent of citizens have been greatly improved. In the just-released 12th Five-Year Education Development Plan, the core of education development in the next ten years (from 2010 to 2020) is mainly focused on five aspects: priority development, education-oriented, reform and innovation, promotion of equity and improvement of quality. The state's emphasis on educational development and reform promotes citizens to improve their personal quality and moral cultivation through education. Citizens' awareness of rights and political responsibility has gradually increased, and citizens' awareness of public policies has gradually deepened. The gap between the knowledge level of government administrators, government think tank members and policy

experts and the knowledge level of ordinary citizens is gradually narrowing. Citizens gradually realize that political participation is an inalienable right of individual citizens. At the same time, political participation is also an inescapable responsibility and obligation of citizens as a member of society. They are more active in the formulation of public policies involving their own interests, such as housing, social security, public medical care, public transportation and other public issues.

Stapleton (2022) summarized that in traditional Chinese society, subject culture and official-based culture are strong. This culture has greatly suppressed citizens' enthusiasm and enthusiasm for political participation. Since the reform and opening, Chinese citizens' increased awareness of democracy and equality has formed a strong impetus for the development of a culture of citizen participation. The traditional one-way top-down information transfer model is being replaced by the modern two-way and interactive information transfer model. Citizens' pursuit of democratic equality and the formation of independent political personality and political responsibility promote a political culture of citizen participation. Moreover, this culture is increasingly evolving into a "public culture". Under the influence of this public culture, citizens' learning of political culture, their understanding of political phenomena, and the acquisition of political knowledge, political attitudes, and political skills necessary to adapt to political life are promoted. This political culture dominated by participation consciousness supports the operation of democratic politics. As Almond and Verba (1963) once pointed out, participatory political culture is an advanced political culture. This advanced political culture did not only give birth to and promoted the development of democratic politics, but also strongly supported the effective operation of democratic politics.

2.3.5 REALISTIC VALUE

Citizen participation is an action process in which citizens participate in or influence government public policies or public affairs through certain channels of participation. The essence of civic participation is to exert influence on government public policies and public affairs. In essence, citizen network participation is a new development of citizen participation that conforms to the trend of the times under digital conditions. Its ultimate

purpose is to exert influence on public policy and public affairs, so that its own interests can get the reasonable attention of the policy. Different from the traditional civic participation, civic online participation involves more Internet technology as a means, making it more rapid and difficult to control. In time and space, online political participation greatly extends the physical space of reality and infinitely expands the platform for citizen participation. Online political participation attracts more new groups into the political field and accelerates pluralism. Therefore, in network participation, citizens exert greater influence on one link or several links in the operation process of government power through the network. A collective behavioral process whose purpose is to make it in line with its own vital interests. That is, the main body of citizen network participation is netizens. Participation platform is a network virtual platform such as various forums presented in an interactive form in the Internet age. The object of participation is the whole process of government power activities. The improvement effect of citizen network participation in policy formulation is reflected in the extension and extension of network media to the core dimension of policy. The characteristics of network media itself and the rational use of it by citizens are ways to promote a more perfect public policy formulation system, more diverse formulation subjects, and more scientific formulation process.

At first, citizens' online participation in policy formulation is conducive to the consultation and cooperation of diverse public policy subjects. Fenton and Barassi (2011) proposed that Citizen network participation is a new way of civic participation in the information society. It is the behavior of citizens using the network as a carrier to express their personal political will to influence public policies. This method can make up for the inadequacy of traditional policy formulation methods, promote the improvement of the policy system and the establishment of multiple consultation mechanisms, and ultimately maximize public interests (Margarit & Rammelt, 2020). The characteristics of virtualization, decentralization and deauthorization of the network make the participating multiple policy-making subjects supplemented. Citizen network participation can reduce the time and space limitations of traditional citizen participation and form a benign interactive negotiated policy-making method. The traditional single policy-making subject is being replaced by multiple policy-making subjects. Citizens can achieve policy

participation in a convenient and fast information network. Citizens can express diverse policy interest demands at the information input end of policy formulation, to achieve the goal of protecting diverse interests in policy output. Especially in the situation that the interest structure and interest groups in modern society tend to be diversified, the cooperation and participation of multiple subjects can effectively avoid and reduce conflicts in a timely manner, thereby reducing the probability of group incidents (Chan, 2021). The multi-participation mechanism of multiple policy subjects realized through the network is the embodiment of network deliberative democracy. The Internet is becoming a virtual public domain and space, and almost all public issues can be discussed on the Internet. Not only are citizens less involved in policy formulation, but also there are fewer consultative and democratic platforms and mechanisms for cooperation and exchange. The multi-subject network deliberative democracy is conducive to the rationalization and legalization of public policies at the policy output side and increases the possibility of direct communication and direct exchange between policy subjects (Bishop & Davis, 2002). This is conducive to promoting the effective implementation of policies and safeguarding the interests of multiple policy subjects. The Chinese government clearly requires that citizens should be involved in the policy process as much as possible in the process of formulating major policies. In addition to the establishment of some formal institutional participation channels such as publicity system, hearing system and evaluation system, etc. Achieving a wider range of participation through the Internet has become an important way for officials to listen to people's sentiments and express their opinions. Due to the convenience of the Internet, citizens of different classes of society are not only able to make meaning and suggestions for policies. Since there are certain online platforms for collecting public opinions, such as specific government websites and government mailboxes, the collection and arrangement of policy opinions from multiple subjects is also faster and more effective. This shortens the time for policy formulation and reduces the waste of resources in the process of policy formulation.

Secondly, citizens' online participation in policy formulation is conducive to the reform and improvement of the public policy system. The composition of the public policy system includes several factors, and it is composed of several policy subsystems that are both distinct and interconnected. It is a dynamic and open system. Policy subjects and policy

objects continuously exchange material, energy, and information in the policy environment, so as to achieve the purpose of solving social and public problems (Gao, 2014). Furthermore, Zweig (1986) stated that environment for public policy today is more fluid and unpredictable. The scope of human activities continues to expand, the pace of society is gradually accelerated, and the probability of social contradictions and conflicts is gradually increasing. The involvement and participation of the indirect subject of public policy in public policy can reduce and resolve contradictions and conflicts to a certain extent. Even in the face of some global problems, the participation and cooperation of indirect subjects have formed transnational non-governmental organizations and played a role, and the influence of indirect subjects' participation on policy has been deepened. As a new channel for promoting democratic participation in the public policy environment, the use of the Internet can improve the entire public policy system.

Thirdly, citizens' online participation in policy formulation is conducive to ensuring the public interest orientation of public policy. Choi, et al. (2020) believed that the essence of public policy is its "publicness", and the ultimate goal it pursues is public interest. However, under the domination of the traditional concept of development, the uncontrolled use of public resources in the style of "getting what they need" often leads to interdependence between various factors within the development system. In particular, the relationship between people and resources, ecology, and the environment is in a state of imbalance, resulting in a gap, or even shortage or interruption, in the supply of public goods that meet the needs of sustainable development. To this end, this requires the government to always ensure the public orientation of the policy in the process of formulating public policies, and to promote the long-term sustainable development of the policy with the goal of public interest. Albrechts (2002) believed that the goal of citizen network participation is the balance of public interests in society. The public's participation in public policies is realized through this fast and convenient channel, which reflects the coordination between the strong and the weak, as well as the public domain and the private domain. It is also the coordination between public interests and private interests and personal interests. Most citizens' online participation are public affairs directly related to citizens' vital interests. The public nature of these matters allows citizens to resonate and increase their enthusiasm for participating in discussions and expressing their opinions. The way citizens express

their opinions is not only to protect their own interests, but also a powerful supplement to the knowledge of government think tanks. The function of citizens' social supervision is not only conducive to the enhancement of social publicity, but also to the formation of a democratic social environment and atmosphere of the rule of law. For China, which is in a period of social transformation, democracy and the rule of law are both ways of realizing public interests and a yardstick for measuring public interests. Democracy and the rule of law enable the orderly network participation of citizens in a wider range, wider field and deeper level, which plays an important role in safeguarding and promoting public interests.

2.4 SUMMARY

This chapter sorts out the connotation of citizen online participation and policy formulation, which gives a more comprehensive description from the subject and object, motivation and trend. Furthermore, this chapter explains the mechanism and basic path of citizen network participation in public policy formulation and shows how citizen network participation affects the process of public policy formulation, and how public policy formulation accepts citizen network participation.

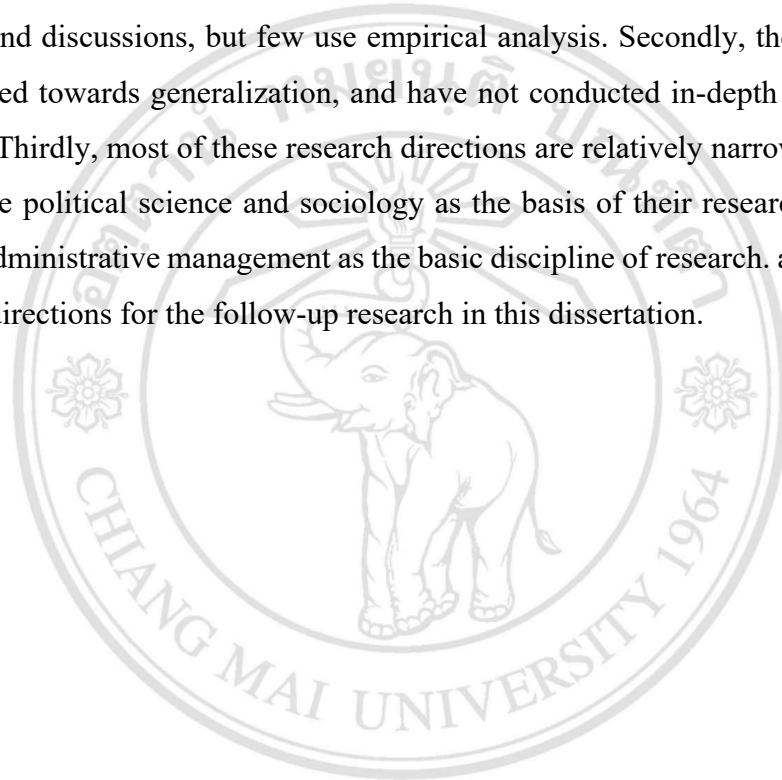
Through the literature, this research ensures that public policy formulation is the primary link in the policy process. The principle of ensuring democratic participation in this process is essential, and the implementation of this principle is especially necessary for the design and demonstration of policy options in the process of public policy formulation, which is also mentioned and updated in most of the current literature. Citizens' wishes, voices and demands play a driving role in the formulation of policies, and will promote the introduction of major policies. From the background of the research, the current literature on the Chinese government's public policy formulation shows that there are limitations and deficiencies in the traditional way of citizen participation in public policy formulation, and the use of the Internet provides an opportunity for citizens to participate in new ways.

After the transformation of China's economic form from a planned economy to a market economy, the country's political system is in the process of transformation from centralized politics to constitutional democracy. Citizens' subject consciousness has also changed a lot, and the change of consciousness has put forward demands for citizen participation. Along with this change in thinking and consciousness, citizens have made great progress in the way, degree and scope of participation compared to the past. From a 10-year literature search, this study finds that the Internet, as a new way of information transmission, is becoming a platform for citizens to participate and express their personal political opinions. Moreover, the development of this platform is becoming more and more mature. What the Internet brings is not only technological innovation and change, but also a new round of impact on the way citizens participates in the real society. The Chinese government has also attached great importance to this issue, such as soliciting public opinions through the Internet. A typical example is the outline of the national medium and long-term education development reform and development plan that was conducted in early 2010 to solicit public opinions (Liu, et al., 2019). The education department collects public opinion by posting posts on the education department's website and publishing opinion mailboxes. Another example is leaders visiting mainstream online media to interact with netizens, local officials opening personal blogs to listen to public opinions, and so on. These phenomena all show that government departments attach great importance to the opinions of the people and are also widely interacting and communicating with the people through the Internet in this effective way.

However, there are still many problems for citizens to participate in the formulation of public policies through the Internet, but there are no studies focusing on these problems at present. Thus, how to use this new method better and more widely, so that real public opinion and public sentiment can influence the formulation of public policies through the channels of the Internet, and how to regulate the order of such channels, so that public policies can become more scientific and democratized. It is a problem that needs to be studied and solved at present. It is not impossible for citizens to voluntarily and orderly use the Internet to participate in the formulation of public policies, but from the perspective of China's current national conditions, this requires the joint efforts of both citizens and the government. Thus, the question that how to make Chinese citizens participate in the

formulation of public policies in an orderly and effective manner through the Internet is just the focus of this research.

After understanding the relevant research literature, it is strongly believed that although there are many domestic and foreign data on citizens' online participation in the process of public policy formulation, there are not enough studies that really draw valid conclusions, especially in the following aspects. Firstly, many studies in China only make assumptions and discussions, but few use empirical analysis. Secondly, these studies are generally biased towards generalization, and have not conducted in-depth understanding and research. Thirdly, most of these research directions are relatively narrow, and most of them only take political science and sociology as the basis of their research, and few of them regard administrative management as the basic discipline of research. All of these had provided the directions for the follow-up research in this dissertation.



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CHAPTER 3

METHODOLOGY

3.1 RESEARCH METHODS

3.1.1 RESEARCH RATIONALE

Coleman and Gøtze (2001) proposed that the participation of netizens is the most direct way of public participation today, and the Internet is an important medium for people to express their wishes and opinions. However, when it comes to the status of citizens' online participation in policy formulation, it seems not to be quite optimistic. At present, the overall level of Chinese netizens participation is not high, and the depth and breadth of participation need to be improved (Zhang & Su, 2009). There are still many problems in China, such as following the trend and making irrational speeches. It is quite difficult for the Chinese government to refer to the opinions and suggestions of netizens in the process of formulating public policies. However, after reviewing the previous related studies, it could be found that there are few studies focusing on the specific impact of network participation in public policy formulation from a quantitative perspective.

Taking all of the above situations into consideration, this research aims to focus on the online participation behavior of Chinese residents in the process of policy formulation through the analysis of the collected data from the questionnaire. Combined with the current research status and theoretical analysis, this research will at first make a brief summary of those potential factors influencing the behavior of Internet users at different levels in the policy formulation process and still puts forward the corresponding hypotheses. Furthermore, in order to make the further identification of those proposed hypotheses, a structural equation model will be constructed for the accurate empirical results after the detailed analysis of the collected data. In the end, combined with the absorption of excellent experience in relevant fields from other countries and consideration

of the current situation in China, some targeted recommendations will be proposed for the improvement in the future.

3.1.2 RESEARCH METHODS

Research Design

The e-government of China is now fully connected with big data. In the application of big data technology, government agencies hold the great majority of the society's information resources and advocate the opening and sharing of government big data with the public. This has significant strategic and practical implications for boosting the level of government governance, enhancing the government's credibility, leading social development, and serving the public and businesses. Government big data is a key national asset. The production behavior of market entities and the public's life have become more visible in the era of big data, and e-government has altered the traditional supervisory pattern. Currently, the behaviors of all market participants are transparent, and they are continually monitored by all segments of society. Consequently, the market supervisory system and management structure have been redesigned. Among all policies, the formation of an education policy is significant, which is the soul of education development (Liu, et al., 2019). Without sound education policy direction, it will be difficult to advance education. Like the rise of private higher education in other nations, the turning point in the development of private higher education in China is principally marked by the publication and implementation of policies. The state supervises and advances private higher education primarily through the creation and execution of private higher education policy. For the continuation and expansion of private higher education, the transmission and implementation of policies are necessary. China's private higher education policy to regulate private higher education throughout the past 30 years of reform and opening is not only a microcosm of the rise of private higher education, but also a history of policy development. It not only embodies the characteristics of the era in private higher education, but also represents the era's trend in the expansion of private higher education and has become a formidable guarantee for the healthy growth of private higher education. Policy change can only be framed as a holistic, dynamic process when policy research and policy

change are combined. Since the reform and opening, the private higher education policy change process has characterized the private higher education sector's historical development. The research on policy changes in private higher education employs a historical technique to comprehend the evolution of private higher education. As a result, education policy is chosen as the focus of this study.

This study collects data based on literature review and field investigation and uses the collected data to judge the general status of citizen network participation in public policy formulation and improvement of public policy. The purpose of this study for this part of the study is to judge the current issues and status quo through previous literature on citizen participation in public policy research and related social practice. The focus of this study on this issue can shed light on the innovation and significance of this study. First, the analysis of related concepts in Chapter 2 creates a measure of citizen participation in public policy, and correspondingly designs questionnaires based on different indicator dimensions. This research begins by identifying the many factors that influence citizen engagement and public policy making. Secondly, this study designed a questionnaire for the next stage of research after literature review and field investigation.

Through the observation, experiment, and investigation of the research object, collect objective data, and summarize the general rules of the problem from individual to general. This research adopts the method of questionnaire survey on citizen network participation, collects questionnaires through field distribution of questionnaires and online distribution of questionnaires, and further analyzes the questionnaires according to the collated data. This study is expected to point out the current state of civic online participation, and to analyze the importance of civic online participation in the formulation of public policy and the areas for improvement. This study aims to elucidate the factors that reflect citizen feedback and recommendations to online education policy, and to identify the mechanisms that can bind to explain citizen participation in public policy. In addition, this research plans to evaluate the effect of citizen participation in education policy according to the corresponding mechanism, to contribute to the literature on more citizen participation in public policy. The policy recommendations section is the proposed measures proposed by this study to address the problems identified above. In the first few parts, the current reality

of citizen network participation is analyzed in detail, as well as some outstanding problems in the whole process of participation. Lastly, the study aims to summarize the excellent experience of citizens' online political participation in other countries through induction, and then combine those experiences with China's unique national conditions and practical situations to deduce more online political participation strategies that are more suitable for China's development and improvement in the future. This part is mainly to formulate some concrete and feasible solutions according to some existing problems, so that citizen network participation can develop in the direction of standardization, institutionalization, and democratization.

Research instrument

This study will take Chinese education policy formulation as a case study to collect the analysis of related events by Internet public opinion, to illustrate the positive impact of Internet public opinion on public policy formulation. This study plans to use the method of questionnaire as a collection instrument to collect data to analyze and quantify the influence of online public opinion on public policy. In order to ensure the representativeness of the research samples, this research intends to invite the Chinese citizens over the age of 18 who have the ability of personal behavior and individual thinking randomly to take part in the questionnaire survey. On this basis, this study expects to use SPSS and Amos to analyze the collected data.

In addition, this study will employ an interpretive research methodology to understand the influence of online citizen participation on the creation of public policy, which is a kind of quantitative analysis. Explanatory inquiry is the investigation of the causal links between social phenomena or events. Based on descriptive research, explanatory research studies the relationship between variables to discover whether there is a correlation between them and then determines whether there is a causal relationship between them. Overall, explanation-based research must be more than descriptive. The methodologies necessary for interpretive research are more stringent and comprehensive. Its research methodologies and methods are more intricate, polished, rigorous, and targeted. Explanatory quantitative research methods typically begin with the formulation of research hypotheses, followed by

the development of a survey strategy (data collection plan) and the application of various survey techniques to collect empirical data. The final objective of this study is to achieve a theoretical explanation of the social phenomenon by confirming the hypotheses through data analysis.

Generally, the theoretical hypothesis of explanatory research is a causal model, which often comprises the following levels:

- *List the potential origins or effects of a social phenomenon based on existing theories, daily experience, or the findings of exploratory research.*

- *Develop complicated causal models that reflect the intricate causal links between social phenomena.*

In this study, the explanatory research approach was selected to assist establish the causal relationship between the research variables, and a questionnaire was employed to collect data for the development of a structural equation model. Content-wise, explanatory research is typically more concentrated and targeted. Explanatory research frequently necessitates the development of theoretical models in terms of its analytic procedures. Using sophisticated statistical methods such as correlation, regression, log-linear model, etc., the strength of the link between the model's variables is studied in order to test the theoretical model. Consequently, most explanation-based research requires explicit assumptions. Structural equation modeling is commonly employed in empirical research due to its capacity to handle complicated models that are not demanding on data distributions; it is favored when the objective of research is prediction and theory development (Hair et al., 2017). After that, this study expects to analyze it by means of mediation analysis test and moderation analysis.

This study intends to explore the Internet participation behavior of netizens in the process of policy formulation and combines the research status and theoretical analysis to summarize the influencing factors of Internet participation behavior of Internet users at different levels in the policy formulation process and put forward hypotheses. This research expects to construct a structural equation model based on the assumptions, design and

distribute the scale and conduct a systematic and scientific analysis of the collected data, open up a new field of analysis of the network participation behavior of netizens at different levels in the process of policy formulation, and enrich and develop the public Quantitative and qualitative research methods for policy research. This research adopts the structural equation model to provide certain scientific support for the government to correctly guide the participation of netizens in the public policy process and to broaden the public opinion on the Internet. Structural equation modeling is known for its contribution to mining structural factors. For example, Igbaria and Chidambaram (1997) considered the survey method to be sufficient and reliable in this way. In addition to this, Ko and Stewart (2002) used structural equation modeling to examine factors that stimulate tourism acceptance.

Based on the above acting skills, this research conducts an empirical test by designing a questionnaire and collecting relevant data. This is a core part of this study, which also expects to employ many field analyses and survey inputs. This is because large-scale analysis and surveys can only be conducted after the questionnaires have passed the pre-survey. This research constructs the explanation mechanism of citizen participation in education policy through structural equation model, and then judges the decision-making structure of citizen participation in education public policy. The general structural equation model proposed by Joreskog (1973) consists of two parts: (a) a structural part that relates latent variables to each other via a system of simultaneous equations, and (b) a system that relates latent variables to observed variables via a system of simultaneous equations. The system of equations constrains (confirms) the measurement portion of the factor model.

The structural part of the model can be written as:

$$(1) Y = b_0 + b_1 * X$$

$$(2) Y = b_0 + b_1 * X + b_2 * Z + e$$

$$(3) Y = b_0 + b_1 * X + b_2 * Z + b_3 * X * Z + e$$

Y represents the dependent variable, X represents the independent variable, Z represents the moderator variable, e represents the residual, X*Z represents the interaction variable between the independent and moderator variables, and b1, b2, and b3 represent

the coefficients. Verdegem and Verleye (2009) utilize SEM theory to examine customer satisfaction, environmental governance, and public health. The primary benefits of SEM consist of the following three characteristics. First, it can display three-dimensional and multi-level driving force analysis. This multi-level causal link is inaccessible using conventional regression analysis. SEM will conduct a multi-level analysis based on the abstraction of various attributes. Second, SEM analysis can add immeasurable characteristics, such as consumer loyalty. Thus, the data's scope can be enlarged once more. Thirdly, SEM analysis may quantify the causal relationship between different qualities and compare causal relationships at different levels on the same scale.

- Statistical Analysis with a Descriptive Format Descriptive analysis is defined by Quinn and Shepard (1974) as the application of select fundamental variables to characterize the total situation. Descriptive data analysis is a relatively simple form of data analysis. Typical analytic approaches include comparative analysis, average analysis, cross analysis, etc. The purpose of descriptive statistical analysis is to provide a statistical description of the pertinent data for all variables of the survey population, including frequency analysis of data, analysis of central tendency of data, analysis of data dispersion, data distribution, and a few basic statistical graphics. Typically, the main components of a description are:

- 1) Central tendency: mean
- 2) Degree of dispersion: standard deviation
- 3) Distribution shape: skewness, kurtosis

- Exploratory factor analysis: DeCoster (1998) refers that exploratory factor analysis is mainly used for statistical analysis of questionnaire data. When doing the questionnaire analysis in this study, the items designed in this study do not have a clear dimension division, and it is necessary to understand the dimensions of these items. Therefore, this study intends to conduct exploratory factor analysis on this item. Through exploratory factor analysis in SPSS, the dimensions of the items are obtained, so as to achieve dimensionality reduction or other purposes.

- Confirmatory factor analysis: Fu and Juan (2017) explain that Confirmatory factor analysis (CFA) can be used to verify a construct pre-proposed by the study. For example, before designing the questionnaire, the investigators thought that the three questions Q1-Q3 reflect a person's thinking ability (Factor1), and the three questions Q4-Q6 reflect a person's physical ability (Factor2). Next, the study can use CFA to determine whether the collected data can be divided according to the pre-proposed structure. Whether the pre-existing theoretical framework is good and whether the topic setting is good. Whether the collected data can reflect the desired results is a validity test.

- Correlation analysis is defined by Farrar and Glauber (1967) as the investigation of two or more correlated variable elements to identify the degree of correlation between two parameters. Before correlation analysis can be performed, a link or probability must exist between the correlation's components.

Henseler (2017) describes structural equation modeling as a statistical method for assessing the relationship between variables based on their covariance matrix. Combining factor analysis and path analysis, the structural equation model is a subset of multivariate statistical analysis. The direct, indirect, and overall effects of altering the dependent variable with the independent variable are illustrated via structural equation modeling.

3.1.3 DATA COLLECTION

Sample selection

Due to the diverse characteristics of the sample frame, this study will employ both probability sampling and non-probability sampling for its sampling. Waksberg (1978) states that probability sampling refers to a sampling approach that randomly picks a portion of the population's units for the sample based on a predetermined probability. Simple random sampling, stratified sampling, cluster sampling, systematic sampling, and multistage sampling are the most prevalent. Simple random sampling is the most basic probability sampling technique. It serves as the foundation for other sampling techniques, referring to the practice of removing N cells from a population without replacing them. Each time, all units that have not yet been included in the sample are selected with equal

probability until n units have been selected. This is the case when the population size, N , is small or when the population variance, S^2 , is comparable to any local variance. Due to the quantitative research approach employed for this study, a random sample strategy was chosen. It is possible that this study is not constrained by the laws of chance or randomness; rather, the selection of data is contingent on who is available. If respondents are at least 18 years old, as required by Chinese legislation, they can contribute to the data results of this study to a certain extent, according to the authors of this study. In this study, data outside of the minimum age range were therefore disregarded.

The questionnaire (Appendix 1) will be distributed to specific groups via the Internet and returned. There are three reasons why this study uses the Internet to send the questionnaire. First, due to the outbreak of COVID-19, there are epidemic-related restrictions among various provinces in China, so it is difficult to obtain data on the ground. The advantage of the online questionnaire method is that it saves time, human and physical resources. Second, the scope of the investigation is wide. There are a lot of people on the Internet. By publishing the questionnaire online, many people can read your survey. Rather than being limited to what you can only visit. In this way, the results of the investigation will be relatively objective.

Thirdly, online questionnaire data are easier to process and statistically analyze. After respondents complete the questionnaire, the system will automatically collect data from the samples, making data statistics more effective, accurate, and efficient. Online surveys offer downsides, such as a lack of adaptability. Most questionnaire surveys are pre-designed by the questionnaire designer to address the scope, hence limiting the respondents' responses. This can result in the omission of more specific, in-depth information. For complex inquiries, simple responses, and access to an abundance of information. Second, online questionnaires are susceptible to misinterpretation. Respondents are not required to complete the questionnaires, and to avoid pressuring them, investigators typically do not verify the correctness or absence of responses on the spot. This is susceptible to questions such as omissions and incorrect responses from respondents. Third, the response rate and efficiency are both inadequate. For the questionnaire survey data to be representative and valuable, there must be a certain ratio

between the response rate and the effective rate. Postal questionnaires typically have a poor response rate since responders are not constrained in any way. If respondents are unwilling and unaware, they frequently cannot return the questionnaire, which has a significant effect on the survey sample. Consequently, the deficiencies of online questionnaires have become constraints of our study.

In addition, reliability and validity analyses, descriptive statistical analysis, exploratory factor analysis, confirmatory factor analysis, correlation analysis, and structural equation modeling are the primary processes in analyzing the data obtained for this study.

- Analysis of Reliability and Analysis of Validity: Reliability refers to the consistency or stability of the test tool's (scale's) results, which reflect the actual degree of the measured attributes. The greater the consistency in the outcomes of two or more tests, the smaller the error and the greater the dependability. These qualities are present in reliability analysis. First, dependability is the consistency or stability of the test's outcomes, not the test or scale itself. Second, the reliability value relates to the consistency of a specific kind, not the consistency in general, and the reliability coefficient will yield various results due to differences in time, subjects, or raters. Thirdly, Moss (1994) states that reliability is a required but not sufficient condition for validity. Low reliability equates to low validity, whereas high reliability does not necessarily equate to high validity. Validity analysis is utilized to determine if the research question adequately represents the conceptual content of the study variable or dimension. That is, whether the design of the research question is logical or whether the question appropriately expresses a variable. Typically, validity analysis is limited to analyzing scale questions.

Sample size

According to the Slovin's formula and the Cochran's formula (Cochran, 1963) are two popular sampling size calculation methods. Slovin's formula: $n = N/(1+Ne^2)$, where n is the intended sample size, N is the population size, and e is the sampling error; and Cochran's formula: $n = z^2pq/e^2$, or $n = z^2/e^2$.

Where n is the required sample size, e is the level of precision, p is the estimated proportion of the population with the relevant attribute, $q = 1 - p$ is the standard deviation of the proportion with that property (in a binomial distribution, p and q are the same as 2), and z is the standard z-score related to the level of precision.

Because the population is so huge, or rather, because it is not a distinct group, Slovin's formula is inappropriate (Cochran, 1963). The Cochran's formula will be used to calculate the sample size required. The 1-to-5 score is employed to measure social media use in political engagement in the study of Liu & Liu (2022), and an average of 1.95 is found. Thus, $1.95/5 = 0.39 = p$, and $q = 1 - 0.39 = 0.61$ would be the projected proportion. The precision level is set to 0.05, with a z-score of 1.96. As a result, the number of responses in the sample would be $1.96^2 \cdot 0.39 \cdot 0.61 / 0.05^2 = 366$.

Questionnaire survey

After creating the questionnaire, the dimensions of the questionnaire were constructed using previous literature study, and the relevant questions were then formulated. Furthermore, the questionnaire is appropriately amended after the piloting to prepare for the full-scale investigation. Finally, it is to carry out a thorough inquiry. Conducting interviews with those who have been freed and then encouraging them to complete surveys.

In addition, this study also pays attention to considering the needs of the research question and the convenience of the data. With the development of China's economy, China's democratic politics has also developed greatly, mainly in three aspects: adherence to democratic construction and political promotion of economic development. Adherence to the construction of democratic politics to promote the modernization of national governance. Adherence to the development of people's democracy driven by governance democracy. Therefore, this study uses China as a case study.

The research field of this study is mainly concentrated in the big cities in China, such as Beijing, Shanghai, Guangzhou, Shenzhen, for the following reasons: 1. China is a developing country. Citizens can participate in governance due to the rapid development of the Internet and the growing enthusiasm for citizen participation. Large cities are

affected by economic factors, and the enthusiasm of citizens to participate is higher. 2. China's national conditions and political system have established the importance of online public opinion. With developed network resources in large cities, people have more opportunities to use the Internet, which also provides an important Foundation 3. China began to seek online participation in public decision-making. Large cities are rich in public resources, and the coordination capabilities of various departments are in the lead, and network public decision-making can play a greater role. The level of policy formulation has also continued to improve, with citizens in big cities having higher levels of education on average, more rational thinking, and more active participation enthusiasm (Song & Sun, 2010).

At present, the main body of China's network participation is mainly netizens and network organizations. At the same time, according to the latest report of the China Internet Network Information Center, the educational structure of Chinese citizens participating in the Internet is gradually showing a trend of low-end development. The main manifestation is that the proportion of netizens with junior high school and below education in China's overall netizens has increased, and its growth rate has exceeded the growth rate of the overall netizens (CNNIC, 2021). On the other hand, the proportion of netizens with a college degree or above keeps decreasing. Ordinary people are gradually becoming the main body of online political participation, and their attention to new things is increasing. Chinese citizens' enthusiasm for political participation has gradually increased, their social influence has also developed, and they have now become the main force for political participation. The main body of China's Internet participation shows the characteristics of "popular groups, active participation". These changes show that online media has become one of the channels for citizens to obtain information and take the initiative to participate in and discuss politics. Compared with the development abroad, the research on citizen participation in China is relatively lagging. However, judging from the existing research results, China does not only have a large number of research works on the government's use of electronic technology and information management models, but such also as the e-government series of textbooks published by Renmin University of China Press (Hu et al., 2009). Moreover, China has also made further achievements in its research on new ways for citizens to participate through the Internet.

The questionnaire designed for this study will be administered online, using systematic and saturation sampling methods. When designing the coding system, this study refers to frame theory and combines research questions to determine six dimensions of the tree node: the level of online public opinion translation policy, the agenda cycle, the source of information, the mode of participation in expressing willingness, the focus issue, and the level of rationality.

3.2 THEORICAL MODEL

Based on public domain policy and related theories, this study defines a number of related concepts related to public policy and online participation in public policy behavior, which are defined as follows:

- **Public policy:** Public policy is a program selected and formulated by public authorities through the political process to solve public problems and achieve public goals to achieve public interests.
- **Public policy formulation:** The main body of public policy formulation is the political parties and the government. The purpose of public policy is to regulate the behavior of organizations and individuals to achieve certain socio-political, economic, and cultural goals. The manifestations of public policy are normative documents such as laws, regulations, and plans. The ultimate value orientation of public policy is to achieve a certain social value distribution.
- **Citizen participation:** Citizens or groups of citizens of a country participate in public decision-making activities through direct or indirect means on issues related to their interests or major issues involving public interests.
- **Citizen network participation:** Citizen network political participation refers to the behavior of citizens or citizen groups directly or indirectly participating in the formulation of national policies and influencing the policy process through the Internet. From the perspective of the subjects of citizens' online participation, netizens and online communities are the subjects of citizens' online political participation. From the perspective of the objects of citizen

network participation, its objects include the state power system and decision-making expressions of major political events, as well as small and prominent events in social life. From the perspective of the way of citizen online participation, citizen online participation is more technological and more convenient than traditional citizen participation.

- **Theory of Governance:** Governance is the sum of the many ways in which various individuals and institutions, public or private, manage their common affairs. It is the ongoing process of reconciling conflicting or different interests and taking joint action.

- **New Public Service Concept:** Emphasizes the service role of the government to help citizens articulate and realize the rights of citizens and the public interest. Citizen participation in public decision-making is emphasized. This theory advocates reaching a consensus on public interests through equal communication and negotiation among the government, citizens, and non-governmental organizations, to promote the legalization, scientific, and democratization of public decision-making (Day & Schuler, 2004).

3.3 RESEARCH VARIABLES AND HYPOTHESIS

3.3.1 INDEPENDENT VARIABLES

Policy context, citizen cognition and citizen expectation are the core concepts of the “cognition-expectation” analytical framework, and these three concepts are derived from the extraction of classic theories. The concept of “policy situation” originated from Theodore Lowe’s theory of policy types. The proposal of the “cognition-expectation” framework draws on Sabatier’s discussion of the policy belief system in the “advocacy alliance framework”. The framework expands the two concepts of cognition and expectation based on the theory of “bounded rationality” and “rational ignorance” (Sabatier, 1988).

Policy Scenarios The policy process is a system. In citizens’ policy participation, it is crucial to realize a model of citizen participation corresponding to each policy type. The

first to provide the concept of “situation” was University of Arizona professor Tsui. She believes that: “Contextualization is a method of incorporating the surrounding environment into the description in the process of describing a phenomenon, and it is a systematic method of investigation” (Li, et al., 2014). In the public governance model, it is necessary to analyze the situation. In the process of modern policy, polycentric and social-based governance structures are one of the distinguishing features. Therefore, the policy context refers to the mutual integration of decision-making subjects and various stakeholders, that is, the realization of “social embeddedness”. The purpose of discussing the context of civic policy participation is to embed different civic participation models into specific policy contexts, so as to realize the effective integration of public policy and civic participation. The basic task of exploring policy scenarios is to find out the key variables that affect policy scenarios. Drawing on Theodore Lowe’s “Policy Type Theory”, according to the four basic types of public policy (distributive policy, constitutive policy, regulatory policy, etc.) policy, redistributive policy) to discuss the mode of civic participation respectively. Lowy’s classification method provides a comprehensive and clear analysis of the types of public policies. Based on this, this study proposes four scenarios of policy participation: distributive policy participation scenario, constitutive policy participation scenario, regulatory policy participation scenario, and redistributive policy participation scenario. Chinese scholars have carried out a series of studies based on Theodore Lowe’s theory of policy types. For example: Liu and Liu (2022) based on the four dimensions of policy types, discussed public policy implementation deviations and coping strategies under different policy scenarios.

Regarding citizen cognition and citizen expectation, the key to the “cognition-expectation” analytical framework lies in three key factors: cognition, expectation, and social attitude. Among them, cognition and expectation are two variables, and social attitude is a constant. This theoretical construction comes from the reference to the policy belief system in Sabatier’s “advocacy coalition framework”. The essence of policy participation is a multi-preference integration mechanism, and the goal is to reach a consensus within a certain range and to a certain extent, that is, to form a “policy consensus”. This policy network analysis framework breaks the traditional state-centered and bureaucratic policy analysis method and expands the object of policy participation to

the entire social network. To reach a “policy consensus”, the advocacy coalition framework proposed by Sabatier can provide us with good inspiration. He believes that the preferences of multiple subjects in the policy process actually include “value orientation, understanding of important causal relationships, understanding of the world situation, and judgment of the effectiveness of policy tools. The core value orientation of the policy belief system is relatively stable and difficult to change. Therefore, in terms of the formulation process of a specific policy, it is an immutable constant, not a variable policy preference content.

The variable preferences of multiple subjects in the process of policy participation include: the specific cognition of a certain policy content, the degree of trust in the government and willingness to participate, the degree of participation of all sectors of society in this policy area and the ability to solve problems, the basic choice of policy tools, etc. Chinese scholars have rich research on the belief system structure in the framework of Sabatier’s advocacy coalition. For example, some scholars have used this framework to analyze the changes in China’s education policy, arguing that the advocacy alliance’s dialogue on belief systems has promoted policy changes and learning. Some scholars have theoretically demonstrated this belief system structure, arguing that there is competition among different belief systems among advocacy alliances. To better maintain their own belief system, alliance members will absorb reasonable elements from other alliance belief systems. This is also a process of continuous improvement in the awareness of alliance members.

Sabatier’s division of policy belief systems basically covers the formation process of policy consensus. Combined with the actual situation of civic participation in China’s policy process, this research divides the achievement of policy consensus into three dimensions based on the above division: cognition, expectation, and social attitude:

Citizen cognition

Citizen cognition mainly refers to a series of factual judgments made by policy participants in specific policy situations, including the process of information search and the rationality of participants. The cognition of participating subjects will be affected by the degree of information symmetry and the degree of citizen organization. It is generally

believed that the higher the degree of information symmetry, the higher the cognition of citizens' participation, and the higher the degree of citizens' organization. The better the communication between groups, the better the interest correlation with other social groups, and the higher the cognition.

Citizen expectation

Citizen expectations mainly refer to the grasp of the overall value of policy participation by policy participants. It acts on citizens' willingness to participate, whether citizens are willing to participate in the policy process, whether this participation is valuable, and is a strategic opinion on the choice of policy stance.

Social attitude

Social attitude mainly refers to the external environment of policy participation and is also the normative core of civic participation in the policy process. Specifically, social attitude includes social trust, reciprocity norms, and social networks. Social networks help provide platforms and channels of communication for civic engagement. Good reciprocity norms and social trust can promote the communication of information among policy participants, the achievement of multiple cooperation, and the formation of orderly collective action.

Drawing on the discussion on the structure of policy belief system in Sabatier's "Advocacy Coalition Framework", this study extracts three key factors: cognition, expectation, and social attitude. The "cognition" variable corresponds to the lowest level of the policy belief system: secondary aspects. The "expectation" variable corresponds to the middle layer of the policy belief system: close to the (policy) core. The "social attitude" constant corresponds to the highest level of the policy belief system: the normative core.

Analysis

Citizens' perceptions and expectations vary significantly under different policy contexts. To deeply analyze the mode of citizen participation in the policy process, we still need to answer a key question: why do citizens' perceptions and expectations affect citizens' policy participation? Theoretically, based on Simon's theory of bounded rationality in 1991, citizens have limited cognition of a policy issue and limited information. The communication and exchange of individual citizens in citizen groups can promote the flow of information and improve citizens' awareness of policy issues. Corresponding to this is the theory of "rational ignorance". The "collective unconsciousness" of citizens towards policy participation is essentially a "rational ignorance". The degree of trust in the government and the degree of closeness between policy issues and themselves will directly affect citizens' willingness to participate and their expectations for policy participation.

One, citizen cognition. Simon (1991) believed that due to the lack of cognition and professional knowledge background, it is difficult to achieve complete rationality in decision-making. Instead, bounded rationality is the norm in decision-making. Bounded rationality is a state between completely rational and completely irrational. Arrow, winner of the Nobel Prize in Economics, also has a related statement: "Bounded rationality means that people's behavior is conscious, but this awareness is limited." From the perspective of citizens' policy participation, we can see that the effect of citizens' policy participation depends on Two key factors: citizens' willingness to participate and citizens' ability to participate. The cross-influence of the two acts together on the orderly participation of citizens. Citizen cognition is closely related to citizens' ability to participate. The degree of citizens' grasp of decision-making information and the degree of information communication between communities will affect whether citizens can participate in the policy process.

Second, citizen expectations. The expectations of the participating subjects refer to the expectations of citizens for the results of participation, which is directly related to the willingness of citizens to participate. Corresponding to it is the "rational ignorance theory", that is, citizens are "collective unconscious" in policy participation, and their willingness to participate is not strong. From the point of view of economic gain, deliberate ignorance

may pay off, at least effectively freeing up energy and time spent on things of no value. A view that corresponds to the “bounded rationality” of human beings is the theory of “rational ignorance”. According to the views of Dee and Jacob (2012) targeted at this “rational ignorance”, the logical starting point is: “Why are voters not sufficiently informed about some important issues?” The findings suggest that citizens will conduct a comparative analysis of the costs and benefits of “knowing information.” When the benefits of obtaining policy information outweigh the costs, people will actively obtain information. When the costs outweigh the benefits, people will tend to choose “rational ignorance”, manifested as “collective unconsciousness”, “political apathy” and low willingness to participate in policy participation. The “rational ignorance” will make it difficult for citizens to achieve effective collective action in policy participation. In contrast to the reality of citizen participation in the policy process, if citizens think that their participation is difficult to change the final policy direction, or because the policy issues are not related to their own production and life, citizens will have lower expectations for participation, which will lead to lower willingness to participate.

3.3.2 DEPENDENT VARIABLES

Government openness

Parks (1957) first proposed the open government theory in his paper “The Principles of Open Government: The Right to Know According to the Constitution”, in which Parks (1957) argued that public use of government information should be a general practice, with use restricted only in specific circumstances. This view has sparked a discussion of open government and tacit disclosure of government information and has contributed to the development of government accountability. However, with the passage of the US Freedom of Information Act, open government theory received less attention.

With the rise of the new policy movement in some developed countries, scholars took the government as the research object and proposed a variety of theories, such as limited government theory, seamless government theory, responsible government theory, and service-oriented government theory. Wait. Scholars realize that government openness has a driving effect on the development of the government itself. With the

revision of information laws in many countries, especially after the Obama administration issued the “Open Data Directive”, the open government theory has received renewed attention. Among them, the open government proposed by the Obama administration has added factors such as government innovation, cooperation, and participation, and enriched the connotation of the open government theory. Abu-Shanab (2015) believes that open government is a governance concept, which aims to improve government governance through information disclosure, data openness, interaction and dialogue between the government and the public, and cooperation between the government and enterprises and non-profit social organization’s ability. Its goal is to realize public value and social value by providing perfect public products and services. With the development of open government theory, governments around the world have a deeper understanding of government openness. Actively participating in the process of open government, the US-led “Open Government Coalition” was established, emphasizing the importance of government transparency, with the goal of opening more government data available to the public and promote the development of government data openness.

In the previous section, we first proposed the degree of local government openness. This important implication. On this basis, this study reviews the process of Chinese government reform to understand the significance of our concept. The meaning of the degree of government openness defined in this paper is that the degree of government openness is mainly used to measure government agencies in the wave of economic globalization, and government departments use various means including the Internet and informatization. The degree of opening to the outside world on a regular and irregular basis specifically includes the announcement of government regulations and regulations, the announcement of various expenses and costs, the announcement of personnel appointment and dismissal selection, the size of wireless office functions, and the effective way for the public to supervise the government. A more open government is often seen as a more efficient and transparent government. It can be seen from this meaning that, in essence, the degree of openness of local governments is a manifestation of transparency, democratization, and high efficiency of government. The meaning of the degree of openness of local governments emphasizes how much the government departments are open to the outside world. This implication presented in this study provides a good

summary of some of the positive changes that have occurred in the Chinese government sector in recent years.

In fact, the social phenomenon of increased openness in government departments in recent years has two broad backgrounds. The first is the government credibility crisis, social crisis and financial crisis generally appearing in Western countries. This led to the birth of a new policy movement that subsequently influenced the world. The core of this movement was to propose the use of entrepreneurship to reform the public sector and advocate for an entrepreneurial government. Peters (1996) proposed a new model of government management and its characteristics: navigable government, community-based government, competitive government, government with a sense of mission, and emphasis on effectiveness. 10 important characteristics of the government, including government, enterprising government, customer-oriented government, predictable government, decentralized government, and market-oriented government. In practice, there have been corporate reforms in government departments such as the “Next Action” program in the United Kingdom and the “Government Reengineering” in the United States. The results of these reforms show that corporate government has a strong role in promoting economic growth. Since the reform and opening, China, which is in a period of economic and social transformation, has carried out a series of reforms in the administrative field under the complicated internal and external environment. These reforms naturally include changes in the degree of openness of local governments. Secondly, as informatization and the Internet gradually penetrate every corner of society, e-government appears in government departments. Fountain (2004) believed that with the deepening of the American government reengineering movement, the movement required government departments to use information technology creatively. The government conducts business process reengineering according to customer needs. E-government came into being in this period. The emergence of e-government is an important measure taken by the government in response to informatization, and it is also an important means to promote the government’s continuous opening and transparency. The emergence of e-government provides an important carrier for government opening.

The gradual opening of government departments is not only an inevitable requirement for the further development of the market economy, but also an important measure made by government departments to adapt to the development of the times. As China opened its doors, the socialist market economic system was gradually established and improved. This is to meet the needs of government departments for social and economic development, and to improve government functions. Chinese government departments have gradually started a series of reforms in terms of transparency. For example, China's administrative reform focused on streamlining the administrative structure and clarifying boundaries between administration, career, and enterprise, that is, to transform government functions and improve the government's macro-control capabilities. Furthermore, another reform was promoted with the focus of reorganizing some departments to meet the requirements of the market economy, thereby improving the efficiency of work. Furthermore, the focus of China's administrative management reform focused on promoting sound and rapid economic and social development. The focus was on the following aspects. The first is to strengthen and improve macro-control to promote scientific development, the second is to strengthen social management and public services with a view to safeguarding and improving people's livelihood, and the third is to actively explore a major department system with organically unified functions (Naughton, 2010).

Analyzing the characteristics of these reforms, we can find that after nearly 30 years of administrative reform. There have been many positive changes in the management concept of Chinese government departments, from "management" to "serving the people" gradually, and the administrative efficiency of the government has been improved. Government departments are gradually becoming more transparent, and the people's right to participate and supervise is effectively guaranteed. Therefore, this study takes government transparency as one of the dependent variables at the same time.

Government transparency

By Summarizing the existing literature, it is concluded that the relevant research results on government transparency in China mainly include the following aspects.

First, the measurement of government transparency. In recent years, some authoritative institutions have carried out evaluation research on government transparency. For example, Zhang et al. (2010) proposed that the Institute of Law of the Chinese Academy of Social Sciences has been evaluating the specific development of China's government website information disclosure work every year, covering departments of the State Council, provincial governments and larger municipal governments, focusing on decision making and management service disclosure, implementation and disclosure of results and other aspects, and released the "Chinese Government Transparency Index Report". Although the indicators used in the evaluation are fine-tuned every year due to different focus points of government work, the evaluation results of government transparency are more authoritative and reliable. In addition, the topic of performance evaluation of Chinese government websites has also evaluated the information disclosure situation of Chinese government websites and released the government information disclosure index to provide practical support for the research on government transparency. In addition, Tao, et al. (2010) refers that Shanghai University of Finance and Economics has evaluated the fiscal transparency of China's provincial governments and formed evaluation reports. In addition, some scholars have also evaluated the transparency of a specific city-level or county-level government by constructing indicators and put forward targeted suggestions for improving government transparency based on the evaluation results.

Second, government openness as a variable independent of other factors. Some researchers have investigated the relationship between government transparency and other elements, as well as the impact of government transparency on government trust, audit performance, and corruption, among other variables. Wu, et al. (2017), for instance, discussed the connection between government transparency and political trust. The former examines the relationship between government openness and political trust using a multiple linear regression model and concludes that government transparency can affect political trust. However, this effect will vary depending on variables such as gender, age, wealth, level of education, and so on. Some will increase political trust, while others will not. The latter uses a multi-layer linear model, based on objective data and subjective data, analyzes the data of 36 cities in China from the macro city level and the micro individual level, and

tests the relationship between the two. Significant positive correlation. Based on provincial panel data, Shah (2007) proposed that government transparency and media supervision can complement each other to improve government audit performance. Scholars such as Xiaoyun et al. (2018) used the panel data as samples and found that government transparency can drive economic growth, but it also reduces resource dependence. In addition, some scholars have pointed out that the higher the fiscal transparency, the more the public tends to think that public spending is reasonable. A considerable number of research results in China focus on fiscal transparency. Some scholars discuss it from the perspective of fiscal information disclosure, or directly refer to government transparency as fiscal transparency. For example, Cicatiello et al. (2017) used provincial panel data to empirically test the relationship between fiscal transparency and debt scale in 30 provincial governments. The study found that there is an inverted U-shaped relationship between the two, and based on this conclusion, suggestions related to financial information disclosure are put forward.

Third, government transparency as a dependent variable. Some scholars analyze government transparency as a dependent variable. For example, when Shore (2008) discusses the relationship between auditing and government transparency, she concluded that the improvement of the quality of national auditing will promote the improvement of government transparency. Through empirical analysis of panel data, Zhu Rong also found that national auditing can play a positive governance effect in promoting government transparency. Jun, et al. (2014) studied 126 county-level government websites in a province in western China and explored the relationship between the construction of government websites and government transparency and found that three dimensions had a significant positive effect on government transparency.

Fourth, measures to improve government transparency. Many scholars have put forward corresponding countermeasures on how to promote the level of government transparency when studying government transparency. The content of these countermeasures is relatively consistent and can be roughly divided into several perspectives of the government, the public, and the interaction between the government and the public. For example, Edquist and Hommen (1999) proposed that to design the

interaction mechanism between the government and the people, so as to realize the effective connection between the information feedback mechanism on the public side and the information supply mechanism on the government side. Improve government transparency by forming a two-dimensional cooperative governance model. Chen (2019) learned from Singapore's practice when proposing suggestions for improving government transparency and put forward countermeasures from multiple perspectives such as improving information disclosure laws, cultivating social culture, encouraging public participation, and promoting e-government construction. Landell-Mills and Serageldin (1991) put forward that countermeasure from the perspectives of changing the concept of civil servants and citizens, formulating corresponding laws, establishing a sound public hearing system and supervision system.

The concept of government transparency is in a very central position in this research, so it needs to focus on the interpretation of this concept. Regarding the definition of the concept of government transparency, some foreign scholars pointed out that existing research often define transparency from the perspective of information flow from four aspects:

- (1) internal transparency (external personnel can observe the internal situation of the organization);
- (2) External transparency (internal personnel can observe the situation outside the organization);
- (3) Upward transparency (from subordinate to superior);
- (4) Downward transparency (from superior to inferior).

These four types of transparency can coexist, although the available literature focuses mostly on one perspective. The majority of existing research on government transparency views external stakeholders (such as the general public) as the primary audience for government information and defines government transparency as “the extent to which external actors obtain information about the operation of public organizations.” Some Chinese academics have also addressed the concept of government transparency. For

instance, Wu et al. (2017) feel that government transparency relates to the availability of information reading the design and implementation of government policies. According to Gil-Garcia et al. (2014), government transparency is the extent to which the government provides timely and accurate access to government information. Scholars define it from the perspective of transparent government and believe that government transparency is the evaluation of the construction of transparent government by specific subjects in accordance with specific standards and procedures, as well as the degree/level attained by the construction of transparent government. Disclosure of government affairs and disclosure of government information are directly related to government openness. In the current research results, the use of these concepts is not clearly distinguished, but numerous concepts are frequently employed jointly. Government affairs disclosure, according to Lee-Geiller and Lee (2019), is the public behavior of the government to promote decision-making, implementation, management, service, and results in the course of carrying out its responsibilities. According to the definition of the “Regulations on the Disclosure of Government Information” by Horsley (2007), the disclosure of government information refers to the disclosure of information produced or obtained by administrative organs in the course of carrying out their responsibilities and recorded and stored in a particular format. This study’s definition of government transparency is consistent with that of the majority of experts, who define it as the degree to which the public has access to timely and accurate information on government performance.

3.3.3 MEDIATING VARIABLES

Policy Perception

At present, scholars have little research on “policy perception”. Regarding the definition of policy perception, scholars mainly describe policy perception from the following dimensions: 1) The degree of cognition of policy. Raaijmakers, et al. (2008) describes that the respondents’ perception of the policy through the respondents’ knowledge and understanding of the policy, as well as the benefits and risk perceptions brought about by the implementation of the policy. 2) Attitude towards policy: Some

scholars take the attitude of policy target groups towards policy as the definition of policy perception, such as the degree of support, satisfaction, and approval of the target group for the policy. 3) Evaluation of policies: some other scholars take the importance, effectiveness, feasibility, fairness and other evaluations made by respondents on policies as the basis for respondents' perception of policies; 4) The environment for policy implementation is perfect Degree: In addition to the above research dimensions, enterprises' perception of the perfection of the policy implementation environment (such as regulatory environment, supporting policies, and so on) is also used as a dimension of policy perception. It can be seen from the above literature that at present, scholars often use the dimension of perception to describe policy perception, and there is no unified definition. Based on literature reading, this study defines policy perception as: the target group's cognition, attitude and evaluation of policy perfection.

1) Policy awareness

Policy cognition mainly refers to an enterprise's understanding of the terms and implementation process of environmental policies, cognition of opportunities and risks brought about by the policy, as well as enterprises' expectations of the implementation direction and development trend of environmental policies. Grothmann and Patt (2005) believe that environmental cognition refers to the cognition and basic understanding of the environment and its related problems, mainly including three aspects: environmental protection knowledge, environmental risk cognition and environmental problem severity cognition. Bingham and Eisenhardt (2011) believe that policy cognition refers to the degree of knowledge and understanding of existing national policies, and it is the knowledge base for people to rationally evaluate policies, participate in policies, and implement policies. When Kong Qingmin and others investigated the medical workers' cognition of the pharmaceutical separation policy, they mainly measured the awareness of the pharmaceutical separation system, the advantages and disadvantages of pharmaceutical separation (drug fees, drug safety, and so on), and the principles of pharmaceutical separation. Enterprises' awareness of environmental policies will further affect the implementation of enterprises' environmental protection work. Du (2002) studied the impact of policy cognition on farmers' satisfaction with compensation in rural settlements,

and found that cognition will determine farmers' preferences, thereby guiding farmers' behavior and decision-making. Spaargaren (2003) also believes that the deeper the company's awareness of environmental policy, the more likely it is to place environmental policy at a higher level of corporate strategy. Berrone and Gomez-Mejia (2009) conduct a questionnaire survey on 267 chemical companies in the United States and found that there is a significant correlation between companies' perception of the necessity of government regulation and their environmental behavior.

2) Attitude

Attitude has always been regarded as an important characteristic variable affecting environmental behavior and has been extensively studied by scholars. Attitude is a psychological phenomenon, and cognition is the information basis for its formation. In the research on environmental behavior, scholars at home and abroad have different definitions of attitude. Milfont and Duckitt (2010) believe that environmental attitudes refer to the attitudes, emotions, and behavioral tendencies that people hold towards environmental issues and related activities. Chinese scholars have subdivided attitudes, and the subdivision concept of attitudes after subdivision is generally used directly in research. For example, Xie (2016) divided the environmental attitudes into three dimensions: environmental sensitivity, environmental concern, and environmental values. In the study of policy attitudes, scholars generally reflect the policy attitudes of the research objects in terms of their recognition, satisfaction, and attention to policies. For example, Fan et al. (2020) reflected the attitudes of students of different ethnic groups to the policy of adding points to the college entrance examination from the aspects of satisfaction and attention. Wang (2018) measure the attitude of college students to sports policy from the degree of recognition, satisfaction, and obedience to the policy. Wang et al. (2017) believe that whether the policy can achieve the expected goal depends to a large extent on the attitude of the policy object to the policy. Sun et al. (2019) collect data in the form of questionnaires to understand the status and level of employees' environmental attitudes, environmental

knowledge, and environmental behaviors, and found that positive environmental attitudes will lead to positive environmental behaviors.

3) Policy Evaluation

Whether a policy can achieve its intended purpose and its due effect cannot be determined by the policy makers. If the target group of the policy accepts the policy, the policy can be implemented; if the policy is not accepted, the policy's expectations goals are difficult to achieve. Therefore, the evaluation of the policy by the policy target group is very important. Wan et al. (2017) believe that the acceptability of a policy is related to the subjective evaluation of the policy object's trust in political authority, procedural justice, and distributive justice. Marshall (2007) investigated policy perceptions by asking how commercial fishers perceive their level of participation in the policy decision-making process and their interpretation of the fairness of the policy. Chang et al. (2021) investigates the effectiveness of the national poverty alleviation policy based on a sample survey of Hubei, Hunan and Guizhou in contiguous destitute areas. Moon et al. (2020) survey policy-making stakeholders' perceptions of carbon capture and storage technologies and related policies, where the perception dimension includes perceptions of the feasibility of related policies. If a policy can make the target group feel fair, reasonable, important, effective, and feasible, the policy is easier to accept; otherwise, it is not easy to accept.

Citizen Participation

The civic participation movement had attracted great attention and many scholars had more in-depth research. Moreover, the idea of civic participation has a prominent and important position in today's public governance and policy theory and practice. The transition from traditional society to modern society has also led to the change, transformation, and evolution of scholars' research on policy theory from traditional policy to modern new public management. The earliest policy scholars such as Woodrow Wilson and Goodnow held a hostile and hostile attitude towards public participation, typically such as the dichotomy of politics and administration. It separates civic participation from public administration, relegating it to the realm of politics, away from professional administrators. With the widespread criticism of the academic circles

due to the drawbacks of the political-administrative dichotomy, the theory of “new public administration” with the content of citizen participation began to enter the public eye.

3.3.4 MODERATOR VARIABLES

Individual participation

Virtual community is a social group gathered through the Internet. Sociality is one of the most typical characteristics of virtual community, and it is also one of the important reasons for individuals to participate in virtual community. Citizens participate in online public policy development through virtual communities as a medium. Based on the research of the goal-oriented model, Bagozzi and Dholakia (2002) proposed three categories of social factors that affect individuals’ participation in virtual communities, namely subjective norms, internalization, and social identity:

1) Subjective norm

Kelman (1974) argues that individual adherence originates from the individual’s subjective norm, because it reflects the influence of other people’s expectations on the individual. The behavior of a person with subjective norms is driven by gaining approval from others who are significant to him. In a virtual community, other members of the community or other reference groups may become objects of individual compliance. Ajezen (1991) believes that subjective norm is an individual’s perception of the influence of others on himself by taking others as a source of expectations.

2) Internalization

Internalization refers to decisions made when personal values overlap those of others. Likewise, in virtual communities, internalization occurs when members’ personal values are like those of others within the community. Bagozzi and Dholakia (2002) believe that internalization has the characteristics of randomness. When individuals can choose to join

groups with similar values to their own, internalization will have important impacts on community members, and this internalization process is through group norms.

3) A sense of identity.

Al Raffie (2013) points out that social identity is an individual's intention to distinguish members from non-members according to the social category to which they belong. Under the sense of social identity, individuals will develop a group intention to maintain positive relationships with other members of the virtual community.

Regarding the influencing factors of individual participation in virtual communities, Dholakia et al. (2004) summarized four influencing factors, including informational value, instrumental value, maintaining interpersonal relationships, social strengthen.

4) Informational value.

Informational value means that individuals contribute value to others by acquiring or sharing information and resources in virtual communities, sharing knowledge and experience, and so on. Flanagin, et al. (2021) pointed out that informational value includes learning, acquiring information, and contributing valuable information to others or other "information pools".

5) Instrumental value.

The instrumental value of a virtual community means that members achieve a specific goal through online interaction, such as solving problems, bringing new ideas, generating new perspectives, promoting others' evaluation, or influencing others' preferences. Studies such as Dholakia pointed out that instrumental value and informational value are usually collectively called purposive value, which is often associated with external goals or time, and is utilitarian.

6) Maintain interpersonal relationships.

Maintaining interpersonal relationships refers to the social benefits of support, friendship, intimacy, dispelling loneliness, etc., obtained by individuals in virtual

communities by establishing and maintaining connections with others. McKenna and Bargh; Ridings and Gefen (2004) found that in virtual communities, the purpose of member participation is to dispel loneliness, gain social support, and gain friendship.

7) Social reinforcement.

Social reinforcement means that members who contribute to the virtual community or other members in the community are recognized and praised by members in the community, so that their status in the community is improved. Dholakia et al. (2004) pointed out that social reinforcement and maintenance of interpersonal relationships are related to other members of the virtual community, and both emphasize the social benefits of member participation.

This study believes that among these four aspects, information value, instrumental value and social reinforcement are suitable for the moderator factors of individual participation between policy perception, civic participation to government openness and government transparency, so individual participation is one of the moderator variables.

Government tolerance

The tolerance means that the government should exercise its power correctly, protect the legitimate rights and reasonable rights and interests of participants, and put the people first, rather than blindly pursue responsibility for behavior. An important measure of tolerance is the attitude of government responsible departments to participants. In the game between the government and the participants, the latter is always in a disadvantaged position, and the equal treatment of disadvantaged groups represents the humanistic care and tolerance that a government must have. When the government department adopts an attitude of looking down and giving to the participants, ignoring and perfunctory the rights of the participants, we can say that the government's tolerance needs to be improved. When government departments can treat participants from a flat perspective, deal with the problems raised by participants seriously and responsibly and exempt some of their actions. It can be considered that this government is a government with considerable tolerance, a government that is responsible and worthy of the people's trust.

As a new type of government governance mechanism, government tolerance is increasingly showing its value of the times in a pluralistic society. The dramatic changes that began in the economic field more than 30 years ago have brought earth-shaking changes in China. The process of gradually establishing the market economic system is also the process of deconstructing and reconstructing people's value concept and interest structure. In this process, the market principles with free choice, full competition and fair exchange as the core promoted the development of "economic democratization" and the awakening of citizens' awareness of "political democratization". The differentiation of interests, the stratification of society and the diversity of cultural values have increasingly shaped a vibrant and colorful society.

The differentiation and combination, sublation and remodeling of social thoughts, cultural concepts, value standards, and interest structures in the era of change are profoundly affecting social changes and constitute the most prosperous era for the current government governance and government management models. Meaningful challenge. The awakening of democratic consciousness urges people to free themselves from their relative dependence on the government, and begins to claim citizens' rights to participate, know, express, and supervise, and expects to express different values by participating in the governance of social affairs and supervising the operation of power. Demands and interests. However, there are still many problems in the field of government governance and social governance.

First, whether it is voting and election at the macro-political level or cooperation and co-governance at the administrative practice level, the platform for democratic participation is not perfect, and there are still many institutional obstacles. As one of the important components of democratic politics, administrative management and decision-making also need the process of democratization. However, the current political decision-making and government governance in China is the "elite model". This elite model established for the pursuit of scientific decision-making is essentially difficult to attract the participation of ordinary people, and may even exclude people from the decision-making system, resulting in a lack of inclusiveness in some public decision-making.

Second, the existing institutional platform is not enough to provide people with a smooth channel of expression. It is precisely because of the institutional obstacles expressed that it is difficult to realize the multiple demands of a pluralistic society, and different values and interests may be ignored or abandoned in the hesitation of “it is hard to have both.”

Third, the power supervision mechanism is not perfect. In the traditional administrative model, the people’s right to know is often ignored, and power supervision is useless. In traditional public administration, one of the ways to improve administrative efficiency is to put aside the “custody” and supervision of the people.

Therefore, it cannot be said that the current Chinese government governance model is a good governance model that can adapt to the development of a pluralistic society and accommodate the symbiosis and coexistence of pluralism. However, it can be found from this that the government’s tolerance will affect citizens’ participation in the government’s policy formulation to a certain extent. The higher the tolerance of the government, the more it can have a positive impact on public participation in the formulation of public policies. If a country’s government is less tolerant, it may hinder the government’s participation in public policy, and even affect the formulation of public policy.

3.3.5 RESEARCH HYPOTHESIS

In public decision-making, administrators are “bounded rational”. Therefore, the rational intervention of experts is needed to bring scientific knowledge, and the participation of citizens is also needed to bring social knowledge. Citizens as participating subjects are also “bounded rational”. Due to differences in knowledge backgrounds and insufficient information, citizens’ awareness of a policy issue is limited. The cognitive level of citizens will significantly affect the effectiveness of citizen participation, which is a key factor affecting the division of citizen participation models. The influence of the degree of publicity of government information and the degree of symmetry of policy information on the behavior of citizens participating in the policy agenda has become a consensus among the theoretical circles.

Joseph Stiglitz and others conducted in-depth research on the problem of information symmetry and pointed out that the basic feature of information is asymmetry regardless of time or space. Charles Wolfe also discussed this. The government has a lot of information, and it is on the side of the information advantage, and the citizens are on the side of the information disadvantage. Moreover, the government often intentionally does not disclose some information to the public. Although citizens have a certain right to know, it is difficult to obtain important information and has no essential impact on decision-making results and policy trends. For citizens to participate in the policy network, “information occlusion” is a key factor affecting citizens’ cognitive level, which prevents citizens from making correct judgments on the government’s policy behavior. Administrative subjects are naturally more inclined to enjoy the exclusiveness and exclusivity of information and maintain their power status. Citizens’ desire to obtain valuable information and the administrative subject’s secrecy tendency naturally form a pair of contradictions, which hinder the development of citizens’ cognitive level.

This study believes that citizens’ trust in the government and the degree of closeness between policies and themselves jointly affect the costs and benefits of citizens’ policy participation, and then affect the expectations of policy subjects. First, the level of government trust. The level of government trust is the key to realizing healthy cooperation between the government and citizens. Scholars such as Caglio and Ditillo (2008) conduct in-depth research on cooperation issues through empirical methods, and proposed that contribution, vision and intimacy are the key variables for the ultimate achievement of cooperation. A benign government-citizen interaction is difficult to achieve in traditional buying and selling relationships. To establish intimacy, three tasks should be accomplished, mutual trust, information sharing and the establishment of a strong partner team. Among them, he put “mutual trust” in the first place, which shows the importance of the level of government trust. The mutual trust here is not only about information disclosure. As far as the government is concerned, he can consider issues from the interests and positions of citizens, that is, it involves the government’s tolerance. As far as citizens are concerned, they believe that the policy recommendations they put forward will be adopted, and they believe that the government is trustworthy, that is, individual participation.

If the trust relationship between the government and citizens is benign, citizens will be freer to express their views on government phenomena and public affairs. If there is distrust between the government and citizens, citizens will tend to reduce political exchanges with the outside world for self-protection, and the “social exclusion” attribute of the policy network will be highlighted. A view put forward by Nanetti, et al. (1994) in the first chapter of “Making Democracy Work” is that government credibility is an important part of social capital, and it is closely related to the awareness of civic participation. The higher the credibility of the government, the higher the enthusiasm of citizens to participate. If the two do not trust each other, citizens will tend not to cooperate. If the policy is not closely related to the citizens themselves, citizens will fall into a state of “collective unconsciousness”. Because the influence of citizens in this type of affairs is very small, the behavior of many citizens has not received official attention before. Just like the idea of “official standard” in traditional society, policy making is the government’s business, and the people’s business is to obey the government’s arrangements. The people think that the government does not pay attention to the things they care about, and the things the government manages are too far away from them. This, coupled with the weak awareness of the rights of the people, has led to a collective silence on public policy participation. The closer policy is to civic life, the higher will be the ability of citizens to participate in such matters. Restricted by knowledge, interest background, and ability, citizens’ participation can only be limited rationality. If policy is far removed from civic life, citizens do not have enough time, experience, and interest to participate, nor do they have enough expertise and personal experience to participate. Citizens rarely have their own opinions on highly technical policy issues, resulting in many occasions, “hearings” have become “auditing sessions”, and civic participation has also become “whitewashing”.

The closer policy is to civic life, the higher will be the ability of citizens to participate in such matters. Restricted by knowledge, interest background, ability, and policy perception, citizens’ participation can only be limited rationality. If policy is far removed from civic life, citizens do not have enough time, experience, interest, and policy perception to participate, nor do they have enough expertise and personal experience to participate. Citizens rarely have their own opinions on highly technical policy issues,

resulting on many occasions, “hearings” have become “auditing sessions”, and civic participation has also become “whitewashing”.

For constitutive policy scenarios, theoretically speaking, citizen cognition and citizen expectation are both lower, and the cognition level of such policy scenarios is lower, and the lower the policy perception, the lower the participation ability. And because such policies are not very closely related to citizens’ daily life, citizens’ willingness to participate is also low, and it is easy to form inefficient participation (official-self-decision-type policy participation). From a practical point of view, the constitutive policies are not all inefficient participation, and may also lead to decentralized participation. Some citizens with high cognition level and strong willingness to participate in the constitutive policy through communication with relevant government departments. However, because the relevant government departments did not widely absorb public opinion before the policy was formulated, it was manifested as “decentralized participation” in reality.

For regulatory policy situations, theoretically speaking, citizens’ cognition and expectations are high, and it is easy to form high-efficiency participation (multiple-consultative policy participation). Since regulatory policies usually involve the regulation of individual citizens’ behaviors, it is easy to resist in the implementation. Therefore, relevant government departments will consider citizens’ opinions to a certain extent. From a practical point of view, due to the lack of institutionalized channels for public opinion expression and the low ability to perceive policies, citizens can only passively resist. Citizens do not form the “efficient participation” argued in the theory.

For distributive policy scenarios, in theory, such policies directly act on individual citizens and are closely related to citizens’ daily production and life. Citizen cognition and civic expectations are high, and it is easy to form an efficient participation model in practice. From a practical point of view, if attention is paid to the establishment of rules of procedure in a distributive policy context, the ability to perceive policies can be improved through a series of government systems. This can help to increase citizen awareness and expectations, which can lead to “effective participation”. For redistributive policy scenarios, in theory, citizen awareness is lower, but citizen expectations are higher. Under

certain circumstances, it is difficult for citizens to truly participate in public policy voting. Citizens are in a disadvantaged position in the game with relevant government departments, and it is difficult to form a joint force of participation, which is manifested as “decentralized participation”. In practice, redistributive policies involve the transfer of different interests between subjects, which may lead to conflicts to a certain extent. Usually, relevant government departments organize citizens to participate, such as “holding a hearing”. However, in practice, the phenomenon of only participating in the hearing without the right to the hearing is common, which often makes the hearing reduced to “whitewashing”. This ultimately resulted in “formal participation (elite-value-led policy participation).”

Thus, this research raised below several hypotheses:

H1: Cognitive level has a significant positive impact on government openness.

H2: Expectation perception has a significant positive impact on government openness.

H3: Social attitudes have a significant positive impact on government openness.

H4: Cognitive level has a significant positive effect on government transparency.

H5: Expectation perception has a significant positive effect on government transparency.

H6: Social attitudes have a significant positive impact on government transparency.

H7: Policy perception has a significant positive moderator effect between cognitive level, expectation perception, social policy and government openness and government transparency.

H8: Citizen Participation has a significant positive moderator effect between cognitive level, expectation perception, social policy and government openness and government transparency.

H9: Individual participation has a significant positive moderator effect between policy perception, citizen participation and government openness and government transparency.

H10: Government tolerance has a significant positive moderator effect between policy perception, citizen participation and government openness and government transparency.

3.4 RESEARCH FRAMEWORK

Table 3-1 research variables

Independent variable	Cognitive level
	Expectation
	Social attitude
Dependent variable	Government openness
	Government transparency
Mediating variables	Policy Perception
	Citizen Participation
Moderator variables	Individual participation
	Government tolerance

Source: authors compilation

Based on the comprehensive analysis and research summary of relevant theoretical literature and previous research results, this research constructs a research model, which includes a total of latent variables, namely cognitive level, expectation perception, social attitude, and government openness., government transparency, policy perception, citizen participation, individual participation, government tolerance. This study combines the

performance confirmation model and the satisfaction model and the research of other literatures, and combines its own ideas, and proposes the following models:

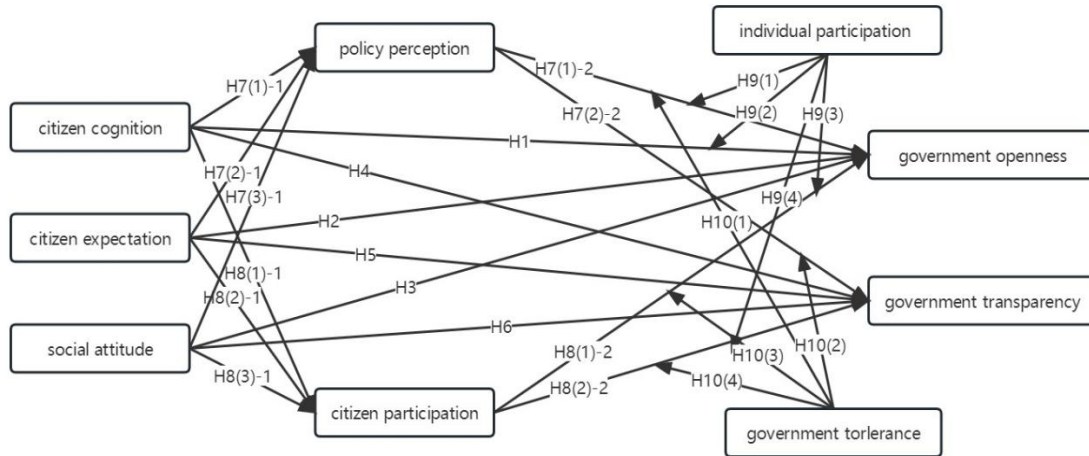


Figure 3-1: research framework

H1: Cognitive level has a significant positive impact on government openness.

H2: Expectation perception has a significant positive impact on government openness.

H3: Social attitudes have a significant positive impact on government openness.

H4: Cognitive level has a significant positive effect on government transparency.

H5: Expectation perception has a significant positive effect on government transparency.

H6: Social attitudes have a significant positive impact on government transparency.

H7: Policy perception has a significant positive mediating effect between cognitive level, expectation perception, social policy and government openness and government transparency.

H8: Citizen Participation has a significant positive mediating effect between cognitive level, expectation perception, social policy and government openness and government transparency.

H9: Individual participation has a significant positive moderator effect between policy perception, citizen participation and government openness and government transparency.

H10: Government tolerance has a significant positive moderator effect between policy perception, citizen participation and government openness and government transparency.

3.5 QUESTIONNAIRE SURVEY

3.5.1 QUESTIONNAIRE DESIGN

On the basis of the theoretical hypothesis put forward in the chapter, and still, combined the specific characteristics of the object of the study, this research designed a questionnaire for collecting the first-hand data. When designing the questionnaire, special attention had been paid to the objectivity of the items, so as to ensure the authenticity of the results to the greatest extent and accordingly ensure the research hypothesis to be verified reasonably. The questionnaire in this research is mainly designed in the following two steps.

Firstly, this research made the detailed literature review. To be specific, this research learnt and integrated the findings in studies and theories related to government openness and government transparency, so as to more objectively screen indicators for the possible influencing factors and the possible influencing mechanism. Furthermore, this research set the question items in the questionnaire on the basis of such screened indicators more reasonably.

Secondly, after completing the initial questionnaire design, in order to further ensure the objectivity of the survey results and still the reliability of the findings in this research, this research invited two experts in relevant fields to make a discussion on the contents and

expressions of the question items in this existing initial questionnaire, and timely made the corrections on ambiguous descriptions and irrelevant items according to their feedback. Thus, the questionnaire could be ensured.

Based on literature review, user interviews and expert interviews, the authors used nine variables: cognitive level, perception of expectations, social attitude, government openness, government transparency, policy perception, citizen participation, individual participation, and government tolerance. As the independent, moderator and dependent variables of this paper, Peters (1996) points out that measuring variables requires multiple questions.

Nunnally (1978) pointed out that at least three items are used to measure a single variable in order to improve the internal and external validity of the questionnaire. The design of the content of the questions is mainly based on the reading of relevant literature, summarizes the measurement scales related to the research variables in this paper, and comprehensively considers the characteristics of mobile payment, referring to the measurement scales adopted by scholars in related research. Most of the measurement items are derived from the existing literature, and some are designed according to the actual research content, to ensure that the questionnaire has good content validity.

This study will use the most reliable method for scoring. This study reflects the level of recognition by filling out a questionnaire and assessing scores for question items based on respondents' actual experience or perceptions of participating in the educational policy making process. In this study, this study used a 5-point scale from 1 to 5 to indicate: Totally Disagree, Disagree, Fair, Agree, and Strongly Agree.

After a total of three revisions before and after, the measurement indicators of each variable finally formed in this study are as follows:

Table 3-2 variables measured in the questionnaire

Variable	Code	measurement standard
Cognitive Level (CL)	CL1	You will personally pay attention to social hotspots
	CL2	In the recent past, have you actively followed social hotspots?
	CL3	Soon, you will express your views on some hot spots on the Internet
Expectation Perception (ET)	ET1	Do you think public opinion will have a positive impact on the formulation of educational policy
	ET2	Do you think the current education policy has been influenced by your public opinion?
	ET3	Do you think the Kunshan Longge incident will help improve China's self-defense legislation
Social Attitude (SA)	SA1	In the new media public opinion environment, do you think the comments made by the people around you tend to be more positive
	SA2	Do you think online comments need censorship?
	SA3	Your attitude towards the government is positive
Government Openness (GO)	GO1	NGOs are involved in the formulation of government education policy
	GO2	Do you think the government will take into account the views of all sectors of society in the designation process of considering education policies
	GO3	The government will provide all sectors of society with ways and means to participate in the designation of education policy
Government Transparency (GY)	GY1	You think your voice is being heard in the making of government education policy
	GY2	Do you think the government will make the whole process of making education policy public?
	GY3	Do you think the government will solicit opinions from multiple channels at all stages of educational policy formulation

Variable	Code	measurement standard
Policy Perception (PP)	PP1	You will pay attention to the government's proposal on education policy
	PP2	You are familiar with the whole process of the government's promotion of education policy
	PP3	You will spread your views on education policy online
Civic Engagement (CP)	CP1	You will express your views in the development of government education policy
	CP2	You will positively comment on some of the advantages and disadvantages of government education policy
	CP3	You will use online comments, complaints and other methods to express your different opinions on education policies
Individual Participation (IP)	IP1	Do you think you will influence the direction of public opinion to a certain extent
	IP2	You think you have been involved in the development of government education policy
	IP3	You think you have good civic media literacy
Government Tolerance (GC)	GC1	You think the government will accept social disapproval
	GC2	you think you have freedom of opinion
	GC3	You think the government will represent the interests of all citizens

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3.5.2 ACTUAL SURVEY

The relevant contents involved in this questionnaire is relatively formatted, and still, the relevant question options are relatively standard, all of which means that the data collection efficiency could be relatively high. At the same time, limited by the COVID-19 epidemic and the costs of the survey, this research finally decided to make the online questionnaire survey.

In this research, the repeatedly modified questionnaire was published on the professional online questionnaire website. The research objects could receive the link to take part in this survey. The research objects for the survey in this study are mainly the citizens over the age of 18 who have the ability of personal behavior and individual thinking. To obtain the real data results, this survey adopted a random sampling method. It is believed that this simple random sampling is an effective method of reducing the deviation and the errors from the sample selection. At the same time, the anonymity and confidentiality of the survey were repeatedly clarified to participants, to get the most accurate feedback from those participants. The whole survey had been lasting for three months, from June, 2022 to August, 2022.

Of course, before the formal survey, this research randomly invited 20 citizens to take part in the trial survey before the formal survey so as to test the reliability and validity of the questionnaire. The final questionnaire is ensured after a series of adjustments, which is shown in the appendix. It is believed that information collected from this questionnaire is effective for the further discussion in this research.

After collecting the questionnaire, the research integrated and analyzed the questionnaire, and removed the invalid samples. If one of the following items was found in the survey, it would be deemed as the invalid sample. Firstly, if there were quite a lot of missing items in the questionnaire, it would be deemed as the invalid sample. Secondly, if the answers to the questions were filled in at will in the questionnaire, it would be deemed as the invalid sample. Lastly, if the participant filling in the questionnaire was less than 18 years old and did not have the ability of rational judgment, it would be deemed as the invalid sample.

Since the statistical model in this research involves relatively many variables and relatively many items, to ensure the authenticity and validity of the data, the research finally distributed a total of 400 questionnaires and recovered a total of 366 questionnaires, including 357 valid ones, with a recovery rate of 91.5% and a valid recovery rate of 89.3%.

It should be mentioned that all the analysis involved in the follow-up parts in the research are based on the information obtained from the recovered questionnaire in this

survey. In addition, it should be mentioned that the research will involve SPSS 21.0 to complete the summary and empirical analysis of the first-hand data got from the recovered questionnaire in this survey.



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CHAPTER 4

EMPIRICAL ANALYSIS

4.1 BRIEF INTRODUCTION

The focus of this chapter is to verify the hypothesis put forward in the previous chapter one by one through a series of empirical analysis, to put it specifically, to explore the impact of cognitive level, expectation perception and social attitude (independent variables) on government openness and government transparency (dependent variables) considering the intermediary role of policy perception and citizen participation (mediating variables).

On the first place, this chapter introduces the questionnaire method to obtain the first-hand data for statistical analysis. To put it specifically, on the basis of fully reading the relevant literature and comprehensively considering the characteristics of the object of study, this chapter designs and distributes the questionnaire, and subsequently collects the results of the questionnaire.

On the second place, this chapter involves a series of preparatory statistical analysis on the data got from the above questionnaire survey, mainly including reliability analysis, validity analysis, descriptive statistics, and correlation analysis, all of which are the preparations for the further discussion of the hypothesis.

On the third place, this chapter involves the structural equation model (SEM) for the detailed discussion of the hypothesis, that is, to make clear of the impact of cognitive level, expectation perception and social attitude on government openness and government transparency with the consideration of the intermediary role of policy perception and citizen participation. Of course, this chapter still completes the path analysis after ensuring the model's goodness of fit, so as to clarify the specific correlations of the variables in detail and accordingly to conclude the main findings about the hypothesis.

4.2 DESCRIPTION OF DATA AND VARIABLES

After collecting the data, to have a general understanding of the results of this survey, this research at first involves the descriptive statistical analysis on the data got from the survey targeted at 366 Chinese respondents. The statistical findings from SPSS 21.0 showed that none of the measurement indicators in this survey had particularly extreme values, and still, the distribution of the sample is condensed, Therefore, in general, the data got from the survey is appropriate for the further examination. Subsequently, this research completes the description of the information obtained from the survey mainly from the following two aspects, that is, the individual characteristics and basic characteristics of key variables.

4.2.1 GENERAL INFORMATION FOR THE DESCRIPTIVE STATISTICS

Descriptive statistics refers to the activities that use tabulation, classification, graphics, and calculation to sort, summarize and describe a large amount of data contained in the survey samples, so as to show the characteristics of the data. In short, descriptive statistics is a method to summarize and express quantitative data by revealing distribution characteristics of data through a series of statistical descriptions of variables' data in the population. In general, descriptive statistics analysis is a collection of statistical methods, which provides an effective and relatively simple method to summarize and characterize data. Descriptive statistics mainly includes data frequency analysis, central tendency analysis, variance analysis, distribution analysis and some basic statistical graphs.

Firstly, it is the frequency analysis of data. In the data pre-processing part, frequency analysis and cross frequency analysis could be involved for figuring out the outliers. Frequency is always considered as the number of occurrences of the data with some certain features, namely, flag value. The frequencies arranged in turn by groups constitute a frequency series, which is used to explain the strength of the effect of each group of flag values on all flag values. The sum of the frequencies of each group is equal to all the units of the population. Frequency is generally described in the form of tables or graphs.

Secondly, it is the central tendency analysis of data. In the data pre-processing part, central tendency analysis could be involved for reflecting the general level of data. The common indicators related to this central tendency analysis include average, median and mode. Average, mode and median are characteristic numbers that describe the central tendency of a group of data in different perspective and application. Average, median and mode represent the average level, medium level and majority level of this group of data respectively. To be specific, average involves all data. The size of the average is related to each data in a group of data. Any change in the data will cause a corresponding change in the average. Median involves only part of the data. Median is only related to the arrangement position of the data, and changes in some data have no impact on the median. Mode still involves only part of the data. Mode focuses on the frequency of each data occurrence. The size of the mode is only related to part of the data in this group. Average, mode, and median could be equal or unequal, and there are no fixed correlations among average, mode and median.

Thirdly, it is the variance analysis. In the data pre-processing part, variance analysis could be involved for reflecting the degree of difference between data. Generally, this variance analysis is a measurement of the size of risk. The common indicators related to this variance analysis include variance and standard deviation. A larger variance or standard deviation indicates a greater difference, otherwise, a smaller difference.

Fourthly, it is the distribution analysis. In statistical analysis, it is usually assumed that the distribution of the population to which the sample belongs conforms to normal distribution. Therefore, skewness and kurtosis are usually required to check whether the sample data conforms to normal distribution. Skewness is a measurement of the direction and degree of deflection of statistical data distribution of real random variables. As a feature of the degree of asymmetry of statistical data distribution, skewness is usually used to measure the asymmetry of probability distribution of random variables. A negative skewness means a probability distribution skewed to the left, while a positive skewness means a probability distribution skewed to the right. Kurtosis is a measurement of the peak of statistical data distribution of real random variables. A high kurtosis means that the increase of variance is caused by the extreme difference of low frequency that is greater

than or less than the average. A kurtosis greater than 3 indicates that the shape of peak is sharp, steeper than the normal distribution, and vice versa.

Lastly, it is the statistical charts. Drawing statistical charts is a clear and concise method to express or describe data in the form of graphics compared with the simple words. The common charts include bar chart, pie chart and line chart.

All in all, the objective of descriptive statistical analysis is to provide a statistical description of the relevant data for all variables of the survey population, which is the initial comprehension of the data and the basis and effective supplement of inferential statistics.

4.2.2 RESPONDENTS' INDIVIDUAL CHARACTERISTICS

On the one hand, this research involves the descriptive statistical analysis on the data of respondents' individual characteristics. The results of descriptive analysis (mainly the frequency analysis) in the first part of the questionnaire could be briefly described in the following table 4-1.

Table 4-1 results of descriptive analysis on respondents' individual characteristics

Main characteristics	option	Frequency	Percent
1. Age	18-25	52	14.2
	26-30	113	30.9
	30-35	144	39.3
	35Above	57	15.6
2. Sex	Male	188	51.4
	Female	178	48.6
3. Education level	Undergraduate	0	0
	Bachelor	270	73.8
	Graduate	66	18.0
	PhD	30	8.2

Main characteristics	option	Frequency	Percent
4. Career	Education-related	116	31.7
	private sector employees	147	40.2
	state-owned enterprises	73	19.9
	civil servants	25	6.8
	others	5	1.4
5. Career Policy Participants	Yes	276	75.4
	No	90	24.6
6. Relevant interest groups	Yes	295	80.6
	No	71	19.4
7. Annual household income	30,000 or less	33	9.0
	30,000 to 60,000	62	16.9
	60,000 to 100,000	129	35.2
	100,000 to 150,000	91	24.9
	150,000 to 200,000	36	9.8
	200,000 or more	15	4.1
8. Internet spending/ per year	Less than 500 RMB	117	32.0
	500-1000 RMB	193	52.7
	1000-1500 RMB	47	12.8
	1500-2000 RMB	8	2.2
	More than 2000 RMB	1	0.3

Source: authors estimations

As for the age of respondents, the number of respondents aged 26-30 and 30-35 are relatively large, accounting for 30.9% and 39.3% respectively, meaning that young people are the main subjects in this survey.

As for the sex of respondents, the number of females and the number of males is almost the same, accounting for 48.6% and 51.4% respectively, meaning that the following results in this research would not be biased due to the influence of sex, in other words, the subjects in this research are appropriate for the study.

Regarding the education level of respondents, the number of respondents with bachelor's degree is obviously large, accounting for 74.8%, followed by respondents with graduate's degree and PhD degree, accounting for 18.0% and 8.2% respectively. Still, it should be mentioned that all respondents are not undergraduate. From this point of view, it is believed that respondents can comprehensively understand the items in the questionnaire, and still have the ability to be involved in the government participation. Thus, it is believed that the subjects in this research are appropriate for the study.

As for the career of respondents, the number of respondents engaged in private sectors are relatively large, accounting for 40.2%, followed by education-related enterprises, state-owned enterprises, civil servants and others, accounting for 31.7%, 19.9%, 6.8% and 1.4% respectively. Overall, the respondents could cover various careers. Therefore, it is believed that the feedback from those respondents would be relatively extensive, without obvious bias.

As for the career policy participants among respondents, the number of respondents who are career policy participants is 276, much larger than that who had never been the career policy participants (90). From this point of view, the subjects in the survey are representative.

As for the relevant interest groups among respondents, the number of respondents who had been the relevant interest groups is 295, much larger than that who had never been the relevant interest groups (71). From this point of view, the subjects in the survey are representative.

As for the annual household income of respondents, the number of respondents with 60,000 to 100,000 annual household income is the largest, amounting for 35.2%, followed by those with 100,000 to 150,000, 30,000 to 60,000, 150,000 to 200,000, 30,000 or less

and 200,000 or more, amounting for 24.9%, 16.9%, 9.8%, 9.0% and 4.1% respectively. Overall, the distribution of respondents' annual household income tends to be normal distribution, and thus, the subjects in the survey are appropriate.

As for the Internet access costs per year of respondents, the number of respondents with 500-1000 RMB is the largest, amounting for 52.7%, followed by those with less than 500 RMB, 1000-1500 RMB, 1500-2000 RMB, and more than 2000 RMB, amounting for 32.0%, 12.8%, 2.2% and 0.3% respectively. Overall, the distribution of respondents' Internet access costs per year tends to be normal distribution, and thus, the subjects in the survey are appropriate.

All in all, according to the above frequency analysis of the individual characteristics of respondents in the survey, it is found that the respondents randomly selected are indeed extensive, and thus, representative.

4.2.3 CHARACTERISTICS OF KEY VARIABLES

On the other hand, this research involves the descriptive statistical analysis on the data of respondents' feedback about key variables. The results of descriptive analysis (numerical characteristics, mainly involving minimum, maximum, mean, and std. deviation) in the second part of the questionnaire could be briefly described in the following table 4-2.

Table 4-2 results of descriptive analysis on respondents' feedback about key variables

Key Variables	N	Minimum	Maximum	Mean	Std. Deviation
Cognitive Level	366	1	5	3.622	1.028
Expectation	366	1	5	3.387	1.007
Social Attitude	366	1	5	4.049	0.781
Government Openness	366	1	5	3.781	0.829
Government Transparency	366	1	5	4.070	0.773
Policy Perception	366	1	5	3.857	0.761

Key Variables	N	Minimum	Maximum	Mean	Std. Deviation
Citizen Participation	366	1	5	3.919	0.794
Valid N (listwise)	366				

Source: authors estimations

As for the variable cognitive level, the mean is 3.622 and the standard deviation is 1.028, indicating that average scores of respondents' cognitive level is above moderate standard, and still, the dispersion of respondents' cognitive level is relatively low.

As for the variable expectation, the mean is 3.387 and the standard deviation is 1.007, indicating that average scores of respondents' expectation is above moderate standard, and still, the dispersion of respondents' expectation is relatively low.

As for the variable social attitude, the mean is 4.049, and the standard deviation is 0.781, indicating that average scores of respondents' cognitive level is relatively high, and still, the dispersion of respondents' social attitude is relatively low.

As for the variable government openness, the mean is 3.781 and the standard deviation is 0.829, indicating that average scores of respondents' recognition on government openness is above moderate standard, and still, the dispersion of respondents' recognition on government openness is relatively low.

As for the variable government transparency, the mean is 4.07, and the standard deviation is 0.773, indicating that average scores of respondents' recognition on government transparency is above moderate standard, and still, the dispersion of respondents' recognition on government transparency is relatively low.

As for the variable policy perception, the mean is 3.857 and the standard deviation is 0.761, indicating that average scores of respondents' policy perception is above moderate standard, and still, the dispersion of respondents' policy perception is relatively low.

As for the variable citizen participation, the mean is 3.919 and the standard deviation is 0.794, indicating that average scores of respondents' citizen participation is above

moderate standard, and still, the dispersion of respondents' citizen participation is relatively low.

All in all, based on the descriptive statistical analysis of respondents' feedback about key variables, it could be found that all the means of key variables are more than 3, indicating that the respondents kept a relatively high recognition for the description about the items mentioned in the questionnaire. To put it simply, all variables get relatively high scores, which is quite encouraging. Still, all the standard deviations of those variables all hover around 1, indicating that these variables are relatively stable and centralized, with relatively small changes.

4.3 RELIABILITY ANALYSIS

Reliability is a necessary condition for a good measurement tool and a basic criterion for evaluating the reliability of measured data. Only by ensuring the reliability of measurement tools can reliable and correct data be obtained. Thus, before making the formal discussion about the hypothesis, it is required to at first complete the reliability analysis, to ensure the reliability of the data.

4.3.1 GENERAL INFORMATION

Numerous inquiry-related conditions might make impacts on the results of a questionnaire, resulting in a discrepancy between the actual findings and the expected goal. From this point of view, it is required to evaluate the reliability of the questionnaire. To put it simply, the goal of evaluating the questionnaire's reliability is to ensure that information obtained from the questionnaire could accurately represent the expected outcomes and could be used for the further analysis. Thus, it is possible to describe the reliability as the degree of consistency with which repeatable measurements on the same subject can give repeatable and dependable findings, mainly including intrinsic reliability and external reliability. To be specific, internal reliability focuses on the consistency of the questionnaire's structure, that is, whether each question probes the same concept, while external reliability is concerned with determining the consistency of the questionnaire's results across several occasions.

Generally, the correlation coefficient is involved as the measurement of reliability, which could be roughly separated into three categories, that is, stability coefficient (consistency across time), equivalence coefficient (consistency across forms), and internal consistency coefficient (consistency across items). Four basic methods are generally involved for analyzing reliability, that is, retest reliability, duplicate reliability, split reliability, and Cronbach coefficient reliability.

Firstly, it is the retest reliability. Retest reliability measures a test's consistency and stability across time. Retest reliability could be measured by the correlation coefficient between the results of the same group of subjects who retakes a test at different times. In other words, the identical test is administered twice to the same group of subjects, and the correlation coefficient between their scores is then calculated. The consistency of test scores, namely, the so-called reliability, reveals whether the outcomes of the two tests have changed. A strong correlation indicates that the consistency in two measurements is high, and thus, the stability is enough. To put it more specifically, if the correlation coefficient between the two tests is 1, it means that the research subjects' scores on both tests are identical, and thus, the test has perfect reliability. Of course, this is rarely the case. On the contrary, if the correlation coefficient between the two tests is 0, it means that the research subjects' scores on the second test are completely inconsistent with the first one, and thus, the test is utterly untrustworthy. Still, if the correlation coefficient between the two tests is negative, the test is also considered as unreliable, just like 0. The inconsistency or the instability relates to the circumstances under which the two tests were performed. Since the same test is performed in both instances, the retest coefficient could not reflect the error resulting from different test items or samples. In addition, the interval between the two tests influences the circumstances of both. The retest coefficient will be relatively greater when the interval between the first test and the second one is relatively small (days or weeks). In contrast, the retest coefficient will be relatively smaller when the interval between the first test and the second one is relatively large (months or years). This retest reliability gives information on whether test results fluctuate over time, which could be used to predict the future behavior of the participants. However, it should be mentioned that this retest reliability is significantly affected by practice and memory, and thus, sufficient time should elapse between two tests. If the interval is too short, the effect of the

practice would be amplified. In contrast, if the interval is sufficiently long, physical and mental growth, as well as the accumulation of learning experience could modify test scores and weaken the correlations between the two tests. In addition, errors detected in the first test may lead to alterations in the second response, hence raising the error variance. All in all, this retest reliability is useful only for measuring features that do not change over time.

Secondly, it is the duplicate reliability. Duplicate reliability measures a test's consistency and stability across forms. Duplicate reliability could be measured by the correlation coefficient between the results of the same individual who takes the same test in different forms. In other words, the same group of subjects are asked to fill in equivalent tests (copies) of the questionnaire with different questions at one time, and the correlation coefficient between their scores is then calculated. The consistency of test scores, namely, the so-called reliability, reveals whether the outcomes of the two tests have changed. Still, the time interval between the two copies should also be considered for duplicate reliability. If two copies are measured almost at the same time, the correlation coefficient reflects the relationship between different copies without the influence of time. Generally, there are two methods to make the test for duplicate reliability. The first one is to conduct the test continuously at the same time, and the other one is to conduct the test after a period. The former could judge whether the two tests are equivalent, so the reliability coefficient obtained by this method is also called equivalent coefficient, while the latter could not only judge whether the two tests are equivalent, but also judge the degree of influence of time interval on the potential attributes of the test subjects, so the reliability coefficient obtained by this method is also called the equivalent stability coefficient. A test has two or more copies, which means that there are two or more behavior samples for measuring the same attribute. The increasing number of questions could accordingly increase the overall representativeness of the behavior related to the attribute to be measured. Therefore, when two copies of a test are tested on the same group of subjects from two or three days to one week, the reliability coefficients of the copies obtained are quite accurate. In addition, when two copies are used continuously at the same time, some shortcomings of retest reliability could be avoided, for example, the impact of the first test on the memory and practice, the impact of different circumstances of the two tests, and so on. However, it should be clear that this duplicate reliability requires that the two copies be completely consistent in terms

of content, format, difficulty and the corresponding questions, except for the different expressions. Of course, in the actual survey, it is quite difficult to make the questionnaire meet such strict requirements, and thus, this duplicate reliability is not usually used in practices.

Thirdly, it is the split-half reliability. Split-half reliability measures a test's internal consistency and stability. Split-half reliability could be measured by the correlation coefficient between the results of the same individual who takes the different parts of the same test. To put it simply, this split-half reliability is to divide the questionnaire items into two halves, and the correlation coefficient between the scores of the two halves is then calculated. The consistency of test scores, namely, the so-called reliability, reveals whether the outcomes of the two halves in the test have changed. This split-half reliability reflects the degree of consistency within the questionnaire items, namely, the reliability of the entire questionnaire. From this point of view, this split-half reliability is an internal consistency coefficient. This split-half reliability is a special case of the duplicate reliability. Generally, this split-half reliability is often used in the reliability analysis of the respondents' attitudes, opinions and other types of questionnaires, but is not applicable to factual analysis of respondents' age and gender. In practices, to calculate the split-half reliability, the items in the questionnaire are generally divided into two equal halves according to odd, even or before and after as much as possible, and then the scores of each research subject in the two halves of the test questions are calculated respectively, and then the correlation coefficient of the scores of the two halves of the test is calculated. The split-half reliability method only obtains the correlation coefficient between the scores of the two half-questionnaires divided into one questionnaire. Therefore, split-half reliability should be corrected using the Spearman-Brown formula or Guttman formula in the end.

Lastly, it is the Cronbach's alpha. Cronbach's alpha, as the most used reliability coefficient, measures a test's internal consistency and stability across items. To put it simply, if items are independent measurement units of the same concept, there should be a certain degree of correlation between items. The closer Cronbach's alpha is, the higher the internal consistency reliability is. Cronbach's alpha is the average value of the half-split reliability coefficient obtained by all possible item division methods of the questionnaire.

Thus, Cronbach's alpha addresses the limitations of the half-split reliability. However, it should be mentioned that the results of reliability measured by Cronbach's alpha might be increased with increasing number of items in the questionnaire. In other words, Cronbach's alpha could be erroneously increased due to some redundant measurement items in the questionnaire. Cronbach's alpha could be calculated as the following formula:

$$\alpha = \frac{K}{K - 1} \left(1 - \frac{\sum_{i=1}^K S_i^2}{S_x^2} \right)$$

In the above formula, α is the reliability coefficient, K is the number of test items, S_i^2 is the variance of the scores of all the subjects on the i -th item and S_x^2 is the variance of the total scores obtained by all the subjects.

Generally, a larger Cronbach's alpha means the higher reliability of the questionnaire. In general, Cronbach's alpha above 0.8 means the high reliability of the questionnaire. Cronbach's alpha between 0.7 and 0.8 means the relatively high reliability of the questionnaire. Cronbach's alpha between 0.6 and 0.7 means the acceptable reliability of the questionnaire. Cronbach's alpha lower than 0.6 means the unsatisfactory reliability of the questionnaire, requiring to re-consider compiling the questionnaire. Thus, in practices, the Cronbach's alpha must be at least 0.60 to be regarded acceptable (Cronbach, 1963).

4.3.2 RESULTS OF RELIABILITY ANALYSIS

This research at first makes the reliability analysis of overall statements in the questionnaire. The results of the reliability of the overall questionnaire are briefly described in the following table 4-3.

Table 4-3 results of reliability analysis of the overall questionnaire

Statements	Cronbach's Alpha	Number of items
the overall questionnaire	.805	26

Source: authors estimations

According to the above table 4-3, the overall reliability coefficient is $0.805 > 0.7$, indicating that the reliability of the questionnaire is relatively high (Cronbach, 1963). Therefore, it is comprehensively indicated that the reliability of the questionnaire was acceptable, and thus, it is possible to be used for the further analysis.

Furthermore, this research also makes the reliability analysis of the different aspects in the questionnaire. The results are briefly described in the following table 4-4.

Table 4-4 results of reliability analysis of the specific aspects

Statements	Cronbach's Alpha	Number of items
Cognitive level	0.854	3
Expectation	0.722	2
Social Attitude	0.719	3
Government openness	0.744	3
Government transparency	0.748	3
Policy Perception	0.704	3
Citizen Participation	0.718	3
Individual participation	0.747	3
Government tolerance	0.805	3

Source: authors estimations

According to the above table 4-4, the reliability coefficients of all aspects (cognitive level, internal expectation, social attitude, government openness, government transparency, policy perception, citizen participation and individual participation) are above 0.7 (0.854, 0.722, 0.719, 0.744, 0.748, 0.704, 0.718, 0.747, an 0.805, meaning that the reliability of all specific aspects are acceptable, which further proves that the reliability of the questionnaire is acceptable. Thus, it is reasonable to make the further analysis of the data obtained from this questionnaire. All in all, the results of reliability analysis prove that the reliability of the questionnaire is acceptable, and thus, it is possible to make further analysis of the data obtained from this questionnaire in the survey.

4.4 VALIDITY ANALYSIS

Validity is also a necessary condition for a good measurement tool and a basic criterion for evaluating the validity of measured data. Only by ensuring the validity of the measurement tools can reliable and correct data be obtained. Thus, before making the formal discussion about the hypothesis, it is still required to at first complete the validity analysis, so as to ensure the validity of the data.

4.4.1 GENERAL INFORMATION

Validity could be understood as the degree of effectiveness of measurement, that is, the degree to which the measurement tools could measure the traits to be measured (Parker & Brown, 2000). From this point of view, validity reflects the accuracy and the usefulness, that is, internal consistency of the statements in the questionnaire, which is just the degree to which the measured results reflect the content to be investigated. The more consistent the measured results with the content to be investigated is, the higher the validity is. On the contrary, the less consistent the measured results with the content to be investigated is, the lower the validity. Validity is the most important condition for a scientific measurement tool. In social measurement, there are generally high requirements on the validity of the questionnaire or scale. The identification of validity must specify the purpose and scope of the measurement, take considerations of the content to be measured, analyze its nature and characteristics, check whether the content of the measurement is consistent with the purpose of the measurement, and then judge whether or not the measurement results reflect the degree of the characteristics to be measured. The three methods commonly used in measuring the validity of a questionnaire mainly include content validity, criterion validity and construct validity.

Firstly, it is the content validity. Content validity refers to whether the measured content is suitable for the purpose of the measurement, in other words, whether or not the selected item seems to meet the purpose and requirements of the measurement (Parker & Brown, 2000). Content validity reflects the applicability of test questions to relevant content or theme to be measured, so as to determine whether the test is a representative sample of the behavioral field to be measured. In practices, the measurement of content

validity is mainly based on the subjective judgment of the survey designer. The content validity is often evaluated by a combination of logical analysis and statistical analysis. Logic analysis is generally judged by researchers or experts about whether the selected items seem to meet the purpose and requirements of measurement. Statistical analysis mainly adopts the correlation analysis of the single item and the total items to obtain the results, that is, calculates the correlation coefficient between the score of each item and the total score of the item, and judge whether it is effective according to whether the correlation is significant. If there are negative items in the questionnaire, the total score should be calculated after reverse processing. To sum up, the methods for evaluating the content validity could be summarized as follows, that is, expert judgment, statistical analysis, and empirical inference.

Secondly, it is the criterion validity. Criterion validity refers to whether the data obtained from the scale are valuable compared with the values of other selected variables, namely, criterion scale (Parker & Brown, 2000). The criterion scale could be considered as the reference standard for measuring the effectiveness of a test, that is, the behavior that can be directly and independently measured, that people are interested in, and that people want to predict. This kind of behavior is required to be determined by operational measurement, so as to make the practical significance. Therefore, it is necessary to subdivide the criterion scale into two levels. The first one is the ideal criterion at the theoretical level, while the other one is the measured level. Criterion validity analysis is to select an indicator or measuring tool, such as a generally recognized scale, as a criterion, and accordingly to analyze correlations between the questionnaire items and the criterion scale. Then, the calculated correlation coefficient is just the criterion validity. A large correlation coefficient means that there is relatively high consistency between the measurement result of the questionnaire and the measurement result of the standard scale, and thus, reflects a relatively good criterion validity. In short, if the measurement result of the questionnaire is significantly correlated with the measurement result of the standard scale, they are valid items with high criterion validity. From this point of view, criterion validity reflects the effectiveness of the test in predicting individual behavior in a certain situation. Generally, criterion validity could be evaluated by correlation analysis or difference significance test. However, it should be mentioned that it is often very difficult

to choose an appropriate criterion, and thus, there are great limitations in applying criterion validity in practices.

Thirdly, it is the construct validity. Construct validity refers to the correspondence between a certain structure reflected in the measurement results and the measured value (Parker & Brown, 2000). Construct validity includes homogeneous validity, heterogeneous validity, and semantic logic validity. It is generally believed that the most ideal method of validity analysis is the factor analysis for measuring the construct validity of the questionnaire, which might be explained by the fact that only factor analysis could effectively measure the percentage of variance patterns in the validity analysis process and its effective items. Essentially, factor analysis is just a mathematical model that takes a group of variables as independent variables and dependent variables, and its calculation process is a simplified process of complex variable linear model. The main function of factor analysis is to extract some common factors from all variables (items) of the scale, that is, to identify common factors for the reduction of the dimensionality. Each common factor is highly correlated with a group of specific variables, and these common factors represent the basic structure of the scale. Factor analysis could be used to examine whether the questionnaire is able to measure a certain structure assumed by the researcher when designing the questionnaire. In the results of factor analysis, the main indicators used to evaluate the structural validity are cumulative contribution rate, commonality, and factor load. The cumulative contribution rate reflects the cumulative effectiveness of the common factor on the questionnaire, the commonality reflects the effectiveness of the common factor in explaining the original variable, and the factor load reflects the correlation between the original variable and a common factor. In addition, factor analysis is generally divided into the exploratory factor analysis (EFA) and the confirmatory factor analysis (CFA). EFA is mainly used to figure out the number of factors affecting the observation variables and the correlation between each factor and each observation variable, to try to reveal the internal structure of a relatively large set of variables. The premise is that each indicator variable corresponds to a factor and that the data's factor structure can only be deduced perceptually from factor loadings. In practices, EFA is generally completed by extracting common factors through principal component analysis. The core of EFA is to involve a small number of principal factors to reflect the information of many questionnaire

items, so as to reduce the dimensions and facilitate analysis. Compared with EFA, CFA takes the assumption that there has been a complete study of the factors and internal structure as the premise and allows to clearly describe the complete details of the model, including the relationship between the various observed variables, factors and residuals. The purpose of CFA is to test if the number of factors and factor loadings of the observed variables are consistent with expectations based on prior theories. According to the fitting results, the model assumptions might be required to be adjusted and then re-fitted, so as to ensure that the fitting degree of the guidance model is acceptable. In practices, it is possible to take CFA as a sub-model of structural equation model, or in other words, a special application of structural equation model. To be specific, CFA draws the measurement model with potential variables and corresponding items through AMOS, and then checks the fitting quality of the model through data fitting. If the model fitting quality is good, it indicates that the relationship between potential variables drawn by the measurement model and items has relatively satisfactory validity.

4.4.2 RESULTS OF KMO AND BARTLET'S TEST

Generally, KMO (Kaiser-Meyer-Olkin) and Bartlett sphericity test scores is used for the measurement of the validity, which is a part of the factor analysis for determining the validity. It should be mentioned that this KMO test is required to be conducted before the factor analysis.

KMO ranges between 0 and 1. When the sum of squares of simple correlation coefficients among all variables is much more than the sum of squares of partial correlation coefficients, KMO is close to 1. A KMO closer to 1 indicates a strong correlation between variables, that is, the initial variables are more suitable for factor analysis. In contrast, when the sum of squares of simple correlation coefficients among all variables is much less than the sum of squares of partial correlation coefficients, KMO is close to 0. A KMO closer to 0 indicates a weak correlation between variables, that is, the initial variables are less suitable for factor analysis. In general, a KMO more than 0.9 is perfect. A KMO between 0.8 and 0.9 is good. A KMO between 0.7 and 0.8 is general. A KMO between 0.6 and 0.7 is acceptable. KMO lower than 0.6 is unsatisfactory, and thus, it is not recommended to make the further factor analysis (Parker & Brown, 2000).

This research at first makes the KMO and Bartlett's test to the results of the questionnaire. The results of KMO and Bartlett's test is briefly described in the following table 4-5.

Table 4-5 results of KMO and Bartlett's test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.846
Bartlett's Test of Sphericity	Approx. Chi-Square	3159.098
	df	325
	Sig.	.000

Source: authors estimations

According to the above table 4-5, KMO is $0.846 > 0.6$, indicating that the result is good (Parker & Brown, 2000). Therefore, it is comprehensively indicated that it is possible to involve the questionnaire items in this survey for making the factor analysis.

4.4.3 RESULTS OF EXPLORATORY FACTOR ANALYSIS

Exploratory factor analysis (EFA) is a technique used to figure out the internal structure of a relatively large set of variables and accordingly reduce their dimensions for facilitating the analysis.

On the first place, it is required to calculate the common factor variance, namely, the common degree of variables. The output from SPSS 21.0 is summarized as the following table 4-6.

Table 4-6 communalities (extraction method: principal component analysis)

	Initial	Extraction
CL1	1.000	.794
CL2	1.000	.770
CL3	1.000	.787
EP1	1.000	.777

	Initial	Extraction
EP2	1.000	.786
SA1	1.000	.633
SA2	1.000	.661
SA3	1.000	.654
GO1	1.000	.716
GO2	1.000	.652
GO3	1.000	.652
GT1	1.000	.657
GT2	1.000	.683
GT3	1.000	.678
PP1	1.000	.632
PP2	1.000	.659
PP3	1.000	.668
CP1	1.000	.689
CP2	1.000	.674
CP3	1.000	.632
IP1	1.000	.689
IP2	1.000	.661
IP3	1.000	.684
GT1	1.000	.729
GT2	1.000	.750
GT3	1.000	.728

Source: authors estimations

In the above table, extraction represents the value of common factor variance of variables. The common factor variance reflects the information extracted from each original variable in this principal component analysis, that is, how much each original variable is expressed by a common factor. Generally, an extraction value more than 0.7 indicates that the power of the common factor explaining the variable is well, and still, an

extraction value more than 0.6 indicates that the power of the common factor explaining the variable is acceptable (Parker & Brown, 2000). It can be seen from the table that the extractions of all variables are greater than 0.6, indicating that the degree of interpretation of all original variables by common factors exceeds 0.6, in other words, the extracted common factors could reflect more than 60% of the information of each original variable. Although the representation of the principal component for some of the original variables is just good, the representation of the principal component for most of the original variables are good. From this point of view, it could be concluded that the explanatory power of the common factor is good, in other words, the variables could be expressed by common factors.

On the second place, it is required to calculate the total variance explained. The output from SPSS 21.0 is summarized as the following table 4-7.

Table 4-7 total variance explained (Extraction Method: Principal Component Analysis)

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	6.519	25.073	25.073	6.519	25.073	25.073	2.321	8.927	8.927
2	1.892	7.278	32.352	1.892	7.278	32.352	2.200	8.461	17.388
3	1.719	6.611	38.962	1.719	6.611	38.962	2.068	7.953	25.341
4	1.518	5.838	44.800	1.518	5.838	44.800	2.066	7.947	33.287
5	1.498	5.761	50.562	1.498	5.761	50.562	1.985	7.634	40.921
6	1.352	5.198	55.760	1.352	5.198	55.760	1.978	7.607	48.528
7	1.340	5.155	60.915	1.340	5.155	60.915	1.956	7.525	56.053
8	1.237	4.759	65.674	1.237	4.759	65.674	1.926	7.408	63.461
9	1.021	3.926	69.600	1.021	3.926	69.600	1.596	6.139	69.600
10	.655	2.518	72.117						
11	.634	2.439	74.556						
12	.606	2.329	76.885						
13	.584	2.246	79.132						
14	.566	2.177	81.308						
15	.516	1.985	83.293						
16	.509	1.957	85.250						

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings			Rotation Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
17	.492	1.893	87.143						
18	.472	1.814	88.957						
19	.435	1.672	90.629						
20	.424	1.631	92.260						
21	.393	1.511	93.772						
22	.369	1.418	95.190						
23	.359	1.380	96.570						
24	.336	1.291	97.861						
25	.298	1.147	99.007						
26	.258	.993	100.000						

Source: authors estimations

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In table 4-7, the left part is the initial eigenvalue, the middle part is the extracted principal factor result, and the right part is the principal factor result after rotation. Still, 'Total' refers to the eigenvalue of the factor, 'variance percentage' refers to the percentage of the eigenvalue of the factor in the total eigenvalue, and 'cumulative %' refers to the cumulative percentage of variance percentage. Whether or not an initial eigenvalue is greater than 1 is the general standard for the usefulness of factors. If the eigenvalue was less than 1, it indicated that the information obtained in this factor is insufficient to prove that it should be retained. Cumulative % is used to indicate the contribution rate of factors. The higher the cumulative % is, the higher the explanatory power of these factors to the overall is. Generally, a cumulative percentage greater than 70% indicates that the results are quite satisfactory.

It can be seen from the above table that after extracting nine factors based on the eigenvalue greater than 1, the nine factors together could explain 69.600% of the total variance of the questionnaire items, indicating that the interpretation rate of these nine factors to the overall is nearly 70%, so the first nine factors could be extracted as the principal factors. Thus, in this research, the first nine factors were extracted as the principal factors. In general, the original questionnaire items have lost relatively less information, and thus, the effect of this factor analysis is ideal, which could be regarded as being of research significance to some certain extent.

On the third place, as a supplement, this research also draws a scree plot. The output from SPSS 21.0 is shown in the following figure 4-1.

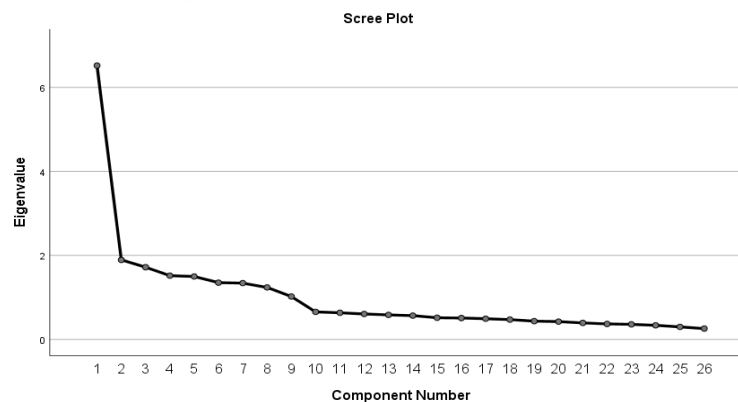


Figure 4-1 scree plot

The scree plot shows a steep slope of the large factor and a gentle tail of the remaining factor, with a clear break between them. Generally, the principal factor is selected on a very steep slope, while the factor on a gentle slope has very little explanation for the variation.

According to the above scree plot, the first nine factors are on a very steep slope, and the slope becomes gentle from the tenth factor. To put it specifically, the eigenvalue (variance contribution) of the first factor is very high, which contributes the most to the interpretation of the original items. Still, after the tenth factor, the eigenvalues of the factors are quite small, which makes little contribution to the interpretation of the original items and could be ignored. All in all, according to this scree plot, it is appropriate to extract the first nine factors as the principal factors.

On the fourth place, it is required to calculate the rotated component matrix. The output from SPSS 21.0 is shown in the following table 4-8.

Table 4-8 rotated component matrix

	Component								
	1	2	3	4	5	6	7	8	9
CL3	.848								
CL1	.814								
CL2	.808								
Gto2		.820							
Gto1		.816							
Gto3		.807							
GT2			.787						
GT3			.771						
GT1			.758						
IP1				.780					
IP2				.770					

	Component								
	1	2	3	4	5	6	7	8	9
IP3				.753					
SA2					.783				
SA3					.776				
SA1					.756				
CP1						.777			
CP2						.767			
CP3						.726			
PP3							.783		
PP2							.765		
PP1							.748		
GO1								.766	
GO2								.706	
GO3								.701	
EP2									.847
EP1									.844
Extraction Method: Principal Component Analysis.									
Rotation Method: Varimax with Kaiser Normalization. ^a									
a. Rotation converged in 6 iterations.									

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Source: authors estimations

According to the above table, CL3, CL1 and CL2 have a high load on the first factor, which mainly explains these items, being described as cognitive level. Gto2, Gto1, and Gto2 have a high load on the second factor, which mainly explains these items, being described as government tolerance. GT2, GT3, and GT1 have a high load on the third factor, which mainly explains these items, being described as government transparency. IP1, IP2 and IP3 have a high load on the fourth factor, which mainly explains these items,

being described as individual participation. SA2, SA3 and SA1 have a high load on the fifth factor, which mainly explains these items, being described as social attitude. CP1, CP2, and CP3, have a high load on the sixth factor, which mainly explains these items, being described as citizen participation. PP3, PP2 and PP1 have a high load on the seventh factor, which mainly explains these items, being described policy perception. GO1, GO2 and GO3 have a high load on the eighth factor, which mainly explains these items, being described as government openness. EP2 and EP1 have a high load on the ninth factor, which mainly explains these items, being described as expectation. All in all, the above results show the questionnaire in this survey basically focuses on nine types of common factors, namely, cognitive level, expectation, social attitude, policy perception, government openness, government transparency, citizen participation, individual participation, and government tolerance. Up till now, it could be concluded that the meaning of nine principal factors in this research are relatively clear. In addition, the above results of EFA shows that all the commonality values of the items are higher than 0.4, which meets the standard, indicating the relatively good validity. Therefore, it is concluded that it is possible to make the further research continuously.

4.4.4 RESULTS OF CONFIRMATORY FACTOR ANALYSIS

Confirmatory factor analysis (CFA) is an effective method for measuring whether the corresponding relationship between factors and items is consistent with the researcher's prediction. Based on the above exploratory factor analysis, confirmatory factor analysis could better test the matching degree of indicators and items, mainly involving construct validity, convergence validity, and discrimination validity.

At the beginning, it is required to make clear of the hypothetical model of this research. On the basis of the results of EFA, it is possible to completes the confirmatory factor analysis model in the following figure 4-2.

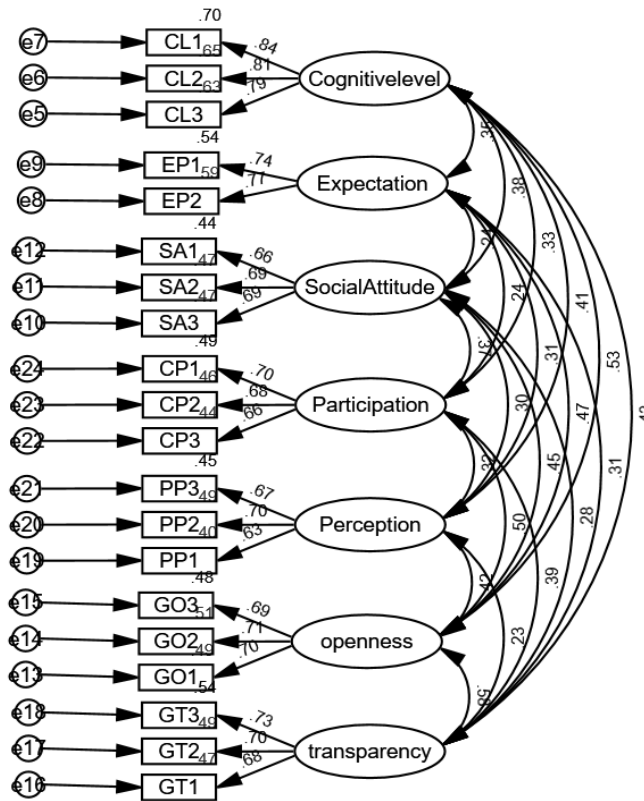


Figure 4-2. The confirmatory factor analysis model

According to the above figure 4-2, cognitive level, expectation, social attitude, participation, perception, government openness, and government transparency constitute the first-order factor, and the observation variables (a total of twenty observation variables) under each first-order factor are secondary indicators.

On the first place, it is the construct validity. It is required to ensure the fitness of the model at first. Fitness, namely, the degree of fit, is the most important index in the measurement of construct validity. Fitness is the consistency between the assumed theoretical model and the actual data. The higher the fitness of the model is, the higher the consistency between the theoretical model and the actual data is. Generally, chi square ($P > 0.05$) could be seen as the acceptable standard. However, chi square is easily affected by the size of samples. Therefore, in addition to the statistics chi square, it is still necessary to refer to some other indicators, for example, goodness of fit (GFI) with

the standard threshold of more than 0.90, adjusted goodness of fit (AGFI) with the standard threshold of more than 0.90, root mean square error (RMR) with the standard threshold of less than 0.05, standardized root mean square error (SRMR) with the standard threshold of less than 0,05, gauge fit (NFI) with the standard threshold of more than 0.90, value added fit (IFI) with the standard threshold of more than 0.90, Tucker-Lewis index (TLI) with the standard threshold of more than 0.90, compare fitting (CFI) with the standard threshold of more than 0.90, and so on. The output from SPSS 21.0 is summarized as the following table 4-9.

Table 4-9. the overall fitting index of the model

Statistics	Threshold	Results	Judgment
(Chi-square) CMIN		159.704	Supporting Conclusion
(Chi-square degree of freedom) CMIN/DF	< 3, not strictly less than 5 (or even 8)	1.072	Supporting Conclusion
(Goodness of fit index) GFI	> 0.90, close to 0.9 is generally acceptable	0.96	Supporting Conclusion
(Adjusted goodness of fit index) AGFI	> 0.90, close to 0.9 is generally acceptable	0.943	Supporting Conclusion
(Root mean square error) RMR	< 0.05, not strictly less than 0.1	0.034	Supporting Conclusion
(Normalized root mean square error) SRMR	< 0.05, not strictly less than 0.1	0.0321	Supporting Conclusion
(Approximate error mean square sum) RMSEA	< 0.05 (good adaptation) < 0.08 (reasonable)	0.014	Supporting Conclusion
(Gauge fit index) NFI	> 0.90, close to 0.9 is generally acceptable	0.931	Supporting Conclusion
(Value added fit index) IFI	> 0.90, close to 0.9 is generally acceptable	0.995	Supporting Conclusion

Statistics	Threshold	Results	Judgment
(Tucker-Lewis index) TLI	> 0.90, close to 0.9 is generally acceptable	0.994	Supporting Conclusion
(compare fitting index) CFI	> 0.90, close to 0.9 is generally acceptable	0.995	Supporting Conclusion

Source: authors estimations

According to the above results, Chi-square is 159.704, χ^2/df is 1.072, GFI is 0.96, AGFI is 0.943, RMR is 0.034, SRMR is 0.0321, RMSEA is 0.014, NFI is 0.931, IFI is 0.995, TLI is 0.994, CFI is 0.995, all of which could meet the requirements, indicating that the measurement model fit quite well, or in other words, the questionnaire has good construct validity. Thus, it is possible to make the further analysis.

On the second place, it is the convergent validity. Convergent validity emphasizes that the measurement items that should be under the same factor are indeed under the same factor. In CFA, AVE and CR are usually used for convergent validity analysis. CR uses the square of the sum of factor load values. The stronger the correlation between items is, the stronger the explanatory power of potential variables for them is, the larger the square of the sum of factor load values is, and the better the internal consistency is. AVE is the sum of the square of the factor load value, representing the comprehensive explanatory power of the potential variable to all the measured variables. The larger the AVE is, the stronger the ability of the potential variable in explaining the corresponding item at the same time. If AVE of each factor is greater than 0.5 and CR is greater than 0.7, it is possible to conclude that the internal consistency (mainly the convergent validity) of the model is good. At the same time, it is generally required that the factor loading coefficient corresponding to each measurement item is greater than 0.7. The output from SPSS 21.0 is summarized as the following table 4-10.

Table 4-10. the convergent validity

route	Estimate	P-value	SMC R2	Measuring Error	CR	AVE
CL3 <--- Cognitive level	0.795	***	0.632025	0.367975	0.8535	0.6602
CL2 <--- Cognitive level	0.805	***	0.648025	0.351975		
CL1 <--- Cognitive level	0.837	***	0.700569	0.299431		
EP2 <--- Expectation	0.767	***	0.588289	0.411711	0.7226	0.5657
EP1 <--- Expectation	0.737	***	0.543169	0.456831		
SA3 <--- Social Attitude	0.689	***	0.474721	0.525279	0.7215	0.5134
SA2 <--- Social Attitude	0.689	***	0.474721	0.525279		
SA1 <--- Social Attitude	0.664	***	0.440896	0.559104		
GO1 <--- Openness	0.701	***	0.491401	0.508599	0.7446	0.5229
GO2 <--- Openness	0.711	***	0.505521	0.494479		
GO3 <--- Openness	0.694	***	0.481636	0.518364		
GT1 <--- Transparency	0.684	***	0.467856	0.532144	0.7483	0.5379
GT2 <--- Transparency	0.700	***	0.490000	0.510000		
GT3 <--- Transparency	0.732	***	0.535824	0.464176		
PP1 <--- Perception	0.629	***	0.395641	0.604359	0.7066	0.5057
PP2 <--- Perception	0.698	***	0.487204	0.512796		
PP3 <--- Perception	0.674	***	0.454276	0.545724		
CP3 <--- Participation	0.662	***	0.438244	0.561756	0.7201	0.5117
CP2 <--- Participation	0.676	***	0.456976	0.543024		
CP1 <--- Participation	0.700	***	0.490000	0.510000		

***. Correlation is significant at the 0.001 level (2-tailed).

Source: authors estimations

According to the above results, as for the variable cognitive level, the estimated coefficients of the variable and the corresponding first-order factor are 0.795, 0.805 and 0.837 at the significant level. CR is 0.8535, and AVE is 0.6602. As for the variable

expectation, the estimated coefficients of the variable and the corresponding first-order factor are 0.767 and 0.737 at the significant level. CR is 0.7226, and AVE is 0.5657. As for the variable social attitude, the estimated coefficients of the variable and the corresponding first-order factor are 0.689, 0.689 and 0.664 at the significant level. CR is 0.7215, and AVE is 0.5134. As for the variable government openness, the estimated coefficients of the variable and the corresponding first-order factor are 0.701, 0.711 and 0.694 at the significant level. CR is 0.7446, and AVE is 0.5229. As for the variable government transparency, the estimated coefficients of the variable and the corresponding first-order factor are 0.684, 0.700 and 0.732 at the significant level. CR is 0.7483, and AVE is 0.5379. As for the variable perception, the estimated coefficients of the variable and the corresponding first-order factor are 0.629, 0.698 and 0.674 at the significant level. CR is 0.7066, and AVE is 0.5057. As for the variable policy participation, the estimated coefficients of the variable and the corresponding first-order factor are 0.662, 0.676 and 0.700 at the significant level. CR is 0.7201, and AVE is 0.5117. Therefore, all the estimated coefficients of each variable and the corresponding first-order factor are significant (ranging from 0.629 to 0.837). Still, all AVE is greater than 0.5 and CR is greater than 0.7, indicating that the model has good convergent validity. To sum up, the convergent validity of the questionnaire is good.

On the third place, it is the discriminatory validity. Discriminatory validity emphasizes that the measurement items of the same factor should not be under the same factor, which determining the validity of the questionnaire. If the measurement indicators of a certain part in the model have higher correlation with each other than the indicators of other parts, it is possible to conclude that the discriminatory validity is well. In other words, only when the AVE square root of each variable is greater than its correlation coefficient with other variables could the questionnaire have the acceptable discriminatory validity. The output from SPSS 21.0 is summarized as the following table 4-11.

Table 4-11. the discriminatory validity

	CP	PP	GT	GO	SA	EP	CL
CP	0.715						
PP	0.324	0.711					
GT	0.392	0.231	0.733				
GO	0.498	0.424	0.577	0.723			
SA	0.366	0.301	0.281	0.448	0.717		
EP	0.236	0.306	0.311	0.468	0.237	0.752	
CL	0.327	0.408	0.427	0.526	0.376	0.345	0.813

Source: authors estimations

According to the above results, the internal correlation of participation 0.7154 is greater than its external correlation 0.324, 0.392, 0.498, 0.366, 0.236, and 0.327. The internal correlation of participation 0.711 is greater than its external correlation 0.324, 0.231, 0.424, 0.301, 0.306 and 0.408. The internal correlation of government transparency 0.733 is greater than its external correlation 0.498, 0.424, 0.577, 0.281, 0.311, and 0.427. The internal correlation of government openness 0.723 is greater than its external correlation 0.498, 0.424, 0.577, 0.448, 0.468 and 0.526. The internal correlation of social attitude 0.717 is greater than its external correlation 0.366, 0.301, 0.281, 0.448, 0.237 and 0.376. The internal correlation of expectation 0.752 is greater than its external correlation 0.236, 0.306, 0.311, 0.468, 0.237 and 0.345. The internal correlation of cognitive level 0.813 is greater than its external correlation 0.327, 0.408, 0.427, 0.526, 0.376, and 0.345. Therefore, all dimensions of the questionnaire have reached the standard of discriminatory validity and passed the test of the discriminatory validity. To sum up, the discriminatory validity of the questionnaire is good.

All in all, based on the above empirical results of validity analysis, it could be concluded that this questionnaire has internal consistency, and of course, the data obtained from this questionnaire is effective for the further empirical analysis.

4.5 CORRELATION ANALYSIS

To figure out the first research question, that is, ‘what is the specific correlation between citizens’ online participation and public policy formulation?’, it is required to make a detailed discussion about the potential correlations between independent variables and dependent variables. In this part, this research aims to involve the correlation analysis to make an initial discussion about the first research question.

4.5.1 GENERAL INFORMATION

Correlation analysis is a statistical analysis method to study the correlation between two or more random variables in the same position, for example, when one variable changes, the other variables also change roughly proportionally. The purpose of making the correlation analysis is to reveal the hidden correlations inside the data set. Thus, from this point of view, it is generally believed that there should be some potential links between the variables to some extent before making correlation analysis.

The most common indicator reflecting the results of correlation analysis is the Pearson correlation coefficient r . The Pearson correlation coefficient r could be calculated based on the difference between the number of pairs of grades in two columns of paired grades. Spearman’s correlation coefficient does not have strict requirements on data conditions, as long as the observations of two variables are paired rank data, or rank data transformed from continuous variable observations, regardless of the difference between the two variables. Pearson correlation coefficient r ranges from -1 to 1. $r > 0$ indicates a positive correlation, whereas $r < 0$ indicates a negative one. $r = 0$ shows that there is no correlation. Positive correlation coefficient r indicates that if one variable grows, the other variable likewise increases, that is, the movement in the same direction. On the contrary, negative correlation coefficient r indicates that if one variable grows, the other variable likewise decreases, that is, the movement in the opposite direction. Still, the larger the absolute value of r is, the stronger the correlation is. Typically, if the absolute value of r is greater than 0.80, there is a strong correlation between two variables. If the absolute value of r ranges between 0.50 and 0.80, there is a moderate correlation between two variables. If the absolute value of r ranges between 0.30 and 0.50, there is a low correlation between

two variables. If the absolute value of r is less than 0.30, there is a very weak correlation between two variables, or in other words, these two variables could be regarded as irrelevant variables.

4.5.2 RESULTS OF CORRELATION ANALYSIS

Before the formal discussion of the influencing mechanism among different independent variables, this research involved the correlation analysis for an initial understanding of the potential among different independent correlations among different independent variables at first. Still, it should be mentioned that correlation between variables could only be discussed under some certain level of significance, for example, Sig. (two-tailed) < 0.05, so as to ensure the significance of the correlation results. The output from SPSS 21.0 is summarized as the following table 4-12.

Table 4-12. results of the correlation analysis

		GO	GT	CL	EP	SA
GO	Pearson Correlation	1	.430 (***)	.415 (***)	.341 (***)	.328 (***)
	Sig. (2-tailed)		.000	.000	.000	.000
	N	366	366	366	366	366
GT	Pearson Correlation	.430 (***)	1	.346 (***)	.227 (***)	.206 (***)
	Sig. (2-tailed)	.000		.000	.000	.000
	N	366	366	366	366	366
CL	Pearson Correlation	.415 (***)	.346 (***)	1	.273 (***)	.297 (***)
	Sig. (2-tailed)	.000	.000		.000	.000
	N	366	366	366	366	366

		GO	GT	CL	EP	SA
EP	Pearson Correlation	.341 (***)	.227 (***)	.273 (***)	1	.173 (***)
	Sig. (2-tailed)	.000	.000	.000		.001
	N	366	366	366	366	366
SA	Pearson Correlation	.328 (***)	.206 (***)	.297 (***)	.173 (***)	1
	Sig. (2-tailed)	.000	.000	.000	.001	
	N	366	366	366	366	366

***. Correlation is significant at the 0.001 level (2-tailed).

Source: authors estimations

According to the above table, the Pearson correlation coefficient between cognitive level and government openness is 0.415 at the significant level of 0.001, indicating a positive correlation between cognitive level and government openness, that is, the change of cognitive level will lead to the change of government openness in the same direction. The Pearson correlation coefficient between expectation and government openness is 0.341 at the significant level of 0.001, indicating a positive correlation between expectation and government openness, that is, the change of expectation will lead to the change of government openness in the same direction. The Pearson correlation coefficient between social attitude and government openness is 0.328 at the significant level of 0.001, indicating a positive correlation between social attitude and government openness, that is, the change of social attitude will lead to the change of government openness in the same direction. The Pearson correlation coefficient between cognitive level and government transparency is 0.346 at the significant level of 0.001, indicating a positive correlation between cognitive level and government transparency, that is, the change of cognitive level will lead to the change of government transparency in the same direction. The Pearson correlation coefficient between expectation and government

transparency is 0.227 at the significant level of 0.001, indicating a positive correlation between expectation and government transparency, that is, the change of expectation will lead to the change of government transparency in the same direction. The Pearson correlation coefficient between social attitude and government transparency is 0.206 at the significant level of 0.001, indicating a positive correlation between social attitude and government transparency, that is, the change of social attitude will lead to the change of government transparency in the same direction. Up till now, this research had established the initial understanding of the data related to the variables involved. The further discussion could be continuously involved in the research.

4.6 STRUCTURAL EQUATION MODEL

To figure out the second research question, that is, ‘how does citizens’ online participation make impacts on policy formulation?’, it is required to make a detailed discussion about the potential correlations between independent variables and dependent variables, that is, to further explore the specific factors influencing citizens’ online participation in education policy formulation. Based on the initial understanding of the potential correlations among variables, this research involved the structural equation model (SEM) for the detailed discussion about the hypothesis proposed in the previous chapter.

4.6.1 GENERAL INFORMATION

Structural equation model (SEM) is a multivariate data analysis method, which is usually used to figure out the relationship between variables based on the covariance matrix of variables. In other words, the purpose of SEM is to explore the causal relationship between different variables. In general, SEM mainly includes two structures, that is, measurement relationship and influence relationship. SEM belongs to multivariable statistical analysis, which integrates factor analysis and path analysis. At the same time, SEM can test the relationship between the explicit variables (measurement questions), the potential variables (meaning of measurement questions) and error variables in the model, so as to determine the direct effect, indirect effect and overall effect of the independent variables of on the dependent variables.

Structural equation model is widely used in various kinds of studies due to its following characteristics.

On the first place, SEM can consider and to handle the multiple dependent variables at the same time. To put it specifically, because of the good fitting ability and prediction effect, SEM has been widely used in various fields. In path analysis or regression analysis, even if multiple dependent variables are displayed in the statistical results, the model could still calculate each dependent variable one by one when calculating the path coefficient or regression coefficient. Of course, the model in path analysis or regression analysis still takes multiple dependent variables into consideration, but the model in path analysis or regression analysis ignores the influence of other dependent variables when calculating the influence relationship of one variable, which might result in the biased findings. From this point of view, it seems that SEM gets the better results.

On the second place, SEM allows the measurement errors of variables. Some variables may be affected by subjective factors, and thus, those variables usually contain some errors in the analysis. Therefore, it is better not to use a single indicator to measure the model. SEM allows variables to involve measurement errors to some extent, of course, the measurement errors of both independent and dependent variables. In addition, SEM allows variables to be measured by multiple indicators. The correlation coefficient between potential variables calculated by traditional methods might have relatively large difference compared with the correlation coefficient between potential variables calculated by SEM. Due to the tolerance of SEM, it seems that SEM gets the better results.

On the third place, SEM realizes the simultaneous estimation of factor structure and factor relationship. Usually, when making discussion the potential correlations between potential variables, it is required to at first measure each potential variable by multiple indicators or items, and accordingly to involve the factor analysis to calculate the relationship between each potential variable and items, so as to obtain the score of the factor as the observed value of potential variables, and then to obtain the score of the factor as the correlation coefficient between potential variables. Obviously, these

traditional methods involve two steps that are completed independently. Comparatively, in the structural equation model, these two steps could be carried out synchronously the relationship between factors and items, and the relationship between factors could all be taken into account in SEM. From this point of view, it seems that SEM gets the better results.

On the fourth place, SEM allows for a more elastic measurement model. Those traditional analysis methods only allow one indicator to be subordinate to a single factor. However, if an indicator was subordinate to multiple factors in the study, and still, if a model with relatively complex subordinate relationships such as higher-order factors was considered in the study, the traditional factor analysis would be difficult to solve the problems. On the contrary, SEM could help to handle such complex models. From this point of view, it seems that SEM gets the better results.

Thus, though analyzing the indicators screened in the previous chapter, it is suitable to involve the SEM in this research to make the discussion on the contents of the hypothesis, that is, to verify the potential influencing mechanism of independent variables (cognitive level, expectation and social attitude) on dependent variables (government openness and government transparency) considering the intermediary role of intermediary variables (policy perception and citizen participation).

Still, it should be clear that SEM is established on the basis of perfect theoretical support. Thus, before making the analysis though SEM, it is required to combine the professional knowledge with literature references to establish a preliminary model. At the same time, it is possible to draw a hypothetical model or the relationship between variables, and then verify this view or adjust the model through analysis. Therefore, at the beginning of SEM, a fit index of second-order model is drawn though AMOS, which is shown in the following figure 4-3.

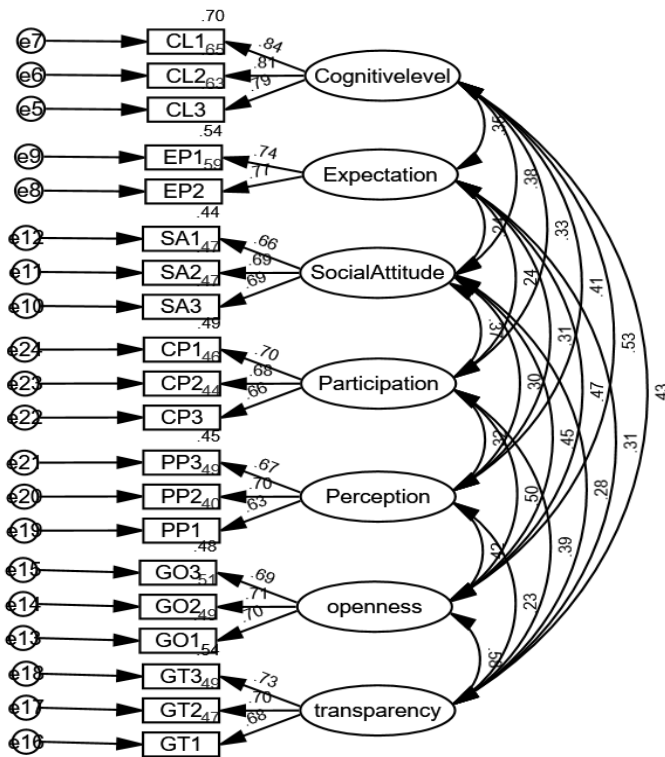


Figure 4-3. the fit indexes of second-order model

4.6.2 RESULTS OF INITIAL STRUCTURAL EQUATION MODEL

On the first place, it is required to make a summary about the initial structural equation model. The output from SPSS 21.0 is summarized as the following table 4-13, table 4-14 and graph 4-4.

Table 4-13. the overall fitting index of the model (initial model)

Statistics	Threshold	Results	Judgment
(Chi-square) CMIN		181.421	Supporting Conclusion
(Chi-square degree of freedom) CMIN/DF	< 3, not strictly less than 5 (or even 8)	1.201	Supporting

Statistics	Threshold	Results	Judgment
			Conclusion
(Goodness of fit index) GFI	> 0.90, close to 0.9 is generally acceptable	0.954	Supporting Conclusion
(Adjusted goodness of fit index) AGFI	> 0.90, close to 0.9 is generally acceptable	0.936	Supporting Conclusion
(Root mean square error) RMR	< 0.05, not strictly less than 0.1	0.04	Supporting Conclusion
(Normalized root mean square error) SRMR	< 0.05, not strictly less than 0.1	0.0395	Supporting Conclusion
(Approximate error mean square sum) RMSEA	< 0.05 (good adaptation) < 0.08 is generally acceptable	0.023	Supporting Conclusion
(Gauge fit index) NFI	> 0.90, close to 0.9 is generally acceptable	0.922	Supporting Conclusion
(Value added fit index) IFI	> 0.90, close to 0.9 is generally acceptable	0.986	Supporting Conclusion
(Tucker-Lewis index) TLI	> 0.90, close to 0.9 is generally acceptable	0.982	Supporting Conclusion

Statistics	Threshold	Results	Judgment
(compare fitting index) CFI	> 0.90, close to 0.9 is generally acceptable	0.986	Supporting Conclusion

Source: authors estimations

According to the above results, Chi-square is 181.421, χ^2/df is 1.201, GFI is 0.954, AGFI is 0.936, RMR is 0.04, SRMR is 0.0395, RMSEA is 0.023, NFI is 0.922, IFI is 0.986, TLI is 0.982, CFI is 0.986, all of which could meet the requirements, indicating that the measurement model fit quite well, or in other words, the theoretical assumptions are consistent with the real data.

Table 4-14. summary of model parameter estimates (initial model)

Variables	S. E.	C. R.	P	Std. Estimate	(Conclusion)
Perception ←- Cognitive level	0.056	3.734	***	0.292	Supported
Perception ←- Expectation	0.057	2.219	*	0.172	Supported
Participation ←- Social Attitude	0.082	3.337	***	0.271	Supported
Participation ←- Cognitive level	0.054	2.518	*	0.192	Supported
Participation ←- Expectation	0.056	1.465	0.143	0.112	Rejected
Perception ←- Social Attitude	0.08	2.078	*	0.162	Supported
openness ←- Perception	0.083	1.529	0.126	0.109	Rejected
openness ←- Cognitive level	0.058	3.491	***	0.246	Supported
transparency ←- Cognitive level	0.056	3.547	***	0.275	Supported
transparency ←- Participation	0.081	3.47	***	0.274	Supported
openness ←- Expectation	0.061	3.575	***	0.255	Supported
transparency ←- Expectation	0.056	2.227	*	0.167	Supported
openness ←- Social Attitude	0.086	2.261	*	0.164	Supported

Variables	S. E.	C. R.	P	Std. Estimate	(Conclusion)
transparency ←- Social Attitude	0.081	0.761	0.447	0.059	Rejected
openness ←- Participation	0.086	3.983	***	0.29	Supported
transparency ←- Perception	0.079	-0.259	0.796	-0.02	Rejected
CL3 ←- Cognitive level				0.793	Supported
CL2 ←- Cognitive level	0.067	15.44	***	0.804	Supported
CL1 ←- Cognitive level	0.069	15.91	***	0.838	Supported
EP2 ←- Expectation				0.769	Supported
EP1 ←- Expectation	0.13	7.327	***	0.73	Supported
SA3 ←- Social Attitude				0.69	Supported
SA2 ←- Social Attitude	0.115	9.261	***	0.688	Supported
SA1 ←- Social Attitude	0.12	9.149	***	0.662	Supported
GO1 ←- openness				0.715	Supported
GO2 ←- openness	0.089	10.837	***	0.706	Supported
GO3 ←- openness	0.085	10.613	***	0.683	Supported
GT1 ←- transparency				0.685	Supported
GT2 ←- transparency	0.102	10.028	***	0.694	Supported
GT3 ←- transparency	0.101	10.225	***	0.737	Supported
PP1 ←- Perception				0.634	Supported
PP2 ←- Perception	0.117	8.647	***	0.694	Supported
PP3 ←- Perception	0.112	8.601	***	0.673	Supported
CP3 <--- Participation				0.675	Supported
CP2 <--- Participation	0.109	9.165	***	0.665	Supported
CP1 <--- Participation	0.125	9.283	***	0.689	Supported

***. Correlation is significant at the 0.001 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: authors estimations

According to the above results, all values of S. E. in this model are between 0.054 and 0.125, which are all greater than zero, and still, in addition to social attitude to government transparency and still perception to government transparency, all values of C. R. in this model are greater than 1.96 (C. R. for social attitude to government transparency is 0.761, C. R. for perception to government transparency is -0.259). Therefore, it is concluded that except for social attitude to government transparency, and perception to government transparency, the indicators are all in line with the significant level in this model.

Table 4-15. the validity of the model (initial model)

route	Estimate	SMC R2	Measuring Error	CR	AVE
CL3 <--- Cognitive level	0.793	0.628849	0.371151	0.8529	0.6592
CL2 <--- Cognitive level	0.804	0.646416	0.353584		
CL1 <--- Cognitive level	0.838	0.702244	0.297756		
EP2 <--- Expectation	0.769	0.591361	0.408639	0.7196	0.5621
EP1 <--- Expectation	0.73	0.5329	0.4671		
SA3 <--- Social Attitude	0.69	0.4761	0.5239	0.7208	0.5126
SA2 <--- Social Attitude	0.688	0.473344	0.526656		
SA1 <--- Social Attitude	0.662	0.438244	0.561756		
GO1 <--- Openness	0.715	0.511225	0.488775	0.7439	0.5221
GO2 <--- Openness	0.706	0.498436	0.501564		
GO3 <--- Openness	0.683	0.466489	0.533511		
GT1 <--- Transparency	0.685	0.469225	0.530775	0.7483	0.5379
GT2 <--- Transparency	0.694	0.481636	0.518364		
GT3 <--- Transparency	0.737	0.543169	0.456831		
PP1 <--- Perception	0.634	0.401956	0.598044	0.7065	0.5058
PP2 <--- Perception	0.694	0.481636	0.518364		
PP3 <--- Perception	0.673	0.452929	0.547071		
CP3 <--- Participation	0.675	0.455625	0.544375	0.7167	0.5105

route	Estimate	SMC R2	Measuring Error	CR	AVE
CP2 <--- Participation	0.665	0.442225	0.557775		
CP1 <--- Participation	0.689	0.474721	0.525279		

Source: authors estimations

According to the above results, all the estimated coefficients of each variable and the corresponding first-order factor are significant (ranging from 0.634 to 0.838). Still, all AVE is greater than 0.5 and CR is greater than 0.7, indicating that there is a very significant impact. Thus, it is possible to make the further adjustment.

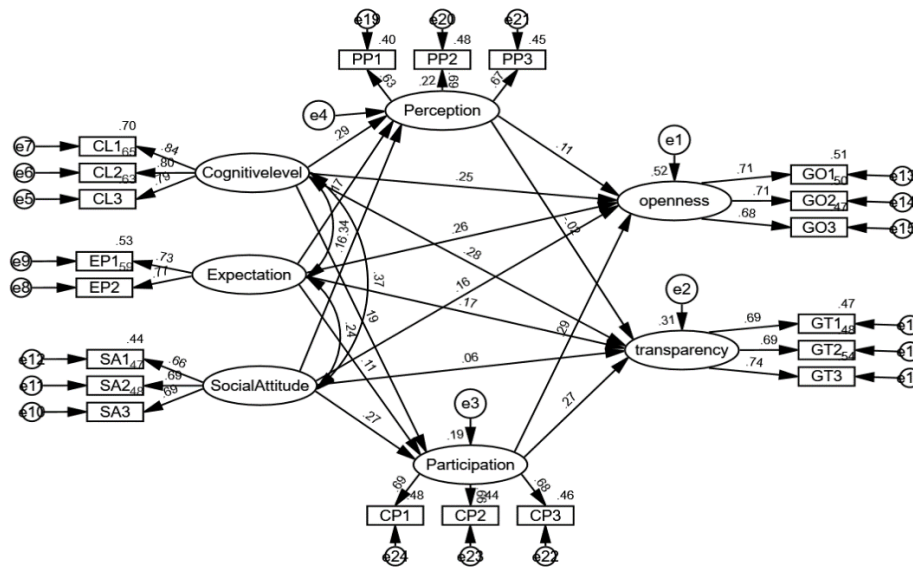


Figure 4-4 the initial structural equation model (initial model)

On the second place, it is required to conduct the path analysis. In order to examine the correlation coefficient of the model, it is still required to test the path coefficient to explore whether the data can fully fit or not. The higher the path coefficient displayed in the model is, the stronger the correlation among variables is, and of course, the stronger the influence relationship is. If the path coefficient is greater than 0.6, it is believed that the influence factor is relatively strong and should be considered. In this research, the output from SPSS 21.0 is summarized as the following table 4-16, table 4-17 and figure 4-5.

Table 4-16. the overall fitting index of the model (path analysis)

Statistics	Threshold	Results	Judgment
(Chi-square) CMIN		32.253	Supporting Conclusion
(Goodness of fit index) GFI	> 0.90, close to 0.9 is generally acceptable	0.976	Supporting Conclusion
(Root mean square error) RMR	< 0.05, not strictly less than 0.1	0.028	Supporting Conclusion
(Normalized root mean square error) SRMR	< 0.05, not strictly less than 0.1	0.0435	Supporting Conclusion
(Gauge fit index) NFI	> 0.90, close to 0.9 is generally acceptable	0.921	Supporting Conclusion
(Value added fit index) IFI	> 0.90, close to 0.9 is generally acceptable	0.925	Supporting Conclusion
(compare fitting index) CFI	> 0.90, close to 0.9 is generally acceptable	0.921	Supporting Conclusion

Source: authors estimations

Table 4-17. summary of model parameter estimates (path analysis)

	S. E.	C. R.	P	Std. Estimate	(Conclusion)
Perception <--- Cognitive level	0.039	4.556	***	0.239	Supported
Perception <--- Expectation	0.038	2.869	**	0.146	Supported
Participation <--- Social Attitude	0.053	3.851	***	0.2	Supported
Participation <--- Cognitive level	0.041	3.273	**	0.174	Supported
Participation <--- Expectation	0.041	1.641	0.101	0.085	Rejected
Perception <--- Social Attitude	0.05	2.344	**	0.12	Supported
openness <--- Perception	0.051	2.38	**	0.111	Supported

		S. E.	C. R.	P	Std. Estimate	(Conclusion)
openness	<--- Cognitive level	0.039	4.738	***	0.23	Supported
transparency	<--- Cognitive level	0.04	4.624	***	0.247	Supported
transparency	<--- Participation	0.049	3.633	***	0.183	Supported
openness	<--- Expectation	0.038	4.203	***	0.193	Supported
transparency	<--- Expectation	0.039	2.309	*	0.116	Supported
openness	<--- Social Attitude	0.05	3.13	**	0.146	Supported
transparency	<--- Social Attitude	0.051	1.216	0.224	0.062	Rejected
openness	<--- Participation	0.048	4.611	***	0.212	Supported
transparency	<--- Perception	0.052	0.147	0.883	0.007	Rejected

***. Correlation is significant at the 0.001 level (2-tailed).

** . Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: authors estimations

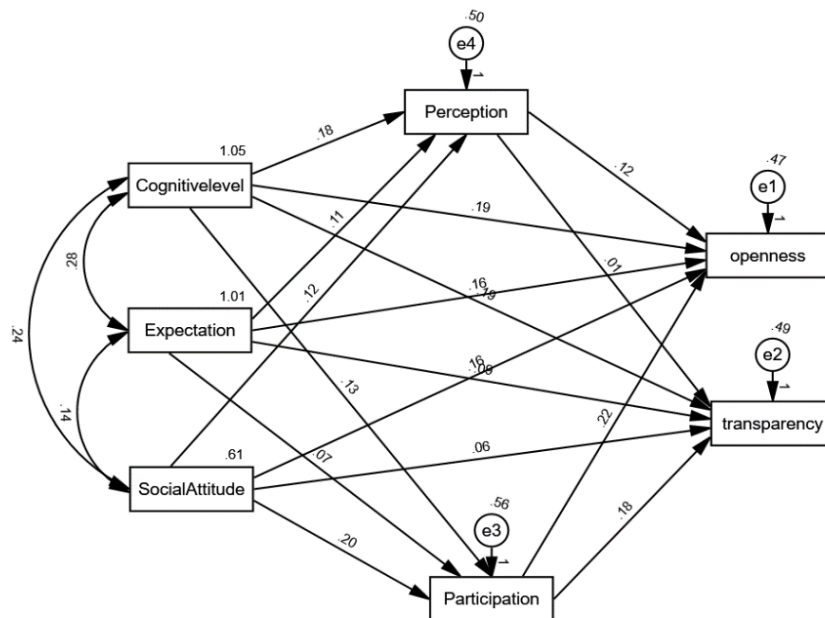


Figure 4-5 the path analysis

According to the above results of the path analysis, the coefficients of each path are all positive, indicating that there is a positive impact relationship between variables. However, from the perspective of coefficients (ranging from 0.007 to 0.247), the impact of each path is not quite important.

On the third place, it is required to make clear of the adjustment effect of the model. To be specific, at first, the adjustment effects of the four groups of adjustment models were analyzed.

In the first adjustment model, this research aims to verify the adjustment role of individual participation when policy perception making impacts on government openness. Therefore, the first model is proposed with government openness as the dependent variable, policy perception as the independent variable, and individual participation as the adjustment variable. The output from SPSS 21.0 is summarized as the following table 4-18 and table 4-19.

Table 4-18. summary of the model (adjustment model 1)

	R	R-sq	MSE	F	df1	df2	p
Model 1	.4739	.2246	.5371	34.9573	3.0000	362.0000	.0000

Source: authors estimations

From the summary table of the first model, it can be seen that R is 0.4739, R square is 0.2246, F statistic is 34.9573, and P-value = 0.000 < 0.001. According to the data in this research, the model fitting is OK.

Table 4-19. coefficient of the model (adjustment model 1)

	coefficient	S. E.	t	P	LLCI	ULCI
constant	3.7686	.0390	96.5778	.0000	3.6919	3.8454
PP	.2615	.0529	4.9456	.0000	.1575	.3654
Int_1	.0935	.0544	1.7183	.0866	-.0135	.2006

Source: authors estimations

From the model coefficient table 4-18, it is seen that the interaction term of independent variable and regulating variable does not have a significant impact on the dependent variable ($p = 0.0866 > 0.05$), and the upper and lower limits of the corresponding 95% confidence interval (-0.0135, 0.2006) include 0, indicating that the interaction term is not significant. It shows that the adjustment effect of individual participation under the impact of policy perception on government openness is not significant.

In the second adjustment model, this research aims to verify the adjustment role of government tolerance when policy perception making impacts on government openness. Therefore, the second model is proposed with government openness as the dependent variable, policy perception as the independent variable, and government tolerance as the adjustment variable. The output from SPSS 21.0 is summarized as the following table 4-20 and table 4-21.

Table 4-20 summary of the model (adjustment model 2)

	R	R-sq	MSE	F	df1	df2	p
Model 2	.4145	.1718	.5736	25.0352	3.0000	362.0000	.0000

From the summary table of the first model, it can be seen that R is 0.4145, R square is 0.1718, F statistic is 25.0352, and P-value = 0.000 < 0.001. According to the data in this research, the model fitting is OK.

Table 4-21. coefficient of the model (adjustment model 2)

	coefficient	S. E.	t	P	LLCI	ULCI
constant	3.7855	.0402	94.2721	.0000	3.7065	3.8645
PP	.2751	.0537	5.1246	.0000	.1695	.3807
Int_1	.0336	.0552	.6082	.5434	-.0750	.1422

Source: authors estimations

From the model coefficient table 4-21, it is seen that the interaction term of independent variable and adjustment variable does not has a significant impact on the

dependent variable ($p = 0.5434 > 0.05$), and the upper and lower limits of the corresponding 95% confidence interval (-0.750, 0.1422) include 0, indicating that the interaction term is not significant. It shows that the adjustment effect of government tolerance under the impact of policy perception on government openness is not significant.

In the third adjustment model, this research aims to verify the adjustment role of individual participation when citizen participation making impacts on government transparency. Therefore, the third model is proposed with government transparency as the dependent variable, citizen participation as the independent variable, and individual participation as the adjustment variable. The output from SPSS 21.0 is summarized as the following table 4-22 and table 4-23.

Table 4-22 summary of the model (adjustment model 3)

	R	R-sq	MSE	F	df1	df2	p
Model 3	.3890	.1513	.5118	21.5158	3.0000	362.0000	.0000

Source: authors estimations

From the summary table of the first model, it can be seen that R is 0.3890, R square is 0.1513, F statistic is 21.5158, and P-value = 0.000 < 0.001. According to the data in this research, the model fitting is OK.

Table 4-23. coefficient of the model (adjustment model 3)

	coefficient	S. E.	t	P	LLCI	ULCI
constant	4.0876	.0386	105.8825	.0000	4.0117	4.1635
PP	.1821	.0503	3.6210	.0003	.0832	.2809
Int_1	-.0919	.0504	-1.8222	.0693	-.1910	.0073

Source: authors estimations

From the model coefficient table 4-23, it is seen that the interaction term of independent variable and adjustment variable does not has a significant impact on the

dependent variable ($p = 0.0693 > 0.05$), and the upper and lower limits of the corresponding 95% confidence interval (-0.1910, 0.0073) include 0, indicating that the interaction term is not significant. It shows that the adjustment effect of individual participation under the impact of citizen participation on government transparency is not significant.

In the fourth adjustment model, this research aims to verify the adjustment role of government tolerance when citizen participation making impacts on government transparency. Therefore, the third model is proposed with government transparency as the dependent variable, citizen participation as the independent variable, and government tolerance as the adjustment variable. The output from SPSS 21.0 is summarized as the following table 4-24 and table 4-25.

Table 4-24 summary of the model (adjustment model 4)

	R	R-sq	MSE	F	df1	df2	p
Model 3	.3646	.1330	.5229	18.5037	3.0000	362.0000	.0000

Source: authors estimations

From the summary table of the first model, it can be seen that R is 0.3646, R square is 0.1330, F statistic is 18.5037, and P-value = 0.000 < 0.001. According to the data in this research, the model fitting is OK.

Table 4-25. coefficient of the model (adjustment model 4)

	coefficient	S. E.	t	P	LLCI	ULCI
constant	4.1012	.0393	104.2750	.0000	4.0238	4.1785
PP	.1803	.0519	3.4728	.0006	.0782	.2824
Int_1	.1295	.0454	2.8542	.0046	.0403	.2187

Source: authors estimations

From the model coefficient table 4-18, it is seen that the interaction term of independent variable and adjustment variable has a significant impact on the dependent

variable ($p = 0.0046 < 0.05$), and the upper and lower limits of the corresponding 95% confidence interval (0.0403, 0.2187) does not include 0, indicating that the interaction term is significant. It shows that the adjustment effect of government tolerance under the impact of citizen participation on government transparency is significant.

In addition, this research involves the slope analysis through $M \pm 1SD$ to make the further adjustment. The output from SPSS 21.0 is summarized as the following table 4-26.

Table 4-26. the slope report of the adjustment effect

	Government tolerance	Effect	S. E.	t	p	LLCI	ULCI
M-1SD	-.9199	.0612	.0738	.8286	.4079	-.0840	.2064
M	.0000	.1803	.0519	3.4728	.0006	.0782	.2824
M+1SD	.9199	.2994	.0585	5.1182	.0000	.1844	.4145

Source: authors estimations

According to the results of the above table 4-26, at the low level of the moderator variable (M-1SD), the P-value of the test is not significant, and the upper and lower limits of the corresponding 95% confidence interval include 0, indicating that the adjustment effect is not significant. At the intermediate level (M) of the adjustment variable, the P-value of the test is significant, and the upper and lower limits of the corresponding 95% confidence interval do not include 0, indicating that the adjustment effect is significant, and the simple slope is 0.0000. At the high level of the moderator variable (M+1SD), the P-value of the test is significant, and the upper and lower limits of the corresponding 95% confidence interval do not include 0, indicating that the adjustment effect is significant, and the simple slope is 0.9199, which has a positive impact on the dependent variable as an outcome variable. To sum up, the adjustment variable has different influences on the dependent variable at different levels, and the adjustment effect of the adjustment variable between the independent variable and the dependent variable could be verified.

Furthermore, this research draws the slope plot of $M \pm 1SD$ to make the further verification. The output from SPSS 21.0 is summarized as the following figure 4-6.

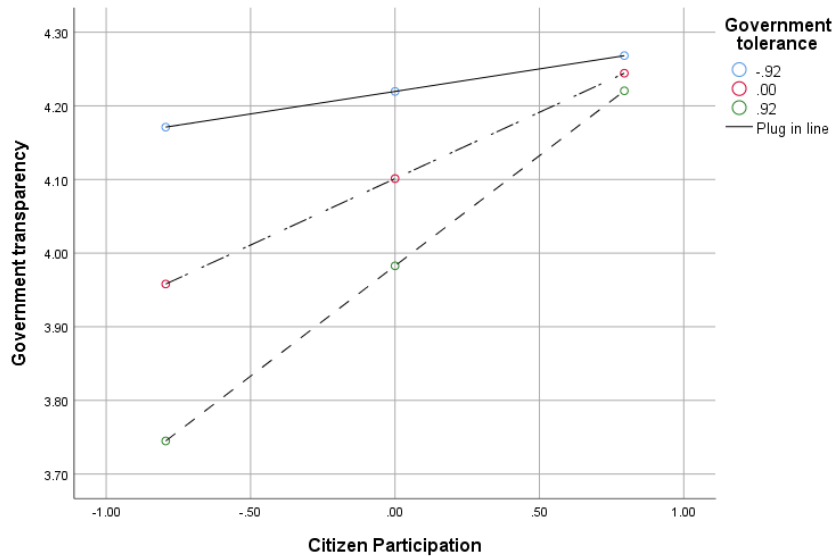


Figure 4-6. the slope plot of $M \pm 1SD$

According to the above graph, it could be found that due to the existence of adjustment effect, the slope of regression is different when the adjustment variables are at different levels, which is consistent with the above analysis based on the slope report.

On the fourth place, it is required to complete the modified model on the basis of the initial SEM and still the above path analysis. In the path analysis, the impact of policy perception on the government openness (standardized factor load = 0.111, $p = 0.017$) is supported significantly, while in structural equation model, the impact of policy perception on the government openness (standardized factor load = 0.109, $p = 0.126$) is rejected. Therefore, it is required to make some further modifications on the model. According to AMO's revised opinion (covariances guidance modification in modification indices), the following modifications are involved.

Firstly, the errors of the two dependent variables, government openness and government transparency, are e_1 and e_2 , thus, it is logical to connect these two errors e_1 and e_2 . Secondly, the error of policy perception is e_4 , the error of the first question (the individual's attention to social hot spots) is e_7 . Thirdly, policy perception is taken as the

moderator variable, while government openness and government transparency are taken as the dependent variables. The first question (the individual's attention to social hot spots) is a question closely related to the moderator variable (policy perception) and the dependent variable (government openness and government transparency), so it is reasonable to link the errors between them. Taking all of the above into consideration, this research makes the further modifications to the measurement model. The output from SPSS 21.0 is summarized as the following table 4-27, table 4-28, table 4-29 and figure 4-7.

Table 4-27. the overall fitting index of the model (modified model)

Statistical test quantity	Threshold of adaptation	Results of inspection	Judgment of fit
(Chi-square value) CMIN		149.901	Supported
(Chi-square degree of freedom) CMIN/DF	< 3, not strictly less than 5 (or even 8)	1.02	Supported
(Goodness of fit index) GFI	> 0.90, close to 0.9 is generally acceptable	0.962	Supported
(Adjusted goodness of fit index) AGFI	> 0.90, close to 0.9 is generally acceptable	0.946	Supported
(Root mean square error) RMR	< 0.05, not strictly less than 0.1	0.035	Supported
(Normalized root mean square error) SRMR	< 0.05, not strictly less than 0.1	0.0333	Supported
(Approximate error mean square sum) RMSEA	< 0.05 (good adaptation) < 0.08 (reasonable)	0.007	Supported
(Gauge fit index) NFI	> 0.90, close to 0.9 is generally acceptable	0.935	Supported
(Value added fit index) IFI	> 0.90, close to 0.9 is generally acceptable	0.999	Supported

Statistical test quantity	Threshold of adaptation	Results of inspection	Judgment of fit
(Tucker-Lewis index) TLI	> 0.90, close to 0.9 is generally acceptable	0.998	Supported
(Compare fitting index) CFI	> 0.90, close to 0.9 is generally acceptable	0.999	Supported

Source: authors estimations

Table 4-28. summary of model parameter estimates (modified model)

		S.E.	C.R.	P	Standardized Estimate	(Conclusion)
Perception	<--- Cognitive level	0.057	3.149	**	0.256	Supported
Perception	<--- Expectation	0.057	2.343	*	0.183	Supported
Participation	<--- Social Attitude	0.082	3.389	***	0.276	Supported
Participation	<--- Cognitive level	0.052	2.447	*	0.186	Supported
Participation	<--- Expectation	0.055	1.521	0.128	0.116	Rejected
Perception	<--- Social Attitude	0.081	2.238	*	0.176	Supported
openness	<--- Perception	0.084	1.969	*	0.144	Supported
openness	<--- Cognitive level	0.059	2.355	*	0.173	Supported
transparency	<--- Cognitive level	0.059	3.825	***	0.313	Supported
transparency	<--- Participation	0.082	3.046	**	0.241	Supported
openness	<--- Expectation	0.061	3.572	***	0.258	Supported
transparency	<--- Expectation	0.056	1.825	*	0.138	Supported
openness	<--- Social Attitude	0.087	2.488	*	0.183	Supported
transparency	<--- Social Attitude	0.083	0.577	0.564	0.046	Rejected
openness	<--- Participation	0.086	3.749	***	0.273	Supported
transparency	<--- Perception	0.079	-0.195	0.845	-0.015	Rejected
CL3	<--- Cognitive level				0.803	Supported
CL2	<--- Cognitive level	0.066	15.635	***	0.807	Supported
CL1	<--- Cognitive level	0.069	15.714	***	0.828	Supported
EP2	<--- Expectation				0.77	Supported
EP1	<--- Expectation	0.133	7.132	***	0.733	Supported
SA3	<--- Social Attitude				0.689	Supported
SA2	<--- Social Attitude	0.115	9.266	***	0.687	Supported
SA1	<--- Social Attitude	0.12	9.166	***	0.664	Supported
GO1	<--- openness				0.708	Supported
GO2	<--- openness	0.088	11.088	***	0.711	Supported
GO3	<--- openness	0.085	10.814	***	0.686	Supported
GT1	<--- transparency				0.684	Supported
GT2	<--- transparency	0.101	10.23	***	0.704	Supported

		S.E.	C.R.	P	Standardized Estimate	(Conclusion)
GT3	<--- transparency	0.099	10.37	***	0.728	Supported
PP1	<--- Perception				0.635	Supported
PP2	<--- Perception	0.116	8.663	***	0.691	Supported
PP3	<--- Perception	0.112	8.629	***	0.676	Supported
CP3	<--- Participation				0.669	Supported
CP2	<--- Participation	0.112	9.155	***	0.676	Supported
CP1	<--- Participation	0.128	9.22	***	0.693	Supported

***. Correlation is significant at the 0.001 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Source: authors estimations

Table 4-29. the validity of the model (modified model)

route		Estimate	SMC R2	Measuring error	CR	AVE
CL3	<--- Cognitive level	0.803	0.644809	0.355191	0.8537	0.6605
CL2	<--- Cognitive level	0.807	0.651249	0.348751		
CL1	<--- Cognitive level	0.828	0.685584	0.314416		
EP2	<--- Expectation	0.77	0.5929	0.4071	0.722	0.5651
EP1	<--- Expectation	0.733	0.537289	0.462711		
SA3	<--- Social Attitude	0.689	0.474721	0.525279	0.7207	0.5125
SA2	<--- Social Attitude	0.687	0.471969	0.528031		
SA1	<--- Social Attitude	0.664	0.440896	0.559104		
GO1	<--- openness	0.708	0.501264	0.498736	0.7443	0.5225
GO2	<--- openness	0.711	0.505521	0.494479		
GO3	<--- openness	0.686	0.470596	0.529404		
GT1	<--- transparency	0.684	0.467856	0.532144	0.7482	0.5379
GT2	<--- transparency	0.704	0.495616	0.504384		
GT3	<--- transparency	0.728	0.529984	0.470016		
PP1	<--- Perception	0.635	0.403225	0.596775	0.7068	0.5059
PP2	<--- Perception	0.691	0.477481	0.522519		

route	Estimate	SMC R2	Measuring error	CR	AVE
PP3 <--- Perception	0.676	0.456976	0.543024		
CP3 <--- Participation	0.669	0.447561	0.552439	0.72	0.5116
CP2 <--- Participation	0.676	0.456976	0.543024		
CP1 <--- Participation	0.693	0.480249	0.519751		

Source: authors estimations

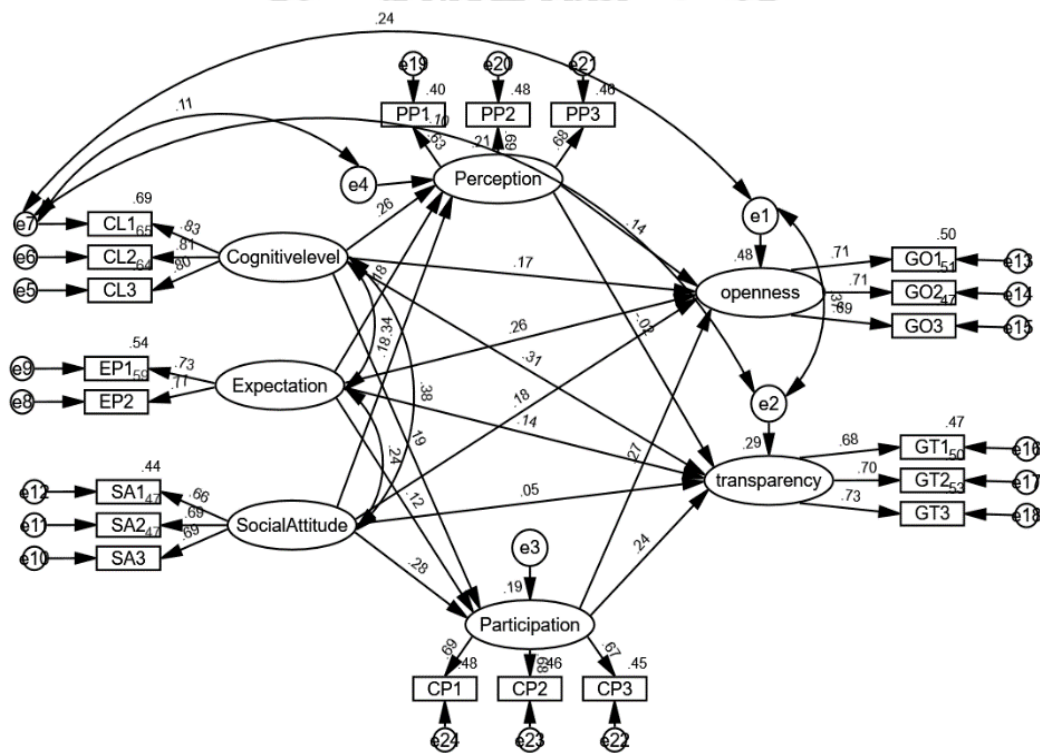


Figure 4-7 the modified structural equation model (modified model)

As for the model fitting results, based on the table 4-26, all fitting parameters meet the requirements, indicating that the modified model fit quite well, or in other words, the theoretical assumptions are consistent with the real data. Furthermore, as for the estimated coefficients of each variable and the corresponding first-order factor, based on the table 4-27 and 4-28, all estimates range from 0.635 to 0.828, conforming to the acceptable range (0.50-0.95), indicating the very significant effects.

4.7 ANALYSIS OF MODERATOR EFFECT

To make the further exploration about the second research question, that is, ‘how does citizens’ online participation make impacts on policy formulation?’, this part tries to make a further detailed discussion about the potential moderator role of policy perception and citizen participation (namely, moderation variables) in the impact of cognitive level, expectation perception and social attitude (independent variables) on the government openness and the government transparency (dependent variables). Therefore, in this part, this research involved the moderator effect analysis for the detailed discussion about the hypothesis proposed in the previous chapter.

4.7.1 GENERAL INFORMATION

Moderation is an important method in social science research and an important method for the exploration of the correlations between multiple variables. If the correlation between the dependent variable Y and the independent variable X (the size and direction of the regression slope) changes with the change of the third variable Z, Z could be said to play a moderation role between X and Y, and thus, Z could be taken as a moderation variable.

In general, the moderation effect could be analyzed through the method of the stratified regression. It is possible to judge whether it is significant according to the R-squared change. If the R-squared change is significant, and the interaction term is not significant, it tends to believe that there is no moderation effect, that Z does not play the moderation role in the impact of X on Y. On the contrary, if the R-squared change is significant, and the interaction term is significant, it tends to believe that there is indeed moderation effect, that Z does play the moderation role in the impact of X on Y.

4.7.2 RESULTS OF MEDIATION ANALYSIS

To figure out the mediation role of policy perception and citizen participation (moderation variables) in the impact of cognitive level, expectation perception and social attitude (independent variables) on government openness and government transparency

(dependent variables), this research completes the mediation analysis. The output from SPSS 21.0 is summarized as the following table 4-30 and table 4-31.

Table 4-30 Standardized Indirect Effects— Lower Bounds (BC)

	Social Attitude	Expectation	Cognitive level
Participation	0	0	0
Perception	0	0	0
transparency	0.005	-0.03	-0.021
openness	0.037	-0.002	0.027

Source: authors estimations

Table 4-31. Standardized Indirect Effects— Upper Bounds (BC)

	Social Attitude	Expectation	Cognitive level
Participation	0	0	0
Perception	0	0	0
transparency	0.154	0.092	0.124
openness	0.195	0.14	0.173

Source: authors estimations

According to the above table 4-30 and table 4-31, the following main conclusions could be got.

On the first place, as for the impact of cognitive level on government transparency, by observing the upper and lower limits of the confidence interval with bias correction, it is found that the lower limit and upper limit of the indirect effect of the independent variable cognitive level on the dependent variable government transparency are -0.021 and 0.124. Therefore, the confidence interval includes 0. From this point of view, the moderator effect of moderator variables (policy perception and citizen participation) in

the process of independent variable cognitive level making impacts on dependent variable government transparency is not significant.

On the second place, as for the impact of cognitive level on government openness, by observing the upper and lower limits of the confidence interval with bias correction, it is found that the lower limit and upper limit of the indirect effect of the independent variable cognitive level on the dependent variable government openness are 0.027 and 0.173. Therefore, the confidence interval does not include 0. From this point of view, the moderator effect of moderator variables (policy perception and citizen participation) in the process of independent variable cognitive level making impacts on dependent variable government openness is significant.

On the third place, as for the impact of expectation on government transparency, by observing the upper and lower limits of the confidence interval with bias correction, it is found that the lower limit and upper limit of the indirect effect of the independent variable cognitive level on the dependent variable government transparency are -0.03 and 0.092. Therefore, the confidence interval includes 0. From this point of view, the moderator effect of moderator variables (policy perception and citizen participation) in the process of independent variable expectation making impacts on dependent variable government transparency is not significant.

On the fourth place, as for the impact of expectation on government openness, by observing the upper and lower limits of the confidence interval with bias correction, it is found that the lower limit and upper limit of the indirect effect of the independent variable cognitive level on the dependent variable government openness are -0.002 and 0.14. Therefore, the confidence interval includes 0. From this point of view, the moderator effect of moderator variables (policy perception and citizen participation) in the process of independent variable expectation making impacts on dependent variable government openness is not significant.

On the fifth place, as for the impact of social attitude on government transparency, by observing the upper and lower limits of the confidence interval with bias correction, it is found that the lower limit and upper limit of the indirect effect of the independent

variable cognitive level on the dependent variable government transparency are 0.005 and 0.154. Therefore, the confidence interval does not include 0. From this point of view, the moderator effect of moderator variables (policy perception and citizen participation) in the process of independent variable social attitude making impacts on dependent variable government transparency is significant.

On the sixth place, as for the impact of social attitude on government openness, by observing the upper and lower limits of the confidence interval with bias correction, it is found that the lower limit and upper limit of the indirect effect of the independent variable cognitive level on the dependent variable government transparency are 0.0037 and 0.195. Therefore, the confidence interval does not include 0. From this point of view, the moderator effect of moderator variables (policy perception and citizen participation) in the process of independent variable social attitude making impacts on dependent variable government openness is significant.

4.8 SUMMARY

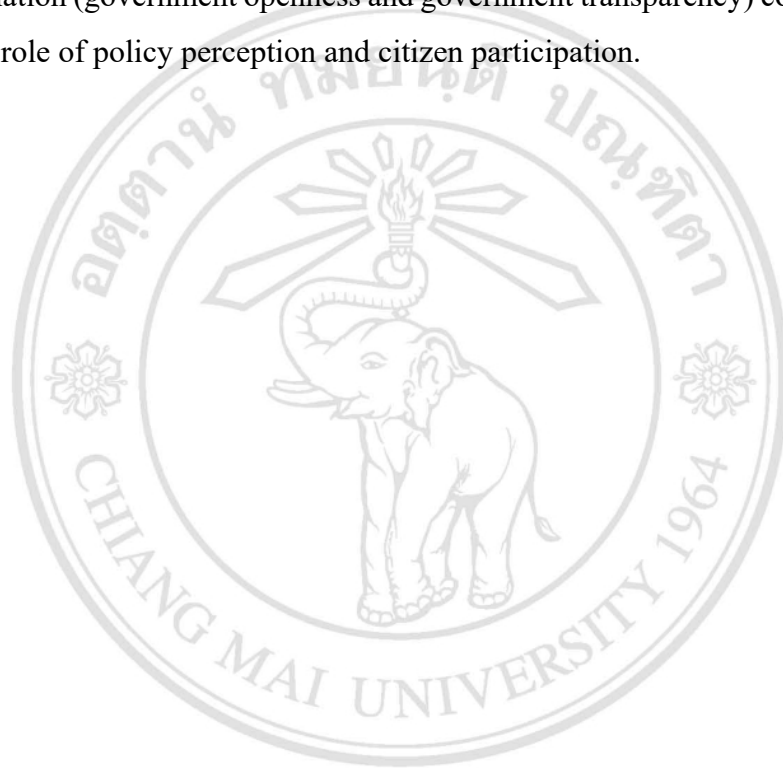
Up till now, this chapter has completed the discussion about the impact of cognitive level, expectation and social attitude (independent variables) on government openness and government transparency (dependent variables) considering the intermediary role of policy perception and citizen participation (moderation variables) through a series of empirical analysis. Based on the findings of those empirical analysis, it is possible to make the judgment whether the hypothesis is supported or not, which is summarized in the following table 4-31.

The moderator effect of policy perception and citizen participation in the process of independent variable cognitive level making impacts on dependent variable government transparency is not significant.

Hypothesis	Conclusions
H1a: Cognitive level makes the positive impacts on government openness.	Supported

H1b: Cognitive level makes the positive impacts on government transparency.	Supported
H2a: Expectation makes the positive impacts on government openness.	Supported
H2b: Expectation makes the positive impacts on government transparency.	Supported
H3a: Social attitude makes the positive impacts on government openness.	Supported
H3b: Social attitude makes the positive impacts on government transparency.	Not supported
H4a: Policy perception plays the moderatory role in the impact of cognitive level on government openness.	Supported
H4b: Policy perception plays the moderatory role in the impact of cognitive level on government transparency.	Not supported
H4c: Policy perception plays the moderatory role in the impact of expectation on government openness.	Not supported
H4d: Policy perception plays the moderatory role in the impact of expectation on government transparency.	Not supported
H4e: Policy perception plays the moderatory role in the impact of social attitude on government openness.	Supported
H4f: Policy perception plays the moderatory role in the impact of social attitude on government transparency.	Supported
H5a: Citizen participation plays the moderatory role in the impact of cognitive level on government openness.	Supported
H5b: Citizen participation plays the moderatory role in the impact of cognitive level on government transparency.	Not supported
H5c: Citizen participation plays the moderatory role in the impact of expectation on government openness.	Not supported
H5d: Citizen participation plays the moderatory role in the impact of expectation on government transparency.	Not supported
H5e: Citizen participation plays the moderatory role in the impact of social attitude on government openness.	Supported
H5f: Citizen participation plays the moderatory role in the impact of social attitude on government transparency.	Supported

To make a summary, as for the impact of Internet public opinion (cognitive level, expectation perception and social attitude) on public policy formulation (government openness and government transparency), except social attitude, cognitive level and expectation indeed make the impacts on public policy formulation (government openness and government transparency). Still, as for the moderatory role of policy perception and citizen participation, it seems that only the social attitude make the impacts on public policy formulation (government openness and government transparency) considering the intermediary role of policy perception and citizen participation.



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CHAPTER 5

INTERNATIONAL EXPERIENCE

5.1 BRIEF INTRODUCTION

This chapter aims to solve the third research question “what are the excellent experiences in the field of citizens’ online participation in public policy formulation from the foreign countries?”, so as to get some preparations for the answers to the last research question “what could be done to further promote Chinese citizens’ online participation in policy formulation”. The focus of this chapter is to make a further discussion on the findings got from the previous chapter ‘empirical analysis’ and still the excellent experiences from the foreign countries, so as to propose some targeted recommendations for the further improvement of the effects of online citizen participation in China.

On the first place, this chapter makes a brief review of the findings got in the previous empirical analysis. To put it specifically, based on comprehensively reviewing the findings in the empirical analysis, this chapter at first gets a general understanding of the hypothesis.

On the second place, this chapter makes a brief review of the excellent experiences from the foreign countries, including both Western countries and Asian countries. To put it specifically, this chapter involves the typical cases of American citizens’ online participation, Singapore citizens’ online participation, Korean citizens’ online participation and Japan citizens’ online participation.

On the third place, combined with the empirical findings in this research and still the excellent experiences from the foreign countries, this chapter tries to propose some targeted recommendations (strengthen the infrastructure construction and balance information resources; perfect the e-government platform and strengthen e-government functions; build the comprehensive management mechanism of online public opinion; guide the online public opinion and realize the standardized working process; provide legislative guarantee and technical support of online participation; and improve citizens’

political literacy of and guide citizens' moral compliance), which is the most important part in this chapter.

It is strongly expected that the empirical findings in this research could be transformed into the practical policy suggestions and accordingly could make practical significance to some extent.

5.2 MAIN EMPIRICAL FINDINGS

The empirical analysis in the chapter 4 mainly focuses on the impact of independent variables (including cognitive level, expectation perception and social attitude) on dependent variables (including government openness and government transparency) with the consideration of the intermediary role of policy perception and citizen participation (moderation variables). Based on the findings of the empirical analysis, this research makes a summary as follows.

Firstly, as for the impact of the independent variable (cognitive level) on dependent variables (including government openness and government transparency), based on the empirical discussion, cognitive level makes the positive impact on both government openness and government transparency at the significant level. In other words, citizens with higher cognitive level would have more confidence in government openness and government transparency, which is consistent with the description of Simon (1991), that is, the lack of cognition and professional knowledge means the great difficulty to achieve complete rationality in decision-making, and of course, government openness and government transparency. Of course, this is good news for their policy participation. To put it simply, citizens with higher cognitive level would play the better role in their online participation in policy formulation.

Secondly, as for the impact of the independent variable (expectation) on dependent variables (including government openness and government transparency), based on the empirical discussion, expectation makes the positive impact on both government openness and government transparency at the significant level. In other words, citizens with higher expectation would have more confidence in government openness and

government transparency, which is consistent with the description of Dee and Jacob (2012), that is, citizens with lower expectations for participation will have lower willingness to participate, and of course, government openness and government transparency. Of course, this is good news for their policy participation. To put it simply, citizens with higher expectation would have more enthusiasm in taking part in the political activities online, such as policy formulation.

Thirdly, as for the impact of the independent variable (social attitude) on dependent variables (including government openness and government transparency), based on the empirical discussion, social attitude makes the positive impact on government openness at the significant level, while does not make the significant impact on government transparency. In other words, citizens with better social attitude would have more confidence in government openness. Just like clarifications from Nanetti, et al. (1994) in the first chapter of “Making Democracy Work”, the higher confidence in government openness could result in the higher credibility of the government, and accordingly the higher the enthusiasm of citizens to participate. However, it seems that there does not obvious correlations between social attitude and government transparency. From this point of view, it is an option to cultivate social attitude of citizens so as to guide them to play the better role in their online participation in policy formulation.

Fourthly, as for the moderatory role of moderator variables (policy perception) in the impact of the independent variable (cognitive level) on dependent variables (including government openness and government transparency), based on the empirical discussion, the moderator effect of policy perception in the process of cognitive level making positive impacts on government openness is significant, while the moderator effect of policy perception in the process of cognitive level making positive impacts on government transparency is not significant. From this point of view, it is an option to increase citizens’ policy perception to guide the citizens with higher cognitive level to play the better role in their online participation in policy formulation.

Fifthly, as for the moderatory role of moderator variables (citizen participation) in the impact of the independent variable (cognitive level) on dependent variables

(including government openness and government transparency), based on the empirical discussion, the moderator effect of citizen participation in the process of cognitive level making positive impacts on government openness is significant, while the moderator effect of citizen participation in the process of cognitive level making positive impacts on government transparency is not significant. From this point of view, it is an option to increase citizens participation to guide the citizens with higher cognitive level to play the better role in their online participation in policy formulation.

Sixthly, as for the moderatory role of moderator variables (policy perception) in the impact of the independent variable (expectation) on dependent variables (including government openness and government transparency), based on the empirical discussion, the moderator effect of policy perception in the process of citizens' expectation making positive impacts on both government openness and government transparency are not significant. In other words, it seems that the changing policy perception would not influence the result of expectation making impacts on government openness and government transparency.

Seventhly, as for the moderatory role of moderator variables (citizen participation) in the impact of the independent variable (expectation) on dependent variables (including government openness and government transparency), based on the empirical discussion, the moderator effect of citizen participation in the process of citizens' expectation making positive impacts on both government openness and government transparency are not significant. In other words, it seems that the changing citizen participation would not influence the result of expectation making impacts on government openness and government transparency.

Eighthly, as for the moderatory role of moderator variables (policy perception) in the impact of the independent variable (social attitude) on dependent variables (including government openness and government transparency), based on the empirical discussion, the moderator effect of policy perception in the process of social attitude making positive impacts on government openness is significant (social attitude does not make significant impacts on government transparency). From this point of view, it is an option to cultivate

citizens' social attitude to guide the citizens with better social attitude to play the better role in their online participation in policy formulation.

Ninthly, as for the moderatory role of moderator variables (citizen participation) in the impact of the independent variable (social attitude) on dependent variables (including government openness and government transparency), based on the empirical discussion, the moderator effect of citizen participation in the process of social attitude making positive impacts on government openness is significant (social attitude does not make significant impacts on government transparency). From this point of view, it is an option to increase citizens' participation to guide the citizens with better social attitude to play the better role in their online participation in policy formulation.

Up till now, the research questions proposed at the beginning could be answered. According to the findings in the empirical analysis, at first, citizen's online participation, which could be reflected by their cognitive level, individual expectation and social attitude, indeed makes impacts on the effectiveness and efficiency of policy formulation, which could be reflected by government openness and government transparency. Furthermore, as for the specific influencing mechanism, it seems that policy perception and citizen participation played the moderator role to some extent in the increase of government openness and government transparency, and accordingly the effectiveness and efficiency of citizens' online participation in policy formulation. From this point of view, citizens' cognitive level, individual expectation, social attitude, policy perception and citizen participation should all been paid attention for increasing effectiveness and efficiency of citizens' online participation in policy formulation from different points of view.

5.3 EXCELLENT EXPERIENCES FROM FOREIGN COUNTRIES

This part will make a brief review of the excellent experiences from the foreign countries. To put it specifically, this chapter involves the typical cases of American citizens' online participation, Singapore citizens' online participation, Korean citizens' online participation and Japan citizens' online participation. When it comes to the

reasons for selecting these four countries, this research mainly takes the following aspects into consideration. Firstly, all of these four countries are typical countries with well-known performance in Internet technology. In terms of Internet applications, these four countries are all developed countries, and the development of Internet technology is in the forefront of the country. Therefore, in exploring online participation, it is believed that all four countries have advanced experience. Furthermore, both the United States and South Korea have relatively high degrees of political freedom in their lives. Citizens are able to freely participate and influence political decision-making to a certain extent. Relatively speaking, the political freedom of Singaporean and Japanese citizens is relatively low, and they may exhibit different developmental characteristics in terms of citizen participation. Finally, this research involves both Western countries (American) and Asian countries (Singapore, Korean and Japan), I believe that the comparison of these different cultures can better understand the suitable path for Chinese citizens to participate online.

5.3.1 AMERICAN CITIZENS' ONLINE PARTICIPATION IN PUBLIC POLICY FORMULATION

At first, it is required to have a general understanding of the practices of American citizens' online participation in public policy formulation. As early as 1990s, the United States had started the construction of the e-government (Baxter, 2017). From the beginning of the construction, special attention had been paid to the construction of network infrastructure and the application of information technology. Among many countries promoting e-government, the United States is earliest countries to build e-government. In 1994, the Information Technology Service Group (ITSG) of the United States Government proposed to establish a public-oriented e-government and issued a relative report 'Prospects for Government Information Technology Services' to adapt to the development of the new technology (Chan, 2021). Then, the federal government required to achieve paperless office work within five years, and passed the Government Paper Elimination Act, making the information technology the internal basis of e-government management. Still, the federal government officially launched a government

portal. Furthermore, the then President Bush proposed to construct an e-government on the basic premise of ‘full of vitality but limited’. Accordingly, the United States set up a special task force for e-government management. Since then, the construction of the government administration system in the United States has been gradually improved, marking the beginning of e-government era in the United States. The openness, equality and convenience of the Internet make American netizens more and more inclined to obtain relevant national policy information through Internet and still to participate in some democratic discussions timely. Internet has gradually been penetrating all aspects of American political life. At the same time, in the new media era, the relationship between American politics, politicians and the Internet is becoming more and more close.

As early as 1996, the Republican candidate Buchanan used his personal website to campaign and became the first candidate to successfully use the Internet campaign (Baxter, 2017). Since then, the media strategy of the presidential campaign has taken the establishment of candidate websites as a necessity. Still, the Republican candidate John McCain used the Internet to raise campaign funds for the first time, setting the precedent for Internet donations. Furthermore, the Democratic candidate Dean used blogs to publish political opinions for the first time. Still, the Democratic candidate Obama made use of various network media, new technologies and new applications of the Internet during the election process, making Obama, a young man who lack political experience, become the first black president of the United States (Chan, 2021). Many celebrities and politicians combine the Internet with political life and emphasize the importance of the Internet in political elections. For example, Google President Schmidt once put forward the view that if the candidate can give full play to the potential of the Internet in the presidential election, it will make him stand out in the political election (Gao, 2014). Similarly, an American media once commented that the key factor determining the outcome of the presidential election is not who knows politics better, but who knows how to use the Internet better (Gao, 2014).

Furthermore, based on the above review of American citizens’ online participation in public policy formulation, it is found that the success of American citizens’ online participation greatly benefits from its construction of network legislation and its financial

assistance. To put it specifically, the United States, as the birthplace of the Internet is the first country to manage the Internet. Although some Americans once believed that the order and rules of cyberspace should be gradually established by the invisible hand of the market, a series of problems such as network viruses and hacker had proved that the government must be involved in the formulation of Internet rules and crack down on illegal acts through appropriate management. Legislation is the most important means for the United States to manage the Internet (Chan, 2021). In addition to national regulations, each state had still promulgated regulations according to their specific characteristics of Internet applications in the local area (Baxter, 2017). The American government's focus on the construction of network legislation can be traced back to the United States Computer System Protection Act, which provided legal protection for computer security. Furthermore, relevant legal documents based on cyberspace security made more prominent progress. In the field of e-government, the United States has still formulated relevant legal documents. For example, the United States formulated the e-government strategy law. After the establishment of the fixed special management organization, the United States began to focus on strengthening the unified management of e-government, which promoted the construction of e-government to quite a great extent. Still, the 'National Cyberspace Strategy for Cyberspace' issued by the United States placed the security of cyberspace information at the strategic level. In the field of network privacy, the United States has also formulated relevant legal documents (Olabamiji, 2014). For example, the United States made a thorough supplement to the regulations on personal privacy and formed a more comprehensive protection of legal documents on network privacy. Furthermore, the improvement of the Internet Privacy Protection Policy further guaranteed personal privacy and national information infrastructure. In addition to legal countermeasures, the United States federal government had also set up more financial assistance in public places as the countermeasures to eliminate the digital divide and to promote the application of the Internet in the whole society. For example, the community technology service center is in a concentrated area where low-income people live in groups. The local government often provided free information technology knowledge and related services to low-income people (Baxter, 2017). In the communities of most citizens, the government had also gradually

established more service centers and guaranteed the diversified services of these centers. In rural areas, the local government invested in broadband access equipment in the form of low-interest financing to meet the needs of broadband Internet access in rural areas. Still, the government provided training and assistance for the disabled in the whole society (Baxter, 2017).

5.3.2 SINGAPORE CITIZENS' ONLINE PARTICIPATION IN PUBLIC POLICY FORMULATION

At first, it is required to have a general understanding of the practices of Singapore citizens' online participation in public policy formulation. Singapore is in a relatively leading position among the developing countries in the world. Its domestic politics is relatively stable, and its economic development is relatively good (Skoric, et al., 2009). In recent years, Singapore has always taken the interests of the people and public morality as the main policy of national development and has always taken strict control over the information and media sector. Especially in the context of the continuous progress of Internet technology, the Singapore government also has a more rigorous attitude towards the management of the relevant network sectors (Skoric, et al., 2009), for example, the regulations relative to the Internet, so as to minimize the abnormal effects of the Internet. The construction of electronic government in Singapore has two remarkable characteristics, that is, the early start and the rapid development. At present, Singapore's e-government development level is at the forefront among Asian countries and has reached the global advanced level in technical support, intelligent management, and other aspects (Chan, 2021). The development of Singapore's e-government could be divided into five stages. The first is the stage of administrative affairs networking, aiming to improve the efficiency of government administration through network information technology. The second is the stage of national information technology, aiming to build and promote the so-called 'one-stop' government e-government model. The third is the stage of planning 'Smart Island', aiming to make Singapore one of the cores of global information technology. The fourth is the stage of planning for the 2^{1st} century of

information and communication, aiming to build Singapore into a world-famous information capital at the beginning of the 2^{1st} century. The last is the blueprint stage of the 10-year development towards ‘Smart Country’, discussing the development trend of science and technology in the next decade. E-government adopts the ‘citizen, enterprise, government’ cooperation mode, so that citizens and enterprises can access a total of 1,600 convenient and fast online government services 24 hours a day (Chan, 2021).

The main platform for Singapore citizens’ online participation is the policy forum on the website of the People's Action Party, with the purpose of providing citizens more opportunities to express their opinions on national policies. The Singapore government believes that this could help each policy to be established based on the widely acceptance of the opinions from people both inside and outside the Party, and still help to formulate policies consistent with the national conditions and recognized by the public (Skoric, et al., 2009). Since the establishment of this forum, the public could discuss and debate directly with the leaders of the Party, making the forum become a bridge between the decision-making level and the people, and thus enabling the two-way consultation and communication. In addition, citizens could learn and get the policy information of the People's Action Party on science, education, and other aspects through the forum. Most importantly, citizens get the opportunities of freely expressing their opinions on hot topics and public policies in the forum, which is quite conducive to the People's Action Party to understand the public opinion and incorporate the relevant content into the policies in the future. With regard to the regulatory or the supervision of the Internet, in order to provide the most respect to the citizens, the Singapore government had taken a greatly cautious attitude in directly using public power to intervene in the control of contents on the Internet, and had adopted flexible policies, such as contents grading system, operator self-discipline system, and so on (Skoric, et al., 2009). For example, at present, the Singapore government is implementing a category license plan on Internet regulation. Those operators on the Internet would be divided into registered categories and unregistered categories based on their nature and the contents.

Furthermore, based on the above review of Singapore citizens’ online participation in public policy formulation, it is found that the success of Singapore citizens’ online

participation greatly benefits from its construction of network legislation and the digital literacy trainings. To be specific, the Singapore government believes that the online public sphere is a major area in political life, and the online media has an important impact on the public opinion orientation of the whole society (Abdulrauf, et al., 2018). Therefore, at the beginning of the construction of e-government, the Singapore government began to formulate a strict management system and still to set up a special regulatory group to make the supervision, so as to ensure the healthy development of the entire Internet industry. Singapore's Internet management is strengthened through legislation, law enforcement, website content management, and their citizens' self-restraint. First, the Singapore government takes national security and public interests as its primary content, attaches great importance to promoting government management innovation with the Internet, and strengthens and improves legislation related to the Internet to provide a strong guarantee for the development of the Internet. Secondly, the establishment of the website and the content of network services are also strictly controlled by the Singapore government. In addition, the Singapore government strengthens the public education, especially the education in skills of using the Internet, so as to improve its citizen's awareness of voluntary filtering useful information among various kinds of information on the Internet.

5.3.3 KOREAN CITIZENS' ONLINE PARTICIPATION IN PUBLIC POLICY FORMULATION

At first, it is required to have a general understanding of the practices of Korean citizens' online participation in public policy formulation. According to the statistics released by OECD, the penetration rate of wireless broadband in South Korea was 106.5% by 2014 (including multiple mobile devices owned by one person), and the average network speed reached 22.2 Mbps (Kim, et al., 2019). Since then, South Korea has become one of the countries with the fastest Internet speed in the world, and the first country among the members of the Organization for Economic Cooperation and Development (OECD) to achieve 100% wireless broadband penetration. Actually, in

South Korea, the influence of the Internet on political activities has still become more and more profound. More and more Koreans have begun to obtain information and make political comments through online media. In the 'Information Survey' conducted by the Korea Internet Revitalization Institute, the results showed that the total number of South Korean Internet users reached 31.58 million, accounting for 70.2% of the total population, with an average of 2 e-mail addresses per person (Kim & Chen, 2016), meaning that the Internet has become a basic communication method for South Koreans. Therefore, Internet users, namely, netizens had become the main component of Korean voters. In the whole election process, netizens make friends through network channels, forming various groups and organizations. They often participate in the discussion of political topics on the Internet, speak in the form of groups and organizations, and form a huge political influence. For example, netizens could hold party meetings or rallies, demonstrations and other activities through the Internet, participate in political competition, and even affect the results of the presidential election. In the history of the presidential election in South Korea, Roh Moo-hyun has pioneered the online political election (Kim, et al., 2019). Roh Moo-hyun skillfully combined the Internet with politics, and positioned the government as a 'participatory government' during his term of office, which is a government that allows citizens to participate widely in political life. Among them, the Internet is an emerging means to promote citizen" political participation. South Korean citizens generally paid attention to the report that two female middle school students were killed by the American military stationed in South Korea. Numerous South Koreans asked the American President Bush to apologize directly and publicly for the incident and asked the American military to withdraw from South Korea. This is the time of the general election in South Korea. Thus, the Democratic candidate Roh Moo-hyun took the establishment of equal relations between South Korea and the United States as his election platform, which made him win a great number of supporters on the Internet. These supporters spontaneously discussed and established 'Roh Moo-hyun Lovers Union' on the Internet. The power of those netizens was quite powerful. Inspired by patriotic enthusiasm, netizens who supported Roh Moo-hyun posted online to canvass for him, and finally made him elected the president of South Korea by a narrow margin

of votes. Therefore, it is not exaggerated to say that the success of Roh Moo-hyu's presidential cause was accomplished by the Internet to some certain extent.

Furthermore, based on the above review of Korean citizens' online participation in public policy formulation, it is found that the success of Korean citizens' online participation greatly benefits from its construction and governance of its online political participation. To be specific, the Korean government has unique characteristics in the construction and governance of network political participation. Still, South Korea began to formulate relevant laws, regulations and policies to vigorously develop network communication technology, thus effectively eliminating the digital divide in the development of the Internet, making it one of the top countries in broadband Internet applications in the world (Kim, et al., 2019). About the aspect of legislative governance, the Korean government formulated the 'electronic administrative process regulations. Furthermore, the Korean government formulated the 'Law on Popularization and Promotion of the Use of Networks'. Still, the Korean government promulgated and implemented the Government Information Disclosure Law. Later, the Korean government enacted the Law on the Digital Divide, and then adopted the Law on the Realization of e-government and the Promotion of Electronic Administration. Also, the Korean government implemented the Law on Promoting the Use of Information and Communication Networks and Information Protection Association, which made strict provisions on personal information, Internet users, industry, and infrastructure. Still, the Korean government started to implement the Basic Law of National Informatization and set up a network security prevention center. In addition, the Korean government has also issued a series of regulations, such as the Basic Protection Law of Information and Communication, the Regulations on Network Security Management, to build and improve the network security prevention system (Kim, et al., 2019). Besides that, the Korean government had also established an Internet censorship institution, which is also the first institution with similar functions in the world. This institution has rich censorship functions. Moreover, the business portal giant websites in South Korea are registered through the real-name system. At the same time, in the process of bridging the digital divide, the South Korea had invested a lot of money in the construction of national

information infrastructure. At present, advanced network infrastructure and high-level government information services in South Korea had provided a strong guarantee for promoting citizen' online political participation (Baxter, et al., 2013). For example, the 'Information Month' had been set up for citizens to get the trainings related to skills in using information technology. The training covers rural and urban areas, as well as the elderly and the disabled. And still, the training activities further develop the information network community, for example, providing computers and related equipment services for students from low-income families, establishing free Internet centers for the disabled, recycling computers and related equipment throughout the society for low-income families, disabled centers, and non-profit organizations, providing farmers with the information technology required for the agriculture, and so on (Mushtaq & Baig, 2015). In short, the fundamental reason for the rapid development of the Korean e-government is that the government vigorously strengthens the Internet legislation, ensures the order of Internet operation, and eliminates the digital divides between different regions and classes.

5.3.4 JAPAN CITIZENS' ONLINE PARTICIPATION IN PUBLIC POLICY FORMULATION

At first, it is required to have a general understanding of the practices of Japan citizens' online participation in public policy formulation. After reviewing the development of e-government in Japan, it is possible to divide the development of e-government in Japan into four stages, that is, the first assumption stage, the second legislation stage, the third policy preparation and adjustment stage, and the last conception stage (Ono, et al., 2018). In the first assumption stage (from 1993 to 2000), the Japanese government cautiously promoted the development of e-government in the way of 'pilot before popularization', which laid a solid foundation for the construction of e-government in Japan. To be specific, the Japanese government at first drafted 'Basic Plan for Promoting Administrative Informatization'. According to this Guidelines, among the 8822 office projects of various departments in the Japanese government, a total of 3423 procedures are allowed for electronic office work, accounting for 38.8%.

Still, the Hashimoto Cabinet formulated a five-year plan aiming at promoting the administrative informatization and proposed the goal of building a comprehensive retrieval network. In the second legislation stage (from 2000 to 2003), the Japanese government promotes the further development of e-government through the formulation of relevant regulations and policies, which provided effective guarantee for the development of e-government in Japan. To be specific, the Mori Xilang Cabinet issued the National Strategy for Information Technology, which clearly proposed to promote the construction of e-government. Still, the Japanese government clearly identified the construction of e-government as one of the five key areas of Japan's information construction in the e-Japan Strategy. Among this Strategy, the goal of building e-government in Japan is to further accelerate the digitization, paperless and networking of government documents, to focus on promoting business reform, and to promote information sharing and use. The budget for building an e-government in Japan was as high as 19 trillion yen, and the local government also made a budget of 300 billion yen to build a public information network. To be specific, the Japanese government successfully held the 'Joint Conference of Information Integrated Responsible Officers of all provinces and prefectures' and formulated a special 'Plan for the Construction of E-Government'. To promote the administrative informatization of national and local public organizations, the Japanese government still established the 'Electronic Administration Promotion National and Local Public Organizations Agreement', which is composed of informatization responsible officials from all provinces, 10 prefectures and counties, and 12 municipalities. Those officials regularly exchange views on matters such as business optimization of national and local public organizations, which effectively promoted the implementation of administrative informatization. The Ministry of General Affairs further proposed the 'U-Japan Policy' in recommendations that 'improving the convenience of e-government services is one of the priority issues to be solved in the next step'. Furthermore, to promote the effective use of the Internet, the IT Strategy Headquarters formulated the 'Plan for Promoting the Use of the Internet'. This plan decided to create an e-government to promote the tax system, implement incentives such as reducing fees, simplifying electronic signature and so on. In the last conception stage (from 2006 up till now), the Japanese government proposed the strategic idea of

becoming a pioneer in the information age and leading the development of the world's information industry. The Ministry put forward the overall goal of e-government construction in the New IT Reform Strategy, that is, to build the most convenient and efficient e-government in the world by flexibly applying information and communication technology in the administrative field, improving the convenience of national life, simplifying administrative links, improving administrative efficiency and transparency of administrative actions. In the same year, the Japanese government also formulated a five-year E-government Promotion Plan. According to this plan, the Japanese government focuses on promoting the construction of e-government from two aspects, that is, to strengthen the promotion system and still to attach importance to results. The IT strategy headquarters put forward the new goal of 'building world-class e-government' in their 'e-Japan Key Plan'. To ensure the effective implementation of the above policies and measures, the IT Strategy Department strengthen administrative supervision on the basis of accepting the complaints and opinions of citizens on government affairs, and still timely publish the handling results. In fact, in Japan, the Internet has been widely used in political communication, political elections and other political activities. In addition, the Internet also has the function of government information dissemination, for example, using the Internet to investigate the support rate of political leaders and the implementation effect of public policies. All in all, the Internet has provided a good channel for the handling of government administrative affairs and has gradually become an important part of political life.

Furthermore, based on the above review of Japanese citizens' online participation in public policy formulation, it is found that the success of Japanese citizens' online participation greatly benefits from the following aspects. At first, it is the strong support from the government (Ono, et al., 2018). In Japan, the e-government had been fully applied in both the central government and the local government, and still, such e-government had been unified and standardized due to the Amendment to the Basic Plan for Promoting Administrative Informatization (Tolbert & McNeal, 2003). In terms of the organizational structure, in order to promote the application of e-government, special organizations with all high-end talents had been set up to take charge of management.

Secondly, it is the great efforts made by the Japanese government in promoting the legal construction of e-government. For example, the Japanese government formulated a series of regulations to eliminate the imbalance in the construction and development of Internet infrastructure and required the unified implementation of all parts of the country with institutionalized standards, so as to comprehensively deepen the application of e-government and still to promote the innovation of government services. Lastly, it is to always keep people-oriented in daily affairs. In the E-Japan Key Plan, the basic principle of ‘people first, government support’ was put forward, which straightened out the role of the government, and also unified the determination and action of the central and local governments to jointly build e-government. The Japanese government has effectively promoted the construction of infrastructure projects through the joint governance of the central and local governments, providing institutional guarantee for supporting citizen’ participation in political affairs through the Internet.

5.3.5 THE ENLIGHTENMENT OF THOSE FOREIGN CITIZENS’ ONLINE PARTICIPATION IN PUBLIC POLICY FORMULATION

After learning from the experience of citizen’ participation in e-government in above four countries, it could be found that, whether in Western countries or Asian countries, its measures on citizen’ online participation in politics are based on the actual situation of their own countries, trying to weaken the factors that are not conducive to citizen’ online participation in politics and give full play to the factors that are conducive to citizen’ online participation in politics. Specifically, the following four key points could be summarized from such excellent experiences.

On the first place, it is to strengthen the construction of e-government and provide a platform for citizens to participate in the Internet. Taking the United States as an example, American citizens play a key role in formulating public policies. Decisions on important issues such as the presidential election will be communicated through the political and civil Internet platforms (Graham, et al., 2013). The United States, and other western developed countries have established platforms on the Internet from the

perspective of innovation and opened interactive columns to directly communicate with thousands of netizens. Through the Internet, government officials could deal with public problems by replying to e-mails. Still, as for the problems encountered by many netizens in the process of formulating public policies, the effective classification could not only greatly improve the efficiency of information processing, but also increase the enthusiasm of citizens to participate through narrowing the distance between citizens and the government. With the development of information technology in those western developed countries, the construction of e-government plays an increasingly important role in the government administration. To increase the effectiveness of people's online political participation, it is quite necessary to develop a corresponding level of e-government to aid citizens. It must be admitted that the quality of online political participation and the construction of service-oriented government would all be greatly affected by such online participation, which is due to the necessity of providing the information for citizens to understand and further to take part in the public policies.

On the second place, it is to give full play to the role of public opinion survey institutions and other relevant organizations in the light of the national conditions. For example, the United States, South Korea, Japan and Singapore all have special online hearings to allow their citizens to participate in the discussion about important issues on the one hand, so that citizens could fully understand their interests in the process of public policy formulation, and to use online public opinion surveys to understand public opinion on the other hand, so as to promote the final public policy to be supported and recognized by the public. The whole process of such hearings could be opened to the whole society through online video. Of course, the opinion proposers have certain legal and moral constraints. Based on the application in practices, it could be found that such hearings also facilitate the supervision of other social interest groups. In addition, according to the experience of Japan, the development of Internet technology has significantly optimized the main paths for individuals to participate in public policy formulation. To be specific, before introducing major policies, the online hearings allow and call on people to take the initiative to participate in the discussion, which helps the policy makers to try to be compatible with different interests (Dimitrova, et al., 2014). Therefore, when making

policies, those policy makers could also make democratic, scientific, open and fair decisions by analyzing the interests of all parties and taking into account the interests of all parties through the Internet. In the process of policy implementation, such hearings still strengthen supervision through the Internet to reduce the possible mistakes in policy implementation and reduce the probability of incorrect policies. At the same time, according to the feedback of citizens, the public policies could be revised at the first time to improve the effectiveness of citizen' participation in policy making and the feasibility of the policy.

On the third place, it is to firmly implement the Internet real-name system. In the virtual environment of Internet, the identity of netizens is unknown. In such anonymity state, netizens tend to ignore their responsibilities as social people, so that they do not consider the feelings of others when making personal remarks, and even carry out personal attacks on others. The online real-name system refers to 'netizens should use real identity certificates to apply for online accounts and should pass identity authentication to make statements or conduct other activities in cyberspace.' Thus, Internet real-name system is not to ask netizens to use their real names for all activities in the Internet, but to register with online civil ID cards. At the same time, the government strictly protects the security of netizens' personal information, so other users could only see their IDs, but could not see their real personal information. The implementation of the Internet real-name system could make netizens be aware of their social responsibilities and social regulations to be observed when communicating in the virtual society, thus maintaining the purity of the Internet environment. South Korea is also among the first countries to implement the Internet real-name system. The Korean government began to promote the Internet real-name system and implemented the real name system of the message board. Then, the Korean government successively issued and revised the Basic Law for the Promotion of Information Technology and the Basic Protection Law of Information and Communication, all of which promoted the legislative process of the Internet real-name system in South Korea. Still, the Korean government had officially implemented the Internet real-name system. Furthermore, the Korean government promulgated the Law on Promoting the Use of Information and

Communication Networks and Information Protection Linkages, which stipulates in the form of policies that all major websites must verify the real names of Internet users, register, and verify the identity information of the message takers, and require that Internet user's personal ID card numbers and other information be verified before posting and leaving messages online. When an individual conducts illegal acts on the Internet, the relevant government departments have the right to access the personal information of the Internet user within the legal norms, and accordingly to crack down on the criminal acts committed by the Internet.

On the fourth place, it is to establish and improve relevant laws and systems. All the countries mentioned in the above have been promoting the development of information technology. However, in fact, the specific rules or regulations about the development of information technology had not been specified in detail. For example, the code of conduct for participation describes stable and diversified participation channels and ensures the implementation of the participation system, but lack clear legal provisions, which is easy to make the form of online participation non-standard, easy to stimulate chaotic citizen participation behavior, and deviate from the original intention of citizen participation. Citizens could successfully participate in stable and healthy development only under the correct guidance, and thus, the national governments are required to formulate a complete set of rules and regulations. Through summarizing it could be found that most countries have set up professional independent supervision departments to reduce the probability of shirking responsibilities between different departments. In addition, while carrying out the process of management, the relevant agencies of the government have also established the idea of service-oriented government and further clarified the responsibility of Internet management. In terms of implementation, it can be found that most countries have made efforts in both legislation and law enforcement. To be specific, first, these countries attach great importance to strengthening Internet legislation, and have established a series of complete legal systems including laws, regulations, outlines and rules, so as to effectively curb illegal and criminal acts in online political participation. It should be noted that at this stage, with the wide application of information technology, the formulation of laws and regulations should also be updated

gradually, otherwise it will be difficult to adapt to the development needs of the Internet, and even result in the gap in relative laws, which is easy to make the government fall into a passive situation during their sanction of some Internet violations and even criminal acts, thus providing opportunities for network criminals. Secondly, these countries attach great importance to strengthening the Internet law enforcement and to fulfilling legal accountability for online participation. For example, the governments of Singapore and Japan attach great importance to strengthening the education of the Internet legal system. By enhancing citizen's awareness of the concept of the online participation, their citizen's online participation could be exercised within the scope of the law. In addition, the United States government had better implement the legal accountability of online political participation, maintain Internet security and effectively protect the legitimate rights of the public through improving the ability of the law enforcement group to use laws and regulations to combat illegal crimes.

5.4 DEVELOPING PROSPECTS IN THE FIELD OF PUBLIC ONLINE PARTICIPATION IN CHINA

Through the study of citizen's online participation in public policy formulation, it could be found that the citizens have burst out a surprising force on the Internet and started to exert an undeniable influence on political development and government decision-making. However, through the analysis in this research, it must be more clearly seen that the most important force affecting citizen's online participation in public policy process at this stage is still the government. The attitude of the government and its main leaders has become the primary factor affecting the performance or the effectiveness of citizens' online participation. To put it more simply, with the strong support from the local government, citizens' online participation often develops smoothly and is easy to achieve good results, while on the contrary, without the support from the local government, or even worse, with the opposition from the local government, most of citizen's unilateral online participation will finally end without a result prematurely. Therefore, it is too early to say that the Chinese people's power represented by online

participation has begun to constitute a restriction on the government's power, which is also the goal of the further development of online participation. Fortunately, more and more realities show that the support of governments at all levels in China for online participation, online governance, online interaction, and online supervision between government and people has been increasing. We can see that the standardization and legalization of network participation are advancing. Under the legal framework, it has become a consensus of the government to guide and promote the participation of Chinese people's online participation in public affairs and public policies. In this research, it is believed that citizens' online participation in public policy process will have further development in the future, and the goal is to achieve a certain degree of direct democracy through the online participation. To achieve or approach the goal of direct democracy, breakthroughs can be achieved from both the citizens and the government.

From the perspective of citizens, future online participation may rely on relatively complete online communities. The forum was created and maintained by hepatitis B virus carriers. With the purpose of safeguarding the legitimate rights of hepatitis B patients and helping hepatitis B patients with treatment, the members of the organization finally succeeded in promoting the no longer discrimination against hepatitis B pathogen carriers in Infectious Disease Prevention Law and General Standards for Civil Servant'' Recruitment and Physical Examination. However, at present this forum had already been closed. According to the official data from the survey, in recent years, online community organizations began to emerge in large numbers. Although those online community organizations have not been formally registered, they are highly organized and often carry out online and offline activities. Reviewing the development of citizen online participation for the recent ten years, it should be said that the current citizens' online participation is mainly individual-oriented, relying on the continuous gathering of individuals to form a large-scale crowd effect and generate strong online public opinion and social public opinion. Relatively speaking, the influence of online community organizations is still small. However, with the development of society, the interests of all social strata begin to split, and this division of social strata will also be reflected on the Internet. The scientific and technological revolution centered on the information

revolution in the West has created a 'new middle class with intellectual labor as a means of livelihood and lifestyle. They have become the backbone of the Internet era. In the early stage of the rise of China's online participation, associations and quasi-community organizations concerned about civil rights and political development on the Internet have also been growing. After the occurrence of some social event, the views of netizens often collide violently, and it is increasingly difficult to form a more unified and mainstream network public opinion. This shows that there are real interest groups with different views on the Internet. The differentiation of non-group value demands will continue to intensify. It is predicted that, given that China will inevitably follow the post-industrial era, the gradual development of the continuous emergence and development of social organizations in China is an inevitable trend. However, within the existing political framework, the conditions of the reality group are not yet mature, which may allow the formation of some similar organizations on the Internet. These organizations rely on a certain website, forum layout or other network applications to express their interests in the Internet and real life and exert influence on government policies.

From the perspective of the government, in the future, the focus of the government should further promote the institutionalization of citizen" online participation, with the goal of establishing a online voting and online public opinion absorption mechanism covering the whole process of public policy. According to the view of Barber in his book 'Strong Democracy', the voting mode is only to select a certain project in the line of options, while the strong democratic mode requires people to modify and expand the options. In the strong democratic mode, the participants are required to judge their values and interests again according to the public standards, which stimulates the imagination of the participants. In this research, it is believed that online participation could also achieve breakthroughs in many aspects such as online voting of policy proposals, absorbing citizen" opinions to increase the option of policy proposals, and promoting the cooperation between citizens and the government in policy implementation. At present, the central government is not ideal in terms of the strength and effect of collecting public opinions through the Internet in terms of public policies. The main reason is that collecting public opinions only plays the role of listening to the willingness of citizens

but has neither the right to modify nor the right to decide on the policy plans. This is largely due to the absolute authority of the government over the Communist Party policy. In the future, the Chinese government should try to choose different policy options by voting at the same time and increase the proportion of citizen" opinions in the policy options to truly realize the democracy of the policy options. In addition, in the setting of the policy agenda, the Chinese government should absorb the public opinion more boldly and allow the citizens to put forward the public agenda for the policy agenda. Thus, the government could determine the priority of the policy agenda according to the order of the importance of the people to social issues and give priority to the problems that the people urgently need to solve. In policy implementation, the Chinese government should make more extensive use of the information advantages of the Internet to attract more netizens and volunteers to join the ranks of social public governance. Especially, the implementation of public policies by the citizens requires the active participation of the people in the cooperative governance of the government in public affairs. At present, the public evaluation of citizens' online participation has tried to evaluate the activities of government departments in recent years, but the evaluation of citizens' online participation specifically for the government public policies is still blank in China. This will be another important field to be further discussed in the future.

All in all, based on the discussion in this research, there are strong reasons to believe that soon, citizens' online participation in public political affairs will become an important part in the construction of democratic politics and democratic decision-making system with Chinese characteristics. By absorbing public opinion on the Internet, the public opinion base of China's public policy will be broader and closer to the goal of democratic and scientific decision-making. With the continuous expansion of the depth and breadth of online participation, the Chinese people's awareness of participation, subjectivity and rights will continue to increase, and the Chinese citizens would be able to play a more important role in the process of public policy in China. Such kind of expectation are just the most final objectives of citizens' online participation in political affairs.

5.5 RECOMMENDATIONS

In the above discussion, a further detailed understanding about the empirical findings in this research and still the excellent experiences from the foreign countries had been made. Based on such discussion, the following part tries to propose some targeted recommendations after taking both the above deep analysis and the real situation in China into consideration, so as to propose some feasible suggestions for increasing the effectiveness and efficiency of people's online participation in public policies.

5.4.1 STRENGTHENING THE INFRASTRUCTURE CONSTRUCTION AND BALANCE INFORMATION RESOURCES

On the first place, the government is required to further improve the construction of the Internet infrastructure, and especially try to balance the information resources among different regions. For example, the Japanese government formulated a series of regulations to eliminate the imbalance in the construction and development of Internet infrastructure and required the unified implementation of all parts of the country with institutionalized standards, which is quite good examples for the further development of China. In fact, from a regional perspective, the digital divide between regions in China is prominent between cities and rural areas, as well as between the eastern, central, and western regions. According to relevant statistics, urban netizens account for as high as 71.80% of Chinese netizens, while rural netizens only account for 28.20%. In addition, the average download speed of mobile broadband users in the eastern region is significantly higher than that in the central and western regions. Thus, as a necessary condition in the process of information construction, the Chinese government is required to use various economic and administrative means to accelerate and improve the construction of the national information infrastructure, especially faced with the obvious digital gap in China.

It is generally believed that with the accelerated equalization of urban and rural infrastructure, especially the popularization of computers, mobile devices and networks, the development gap between urban and rural areas could gradually narrow due to digitalization. Some experts have also confirmed it with the rapid popularization of

farmer'' mobile internet access. However, after comparing the level of informatization in urban and rural areas of China, it is found that the reality is not yet optimistic. The 50th Statistical Report on the Development of Internet in China, showed that the number of netizens in China was 1.051 billion, 19.19 million in 2022, and the Internet penetration rate reached 74.4%. Those netizens spent about 29.5 hours on the Internet per week in average, and the proportion of those netizens using mobile phones is 99.6%. Obviously, the overall figure is still growing, but the statistics of urban and rural sub-regions still have to be noticed. On the surface, the number of rural netizens in China in 2022 was 293 million, with an increase of nearly 9 million compared with the number at the end of 2021. However, the number of urban netizens in China in the same period was 758 million, accounting for 72.1% of the total number of netizens in China.

Of course, such data can be explained by the fact that China has been promoting the process of urbanization in recent years. Specifically, as the urban population continues to increase, the rural population continues to decrease. Still, the individuals left in the rural regions are generally the older who lack the habits of surfing on the Internet. Influenced by such factors, the structure of urban and rural netizens has some reasons to present the above data. However, it has to be admitted that children in urban regions have long been the aborigines of the Internet, while children in rural regions are often quite unfamiliar with the Internet. Based on the investigation targeted at teenagers and children in poor areas by the research group from Beijing Normal University, the biggest hobby of urban children is electronic products, for example, mobile phones or other mobile devices, while the biggest hobby of rural children are televisions. This is not the question of what rural children prefer, but the question of what rural children could access (Mo, et al., 2013) rural children had been blocked out of the 'digital age'. Another aspect that is possible to reflect the lag of rural children in the use of Internet is that the education of information technology in rural regions is far behind that in urban regions. Although schools in rural regions have still built beautiful houses and playgrounds, the online education in rural regions is still very backward (Mo, et al., 2013), not to mention the education of using computers. Some schools in urban regions have only quite few computers, and even schools in the especially poor regions does not have any computer,

which is an important source of the digital divide between urban regions and rural regions. To put it more specifically, the difference in information infrastructure in urban regions and rural regions results in the differences in the use of Internet in urban regions and rural regions. What's worse, such gap at the beginning would further form a digital defect due to the long-term difference between online education (Kahne, et al., 2012), which might bring other difficulties, even psychological obstacles, to the urban integration of rural children after entering the cities, and then lead to the deepening of the gap between in urban regions and rural regions. Furthermore, such differences would be expressed in the form of language, which might lead to difficulties in communication between urban regions and rural regions and may even lead to rigid rupture of social strata. Obviously, the digital gaps caused by the differences in the infrastructure are an important source of differences in the use of Internet, which naturally leads to the further differences in the effectiveness of the public online participation in policy formulation.

Taking the above into consideration, the Chinese government is recommended to use various economic and administrative means to accelerate and improve the construction of the national information infrastructure. To be specific, the government could make efforts in the following aspects.

Firstly, the government should improve the construction of Internet infrastructure. At present, the rapid development of the information technology has prompted more and more netizens in China. The construction of information transmission technology and other infrastructure on the Internet provides many opportunities to participate in politics, making online governance participation play a huge role in public policy formulation. However, due to the unbalanced infrastructure construction and some other problems, the digital gap has already been caused (Li & Wei, 2019). In order to enable all Chinese citizens to have the equal rights to participate in the online policy formulation, the government needs to further strengthen the basic construction of the Internet infrastructure. To be specific, the Chinese government should increase the financial investment and policy assistance in the construction of Internet infrastructure in the remote regions of the western part of China through strengthening supporting equipment such as broadband and access equipment and still making more policy preferences, to

improve their technology and accordingly to improve their economic development. Furthermore, the government could also guide the private investment forces in information infrastructure construction guide more private capital to invest in rural regions or poor regions, so as to help the information vulnerable groups acquire equipment, knowledge and skills, and accordingly to make all the public in the country have the same opportunities to obtain policy information and expand the mass participation online. All in all, it is expected that such efforts could help to narrow the gap in infrastructure resources between different regions in China as soon as possible, and still to eliminating the unfairness between urban regions and rural regions in the distribution of Internet resources. By promoting the balanced development of the public service of information infrastructure and allocating the Internet information resources nationwide reasonably, it is possible to make the platform of public online participation continuously improve. Only in this way could the development of urban regions and rural regions in China be synchronized. Furthermore, only by realizing more tangible material security could the Internet play a role in people's online participation in public policy formulation.

Secondly, the government should strengthen the knowledge popularization related to information technology through a series of education activities. After summing up the characteristics of most Chinese Internet users, it is possible to roughly divide those netizens into two categories. The first group is the young people (18-40 years old) who have some basic knowledge related to the Internet due to their education background. The second group is the middle-aged people and the elderly people (over 40 years old) who obviously lack the necessary ability to use the Internet due to their lack of the basic education or training (Fu, 2021). In China, the gap in Internet penetration is mainly reflected in the low-income and low-educated population. If only a few people have access to the skills or knowledge related to the Internet, coupled with the unequal access to information and the different levels of education background, the new power inequalities and the new poverty will certainly emerge, and still, social opposition disputes will also expand. Therefore, education is the prerequisite to eliminate the digital gap. In addition, the government is required to actively take measures to further promote

the popularization of public information and Internet technology, so that more and more citizens in China could master the skills of using the Internet. The biggest problem caused by insufficient Internet skills is that the Internet resources will not be fully utilized. In rural areas, even though all hardware conditions for rural Internet access have been completed, Internet technology is still relatively advanced and innovative skills for farmers. Due to limited knowledge and lack of basic operation skills, there are still obstacles for them to use the Internet, which will of course affect their political participation online (Lee, 2006). Therefore, the government is required to formulate targeted online training and education plans for different groups. Targeted at the rural regions, the local governments could pay more attention to the underdeveloped regions of the information technology, increase the intensity and effectiveness of investment, and make the investment to guide schools to give priority to starting the computer courses, so that rural students could also can obtain the most advanced computer knowledge just like urban students (Fu, 2021). With children's understanding and use of computers, children will promote the Internet technology involuntarily, which could promote the demand for computers in families, and thus, allowing more people to access the Internet, recognize the Internet and apply the Internet (Dauda, et al., 2017). In addition, the local governments could also establish free training courses on basic knowledge of using the Internet. The expansion of education popularization could make the public aware of the benefits of using the Internet to them and enable more citizens to play their democratic political rights in a broader field. For example, through online political participation, citizens could better integrate the public policy development and ultimately get better individual development through their gradually increasing skills.

5.4.2 PERFECTING THE FUNCTIONS OF E-GOVERNMENT PLATFORM

The original intention of establishing the e-government is to involve the advanced information technology to enable the government to realize electronic and automated offices, to establish networked information system serving for departments and citizens

at all levels, and ultimately provide effective public services (Loukis, et al., 2012). At present, governments of all countries in the world are increasingly relying on the information technology to meet their daily needs and meet special challenges. Generally, accelerating the digital transformation of government has become an international consensus (Gerl, et al., 2018). The pace of constructing e-governments had been accelerating worldwide due to the leading force of digitalization in innovation. It is not exaggerated to say that the digitalization of the government has become an important indicator of measuring comprehensive national strength and international competitiveness.

According to the United Nations E-Government Survey Report (Chinese Version), countries around the world have actively incorporated the construction of e-government into their national strategies. The development of global e-government has continued to improve. The average value of e-government development index has increased from 0.5988 in 2020 to 0.6102 in 2022. Denmark, Finland, South Korea, New Zealand, Iceland, Sweden, Australia, Estonia, the Netherlands, and the United States are all the countries with a high level of global e-government development. These countries are concerned about how digital governments promotes integrated policies and services, making digital services more efficient, accountable, and inclusive. The current e-government development index in China is 0.8119, an increase from 0.7948 in 2020, and the global ranking has also increased from 45th to 43rd among 193 United Nations Member States, which is the highest level since the report was released, and still one of the countries with the highest growth rate in the world. Furthermore, the online service index, as the core indicator to measure the development of national e-government, is 0.8876 in China, which is rated 'very high'. While affirming the current achievements of the construction of the Chinese e-government, it is necessary to calmly take the challenges faced by the construction of the Chinese e-government. These challenges are mainly reflected in the large gap between the work already done by the government and the needs of the Chinese people. In other words, there is still some room for improvement in related areas. From the perspective of public demand, building the service-oriented government and establishing the democratic politics all put forward higher demand for

the construction of e-government. With the development of economy and society, the enthusiasm of citizens to participate in and discuss politics is gradually rising, and of course, there will be more demands for the construction of service-oriented e-government. What's more, the comprehensive talents with the ability to guide the development of e-government could not meet the needs of the whole country at present. The Chinese government has not formed a nationwide e-government management system and there are still unbalances in information resources among different regions. At the same time, the changing information technology still requires the timely updates of the e-government platform. All the above would bring new challenges to the construction of e-government. Taking all the above into consideration, this research believes that the government could make efforts from the following aspects.

On the first place, it is to change the traditional management idea and strengthen the service functions of e-government. At present, electronic office has gradually replaced the traditional office, and become a technological means for the modern government to play its role (Gil, et al., 2009). The official website of the government has still become a new symbol of the excellent image of building a service-oriented government in China. The essence of e-government is to use Internet technology to effectively promote the communication between the government and citizens. On the one hand, the government uses the Internet to convey various policy information, and on the other hand, citizens use the Internet to get various policy information and participate in public policy formulation. This is an innovative form of government management, effectively combining political participation and information technology. The successful e-government platform helps to improve the working efficiency and service quality of public administration, and to reduce the cost of policy participation to a certain extent (Vissers & Stolle, 2014). Furthermore, the successful e-government platform helps to get rid of the past administrative 'bureaucracy' concept of government departments, realizing equal communications between the government and the public (Santini & Carvalho, 2019). To some certain extent, the successful e-government platform could greatly improve citizen's enthusiasm for political participation, thus implementing the service concept of the public policy. Therefore, in the online political participation of

citizens, the government must reposition its role, unswervingly build a service-oriented government, put the interests of the people first, regard the government as the provider and manager of public services, and improve the humanization level of e-government platform services. For example, the government could speed up the popularization of information knowledge among leaders at all levels, especially the grass-roots leaders in poor regions, so that they could have more deep understandings of the functions of the Internet and internally recognize the importance of the Internet as a new channel for citizen participation. Still, the government could still take the feedback to the problems collected from the Internet as a main indicator of the performance evaluation of the government officials, so that those government officials would make serious responses to citizen" online political participation, so as to improve the effectiveness of policy participation.

On the second place, it is to pursue the increase of overall efficiency. The improvement of e-government efficiency is not the sum of simple individual efficiency, but the effective organization of the whole public policy making process. If all the local government business in China could run in parallel, the working process could be optimized, for example, it is possible to combine online political affairs and offline political affairs to form a service system and accordingly to improve the quality of policy policy(Enjolras, et al., 2013). Thus, when implementing the construction of e-government platforms, the government should it is also necessary to improve the overall operational efficiency through promoting the coordination and unification of each local system. For example, the Chinese government should ensure that each independent government, including not only the central one, and the ones in developed regions, but also the local ones and the ones in poor regions, has an independent website and provides formal services. Of course, such huge scale of construction could not be completed overnight but requires the efforts step by step in a planned way. Still, the governments at all levels should ensure the quality of their own e-government platform through increasing the government transparency and the government openness. That is to say, the governments at all levels should ensure the openness of information released by the government. Specifically, governments at all levels should actively publish important

information related to citizen' interests on the Internet. The published information should be reliable in source, rich in content and timely in speed. Still, the governments at all levels should further improve the design of government websites by taking the service functions as the core. It is believed that the increase of the public service standards could attract more citizens' online participation. Through actively guiding citizens' understanding of the relevant political decisions of the government, it is possible to guide the governments at all levels to actively face the public's supervision of the policy making process, which still helps to avoid the unnecessary public decision-making mistakes. Furthermore, the Chinese government should ensure the utilization of the e-government. The immediacy and directness of information transformation on the Internet means that the e-government should provide the public with the information query system and the retrieval system. To put it simply, the e-government is required to timely release various policy information, and effectively respond to the opinions of the public. The establishment of such a successful e-government system will provide formal channels for Chinese citizens' participation in online political participation. From this point of view, it is at first required to ensure the timely updated of contents and still the convenience of e-government. At present, some of the information on the website of some local governments are outdated and not available, and there is relatively few interactive information on the website of some local governments, which has greatly reduced citizens' enthusiasm to participate in politics online. It is quite necessary to improve the quality of contents in this field. The e-government should be built into an interactive exchange platform. In terms of column setting, the e-government is required to not only attach importance to participation and interactivity, but also attach importance of facilitating citizen's online participation. For example, through unblocking the communication channels of government websites, citizens could make reasonable policy suggestions and participate in public policy formulation in a reasonable and convenient way, thus promoting citizen participation in online policy.

5.4.3 BUILDING THE COMPREHENSIVE MANAGEMENT MECHANISM OF ONLINE PUBLIC OPINION

In the era of knowledge economy, information, as an important resource, is regarded particularly valued, and thus, people's control of information becomes increasingly important. For example, making a scientific decision requires quite a large amount of accurate information. The quantity and quality of information directly determine the efficiency and quality of policy making. The advantages of using the Internet, such as openness, freedom and diversity could encourage most citizens to express their own willingness and participate in policy formulation through the Internet (Richardson, et al., 2017), so as to gather a large number of online public opinions. Furthermore, analysis, selection and summary of various online public opinions plays an important role in public policy formulation. In this aspect, the United States had made a good example. For example, the United States formulated the e-government strategy law. After the establishment of the fixed special management organization, the United States began to focus on strengthening the unified management of e-government, which promoted the construction of e-government to quite a great extent. Still, the 'National Cyberspace Strategy for Cyberspace' issued by the United States placed the security of cyberspace information at the strategic level. From this point of view, the Chinese government could still make efforts in the following aspects.

First, the Chinese government is required to carefully collect the opinions that are put forward by the public through the Internet, so as to prevent risks. On the one hand, the Chinese government is required to establish and improve special government websites to smooth the communication channels between the government and the public. Relevant information collection platforms should be opened on government portals and related websites, so as to facilitate the collection of government data and the discovery, analysis and timely processing of problems. On the other hand, the Chinese government is required to establish a special area for online discussion, so as to give full play to the role of the Internet in the governance of public affairs, and still to make the public decision-making more democratic and more scientific. In recent years, when making major decisions, many local governments would like to involve the Internet to solicit

public opinions. The fact also proves that the government could figure out the social problems and still solve such problems timely and effectively by using the Internet as an effective tool, which greatly improves the efficiency of social governance (Lee, 2006). At the same time, the government takes the initiative in this process, which is of great significance in avoiding the social panic caused by online rumors. After the problem occurs, ensuring the authenticity and the transparency of information is an effective way to avoid the Internet crisis caused by online rumors, which means that the Chinese government is required to deal with the problem timely and to prevent risks. All in all, the government at all levels should pay more attention to the demands of netizens, actively collect relevant information, and make timely responses to the public opinions, so as to strengthen its responsibility of monitoring and warning mechanism as the support for the healthy and orderly development of the online public opinions.

Secondly, the Chinese government is required to screen the online public opinion and figure out the useful information. The Internet is characterized by diversity, openness, freedom and concealment. On the one hand, citizens could fully express their opinions and suggestions, participate in social governance at low cost and efficiently, so as to promote the expression of citizen" interests and improve the enthusiasm of policy formulation. However, on the other hand, due to the explosion of information, there are both rational expressions and suggestions and still rumors on the Internet (Gil de Zúñiga, et al., 2013). Among such information, rationality is always deficient, which dilutes the authenticity of public opinion and increases the difficulty of public opinion identification. In other words, the government have a high workload of comparing and identifying information, making a difficult and complex challenge. Thus, targeted each issue, the government should pay close attention to the issue itself, accurately obtain public opinion on the Internet, and realize the rise of public opinion to policy through legal and standardized procedures. In addition, the government is required to improve its identification ability, accurately identify the irrational and non-standard information, timely handle the rumors on the Internet through analyzing the causes of rumors and dealing with them in an appropriate manner, to control the correct public opinion orientation and guide the rational public online participation.

Thirdly, the Chinese government is required to establish and further improve the rapid response mechanism of online public opinion. Once the incident happened, the government should occupy the leading position of the public opinion as soon as possible and give full play to its role in guiding the right direction of the public opinion (Valenzuela, et al., 2012), which requires the government to comply with the development of the times, establish its press spokesman system with the characteristics of efficient rapid response on the e-platform to speak for the government in real time and make the active responses to the online public opinion, in order to timely and effectively deal with the problems in citizen'' online policy participation. Specifically, the first is to set up a spokesman representative, taking the responsibilities of publishing relevant policy information, and answering or clarifying relevant questions on behalf of the government. The second is to establish an expert think tank. The function of this part is to use professional knowledge and theory to analyze problems and make the reasonable decisions, so as to help the government respond correctly and effectively to the public opinion. The third is to establish an emergency response mechanism for online public opinion events, which requires to make clear of the responsibility subject and work process, and accordingly to make the rapid and effective response to the online public opinion.

Finally, the Chinese government is required to establish a responsibility mechanism to respond to the online public opinion. This responsibility mechanism should include three aspects, that is, the localization of public opinion responsibility, multi-channel response to public opinion and public opinion guidance accountability. Firstly, the government should allocate the responsibilities according to the place where public opinion belongs. The local publicity and public security department is the primary bearer of the responsibility for public opinion discovery, taking the responsibilities of making a positive response to online public opinion, quickly launching the emergency plan, and ensuring a response within the prime time. Besides that, the departments directly related to public opinion are the primary bearers of public opinion response responsibility, with the responsibilities of dealing with public opinion quickly and immediately. Secondly, the government should improve the multi-channel response system, including different

situations, for example, the party concerned who personally and publicly responds to the public opinion, the government responds to the public opinion based on its investigation results, the government figures out the identity of netizens and make it public on the website. In either case, it is necessary to ensure the authenticity of the response information, pay attention to the public opinion in real time, and respond to emergencies timely. Thirdly, the government should improve the accountability system for public opinion guidance. The objective of this accountability system for public opinion guidance is to improve the efficiency of the government in dealing with the public opinion through reverse incentives. For example, the specific responsibilities of spokesmen and other relevant personnel to be clarified, and thus, once there were negative consequences caused by individual negligence and other errors, everything is possible for personal responsibility.

5.4.4 GUIDING THE ONLINE PUBLIC OPINION AND REALIZING THE STRANDARD WORKING PROCESS

In recent years, the Internet have developed rapidly and have become an important channel for people to obtain information, participate in discussions and express opinions. From this point of view, it is of great significance to give great emphasis on the guidance of the online public opinion, so as to establish a good public image of the government, which helps to improve the correct judgment ability of the public on the Internet information on the one hand and helps to strengthen the mainstream ideological on the other hand (Wang & Shi, 2018). To put it more simply, in today's information age, the government should play the role of information authority through strictly controlling and actively guiding the information online, to ensure the healthy development of the online public opinion. The main platform for Singapore citizens' online participation is the policy forum on the website of the People's Action Part, with the purpose of providing citizens more opportunities to express their opinions on national policies. The Singapore citizens could freely express their opinions on hot topics and public policies in the forum, which is quite conducive to the People's Action Party to understand the public opinion

and incorporate the relevant content into the policies in the future. With regard to the regulatory or the supervision of the Internet, in order to provide the most respect to the citizens, the Singapore government had taken a greatly cautious attitude in directly using public power to intervene in the control of contents on the Internet, and had adopted flexible policies, such as contents grading system, operator self-discipline system, and so on. For example, at present, the Singapore government is implementing a category license plan on Internet regulation. Those operators on the Internet would be divided into registered categories and unregistered categories based on their nature and the contents. The experiences of the Singapore government might enlighten the Chinese government. Thus, this research proposes the following aspects to be focused by the Chinese government.

On the first place, the Chinese government should strengthen the guidance power of online public opinion and always grasp the right of guidance. For example, the government could make further interpretation of government policies and disseminate mainstream values by setting up new media accounts. Specifically, the government is required to make efforts in improving the influence of its official accounts, such as capturing the interests of netizens through diversified content, affecting the attitude of netizens through clear description of political position, making good use of celebrity influence, attaching importance to the utilization of new media, and enhancing the influence of mainstream media. In particular, the influence of those celebrities should be strictly checked by the government. Otherwise, the inappropriate opinion of those celebrities might lead to emotional, irrational, or extreme situations. The opinions of those celebrities should only be taken as an important supplement to citizen" online policy participation, but never the leading power of citizen" online policy participation (Salman & Saad, 2015). If the government did not properly check and guide the opinion of those celebrities, their opinion might lead to the wrong direction of public opinion, trigger the rumors on the Internet, make public opinion out of control and even result in the social disorder. Therefore, the government should actively seek or cultivate a group of excellent online opinion leaders and make those online opinion leaders deeply understand and master the basic thinking and operation process of public decision-

making based on law-abiding, so as to realize the goal of coordinating the release and guidance of information, and accordingly the smoothness and authenticity of information. In addition, the government should also cooperate with the relevant authoritative media, so as to form a strong joint force for solving the Internet crisis timely and for giving appropriate guidance to the Internet event (Ross & Burger, 2014). All in all, it is expected that government could attract widespread attention and discussion among the public through its leading position and accordingly guide the Internet event to evolve into a policy issue in the policy agenda.

On the second place, the Chinese government should correct the online public opinion attitude timely through guidance and rectification. In the field of the research on communication, there are two sides of prompt theory, that is, when propagandizing and prompting one's own views and powerful materials, it is required to prompt the opposite party's views or materials that are not conducive to one's own in some way at the same time. It is believed that such operation is of great help in enhancing the stability and sustainability of the persuasive effect. Thus, the government should authentically disclose the details of official' crimes and the results of judgments in corruption incidents through a series of mainstream media. Such kind of behavior could make the public believe the strength of the government's determination to fight corruption, and of course, the public will firmly believe that the government can eliminate the corrupt elements. Furthermore, the government should treat the critical or negative comments in the Internet dialectically. If the government is good at making use of these information and making timely response, the government could turn losses into gains in such Internet events (Raof, et al., 2013), for example, establishing the positive image that the government is willing to listen to the opinions of the people and accordingly win the trust of the people.

On the third place, the Chinese government should innovate the way of public opinion guidance and respect the expression of public opinion. First, the government could use the information technology to analyze topics with high attention of netizens, including the reasons of social attention, the path of public opinion dissemination, ways of netizen' participation, and so on. Still, the government should track and monitor the

latest public opinion trends, to prevent the problems before the occurrence. In addition, the government should take the initiative to set up new topics, attract netizens to take part in the discussion, disperse the focus of the online public opinion, actively disclose non-confidential information, and avoid public speculation and suspicion of the government behavior. In this aspect, the government should try the best to respect the expression of public opinion, for example, listening to the useful suggestions of the public and improving the inappropriate behavior of the government, to win the trust of netizens in the government and influence the netizens imperceptibly in the rational discussion (Koivula, et al., 2021). At last, the government should try to use multiple expressions, for example, official blogs, question-and-answer blocks on the official websites, and so on. To be specific, the government could actively and timely make responses to the questions proposed by netizens, involve the innovative methods like new media to communicate with the public, and so on (Boulianne, 2015), all of which help to make the further detailed interpretation of the intention of government policies and to avoid the existence of misreading of government policies.

On the last place, the Chinese government should gather the power of public opinion to guide the role of social media. In this aspect, whether the specific social media is mainstream media or only an online media, all the contents released must be true and accurate, in other words, all the contents released should not be fabricated to attract public attention, and still, all the conclusions should not be drawn without knowing the facts (Abdulrauf, et al., 2017). What's more, as for the mainstream media, it should take more responsibilities. To be specific, the mainstream media itself belongs to the government, and thus, each information released by such mainstream media and each action made by such mainstream media all represent the government. The public are generally more trusting the mainstream media and taken it as the official spokesman of the government. If the mainstream media distorts the facts and takes out of context, the negative impact on the society would be worse. Therefore, as for the mainstream media, it is quite necessary to assume relevant responsibilities consciously, for example, taking the social morality as the core, releasing information on the basis of objective facts

improving the quality of account operators, making the rational expression of their views, guiding the public to take part in the political discussion rationally.

5.4.5 PROVIDING LEGISLATIVE GUARANTEE AND TECHNICAL SUPPORT OF ONLINE PARTICIPATION

With the increasing development of information technology and the rapid popularity of personal computers, e-government, as a new way of governance, has been widely concerned by the public sector of all countries. Undoubtedly, the extensive use of advanced information technology improves the working efficiency of government departments, enhances the transparency and openness of the government, promotes the coordination, interaction and cooperation between the government and the public as well as between different government departments, all of which helps to improve the performance of the government and to provide better public services and products. However, the past experiences had proved that the development of e-government still brought a series of problems to be solved. To be specific, the results of e-government applications might lead to negative effects, such as information insecurity, computer crime, and so on. Still, the process of deploying e-government might have negative effects, such as repeated construction, low sharing, and so on (Halpern, et al., 2017; Moeller, et al., 2013). Faced with such kind of reality, it is believed that strengthening the legislation of e-government and providing powerful technology support are the basis for promoting the development of e-government (Jiang & Xu, 2009). Still, the experiences from the United States could be learnt. The American government's focus on the construction of network legislation can be traced back to the United States Computer System Protection Act, which provided legal protection for computer security. Furthermore, relevant legal documents based on cyberspace security made more prominent progress. In the field of e-government, the United States has still formulated relevant legal documents. For example, the United States formulated the e-government strategy law. After the establishment of the fixed special management organization, the United States began to focus on strengthening the unified management of e-government,

which promoted the construction of e-government to quite a great extent. Still, the 'National Cyberspace Strategy for Cyberspace' issued by the United States placed the security of cyberspace information at the strategic level. In the field of network privacy, the United States has also formulated relevant legal documents. Thus, the Chinese government could make efforts from the following aspects.

On the one hand, the Chinese government is required to strengthen the protection of citizen's online participation from the legal perspective. In the network public sphere, excessive freedom has led to many problems in online policy participation, and the imperfection of legal system construction is one of the important reasons for such kind of problems. Therefore, most importantly, the government should speed up the pace of legislation and strengthen supervision, so as to incorporate citizens' online participation into the rule of law, and to better conduct Internet management and promote citizen's better online participation in public policy formulation. First, the government should keep pace with the times to establish new network laws. Although China at present has established a series of laws and regulations related to the Internet, the current laws and regulations still lag the social needs compared with the rapid development of information technology. In order to achieve the goal of citizens standardized online participation, form an orderly pattern of online participation, and adapt to the development of information technology, the government should timely update and modify laws and regulations, and make up for relevant legal loopholes on the basis of analyzing the new problems and new situations in online participation. Citizens' online participation should be brought into the legal track, which is not only conducive to ensuring the expression of the interests of citizens in the process of online policy participation, but also conducive to the orderly participation of citizens in public decision-making. Secondly, the government should strengthen the online supervision. Strengthening online supervision is an important measure to standardize online participation and purify the Internet environment. To achieve effective online supervision, it is necessary to determine the supervision subject, clarify the rights and responsibilities of each supervision subject, reasonably distribute the supervision power and responsibilities to the relevant departments, and establish the horizontal communication channel between different

supervision departments, all of which will help to form a smooth supervision path, and achieve good supervision effect. In addition, the government also needs to establish a high-level supervision team to improve its supervision ability. Finally, the government should actively rectify the Internet environment, for example, deleting or screening negative information on the Internet, taking strict measures to crack down on criminal behaviors on the Internet, and so on, to build a standardized, orderly, green and civilized Internet environment. society.

On the other hand, the Chinese government is required to strengthen its support for citizen" online participation from a technical perspective. To put it specifically, at this stage, the government should actively use technical means to promote the process of online governance. For example, it is possible to strengthen the research, development, and application of online governance technology, combine the information technology with relevant governance systems to form a comprehensive online security system, so as to achieve effective supervision and control of cyberspace. Still, it is possible to do the day-to-day maintenance of the Internet, made an effective Internet protection barrier with equipment such as firewall, virus prevention system and other security facilities, and solve various problems timely so as to ensure the normal operation of the Internet. In addition, the government is also required to gradually establish a set of technology-based online cooperation governance mechanism to accurately identify and deal with illegal information in cyberspace. It is believed that all of these measures could help to promote the healthy and orderly development of the Internet to a large extent.

5.4.6 IMPORVING CITIZENS' POLITICAL LITERACY OF AND GUIDING CITIZENS' MORAL COMPLIANCE

Besides the above-mentioned measures from the aspect of the government itself, some more efforts should be involved from the aspect of guiding the citizens. This research makes the discussion with the consideration of citizens as follows.

On the first place, the Chinese government should try the best to increase the citizens' political literacy. Targeted at the problems of nonstandard and unbalanced online participation among the Chinese citizens, the most important is to improve the political literacy and the participation enthusiasm of the citizens, which is believed to be of great significance in promoting citizen" online participation in public policy formulation. Firstly, citizen" online participation should be included in the basic framework of laws and regulations. That is to say, the government is required to clearly define the rights and obligations of citizens in the process of online participation in policy formulation. At the same time, since the ability of citizen" online participation is determined by their knowledge related to policy participation to a large extent, the government is required to improve the access of citizen" political participation knowledge, for example, it is possible to build a specific platform for exchanging or learning the knowledge related to political participation. Secondly, since mastering certain knowledge of online policy participation, the government is required to pay attention to guide citizens to make reasonable and effective participation, for example, cultivating good online policy participation ethics or morals and gradually internalizing it into citizens' political participation habits. All in all, the government should strengthen the propaganda of citizens' online policy participation knowledge, to enable the citizens to have better online policy participation ability, and still to improve their enthusiasm for online policy participation. Admittedly, only by stimulating citizens' sense of political efficacy, could citizens actively express their interests through legal channels, thus changing the pattern of interest distribution in public decision-making and finally realizing the goal of public governance.

On the second place, the Chinese government should try the best to guide citizens to abide by the Internet ethics. In the virtual environment provided by the Internet, citizens express their opinions, suggestions and appeals through the online platform. While enjoying the political rights, they should also perform their corresponding obligations and assume corresponding responsibilities (Oni, et al., 2017). Therefore, citizens should strictly abide by the ethical norms and relevant laws in the public domain of the Internet when making statements. Only in a good ethical Internet environment

could the irrational factors in the process of online policy participation be restrained or be eliminated, which is the premise of promoting the orderly development of citizens' online participation. To be specific, firstly, netizens should make clear of their rights and obligations, and form a good habit of online policy participation. The citizens should not only increase their own self-discipline awareness, but also play the role of supervising other netizens online participation. In online participation, citizens should always take the initiative to assume corresponding responsibilities, for example, being responsible for their own behavior, making good use of the online platform for communication, resisting illegal and irrational information, actively reporting the online criminal behavior, conducting rational, positive, and healthy discussions on policy issues, and so on. Secondly, the government should try the best to improve netizens' media literacy. For example, it is possible for the government to strengthen education or cultivation of the citizens' individual awareness, including improve their comprehensive quality, participation rationality and so on. Besides that, it is possible for the government to strengthen the publicity of online participation knowledge, to keep citizens consciously and carefully avoid and resist negative information on the Internet, all of which contributes to the accuracy and effectiveness of information dissemination.

On the third place, the Chinese government should try the best to cultivate rational participation of netizens. In view of the emotional and excessive participation in China, it is quite necessary for the government to cultivate the rational participation of netizens. First, the government should cultivate citizen' awareness of rational participation, so that citizen could accept the idea of rational participation and express their own interests in a healthy and rational way. The concept of citizen participation rationality needs to be internalized into the accepted political behavior norms and externalized into the conscious political participation behaviors. Citizens should realize that the publicity of citizen participation does not mean that the interests of all political participants could be realized, and still, the same participant could not achieve the corresponding political interests each time in the process of political participation. The process of political participation is the process of realizing one's own right to participate, as well as the process of undertaking one's own obligations and responsibilities. During this process,

citizens should not only always maintain the consciousness of rational participation, but also maintain a positive and optimistic attitude at all times. Citizens should make their own judgment on the basis of rational analysis and take their own opportunities for the online policy participation seriously.



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CHAPTER 6

CONCLUSION

6.1 BRIEF SUMMARY

In recent years, citizen' enthusiasm for online policy participation has been rising. More and more citizens express their interests to policy makers through online platforms, thus promoting the establishment of the policy agenda, inputting social sentiment and public opinion into the policy formulation system, and ultimately affecting the output of public policy formulation. As a new form of political participation, while promoting the scientific and democratic formulation of public policy, it also faces problems such as non-standard, irrational, and unbalanced participation. In other words, citizen' online participation in policy formulation faces both opportunities and challenges. To better seize opportunities and respond to challenges, this research focuses on the issue of citizens' participation in public policy in the online environment, so as to give full play to the positive role of the Internet in citizen participation in policy formulation, and still to improve the scientific and democratic nature of public policy formulation.

To be specific, this research clearly proposes the corresponding research questions to be solved.

- Firstly, what are the current situations of Chinese citizens' online participation in public policy formulation?
- Secondly, from the theoretical point of view, what is the potential correlation between citizens' online participation and public policy formulation? Also, what is the specific inflecting mechanism of citizens' online participation on public policy formulation?
- Thirdly, from the empirical point of view, what are the specific correlation between citizens' online participation and public policy formulation? As the key of the whole research, in this part, this research aims to focus on the solutions to the two questions, that is,

- ✓ *what factors affect the extent to which citizens participate in education policy?*
- ✓ *what mechanisms can effectively explain the effects of online participation in education policy?*
- Lastly, what could be done to further improve the effects of online citizen participation in China?

To solve the research questions, the whole research is completed through the following three main parts.

At first, this research summarizes and analyzes the previous studies related to public policies and public participation, and still the basic theories of citizen online participation, mainly including the governance theory, participatory democracy theory, and policy network theory, all of which are the important theoretical premise or theoretical basis of research hypothesis in this research. In this part, an explanatory research method was adopted to explain the effect of citizen participation on the development and refinement of public policy. This approach was chosen because explanatory studies can help establish the causal relationships between variables under study. This is the important premise of the following development of research ideas.

In addition, in order to make the further exploration, this research takes the formulation of the Chinese education policy through the online public opinion as an example to collect the relevant information and still to verify the hypothesis put forward in the first part, namely, to illustrate the impact of Internet public opinion (cognitive level, expectation perception and social attitude) on public policy formulation (government openness and government transparency) with the consideration of the intermediary role of policy perception and citizen participation. In this part, the questionnaire survey is involved to collect data for the quantitative analysis (mainly including reliability analysis, validity analysis, descriptive statistics, and correlation analysis, structural equation modelling, and still path analysis) of the impact of online public opinion on public policy with the help of SPSS and Amos. It should be mentioned that the design of this questionnaire is based on the numerous inputs from field interviews

and surveys, and still the real situation in China. Then, the questionnaire survey is finally completed after ensuring the reliability and the validity through the pre-analysis.

At last, based on the findings in the empirical analysis, combined with the review of the excellent experiences from the foreign countries, including both Western countries and Asian countries, this research make a further discussion related to the further improvement of the effects of online citizen participation in China, so as to further promote the effectiveness and efficiency of people's online participation in public policies. To put it more specifically, this research proposed a series of countermeasures, for example, strengthening infrastructure construction and balancing information resources; perfecting the e-government platform and strengthening e-government functions; building the more comprehensive management mechanism of online public opinion; guiding the online public opinion and realizing the standardized working process; providing legislative guarantee and still technical support of online participation; and improving citizens' political literacy of and guiding citizens' moral compliance.

6.2 MAIN FINDINGS

6.2.1 EMPIRICAL FINDINGS

The empirical analysis in this research mainly focuses on the impact of independent variables (including cognitive level, expectation perception and social attitude) on dependent variables (including government openness and government transparency) with the consideration of the intermediary role of policy perception and citizen participation (moderation variables). Based on the findings of the empirical analysis, this research makes a brief summary as follows. Cognitive level and individual expectation make the positive impact on both government openness and government transparency (and accordingly the effectiveness and the efficiency of citizens' online participation in policy formulation), while social attitude only makes the positive impact on government openness but not government transparency. Furthermore, it seems that both policy perception and citizen participation played the moderator role to some extent in the process of cognitive level making positive impacts on government openness but not

government transparency (and accordingly effectiveness and efficiency of citizens' online participation in policy formulation).

6.2.2 EXPERIENCES FROM FOREIGN COUNTRIES

After learning from the experience of citizen' participation in e-government in above four countries, it could be found that, whether in Western countries or Asian countries, its measures on citizen' online participation in politics are based on the actual situation of their own countries, trying to weaken the factors that are not conducive to citizen' online participation in politics and give full play to the factors that are conducive to citizen' online participation in politics. Specifically, the following four key points could be summarized from such excellent experiences, that is, to strengthen the construction of e-government and provide a platform for citizens to participate in the Internet, to give full play to the role of public opinion survey institutions and other organizations in the light of the national conditions, to firmly implement the Internet real-name system (for example, the online civil ID cards), and to establish and improve relevant laws and system, to make sure the accountability of online political participation.

6.2.3 TARGETED RECOMMENDATIONS

Based on the discussion about the empirical findings and still the excellent experiences from the foreign countries, this research tries to propose some targeted recommendations after taking the real situation in China into consideration, so as to propose feasible suggestions for increasing the effectiveness and efficiency of people's online participation in public policies.

Firstly, it is to strengthen the infrastructure construction and balance information resources. To be specific, the government should use various economic and administrative means to accelerate and improve the construction of the national information infrastructure and strengthen the knowledge popularization related to information technology through a series of education activities. Besides that, the government should further balance the information resources among different regions.

Secondly, it is to perfect the e-government platform and strengthen e-government functions. To be specific, the government should change the traditional management idea and strengthen the service functions of e-government at first. In addition, the government should pursue the increase of overall efficiency through the utilization of the e-government.

Thirdly, it is to build the comprehensive management mechanism of online public opinion. To be specific, the government should carefully collect the opinions that are put forward by the public through the Internet, so as to prevent risks and still to screen the online public opinion and figure out the useful information. Besides that, the government should establish and further improve the rapid response mechanism of online public opinion. Last but not the least, the government should establish a responsibility mechanism to respond to the online public opinion.

Fourthly, it is to guide the online public opinion and realize the standardized working process. To be specific, the government should strengthen the guidance power of online public opinion and always grasp the right of guidance and accordingly to correct the online public opinion attitude timely through guidance and rectification. In addition, the government should innovate the way of public opinion guidance and respect the expression of public opinion. Last but not the least, the government should gather the power of public opinion to guide the role of social media.

Fifthly, it is to provide legislative guarantee and technical support of online participation. To be specific, the government should strengthen the protection of citizen'' online participation from the legal perspective, and accordingly to strengthen its support for citizen'' online participation from a technical perspective.

Sixthly, it is to improve citizens' political literacy of and guide citizens' moral compliance. To be specific, besides the above-mentioned measures from the aspect of the government itself, some more efforts should be involved from the aspect of guiding the citizens. For example, citizens' political literacy should be further improved, and still, citizens' understanding of the Internet ethics should be further improved. Last but not the least, citizens' rational participation should always be ensured.

6.3 CONTRIBUTIONS

From the theoretical perspective, this research is a deep discussion in the field of public management. As the country continues to promote the process of democratization, citizens should be able to reasonably express their own interests and needs through online participation, and also continuously realize their own interest's maximization. Thus, taking the whole political cycle into consideration, citizens should participate in political events, including introducing, implementing, evaluating, monitoring, adjusting and finally determining policies. Public policy formulation is the initial stage of the policy cycle, which has an important stage status and determines the effectiveness of a series of the following procedures. China's citizens' online participation in government decision-making has attracted more and more attention from experts and scholars and has extensively carried out relevant research. However, citizens' online participation in public policy making is still a new research field. As for the use of the Internet in the political participation, using a combination of the Internet and public opinion, new technical routes, and implementation styles, could reflect the opinions of the new generation on public policy in an objective manner. Scientific and standardized policy evaluation is a key factor in public policymaking and is the basic way to test the quality and level of public policy. It is also an important basis to determine the continuation, improvement, or termination of public policy, to realize the reasonable and effective allocation of public resources. At present, few scholars have discussed the current situation of citizen' online participation in public policy formulation and the influencing factors that affect the effect of online participation. This research focuses on the issue of the relationship between online public opinion and public policymaking to a theoretical level of social democratic process and socio-political change. This research makes the detailed discussion from the perspective of empirical analysis, draws lessons from the experience and enlightenment of foreign online political participation, and finally proposes countermeasures to promote citizen'' online participation in public policy formulation based on the actual situation of China. This research focuses on one of the ways in which citizens participate in the policy-making process, that is, the online participation, which is of great significance in promoting the open and transparent

administrative work and still the guarantee of citizens' interests. Specifically, this research makes the analysis of citizens' online participation from the perspective of deliberative democracy theory and proposes that deliberative democracy forms the theoretical basis for citizens' online participation. From the perspective of policy discipline, the discussion in this research focusing on citizens' participation in policy formulation through the Internet is of great value and has greatly enriched the theoretical discussion of public management. From this point of view, it is possible to say that this research has made some innovations from a theoretical perspective. To put it more specifically, different from the previous studies taking political science and sociology as the basis of their research (Vega-Tinoco, et al., 2021), this research regards administrative management as the basic discipline of research. Still, this might provide some certain directions for the follow-up research in this field.

Furthermore, from a method perspective, previous studies related to citizens' online participation and public policymaking mainly took the qualitative discussion. In terms of the choice of theoretical tools, the policy online participation theory is an important theory popular in the western countries to study the policy process, while the policy online participation theory is still in the stage of theoretical introduction and preliminary application in China. This research attempts to establish an analytical framework from both the qualitative perspective and the quantitative perspective. From the qualitative perspective, this research at first reviews the previous studies related to public policies, public participation, and relative theoretical basis of citizens online participation. From the quantitative perspective, this research involves the empirical analysis for reliable results. Using the first-hand data got from the survey, this research explores the interactions between the two from the perspective of the impact of citizen network participation on public policymaking and how governmental decision-making should respond to citizen network participation while expanding the research horizons of public policy and network participation. All in all, this research is completed based on a rational response and the careful regulation of citizen online participation avoiding the negative factors of citizen network participation affecting public policy and giving full play to the positive impact of network participation on public policy, the reliable findings of which

help to provide in-depth and systematic theoretical support and practical guidance. That is to say, different from the previous majority studies mainly making assumptions and discussions (Font & Galais 2011; Asad & Dantec, 2015), this research involves the empirical analysis for in-depth understanding and research, which still provides new directions for the studies of this field in the future.

6.4 LIMITATIONS

Firstly, regarding the selection of statistical models, this research chose the structural equation model (SEM) to verify the hypotheses. Indeed, SEM is an effective method for testing the relationships between various variables, and still, this research effectively used mathematical methods to describe the relationships between different variables by observing variables and parameters, and finally completing the judgment of hypothesis results. However, it should be noted that in SEM, any variable can appear as an observed or latent variable in the model, meaning that the research results depend on the setting of the research model. The setting of this model largely depends on the subjective experience and theoretical assumptions of the researcher. Considering the limitations of my own thinking, it is inevitable that the results of this research may be influenced by the selectivity bias of the model setting.

Secondly, regarding the design of the research questionnaire, although the questionnaire for this research was tested for reliability and validity after correcting the pre survey results, it must be acknowledged that this research questionnaire involves a certain number of questions requiring self-evaluation, which might lead to the biases. For example, respondents may give high or low evaluations due to their understanding bias and their own personal perception, resulting in data distortion. Additionally, due to time and resource limitations, the surveys may not be able to delve into the details of each topic. A serious problem brought about by these is that the data quality of the questionnaire survey may not be high, which can have a certain negative impact on the research results.

6.5 SOME IDEAS FOR FURTHER STUDIES

In the end, I would also like to offer some thoughts on artificial intelligence related to this research.

Social emotions have always played a crucial role in policy policy and policy decision-making. In public management, the formulation and implementation of policies often require public support and participation, and social emotions can affect people's acceptance of policies. When public policies do not meet public expectations, it may lead to potential fluctuations in social emotions. On the contrary, efficient and fair policy policy strategies can enhance public trust and maintain social stability. A positive social atmosphere contributes to the effective implementation of policies, while negative emotions may make it difficult for policies to be implemented smoothly. Therefore, policy makers need to accurately understand social emotions, adjust policy strategies reasonably, and enhance the operability and social recognition of policies. Moreover, public administrators should also recognize that social emotions are not only a response, but also a resource. Properly guiding and utilizing positive social emotions can create more motivation and support for the implementation of public policies and social development.

The relationship between future social emotions and policy policy will become increasingly complex. With the advancement of technology and social changes, the relationship between social emotions and policy policy is undergoing profound changes. Social emotions are not simply a binary opposition between positive and negative, and policy policy is by no means a cold command and execution. In complex social contexts, the public's response to public policies may be diverse and hierarchical. For example, a policy involving educational reform may be welcomed by parents but opposed by some educators, and may also raise doubts and concerns among students. This means that public managers should not only focus on the overall tendency of social emotions, but also pay attention to the specific feelings of different groups and stakeholders.

And, in the last chapter add ideas for further study, such as the role of AI and online participation. This can be 1 paragraph. Public managers need to constantly update and

improve their management concepts and methods, learn to capture and analyze social emotions more sensitively and meticulously, and ensure the fairness, effectiveness, and adaptability of public policies. Artificial intelligence has become an effective helper. Emotion recognition technology can accurately capture human emotional states through the analysis of multimodal data such as text, sound, and images. Artificial intelligence can provide a new source of data for public opinion analysis, public opinion surveys, and more. By quickly and scientifically quantifying and analyzing social emotions, the government can capture the public's support, dissatisfaction, or doubts about a certain policy, and provide more accurate decision-making basis for the government. In addition, by combining emotion recognition and artificial intelligence technology, the government can better manage public opinion, and even take public opinion hedging measures in advance to mitigate public opinion risks by predicting and analyzing the potential public sentiment impact of a certain event. These are all possible contributions that artificial intelligence can make to the field of online public policy-making in the future, and I believe these contents are worth exploring in depth in the future.



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