Research on Innovation Strategies for Community Public Service Supply Modes Driven by Digital Governance

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Keywords: Digital technology, community public services, supply, innovation

Abstract: Digital governance empowers existing governance system through the use of digital tools, techniques, and platforms to improve governance efficiency and effectiveness. Digitized supply of community public services is composed of elements such as shared, diversified and collaborative supply concepts, data sharing technologies, data information resources, and diversified supply entities. However, problems such as unclear shared and diversified collaborative digital governance concepts, fragmented supply content, incomplete information sharing mechanisms, and digital divide exist in the practice of digitized supply of community public services. In order to improve the efficiency of digital technology empowered community public service supply, it is necessary to continuously strengthen the value leadership mechanism of diversified and collaborative sharing, the normative mechanism of community public service supply, the mechanism of data information sharing, and the mechanism of diversified supply entities.

1. Introduction

The rapid development and popularization of digital technologies such as the internet, big data, and artificial intelligence have greatly affected the work and life of the public, posing new challenges to China's social governance system and governance capacity. As an intermediary variable that links community governance subjects and governance objects, digital technology has become the main driving force for empowering and enabling social governance. With the development of digital technology, the intelligent, fine, interactive, and networked development characteristics of community public service supply are increasingly prominent. Now, the digitized supply of community public services is facing the rapid promotion of "entity + virtual", which has stimulated the reconstruction of the supply subject of community public services and the demand for supply mode innovation.[1] The "Suggestions of the Central Committee of the Communist Party of China on Formulating the 14th Five-Year Plan for National Economic and Social Development and Long-Term Goals for 2035", which was passed at the Fifth Plenary Session of the 19th CPC Central Committee, clearly stated that digital technology should be used to promote urban and rural development and innovate governance models. It also encouraged social forces to participate in "big data + public services" and innovate supply modes for public services and public products. Embedding digital technology in the supply of community public services has promoted the emergence of new supply concepts, new supply methods, and new supply mechanisms. Therefore, introducing digital governance into the supply of community public services is an active response

and a practical response to the public service needs of community residents.

2. Analysis of the Elements of Digital Supply for Community Public Services

On January 21st, 2022, the General Office of the State Council issued the "Plan for Building the Urban and Rural Community Service System for the 14th Five-Year Plan", which emphasizes the need to accelerate the digital construction of community services and create a new scene of beautiful digital services. The basic elements of digital supply for community public services mainly consist of supply concepts, supply methods, supply contents, and supply subjects.

2.1 The concept of shared diversity and collaboration is a key component of digital supply

"Sharing" is a crucial aspect in discussions on digital governance. The open sharing of data not only ensures public participation, but also facilitates effective interdepartmental data exchange, restructures administrative procedures and ultimately enhances the government's service capabilities.[2] The efficiency of community public service supply is a crucial dimension in measuring collaborative effectiveness which requires communication and collaboration among various social actors. Through the use of digital technology, community public service platforms can achieve open data sharing and process optimization recombination, organically integrating traditional fragmented management models, and realizing collaboration among different businesses, departments, and regions, ultimately improving government efficiency. Digital collaboration among supply subjects refers to mutual dependence between the subject and object achieved through shared information channels, realizing mutual cooperation and governance and allowing data to "travel more" and technology to penetrate internal and external organizational relationships.[3] At every stage of community public service supply, the diversified social governance structure can continuously enhance the collaborative innovation ability of society's members across four levels - resource sharing, technology sharing, service sharing, and evaluation sharing. Firstly, the government, market organizations, and community organizations collaborate within the community, use different types of resources, and improve the efficiency of community economic development through resource sharing, aggregation, integration, and exchange. Secondly, the construction of community public service supply network platforms relies on online network data at the technological sharing level established by various internet companies, as well as offline interaction and cooperation provided by various physical service providers. Finally, the service sharing level outlines the supply path of the community digital public service platform. It transforms demand through "aggregation, storage, decomposition, analysis, classification, and recombination" into social services and provides an interface for connection between supply and demand, government and public, and technology services.

In addition, digital supply of community public services is a collaborative governance approach based on the collaboration of multiple entities such as governments and non-governmental organizations. Realizing this transformation requires the cooperation of all parties involved and the establishment of a well-coordinated digital state. Digital technology is a way of social governance that changes the allocation and demand of social resources and forms a highly concentrated system of social public resource supply through the integration and guidance of governance behavior. In the digital supply of community public services, community residents increasingly focus on personalized and customized services, achieving precise matching of supply and demand and collaborative supply of public products. On the one hand, digital technology facilitates the expression of residents' service needs while information architecture and sharing platforms promote issue reproduction and online discussions. This will promote the construction of supply objects centered on demand and supply issues, encouraging all supply subjects to actively collaborate online to effectively connect social

resources and optimize and integrate dispersed supply factors, providing a superior resource environment for achieving supply objectives. On the other hand, community residents increasingly focus on personalized and customized services, achieving precise matching of supply and demand and collaborating to supply public products. For example, blockchain technology promotes the development of public utility chains, gradually achieving peer-to-peer automatic matching, execution, and service, as well as personalized services centered around "resident needs".

2.2 The technology of data sharing is the core means of digital supply

Modern information technology is one of the main tools of digital governance, and digital technology promotes the formation of a new global pattern. On the one hand, based on digital technology, real-time interactive information exchange can integrate and share demand information and supply resources of community public services, providing precise pathways for supply-demand matching of community public services. Digital technology can face the diverse and differentiated public service demands of multiple entities at different levels, fully utilizing the role of technological platforms to create more open service resource supply models. On the other hand, as network technology gradually penetrates into the work and life of the general public, the use of new technological means such as big data, artificial intelligence, blockchain, and 5G technology constantly promotes the development of government governance innovation, constructs a digital governance system, and enhances the level of digital governance. In fact, the government has made many beneficial attempts by using information technology, with e-government as a representative, which has improved government governance efficiency.

2.3 Data information is the fundamental resource of digital supply

On March 30, 2020, the Central Committee of the Communist Party of China and the State Council issued the "Opinions on Building a More Perfect Market-based Allocation System for Factors of Production", which explicitly identified data resources as an important component of market factors and proposed to accelerate the cultivation of data element markets, promote the orderly opening and effective flow of government public data, and gradually establish a market-based pricing mechanism for public data. The orderly disclosure of public data is a crucial step towards achieving digital government governance, and measures such as data classification, integration, and de-sensitivity promote the orderly disclosure of public information, which is a key link to achieving data empowerment. The disclosure of public data can unlock its potential value while also providing valuable support for the development of digital governance. Through data empowerment, precise service identification can be achieved, which can precisely locate individuals or households and achieve overlapping integration of corresponding businesses on the data platform, thus shifting from fragmented assistance to integrated, precise, and on-demand assistance. By classifying, aggregating, and analyzing service information data, street-level departments can accurately understand the cumulative amount of cash subsidies, material subsidies, services, etc. received by each assisted resident. Through the integration of service data, it is possible to better address the problems of content and demand mismatch caused by individual departmental assistance in the past. Digital transformation can avoid negligence and errors in traditional manual processes and provide accurate and timely delivery of high-quality services. The development of digital technology ensures that government departments have a clear understanding of the operation of the community and the public service needs of community residents, thereby improving the government's information mining and identification capabilities on the demand side.

2.4 The diverse supply subjects are the guarantee of digital supply

The government, enterprises, and the public jointly participate in the digital supply of community public services, forming a virtuous interaction of cooperation between the government and enterprises and interaction between the government and the public. From the perspective of supply and demand, the essence of community public service supply is a process of meeting needs. In order to achieve precise matching between supply and demand, it is necessary to accurately grasp the value orientation of diversity while constructing the community public service platform. From the perspective of community public service demand, the service needs of its residents should be more diversified and personalized, and should be synchronized with the living standards. In addition to providing regular services such as elderly care, medical care, and cultural entertainment, the service needs of different communities are also showing a trend of diversification. Professional social affairs activities, such as social networking, are also increasing, increasing the demand for professional community public services. From the perspective of supply, the current supply of community public services is mainly led by the government and realized in a top-down manner with the participation of social entities. As a social governance institution based on resources, application of resources, and resource allocation, the government not only benefits from resources in solving community public service issues, but is also easy to be affected by resource constraints. "From the perspective of the resource ownership system, the government is the subject of ownership, and resources are the object of ownership. The government needs to play the role of the subject on the object, fulfill the responsibilities and obligations of the subject to the object, perform the first responsibility for resources, and protect, scientifically manage, rationally develop, and effectively utilize resources."[4]

In addition, the supply of community public services is complex, and the impact of this complexity has accelerated the transformation of community public services, leading to their development in a diversified direction. In this complex and networked system of community public service supply, community public services are not charity or philanthropy, therefore, all relevant supply subjects need to cooperate comprehensively. The multi-subject overall collaborative mechanism formed by the government, service enterprises, social organizations, operating platforms, community committees, and residents integrates mutually dependent value products to improve service value, reduce service costs, establish industry standards, break down "cost-benefit" or "demand-acceptance" barriers for social participation entities, and construct a value network of service supply subjects.

3. Analysis of Issues with the Practice of Digital Supply of Community Public Services

The integration of digital technology in the supply of community public services can improve the efficiency and effectiveness of such service supply. However, there are also numerous problems associated with the practical implementation of digital supply of community public services. Among them, the unclear concept of sharing and collaborative digital governance, fragmented supply content, incomplete information sharing mechanisms, and the digital divide, are all urgent issues that need to be addressed.

3.1 The concept of shared pluralistic and collaborative digital governance is unclear

At the practical level of community public service provision, the concept of shared and pluralistic digital governance among the government, community organizations and community residents has not yet been clarified, and the digital mode of community public service provision has not yet been truly implemented, which prevents community residents from fully stimulating and releasing the vitality of their unbridled digital technology.

First, due to the inertia of path-dependent thinking, the government and community councils still

follow the traditional "top-down" management model, which restricts the development of digital supply, "The administrative management mode also changed from a single government-led to "one core and multiple" and cooperative governance of multiple subjects. In the past, the "command-and-obey" management structure emphasized top-down management, and "the elite group with the power of governance tended to reject mobility through power control, so as to maintain the closedness and stability of the elite class[5]，The grassroots government has not voluntarily abandoned the "command-and-obey" mode of governance, but has treated the community committee as its own subsidiary department, presenting the management mode of "administrative absorption of society" through the concept, organization, procedures, and services, etc. The relationship between the governance subjects has also become a one-way management. The relationship between governance subjects has also become a one-way management. Because the division of labor among different subjects is not clear and smooth, the data collection among many subjects is duplicated and crossed, and even the data of some subjects are not covered at all, so that the heterogeneity of multiple subjects cannot be reflected comprehensively, and the dignity of subjects cannot be valued. To properly use these data and information materials, it is also necessary to fully mobilize all parties and improve their decision-making abilities in order to better accept and adapt digital technologies, as well as to overcome the dependence on existing experience and technology in order to develop a way of thinking about information that meets modern requirements.

Furthermore, the unified concept of technological value rationality and instrumental rationality has yet to be established in the realm of digitization. At present, grassroots government departments recognize the positive impact of digital technology on community public service supply, yet lack a profound reflection on the value rationality of technology and its deep value in answering the question of "why supply" community public services via digital technology. Instead, they focus solely on the question of "how to supply". Over-reliance on instrumental and utilitarian technology will narrow the intangible network created by cooperative management, and cause it to be trapped in a lightweight or "quantity over quality" management mode governed by technological path dependence, thereby simplifying social relationships and condensing them into abstract numbers, codes, and symbols. The role of technology in government has been distorted into a one-sided "tool" and "means", yet technology is an indispensable core component of social management.

3.2 Fragmentation of community public service supply content

Fragmentation of community public services refers to the isolation, discontinuity, and conflict that occur during the process of delivering public services[6]. Currently, the application of digital technology in community public service supply has attracted widespread attention from governments and communities around the world. The integration of digital technology into community service supply has also shown great potential for development. However, the empowerment of digital technology in community public service supply is still in its nascent stage, with service resources relatively scattered, a lack of interconnectivity among different types of resources, and fragmented supply content. Specific issues include:

Firstly, the fragmentation and disconnection of community public service supply is attributed to multiple supply subjects. Public services offered by communities are undertaken by different entities, for example, community-provided elderly care and childcare services, whereas community-sanitation and security work is supervised and carried out by the community party committee. Additionally, real estate companies provide fee-based projects and services. These subjects may lack coordination and collaboration throughout the process of public service supply, leading to the fragmentation and incoherent content of community public service supply. Unclear division of responsibilities among different subjects, and a lack of unified planning and management mechanism, contribute to the

fragmented nature of service supply. Furthermore, a lack of communication and collaboration mechanisms between different subjects often results in inconsistency in the content and form of community public service supply. For example, community elderly care services may fail to fully understand the needs of residents, while services offered by real estate companies may lean towards commercialization and may not meet the actual needs of residents. The lack of communication and collaboration mechanisms makes integration and optimization of services difficult.

Secondly, community service supply has a relatively small scope and comparatively single content. Community public service supply often confines to some basic service fields, such as community elderly care and childcare. These service contents are usually designed based on the basic needs of community residents, but some other critical service fields may be overlooked, resulting in an incompleteness and imbalance of services. For instance, communities may lack the complete medical, educational, and cultural entertainment services, which are necessary to meet diversified needs of residents. Additionally, the supply contents of community public services are often relatively single and lack diversity and personalization. This leads to the limitations of residents' service choices, which makes it difficult for them to selectively choose based on their needs and preferences. The singularity of service supply also limits the innovation and development of community public services and fails to adapt to the diverse needs of community residents.

3.3 Inadequate information sharing mechanism for community public services

The sharing or exchange of information is a necessary prerequisite for individuals or organizations participating in collaborative actions to maintain coordinated and consistent operations [7]. Constructing a supply model of community public services empowered by digital technology is a complex project that involves multiple fields, levels, and layers, and requires strong information technology as a backbone support.

Firstly, most communities have not established sound public service information sharing platforms, and the existing information resources are inadequate, with slow updates. Firstly, the construction of public service information sharing platforms in some communities lags behind. Many cities lack a unified and comprehensive platform for centralized management and sharing of various public service information in the informationization construction of community public services. This has led to the self-development and management of information systems by various service departments and community organizations, resulting in the existence of data silos and the inability to achieve information exchange and sharing. Secondly, the update speed of existing information resources is relatively slow. Due to the lack of a unified information sharing platform and standardized information management mechanism, the update speed of community public service information is restricted. The information content of many community websites and applications is not updated for a long time, which leads to outdated information and the inability to timely provide accurate service information.

Secondly, information data and resources are controlled by various levels of government agencies, and some departments regard them as their own resources, lack collaboration and information sharing among departments, resulting in data division and monopoly. The management authority of information resources such as community elderly care services, community medical services, community poverty alleviation services, and community employment services is divided into multiple departments, and the information data of community public services cannot be interconnected and shared, resulting in "data barriers." From the perspective of information governance, due to the information barriers between different governance subjects, there is information asymmetry, and different governance information is distributed among different subjects. Their standards for data collection, storage, and cleaning are also different, and the protection mechanisms for information

data are also different, making it difficult to share information data. [8] For example, there is inconsistency in the standards for grid division among units such as urban management, party building, and health care. The inconsistent regional division results in grid overlap and power dispersion, and the grid management is still not perfect. There are obstacles in multi-party information exchange.

3.4 The digital divide in community public service provision

With the development of public utilities in China, the construction of the digital public service system has made initial achievements. According to the "Statistical Report on the Development of China's Internet Network" released in March 2023, as of December 2022, the number of Internet users in China has reached 1.067 billion[9]. However, there are still many members of the public who have not yet benefited from digital public services, indicating that the existence of the digital divide greatly reduces the popularity of public services. In addition, the demand for community public services by community residents is also affected by the digital divide, specifically manifested as:

Firstly, due to constraints such as geographical location, natural resource endowment, and the completeness of infrastructure construction, the inequality of community public service supply in cities with different levels of economic development is aggravated. In addition, influenced by factors such as industrial structure and socio-economic foundation, there is a certain degree of regional development imbalance. Therefore, significant gaps exist between regions in the supply of digital public services, such as in the level of network infrastructure and network technology. Research findings indicate that in the process of digitizing community public service supply, there are substantial differences among large urban areas at various levels of economic development, exacerbating the issue of regional development imbalance.

Secondly, the digital divide intensifies the sense of social injustice. It exacerbates differences in community public service supply among different regions, urban and rural areas, communities and social groups, preventing them from enjoying equal services and quality. Consequently, it further strengthens the sense of social injustice, making the inequality of public service acquisition and enjoyment among different regions and urban-rural areas, as well as social groups, more severe.[10] In addition, the digital divide exacerbates the digital disadvantage of those who lack basic information and communication technology skills, resulting in differences in information acquisition, identity authentication, and rights protection, causing vulnerable groups to fall into a state of "digital poverty". This situation may not only trigger psychological problems for individuals and conflicts among groups but also exacerbate the occurrence of social conflicts.

Thirdly, it triggers the information silos of community public service. With the advancement of digitalization, the government faces the risk of information silos, while community public service supply may also experience "island" phenomena. In the process of information sharing, interaction, and efficient utilization, differences in information output and mining technologies between community public service supply and demand entities inevitably lead to information asymmetry. This information asymmetry will cause mutual dependence of information sources between community public service supply entities, mutual exclusion of information platforms, and difficulties in information processing and correlation. In addition, information barriers and blocks can also prevent effective digital collaboration between community public service supply entities of different levels and sequences, further aggravating the "information silo" phenomenon of community public service.[11]

4. Innovative strategies for the digital supply model of community public services

Digital technology-enabled community public service provision reflects the active compliance and

active transformation of government governance logic, highlighting the powerful power of digital technology in government governance, social governance and community governance.

4.1 Sound value-led mechanism for multiple synergies and sharing

Digital supply of community public services refers to the use of digital technologies to fully leverage the knowledge, resources, and skills of actors such as governments, enterprises, social organizations, and citizens. It is achieved through negotiation, dialogue, commitment and other means, while also taking on relevant responsibilities. This cooperative assistance enables the overall effectiveness of community public service supply to be greater than the sum of its parts, thereby achieving more efficient community service.

Adhere to the concept of sharing multiple synergies throughout the whole process of "digital governance" to "common governance"[12], It is the result of combining technological rationality with value rationality. Actors such as governments, community committees, market organizations and social organizations should jointly participate in the supply of community public services to maximize the value of community public services and achieve the optimal efficiency of community public service supply. The concept of diversified, coordinated, and shared community public service supply incorporates the social value of serving the public, considers the fairness and efficiency of public service supply technologies, and emphasizes intelligence, transparency, and interaction, as well as participatory or cooperative supply concepts.

Digital supply stands out as a significant characteristic that distinguishes it from other supply methods. It is reflected in the integration of information technology throughout the entire process of public service supply, covering aspects such as top-level design, supply mechanisms, supplier subjects, and supply behaviors. It is interconnected, reflecting the characteristics of informatization and technologicalization. The diversified, coordinated, and shared supply concept permeates the contractual spirit between government departments and social actors. It drives the government to accept social supervision and to facilitate the orderly participation of citizens in the practice of supplying public services. It also guides the transformation of public service supply models towards networked and technological approaches [13]. In the era of digital governance, digital technology does not spontaneously give rise to public values such as two-way interaction and democratic participation. Rather, it provides technical support for the development concept of diversification, collaboration, and sharing.

4.2 Sound regulatory mechanism for community public service provision

It is necessary to embed digital technology into the supply of community public services in community public affairs. In China's digital community governance system, significant progress has been made in multiple dimensions such as institutional content, institutional procedures, execution effects, and feedback mechanisms. However, in the construction process of the digital governance system, it is essential to establish a complete network structure to address the "last mile" problem in digital city efficiency [14]. At the same time, in the digital technology and community public service supply system, it is necessary to combine the application of technology standards, information supervision system, and institutional system to build a complete system of community public service supply. Therefore, improving the normative mechanism of community public service supply is the key task to enhance the efficiency of community public service supply.

Firstly, it is necessary to clearly define and integrate the technical application standards and information monitoring system for community public service supply. In order to reduce the back-end costs of collecting and analyzing community public service information, various commercial information data can be linked and integrated. Therefore, establishing technical standards and

evaluation indicators for the mutual integration and penetration of technology and public resources, in order to build an efficient and operable organizational system[15]. At the same time, it is important to strengthen the monitoring of digital technology applications and the utilization of service information. By monitoring technology in real-time, risks in community public service supply can be quickly detected and accurately addressed. Therefore, it is necessary to strengthen the management and prevention of community public service supply activities, and establish a closed-loop monitoring system that includes monitoring, warning, processing, and feedback. A comprehensive filtering and monitoring of digital technology risks can not only eliminate defects in network technology and potential social governance risks, but also improve the effectiveness of digital technology in community public service supply.

Secondly, it is necessary to strengthen the connection between the supply mechanism of community public resources and the top-level planning of the government. Digital technology provides a more extensive and convenient channel and platform for community public service supply, which makes community residents' participation in community affairs and community public service governance more diversified and flexible. This digitalized community public service governance not only improves the quality and efficiency of community public service supply, but also promotes the enthusiasm and satisfaction of community residents' participation in community public service supply. It realizes a benign interaction and cooperation between the government and community residents, and promotes the sustainable development of community public service governance.

With the concepts of "Digital China" and "Smart Cities" proposed in the 19th National Congress report, new ideas and paths have been injected into the digital technology for community public service supply in China. It is urgent to explore how to integrate digital technology into community public service supply to achieve and improve the planning of governance paths. Therefore, it is necessary to formulate and implement comprehensive development indicators for overall development according to the status of digital technology and community public service supply to ensure "practical" rather than "loose" grassroots innovation. In addition, according to the status of the digital infrastructure construction and resource endowment in the region, to formulate a specific implementation plan for integrating digital technology with community public service supply to ensure the system is "precise" and not "fatuous."[16] Furthermore, in order to strengthen the institutional guarantee for the application of digital technology in community public service supply, it is necessary to include community digital management into the scope of regulations, formulate secure policies and regulations, and attach importance to the construction of legal systems and enforcement. In addition, it is necessary to jointly promote the whole process of community governance decision-making, implementation and supervision, and establish a multi-faceted institutional mechanism to ensure that the system is "regulated" rather than "arbitrary".

4.3 Sound community public service data information sharing mechanism

To meet the governance needs of the digital society, it is necessary to embed the information technology of public services into the management of community public affairs, effectively integrate information resources of public services, and achieve the informatization of social public services. Solving the current "dispersed" phenomenon in community public service supply and building an information sharing mechanism for community public services are important means to achieve social and digital management.

Integrating the information resources of community public services at all levels of government, constructing an intelligent community affairs management information system, and sharing information on community public services can be realized. From a strategic perspective, it is necessary to break through the single information system constructed by various units and achieve

the comprehensive integration of education, medical care, and elderly care. For fields such as social security, environment, and family planning, it is necessary to establish an integrated information platform for community public services to promote the equalization, convenience, and intelligence of basic public services[17], By promoting unified information integration through multiple channels, information barriers can be eliminated and seamless information exchange can be achieved. Meanwhile, establishing horizontal and vertical connections can avoid the problems of redundant information collection and difficult integration.

Secondly, adhere to the principle of public integrity as the foundation, standardize information sharing mechanisms through institutionalization, and establish social media to promote information sharing. Government agencies are essential and important entities in the coordination mechanism. The government should actively integrate institutional mechanisms and resources, establish efficient information exchange mechanisms, and provide pathways for accessing and sharing resource information, governance information, and business information[18]. In addition, the government should promptly understand the needs of various associations and groups, respond to demands, adjust actions, engage in negotiation and communication, resolve doubts, and reduce differences, thus establishing a good cooperative relationship.

Thirdly, accurate positioning of public service needs of community residents should be established to improve the quality of public service supply. Using digital technologies such as "Internet +", cloud computing, and big data, a community public service data integration service system and diversified information exchange platform based on big data should be established, thus enhancing the integration and comparison capabilities of community public service information resources and improving data information management levels. Meanwhile, this system can widen the channels for expressing public service demands and mass supervision, thereby increasing residents' sense of participation. At present, many communities have begun to implement digital governance and have established electronic document systems to integrate public service data and information. For example, in the Shuijingfang sub-district area of the Jinjiang district in Chengdu, Sichuan province, a "one center + three platforms" information management system has been established using modern technologies such as big data and cloud computing. This system includes a comprehensive information command center for the sub-district, a smart community information service platform, a love home community television intelligent platform, and a WeChat comprehensive information platform[19]. This comprehensive information management system is conducive to the participation of multiple parties such as governments, social organizations, and enterprises, better understanding and meeting the public service demands of community residents. By establishing a comprehensive big data service system, social organizations can promptly understand the development status of the community, accurately grasp public service needs, and better provide services to the community, thereby increasing residents' social participation and improving the quality and efficiency of public services.

4.4 Sound mechanism for supplying diversified subjects of community public services

The premise of multi-subject supply of public services is the internal driving force and interactive cooperation platform of multi-subject supply. They promote the operation of community public service supply system with their respective advantages, behavioral cognition, and participation motivation. Digital communities are committed to meeting various social needs, rather than simply pursuing technology, efficiency, and cost. The traditional "being supplied, being served, and being governed" service supply method can no longer meet the public service needs of community residents. It must be achieved through collaborative efforts, self-service, and participatory governance between multiple subjects[20]. Coordination and integration are the core ideas of digital supply of community

public services.

Firstly, it is important to establish a multi-subject collaborative supply model for community public services. Digital supply refers to cooperation between various entities for achieving public goals, even spanning across different levels and departments of government institutions, and between government institutions and private sectors, providing cross-domain supply methods[21]. The digital supply of community public services should reflect a cohesive and digital-centered approach[22]. Firstly, government departments need to enhance internal integration and coordination. Currently, there is a fragmented state of community public service supply in our country, mainly due to government fragmentation. Factors such as functional division of labor, departmental interests, power relations, and fiscal budgetary concerns have all contributed to government fragmentation[23]. To address the fragmented state of community public service supply, it is necessary to strengthen internal coordination and integration within government institutions. This can be accomplished by promoting departmental fusion, coordinating between different departments' interests, and fostering communication and collaboration among various departments to achieve the collaborative development of community public services. At the same time, service procedures and technological means need to be reformed to adopt a holistic supply mindset, thereby breaking the existing "fragmented" situation and providing community public services comprehensively, efficiently and in an orderly manner. Secondly, it is important to fully leverage the synergistic effects of community social organizations and market organizations. With the development of society and the improvement of people's living standards, the demand for community public services is becoming increasingly diverse and complex. The public service supply provided by the government alone is no longer sufficient to meet the actual needs of community residents. Therefore, it is necessary to strengthen the functions of community social organizations and market institutions and establish a collaborative relationship between local governments, market institutions, and social organizations at the grassroots level.

Secondly, it is essential to clarify the collaborative roles of government departments, social organizations, and market entities and continuously incentivize community entities to participate actively in community public service supply, effectively responding to multilevel demands from community residents, community managers, and market actors, as well as addressing cross-sectional and personalized challenges faced by community welfare organizations and government management departments. First, on the basis of confirming the legal identity of government and social organizations, a new type of collaborative contract should be established to promote a balance between them. Meanwhile, in order to avoid escalating conflicts between government departments and social organizations, leading to "power rent-seeking", it is necessary to introduce a third-party monitoring body, clarify the power boundary between government departments and social organizations, and develop a set of scientific evaluation indexes for regular assessment. second, government departments should pay high attention to market-oriented and capitalized community public service needs and strengthen regulation and coordination and communication. Government regulation and corporate self-regulation should be strengthened, and a social credit system with social collaboration and public participation should be established to provide support for diversified public services in communities. In the digital society, advanced information technology should be used to establish a platform for dialogue and coordination to meet the needs and interests of different groups. Therefore, the government needs to gradually grant community governance authority and return public power to the community. At the same time, it should encourage community organizations, enterprises and other subjects to actively participate in community management, establish a collaborative supply system, promote diversified and multi-level community public service supply, and realize community public service supply by multiple subjects. The establishment of a social credit system and the use of assessment indicators to evaluate community public services can advance the

negotiation and reaching of various subjects of interest.

Thirdly, it is important to strengthen community residents' participation and promote diversification in community public service supply. In traditional community public service supply models, government departments issue orders from top to bottom, and community residents' participation is low and often formalized. In the era of digital governance, community residents' demands and channels for supervising community public services have been expanded, making it easier for residents to participate in community public service supply and increasing their sense of participation and community belonging. This helps to gather individuals dispersed in the urban environment into a community and establish a community governance model that involves multiple stakeholders. Taking the "Wulin Grandma" social work center in Hangzhou, Zhejiang Province as an example, the center has formed a closed loop of "mobilization, organization, advocacy, and follow-up" by leveraging the resources of four platforms: Zhejiang Public Service Platform, Government Service Platform, Social Organization Service Platform, and Civilian Organization Service Platform. This has effectively activated the sense of community affiliation and community identity. This approach plays a significant role in improving the community's public service supply capability and enhancing the atmosphere of community self-governance. Moreover, it helps to increase community residents' trust in community neighborhood committees and organizations, thus promoting positive interactions among community public service supply, community self-governance, and social organizations.

Acknowledgments:

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