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# Research on the Support of Digital Economy for China's New Urbanization

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## Abstract

**In the context of rapid urbanization in China, the digital economy, as a powerful economic tool, has provided new ideas and support for the development of new urbanization. This study aims to explore the promotion of digital economy innovation on the urbanization process. Firstly, through theoretical analysis, it delves into the theoretical mechanisms by which the digital economy promotes the development of new urbanization. Then, it analyzes the current status of China's digital economy support for new urbanization, highlighting issues such as its size not matching its strength, speed not being optimized, incomplete service coverage, and insufficient diversity of products and services. Finally, specific policy recommendations are proposed, including improving the digital economy system, strengthening the organizational structure of the digital economy, enhancing digital economic infrastructure, and providing policy support for the digital economy. These recommendations aim to further enhance China's ability to support new urbanization and provide robust support for the urbanization process.**

## Keywords

**Digital Economy; New Urbanization; Theoretical Mechanisms.**

## 1. Introduction

In the rapid advancement of China's new urbanization process, the digital economy plays a crucial supporting role. China is undergoing an unprecedented urbanization process, which is a vital path to achieving sustainable economic and social development. However, the traditional economic system faces issues such as imbalanced urbanization and inadequate economic services. The introduction of the digital economy helps address these problems. By exploring the relationship between the digital economy and new urbanization, valuable insights and policy recommendations can be provided for China's urbanization process.

During the "14th Five-Year Plan" period, the digital economy and new urbanization will play even more important roles [1]. New urbanization provides the spatial carrier and application scenarios for the development of the digital economy, creating opportunities for large-scale and systematic application of new information technologies. The digital economy brings investment-driven and innovation-driven elements to new urbanization, creating a distinct path different from traditional urbanization. There is a high degree of alignment, unity, and consistency in the development goals and inherent requirements of the digital economy and new urbanization. The digital economy in the Yangtze River Economic Belt not only significantly promotes farmers' income directly but also indirectly promotes it by increasing urbanization levels [2]. Spatial connections in the digital economy significantly empower high-quality urbanization, primarily through three pathways: affecting economic quality, public resources, and ecological environment [3]. Yang [4] based on panel data from 284 cities from 2011 to 2018, investigated the impact of the digital economy on new urbanization, regional heterogeneity, and the mechanism of action. The research found that the digital economy has a

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significant promoting effect on new urbanization, with regional heterogeneity, and the improvement of technological innovation is the main path through which the digital economy promotes new urbanization. It harnesses the advantages of aggregating innovative factors, stimulates innovative momentum in new urban areas, optimizes the development pattern, but also notes the threshold effect of factor endowment in the positive impact of the digital economy on new urbanization. Xuan [5] explored the role of the digital economy in promoting new urbanization from the perspective of green innovation. The study found that the digital economy significantly enhances the development level of China's new urbanization, with more prominent effects in coastal cities and non-resource-based cities. Unlike non-core content innovation, the digital economy can boost high-quality new urbanization through breakthrough green innovation. Guo [6] starting from the perspective of promoting high-quality economic development, studied the impact and mechanism of urbanization and the digital economy on high-quality economic development, focusing on intermediary effects. The study found that caution must be exercised against excessive capital investment, which may lead to a vicious cycle in the development of the digital economy. The government should appropriately support and cultivate innovation talents and foster local digital service industries to develop local digital economies. The development of the digital economy has a significant promoting effect on industrial structure upgrading, with a more pronounced effect in the central and western regions [7]. New urbanization has a significant positive adjustment effect on the development of the digital economy in promoting industrial structure upgrading. Zhao [8] using per capita GDP as the benchmark, selected Jiangsu Province, Hubei Province, and Gansu Province as research objects, measured the high-quality development level of urbanization in the three provinces from 2011 to 2019. The research showed that the role of digital power in promoting the high-quality development of urbanization is increasing. The high growth of the digital economy makes it an important driving force for the transformation of old and new drivers [9]. The deep integration of the digital economy and the real economy has become a new driver for promoting the revitalization and transformation of the real economy [10]. Its driving force mainly comes from the expansion of industrial chain organization boundaries, reduced transaction costs, value allocation shifts, and changes in demand brought about by new digital technologies. China's digital economy efficiency coefficient has been rising in recent years, and the significant application of digital technology has significantly improved social production efficiency [11].

## 2. Theoretical Analysis of the Support of Digital Economy for New Urbanization

### 2.1. Development Theory of the Digital Economy

The digital economy is ushering in a digital revolution in economic research. Currently, theoretical innovation in the study of China's digital economy is still insufficient, and there is a lack of systematic understanding of it. Strengthening the theoretical research on the development of the digital economy is not only beneficial for China to seize the opportunities of the new round of technological revolution and industrial transformation but also essential for the formation of a more theoretical and systematic digital economic theory system. Constructing a digital economy theory system requires a deep understanding of the concept, connotation, and characteristics of the digital economy, as well as research on the mechanisms by which digital technology and data elements impact economic development. Efforts should be made to innovate in the research methods of economic studies and promote theoretical innovation in economics by exploring new assumptions, characteristics, industries, business models, and research methods related to the digital economy.

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Firstly, there is the growth theory under the digital economy. Since digital economy growth mainly relies on intangible capital inputs such as data elements, it is imperative to conduct in-depth research into the mechanisms by which digital technology enhances total factor productivity. For example, how does artificial intelligence promote productivity and affect employment? Currently, academia needs to delve into the factors driving digital economic growth, the logic of growth, and the sources of momentum. It should also investigate the basic laws and mechanisms of how digital technology affects economic growth and resource allocation, the impact of the digital economy on the real economy, risk mitigation mechanisms, inclusive growth, and optimization of macroeconomic control theory. Constructing a theoretical framework for digital technology's impact on digital productivity and incorporating data elements into the production function are two breakthroughs in the study of digital economic growth theory.

Secondly, there is innovation theory under the digital economy. Digital technologies such as big data and artificial intelligence have changed product innovation, process innovation, organizational innovation, and business model innovation. Conducting research on digital innovation management will guide innovation management practices and reconstruct relevant theories. Innovation theory needs to be reconstructed based on data and digital technology, focusing on the innovation mechanisms of new technologies, industries, formats, models, and the mechanisms by which digital technology and data elements promote the transformation of digital products, production methods, and business models. It also needs to explore the integration of digital innovation with traditional fields and the theoretical system of how the digital economy drives quality, efficiency, and dynamic changes.

Thirdly, there is the theory of industrial organization under the digital economy. The digital economy has changed the organizational forms and aggregation patterns of industries, making empirical research using big data a prevailing trend. Currently, the theoretical community needs to innovate research paradigms for empirical analysis and logical deduction, strengthen research on the growth patterns and rules of platform economies, the construction and governance of digital platform ecosystems, and track the typical facts of industrial organization patterns, industrial ecological evolution, and industrial structure upgrading in the digital economy, and distill new theories from them.

Fourthly, there is the regulation theory under the digital economy. The application of digital technology and data elements causes changes in production and consumption functions, resulting in new challenges to the theoretical basis of traditional anti-monopoly regulation. Therefore, it is urgent to strengthen research on monopolies and unfair competition issues related to super platforms, the institutional mechanisms and efficiency issues of anti-monopoly, and the risk prevention and control theory and methods of digital economy operations.

In summary, the digital economy requires the establishment of a digital economic theory framework that covers micro-subjects, industries, and macro-wholes based on the impact of digital technology and data elements on economic development. This can better grasp the development laws of the digital economy and provide theoretical support for solving practical problems.

## 2.2. Theory of New Urbanization

New urbanization refers to an urbanization process based on the concept of sustainable development, aiming to promote integrated development between urban and rural areas by improving the level and quality of urbanization. This theory advocates for the establishment of people-oriented cities, emphasizing the quality of life and happiness of the people. The goal of new urbanization is to narrow the urban-rural gap, raise the living standards of the people, and achieve sustainable development.

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In the theory of new urbanization, the integration of digital economy services with urbanization development is emphasized, and the digital economy can play a significant supporting role in new urbanization. The digital economy, under market principles, promotes the dissemination of digital economic services through digital economic innovation and technological means, lowering the threshold and cost of digital economic services and increasing their accessibility and usability.

In the theory of new urbanization, the digital economy plays several important roles. Firstly, it can promote the rational allocation and optimization of urban resources. By providing financial support and digital economic services, the digital economy can meet the funding needs of urban construction and development, enhancing the vitality and competitiveness of urban economies. Secondly, it can stimulate the growth of income and wealth for urban and rural residents. By expanding the reach of digital economic services, the digital economy can help rural residents shift to employment and entrepreneurship, increasing their income levels and enhancing their enthusiasm and initiative in participating in urbanization. Finally, it can alleviate social risks in urban areas and improve the social security system. Through providing insurance and risk management services, the digital economy can assist urban residents and rural migrants in dealing with risks and uncertainties in life, improving their stability and happiness.

In conclusion, the support of the digital economy for new urbanization is of great significance. By optimizing the allocation of digital economic resources, promoting income growth, and enhancing risk management through digital economic services, the digital economy can effectively support the development of new urbanization. However, there are still some issues in China's support of new urbanization through the digital economy. It is necessary to strengthen policy support and improve the organizational structure of the digital economy to further promote the development of the digital economy and achieve the goals of new urbanization.

## 2.3. Role Mechanisms of the Digital Economy in Supporting New Urbanization

The digital economy is a technological economic paradigm that places data resources as a key production factor. It represents a new social productive force characterized by digital technology, with inherent attributes of innovation, integration, and ecological sustainability. China's economy has entered a new era, marked by the global sweep of the new generation of network information technology revolution, and human society has entered the digital age. New urbanization and the digital economy are aligned in terms of development opportunities and are intertwined in the development process. Digital empowerment, based on digital technology, drives innovation and growth in various aspects of the new urbanization economy and society, facilitating high-quality development. Simultaneously, the digital economy can promote regional industrial decentralization, rural revitalization, the formation of a unified national market, address gaps in public services, enhance government service levels, and promote a more balanced and comprehensive approach to new infrastructure, ultimately advancing common prosperity in the new era.

The digital economy represents a fresh driving force for the high-quality development of new urbanization. Leveraging its high technological and shared characteristics, the digital economy can expedite the transformation of old and new economic drivers, providing impetus for improving the quality and reasonable growth of new urbanization. It is the foundation for driving innovation and growth across all aspects of the economy and society through digital technology, achieving balanced development in production, life, and ecology, promoting the coordinated integration of urban and rural areas, common prosperity for all, and high-quality development of new urbanization.

The digital economy enhances the efficiency of new urbanization. In the new era, the digital economy empowers new urbanization by promoting the industrialization of digital industries,

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industrial digitalization, and the application of digital technologies in urban governance. It fully leverages the amplification, superposition, and multiplier effects of digital technology on the high-quality development of urbanization, thereby improving the quality and efficiency of urbanization. In terms of urban resource allocation, it promotes the integration, reconstruction, and reconfiguration of all factors of production in industrial development, unlocks new value through the application of digital and intelligent technologies, continually enhances the development of traditional industries, and actively fosters cross-sectoral convergence of new formats, resulting in more rational resource allocation, a more comprehensive urban functional structure, and more sustainable urban development. In driving urban industrial innovation, it focuses on promoting the deep integration of the digital economy and the real economy, enhancing total factor productivity, and creating competitive digital industry clusters. In urban social governance, widespread application of the digital economy helps break traditional government governance methods, actively promotes data sharing, enhances the decision-making and social governance mechanisms supported by big data, and advances collaborative management and services across levels, regions, systems, departments, and businesses, achieving scientific government decision-making, precision social governance, and efficient public services, ultimately creating more social welfare and citizen well-being.

The digital economy injects new vitality into the three major transformations of new urbanization. In comprehensive modernization practice, the digital economy empowers the quality transformation, efficiency transformation, and dynamic transformation of new urbanization, serving as a crucial means to achieve high-quality development. The digital economy drives the quality transformation of urbanization. By integrating resource-based, technology-based, integration-based, and service-based digital economies, it constructs new channels for data flow, unlocks new value through digital and intelligent technology applications, fosters cross-sectoral convergence of new formats, making resource allocation more rational, urban functional structures more perfect, and urban development more innovative and sustainable, achieving the quality transformation of urbanization development. The digital economy enhances the efficiency of urbanization development. It uses information flow to drive technology flow, capital flow, talent flow, and material flow, effectively allocates factors of production, facilitates better coordination of economic activities among various entities in the market, and achieves economies of scale and scope. The digital economy strengthens the driving force of urbanization development. The dynamic transformation is mainly achieved by nurturing new drivers of high-quality development through digital technology, which is the foundation among the three major transformations.

The digital economy possesses the fundamental characteristics of increasing marginal returns and decreasing marginal costs. By empowering innovation and development of small and medium-sized enterprises through digital technology, it can unleash significant endogenous potential for high-quality development of urbanization, becoming a crucial force in promoting technological innovation, alleviating employment pressure, and optimizing economic structure in the urbanization process, significantly driving the dynamic transformation of urbanization development. In summary, the digital economy plays a critical role in supporting new urbanization, providing convenient digital economic services, meeting the needs of various groups, and promoting the flow of funds and optimal resource allocation, ultimately fostering more sustainable and inclusive urbanization development. In future research and practice, further exploration of the mechanisms by which the digital economy supports new urbanization is necessary to continuously optimize and enhance the contribution of the digital economy to the urbanization process.

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# 3. Current Status and Issues of China's Digital Economy Supporting New Urbanization

## 3.1. Measurement of the Development Level of the Digital Economy

Currently, there is limited literature specifically measuring the digital economy, with most studies conducted at the provincial level. Liu [12] constructed a provincial-level evaluation index system for China's digital economy based on three dimensions: information development, internet development, and digital transaction development. They measured the digital economy using data from 30 Chinese provinces between 2015 and 2018. This paper measures the comprehensive development level of the digital economy from two aspects: internet development and the inclusiveness of digital finance. For provincial-level measurement of internet development, we uses four indicators related to internet penetration, the situation of relevant practitioners, output in related industries, and mobile phone penetration rate. The actual content corresponding to these four indicators includes the number of broadband internet access users per hundred people, the proportion of computer service and software industry practitioners in urban unit employees, the per capita volume of telecommunications services, and the number of mobile phone users per hundred people. The original data for these indicators can all be obtained from the "China City Statistical Yearbook." Regarding digital financial development, we use the China Digital Inclusive Finance Index, which is jointly compiled by Peking University's Digital Finance Research Center and Ant Financial Group. By standardizing the data of these five indicators and performing dimensionality reduction through principal component analysis, we obtain the corresponding comprehensive development index for the digital economy.

## 3.2. Current Development of China's Digital Economy

The close relationship between the current development of China's digital economy and new urbanization has garnered significant attention. Since the 18th National Congress of the Communist Party of China, the country has vigorously implemented the strategy of building a strong network country and the national big data strategy. It has successively issued the Digital Economy Development Strategy and the "Fourteenth Five-Year Plan" for Digital Economy Development. Relevant departments have conscientiously implemented various deployments, accelerating the industrialization of digital industries and digitalization of industries, propelling the flourishing development of the digital economy.

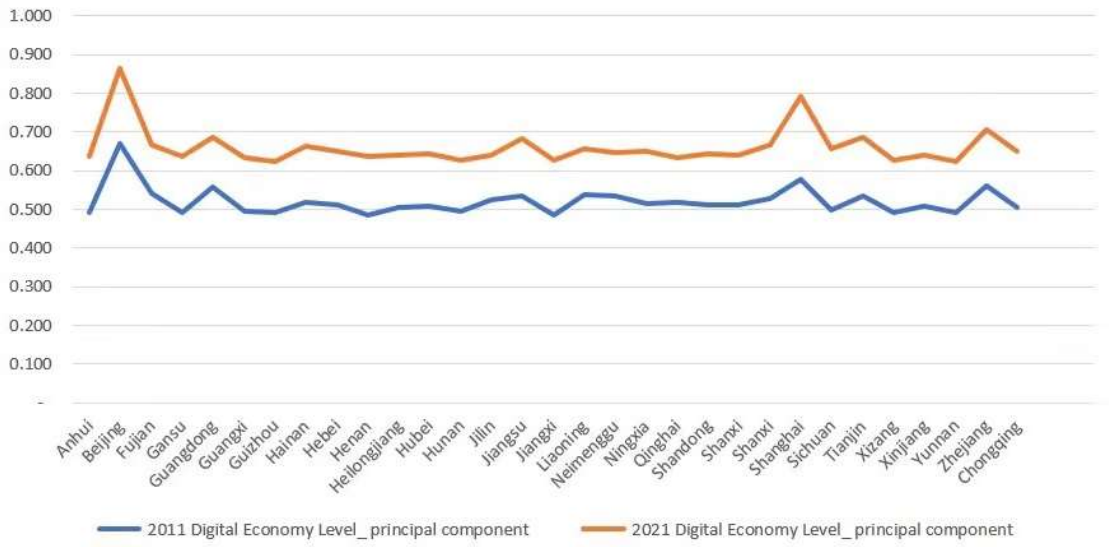


**Figure 1.** Development level of digital economy in various provinces of China

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Over the past decade, China has achieved remarkable development achievements in the digital economy, consistently ranking second in the world in terms of overall scale for multiple years. Its role in leading and supporting economic and social development has become increasingly prominent. Among these achievements, digital infrastructure has made significant strides, with a comprehensive plan for the layout of new infrastructure construction. This has accelerated the development of intelligent, comprehensive digital infrastructure characterized by high-speed ubiquity, integration of land and sky, cloud-network convergence, agility, environmental friendliness, low carbon emissions, and safety and control.

**Table 1.** Top 10 Countries in the Digital Infrastructure Index

| ranking | country | Digital Infrastructure Index (2021) | Digital Infrastructure Index (2013) | Ranking changes compared to 2013 |
|---|---|---|---|---|
| 1 | America | 93.07 | 79.79 | 0 |
| 2 | Singapore | 90.53 | 64.45 | 14 |
| 3 | China | 89.33 | 63.72 | 18 |
| 4 | Britain | 88.50 | 71.20 | -1 |
| 5 | Luxembourg | 88.16 | 64.18 | 13 |
| 6 | Japan | 88.46 | 68.11 | -1 |
| 7 | India | 87.10 | 65.56 | 6 |
| 8 | Germany | 86.93 | 66.53 | 2 |
| 9 | Russia | 86.57 | 62.82 | 14 |
| 10 | Italy | 85.08 | 65.88 | 1 |

China's digital economy still faces challenges of being large but not strong and fast but not optimal, which are prominently manifested in four aspects. Firstly, there is insufficient innovation capability in key areas. In sectors such as operating systems, industrial software, high-end chips, and basic materials, technological research and development, as well as manufacturing processes, lag behind international advanced levels. Secondly, the digital development of traditional industries is relatively slow. Digitization in agriculture, industry, and other traditional sectors still needs to deepen, with some companies facing challenges in digital transformation due to reluctance, fear, or lack of knowledge, and digital transformation of small and medium-sized enterprises lags behind. Thirdly, there is an urgent need to bridge the digital divide. The results show that in 2021, the level of the digital economy's principal components had a mean of 0.661, a maximum of 0.865, a minimum of 0.625, and a standard deviation of 0.049, indicating significant differences in the quality of digital economic development among different regions. Fourthly, the governance system for the digital economy needs further improvement. Rules and regulations that adapt to the development of the digital economy need to be strengthened, basic institutional systems for data elements are still under construction, a platform economy governance system that can stimulate vitality and ensure security needs enhancement, various implementation details accompanying relevant laws and regulations urgently require enactment, and international governance participation in the digital economy needs to be further enhanced. Interdepartmental coordination and multi-stakeholder governance mechanisms also need improvement, and governance capacity must continue to be enhanced.

In summary, the development of China's digital economy is of great significance for supporting new urbanization. The digital economy can provide a wider range of services to promote urban development and rural development. However, the current digital economy in China still faces some issues that need to be addressed. Only by strengthening digital economic development

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can we better support the construction of new urbanization and achieve the goal of sustainable economic and social development.

### 3.3. Current Status of China's New Urbanization Development

China's new urbanization is an important strategic aspect of the country's economic and social development, and it is crucial for innovating urban development models and improving the quality and efficiency of urbanization. However, during the process of new urbanization, China faces a series of challenges and problems. Firstly, there is an imbalance in the development of new urbanization in different regions. Some areas have lower levels of urbanization, and the urban-rural gap still exists. Secondly, there are issues such as real estate bubbles and wastage of land resources in the process of urbanization. Thirdly, urban development has led to problems such as environmental pollution and traffic congestion, which have inconvenienced urban residents. Lastly, the social security system in urbanization is incomplete, and the needs of urban residents for healthcare, education, and elderly care are not effectively met.

To address these problems, the digital economy has been proposed as a means of supporting new urbanization. The digital economy refers to digital economic products and services designed to serve the general public, small and micro-enterprises, and other economic entities, aiming to enhance the inclusiveness and sustainable development of the digital economy. The digital economy can promote comprehensive improvements in urban construction, enterprise development, and residents' lives by providing services such as loans, insurance, and payment settlement.

In the current state of China's new urbanization development, the role of the digital economy has achieved initial results. According to statistics, the penetration rate of China's digital economy has been increasing year by year, especially in rural areas. With the support of the digital economy, some migrant workers and small and micro-enterprises have gained access to financing, which has boosted urban and rural residents' income growth and improved their quality of life. Furthermore, the digital economy can also promote sustainable development, such as by supporting new energy and environmental protection industries to enhance the urban ecological environment.

However, the digital economy in China still faces some issues in supporting new urbanization. Firstly, there is still insufficient innovation in digital economic products and services, lacking targeted and personalized digital economic services. Secondly, digital economic regulation does not provide enough support for the digital economy, with a lack of a comprehensive regulatory system and framework. Thirdly, there are still pressures related to risks and non-performing assets in the digital economy, limiting its development. Lastly, there is insufficient competition among digital economy institutions, resulting in limited overall development of the digital economy.

To further advance the role of China's digital economy in supporting new urbanization, the following strategies can be adopted. Firstly, the digital economy system should be improved to promote innovation in digital economic products and services. Secondly, a robust digital economy organizational system should be established to expand the coverage and quality of digital economic services. Thirdly, infrastructure development for the digital economy should be accelerated to enhance the convenience and efficiency of digital economic services. Lastly, policies and measures to support the digital economy should be strengthened to enhance the recognition and satisfaction of digital economy institutions and citizens.

In conclusion, supporting new urbanization with the digital economy is an inevitable choice for China's economic and social development. In the current state of China's new urbanization development, the digital economy has played a positive role, but it still faces some challenges and shortcomings. By improving the digital economy system, enhancing the organizational

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system, advancing infrastructure development, and providing policy support, we can further promote the development of the digital economy and the progress of new urbanization.

### 3.4. Challenges in China's Digital Economy Supporting New Urbanization

There are several challenges in China's digital economy supporting new urbanization: Firstly, there is a narrow coverage of digital economy services. Despite China's achievements in digital economic development, the coverage of digital economy services is still not extensive enough. Particularly in rural and remote areas, the penetration rate of the digital economy is much lower compared to urban areas, leading to a noticeable urban-rural divide. Secondly, there is an insufficient supply of digital economy products. Currently, digital economy institutions mainly focus on large cities and developed regions, providing more support in terms of digital economy resources to these areas. In contrast, digital economy services in small and medium-sized cities and rural areas are relatively scarce, resulting in an undersupply issue. To address these issues, China should further expand the coverage of digital economy services, increase support for small and medium-sized cities and rural areas, enhance risk management and assessment, and facilitate the implementation of new urbanization.

## 4. Strategies for Supporting New Urbanization with the Digital Economy

### 4.1. Promoting the Integration of Digital Economy and the Real Economy

China should vigorously develop the digital economy industry. Efforts should be made to develop data and computing services, accelerate the implementation of the national "East Data, West Computing" project, advance the planning, layout, and development of new computing industries such as supercomputing, intelligent computing, and innovation in the field of cloud computing, unleashing the advantages of the cloud computing and big data industries. Data should be considered a key factor and innovation as the main driving force to promote the development of the data and information industry, actively develop intelligent terminals, integrated circuits, blockchain, augmented reality (AR)/virtual reality (VR), and other digital industries, constructing a multi-industry support system for the digital economy. Accelerating the development and application of digital technology, developing fundamental platforms, and highly reusable general applications like AI algorithms and CIM models, establishing software technology service platforms to support software development and applications related to government affairs, livelihood, and industry. The digital economy should empower the real economy by focusing on the digitization of industries and the digital transformation of traditional industries. Leading companies should play a demonstrative role, and digital economic parks and benchmark smart industry parks with strong resource aggregation capabilities and high-level professional services should be built to support key enterprises and promote the development of small and medium-sized enterprises in the digital economy.

### 4.2. Strengthening the Construction of Digital Economy Infrastructure

China should accelerate the construction of new infrastructure. Efforts should be made to promote the construction of new infrastructure such as 5G base stations, data centers, and industrial internet, which can not only stimulate new models and formats through their network effects but also have multiplier effects on stabilizing investment, employment, and economic growth, creating new economic growth points and driving the transformation and upgrading of the economy. Infrastructure supporting big data parks should be improved, and a comprehensive cloud computing infrastructure system should be constructed to aggregate data resources comprehensively, promote the clustering of the big data industry, provide integrated network access capabilities, build high-level all-optical networks, advance satellite application infrastructure construction, and solidify the foundation for the development of the big data industry. Telecom, mobile, Unicom, and radio and television network resources should be

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integrated, network infrastructure should be upgraded, and efficiency should be improved. By leveraging digital technology, China should drive industrial empowerment in urban areas, facilitate information integration, and improve urban management effectiveness to enhance residents' quality of life. China should drive the digitalization of public services by deepening the integration, mining, and analysis of big data in municipal public services and social welfare guarantee, promote the convergence of big data with municipal infrastructure digitalization and networking, and intensify the application of digital municipal infrastructure and networked infrastructure to improve residents' quality of life. China should promote the convergence of big data with education, healthcare, elderly care, and social security services to build a resource-sharing platform and promote the joint construction and sharing of high-quality resources. China should advance toward a green and shared future by driving the transformation of production methods, lifestyles, and governance through digital transformation, leading urbanization toward green development. China should accelerate the deep integration of energy-saving and environmental protection industries with new-generation information technology, biotechnology, and new materials technology, and realize the interconnection and sharing of various resource elements in different industries and enterprises through digital infrastructure in fields such as industrial internet, big data, artificial intelligence, etc. China should use new technologies like artificial intelligence to promote the commercialization of autonomous driving and the popularization of intelligent transportation, achieving green and convenient urban travel. Through the application of smart grids and the Internet of Things (IoT), China should improve its energy structure and enhance electrical efficiency. By developing data-sharing platforms in the production sector, exploring sharing business models and application scenarios, China should promote the healthy development of the sharing economy in circulation and consumption, driving productive services through digitalization towards specialization and high-end extension of the value chain.

### 4.3. Building a Guarantee System for the Digital Economy

China should actively build smart cities, embracing the new trend of "everything connected." Smart cities should be constructed by integrating various information technologies or innovative concepts to streamline and integrate systems and services in cities, achieving informatization, industrialization, and urbanization integration, optimizing urban management and service delivery, improving urban management effectiveness, and enhancing residents' quality of life. China should drive the digitalization of public services, deeply integrate and analyze big data in municipal public services and social welfare guarantees, promote the convergence of big data with municipal infrastructure digitalization and networking, advance digitalization and networking of municipal infrastructure, and increase the application of digital municipal infrastructure and network infrastructure to improve public service delivery. China should promote the convergence of big data with education, healthcare, elderly care, and social security services to build a resource-sharing platform, promoting the joint construction and sharing of high-quality resources. China should move towards a green and shared future by driving the transformation of production methods, lifestyles, and governance through digital transformation, leading urbanization towards green development. China should accelerate the deep integration of energy-saving and environmental protection industries with new-generation information technology, biotechnology, and new materials technology. China should achieve interconnection and sharing of various resource elements in different industries and enterprises through digital infrastructure in fields such as industrial internet, big data, artificial intelligence, and more. China should improve its energy structure and enhance electrical efficiency through the application of smart grids and the Internet of Things (IoT). China should promote the healthy development of the sharing economy in circulation and consumption by developing data-sharing platforms in the production sector, exploring sharing business models and application scenarios.

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### 4.4. Constructing a Guarantee System for the Digital Economy

China should accelerate the formulation of strategic plans for new infrastructure, coordinate the planning of industries and regional layouts, organize and implement a series of special action plans for the development of the digital economy, and promote the implementation of major projects and key initiatives. China should accelerate the establishment of a comprehensive legal framework for new infrastructure, focusing on the development of relevant systems for the application of the Internet of Things, data ownership, sharing and openness, and effective transaction circulation. China should explore local legislation on data rights protection, personal information, and privacy protection, and develop and improve relevant regulations to construct a knowledge property service guarantee system for the digital economy.

## 5. Summary

The digital economy is an important means to support new urbanization. This study, through theoretical analysis of the support of the digital economy for new urbanization, exploration of the current development status of China's digital economy and new urbanization, and a summary of the practical experience of foreign digital economy supporting new urbanization, provides policy recommendations for the digital economy to support new urbanization.

In the theoretical analysis of the digital economy supporting new urbanization, this study first discusses the development theory of the digital economy, emphasizing that the development of the digital economy is the foundation for supporting economic and social development. Secondly, it examines the theory of new urbanization, highlighting the importance of new urbanization for social and economic development and the improvement of people's living standards. Finally, it explores the mechanism of the digital economy supporting new urbanization, pointing out that the digital economy can provide a rich array of digital economic products and services, promoting inclusivity in the urbanization process.

In the analysis of the current situation and issues of China's digital economy supporting new urbanization, this study finds that China has made certain achievements in the development of the digital economy but still faces some problems. New urbanization in China has also made progress but encounters challenges. Furthermore, there are issues such as imperfect risk control in the digital economy and insufficient digital economic services in supporting new urbanization.

Based on the above analysis, this study proposes policy recommendations for the digital economy to support new urbanization. Firstly, it is necessary to improve the digital economy system and enhance the accessibility and convenience of digital economic services. Secondly, the organizational system of the digital economy should be strengthened, internal management and external collaboration of digital economy organizations should be enhanced, and the allocation efficiency of digital economic resources should be improved. In addition, the construction of digital economic infrastructure should be accelerated, including the application of digital technology in the economy and the development of digital economic facilities. Lastly, policy support for the digital economy should be strengthened, and policy measures conducive to the development of the digital economy and the urbanization process should be formulated.

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