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Path of Jiangxi Province's Digital Economy to Enable High-quality Development from the Perspective of New Infrastructure

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Abstract: Through the deep integration and development of digital economy and new infrastructure, the overall level of new infrastructure in Jiangxi Province can be improved and high-quality growth can be accelerated. This work aims to explore the digital economy process from the perspective of new infrastructure, and help Jiangxi Province develop high-quality. The existing relevant literature is sorted out from four aspects: infrastructure and economic growth research, new infrastructure research, high-quality development research, new infrastructure and high-quality development research. The internal mechanism of new infrastructure to promote high-quality development is expounded from different perspectives such as micro, meso, and macro, and it reflects that the construction of new infrastructure in the new era is an important measure to achieve high-quality development. By measuring the high-quality growth level of the digital economy in Jiangxi Province, and building a stable result model in which new infrastructure construction promotes the transformation of the regional economy to high-quality growth, the traditional infrastructure and efficiency improvements in the new quality infrastructure have a high impact on the regional economy. The impact of quality development is even more pronounced.

1. Introduction

New infrastructure is the country's implementation of the new development strategy in the era of smart economy, relying on new scientific and technological achievements, and recognizing the national infrastructure and infrastructure for ecological, digital, high-speed, and comprehensive transformation of the country. The old kinetic energy is close to the construction of a modern economic system [1, 2]. The new infrastructure covers seven major areas, including 5G construction, UHV base stations, high-speed rail and urban expressways, new automotive power stations, large data centers, artificial intelligence and enterprise Internet. The pace of new infrastructure

construction is an important factor driving current economic growth and laying a solid foundation for long-term growth [3, 4].

The new infrastructure characterized by digital empowerment will be an important starting point for the transformation of my country's economy from old to new kinetic energy [5]. By further examining the channels through which infrastructure materials affect system development, Ngoc L H results show that the development impact of infrastructure tends to increase if the government is responsible for the construction and delivery of infrastructure services. Ensuring the efficiency and effectiveness of private investment. Finally, the interplay of infrastructure and human capital appears to have a significant impact on system development [6]. Some scholars have tried to explore the possibility of digital platforms in promoting rural economy. Digital Empowerment and the Rural Economy: Issues and Challenges at the Grassroots level is analysed based on archived data gathered from extensive fieldwork. Primarily to understand people's perceptions of digital tools and platforms, especially in rural areas, in addition to trying to understand the availability and difficulty of digital services in rural areas [7]. It important to study the development path from the perspective of new infrastructure.

This paper analyzes the characteristics of new infrastructure in the comparison between my country's traditional infrastructure and new infrastructure, studies the internal mechanism of new infrastructure to promote development, and the experience and experience elements of my country's traditional infrastructure to stimulate growth-oriented economy and new infrastructure to promote high Based on the analysis, quality development puts forward several suggestions for the high-quality growth in Jiangxi Province, so as to help Jiangxi Province to further promote high-quality development, which has certain policy reference value and great practical significance.

2. Research on the Path of Jiangxi Province's Digital Economy Empowering High-quality Development from the Perspective of New Infrastructure

2.1. Digital Economy

The invention of the computer and the birth of the Internet accelerated the digitization of the world and replaced the way the physical world works. People dynamically promote economic development and social progress by collecting and processing data information, finding rules from it, predicting results and making technological innovations [8, 9]. Therefore, the basis for the digital economy is the data with 0 and 1 as the storage unit [10]. In the late 1990s, the background of the digital economy concept in the United States was the use of the Internet and the economic impact brought by the Internet [11]. The enrichment of digital technology application forms, and the rise of the network economy, new changes have taken place in people's understanding and discussion of the digital economy. , sharing economy, social intelligence governance and other digital technologies in the extended application fields of the economy and society [12, 13].

2.2. High-quality Development

Development is a dynamic, multi-dimensional concept. From a broad perspective, it is guided by new development concepts, covering not only the economic field, but also many fields such as culture, ecology, society, and national governance. From a narrow perspective, high-quality development is sustainable development that highlights high-quality and high-efficiency. It specifically means that economic growth is in a reasonable development range. At this time, the development mode is no longer based on the quantity of economic growth as a single criterion, but Pay more attention to innovation-driven, investment efficiency, consumption-driven, industrial optimization and upgrading, etc. [14, 15]. Therefore, the connotation of high-quality development

should include high factor input and output ratio, continuous optimization of the national economic structure. The purpose is to emphasize the effectiveness and greenness of economic growth, the coordination of economic system structure and Changes in the driving force of economic development [16, 17].

In order to grasp the connotation of high-quality development, it is necessary to recognize the following aspects: first, from the perspective of natural attributes, development generally refers to ecological sustainability; second, from the perspective of social attributes, the so-called sustainable development Sustainable development should be able to continuously improve people's quality of life, so that people can maintain a better living condition and have a higher pursuit of a better life; third, from the perspective of economic attributes, sustainable development can be considered as a Under the condition of certain resources, the economic benefits should be maximized as much as possible. When the resources are certain, the same amount of resources will produce more economic results, which will be beneficial to the steady development of the region. Fourth, from the perspective of technological attributes, Sustainable development aims to use science and technology to maximize the efficiency of industrial production, and at the same time to achieve the purpose of environmentally friendly production by strengthening the treatment and reuse of waste materials. Therefore, we believe that the so-called sustainable development needs to maintain the coordination of economy and spirit. It not only pays attention to the development of human beings, but also emphasizes the ecological environment [18].

2.3. Implementation Path

The first is to build a digital talent supply and demand platform to solve the talent needs in the process of high-quality development of new infrastructure. The high-quality development of new infrastructure is inseparable from the support of talents, especially high-level talents such as intelligence and digitalization. Through the above empirical test, it is also found that human capital has played an active role in development of new infrastructure. The second is to solve the capital needs in the process of high-quality development of new infrastructure by building a digital financial service platform. The development of high-quality new infrastructure is also inseparable from strong financial support. Whether it is the environmental protection investment required for green growth or the expansion demand required for large-scale development, strong financial support is required. Third, by creating a digital resource sharing platform, the efficiency problem in the process of development of new infrastructure can be solved. Only by improving the operation efficiency of new infrastructure can the development quality of new infrastructure be greatly improved. Data has become one of the key resources required for new infrastructure. Fourth, to build a digital industry development platform, we must first pay attention to the development of the digital industry. Only when the digital industry grows and develops can it generate a strong dynamic effect through appropriate activation methods.

3. Investigation and Research on the Path of Digital Economy Empowering High-quality Development in Jiangxi Province from the Perspective of New Infrastructure Construction

3.1. Data Sources

In order to better explore the impact of new infrastructure construction, this paper selects Jiangxi Province to carry out panel data empirical analysis. The data in this article mainly come from the Jiangxi Provincial Statistical Yearbook, Statistical Bulletin, Jiangxi Provincial Urban and Rural Construction Database, Jiangxi Provincial Macroeconomic Database, Jiangxi Provincial Energy Database, Jiangxi Provincial Science and Technology Database, Jiangxi Provincial Forest and

Grassland Bureau, etc. Some data were logarithmically processed, and some missing year data were smoothed.

3.2. Measurement Model

This paper simply builds an empirical regression model between infrastructure investment and high-quality economic development. Considering that other factors such as local government financial expenditures, local education levels, and regional urbanization levels may affect the level, It is considered as a control variable in the model design, and the model is finally designed as a multiple linear regression model:

$$Qua_{it} = \beta_0 + \beta_1 Inf_{it} + \beta_2 X_{it} + \varepsilon_{it} \quad (1)$$

Among them, Quait is the level of province i in year t, Infit indicates the investment in infrastructure of province i in year t, including the digital upgrade of new infrastructure and traditional infrastructure, and Xit is the affects high-quality. A set of other variables, ε_{it} is the disturbance term at the time/space level.

Considering the continuity factors, the first-phase lag variables are introduced to form dynamic panel data, and the model is constructed as:

$$Qua_{it} = \beta_0 + \beta_1 / Qua_{it-1} + \beta_2 Inf_{it} + \beta_3 X_{it} + \varepsilon_{it} \quad (2)$$

Three path variables—industrial structure level, urban-rural development balance, and technology input level are introduced as the path variables for measurement. By separately measuring the impact of the intermediary variables of new infrastructure input, the mechanism of action is referenced, and other factors that may affect the high-quality economic development are arranged. Level factors, such as government investment level, urbanization level, human capital investment level, etc., are used as control variables.

4. Analysis and Research on the Path of Jiangxi Province's Digital Economy Empowering High-quality Development from the Perspective of New Infrastructure

4.1. Test of Mediation Effect

The results of the mediation effect test all show that the construction of new infrastructure affects the high-quality development level of the digital economy in Jiangxi Province through three paths: industrial structure, technological progress, and urban and rural development. Accordingly, this paper first analyzes the regression level of the mediating variable and the independent variable are shown in Table 1. The informatization transformation of traditional infrastructure has a significant positive effect on the balanced the industrial structure. Although the new infrastructure such as information infrastructure does not show a clear and significant level, it also has a positive effect on the industrial structure. 1; from the perspective of technological progress, new infrastructure such as information infrastructure has a significant positive effect on the technological progress of Jiangxi Province, and the informatization transformation of traditional infrastructure has a negative but not significant impact on regional technological progress. The reason may be time and space. Costs are reduced, technology sharing is stronger, and some technology investments have externalities and publicity, and the free-rider phenomenon affects technological innovation and R&D to a certain extent; and from the perspective of balanced urban and rural development, whether it is the informatization transformation of traditional infrastructure, The construction and promotion of information infrastructure have significantly narrowed the development gap between urban and

rural areas and promoted balanced economic development.

Table 1. Mediating variables as path test regression results

independent variable	Industrial structure	skill improved	urban and rural development
traditional infrastructure	0.21	-0.15	0.16
new infrastructure	0.09	0.23	0.13

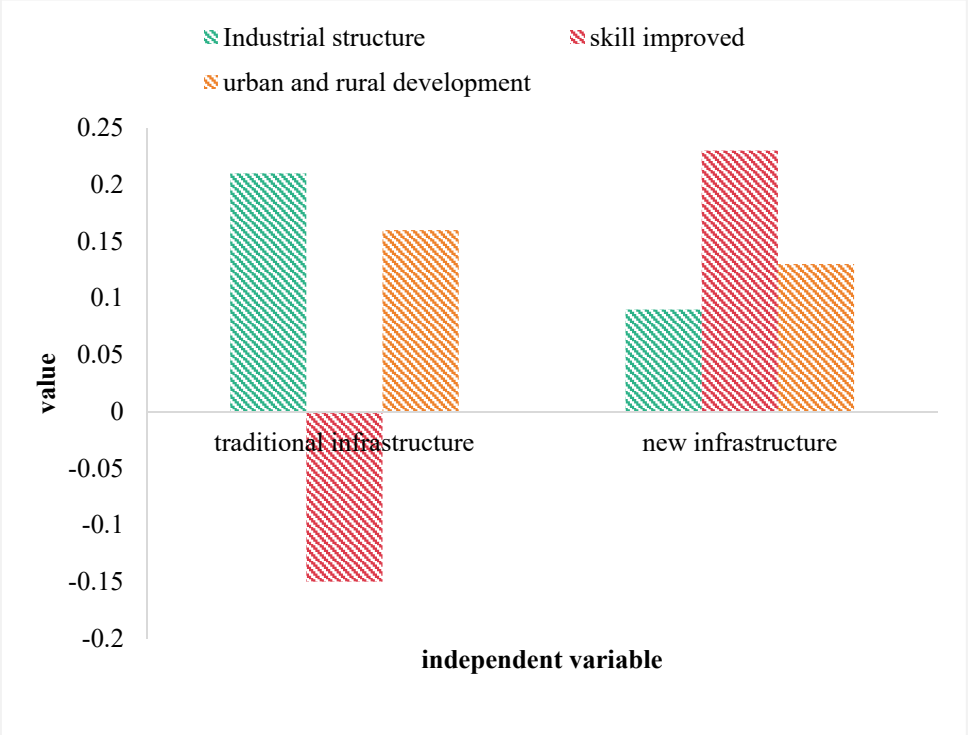

Figure 1. Mediating variables as path test regression results

4.2. Empirical Analysis

Analyze the role of new infrastructure in the high-quality development of the digital economy in Jiangxi Province. The results of this analysis are shown in Figure 1 and 2. From the impact history, we can see the important role of new infrastructure investment in the development of high-level systems. The evolution of the enterprise system highlights the role of new infrastructure in the high-quality development of local systems through institutional changes. The recession results show that the investment and construction of traditional information infrastructure has contributed to the high-quality development of the local economy through institutional changes in economic and social development and changes in the industrial system. The increase in the proportion of industrial value indicates that high-tech industries, especially the employment field, are playing an increasingly important role in the high-quality development of my country's economy.

The third column examines the impact of new infrastructure construction in promoting the transformation of Jiangxi's digital economy to high-quality development through efficiency changes, that is, through R&D investment and achievement transformation, it will continuously create new momentum for social and economic development, improve economic development efficiency, Promote high-quality economic development. From the improvement results, the improvement of the quality and efficiency of traditional infrastructure has a significant impact on the overall economic development, reaching the level of 10%, indicating that changing the information of

traditional infrastructure can save the transfer of knowledge machines, the time value of product transactions, and successfully convert. Further limit time and space constraints, promote the exchange and sharing of technology research and development and application among communities, promote the full flow of science and technology in the economy, improve the quality of the system development economy, and promote local economic development.

The rural development gap reflects the transformation of Jiangxi's digital economy from quality reform to new infrastructure to quality-driven. According to the strong result analysis, the construction of new infrastructure has a significant negative impact on the development of urban-rural integration. Local 4G and 5G networks save time for urban and rural economic service exchanges, and provides technical support for agricultural mechanized production. During the epidemic Under the guarantee of network infrastructure, the live broadcast of agricultural products connects farmers with the consumer market, helps fight poverty alleviation, and improves farmers' income levels. The development of related technology service industries also provides more jobs for the rural population and urban and rural disposable income. The level of sharing of social development achievements has been continuously improved.

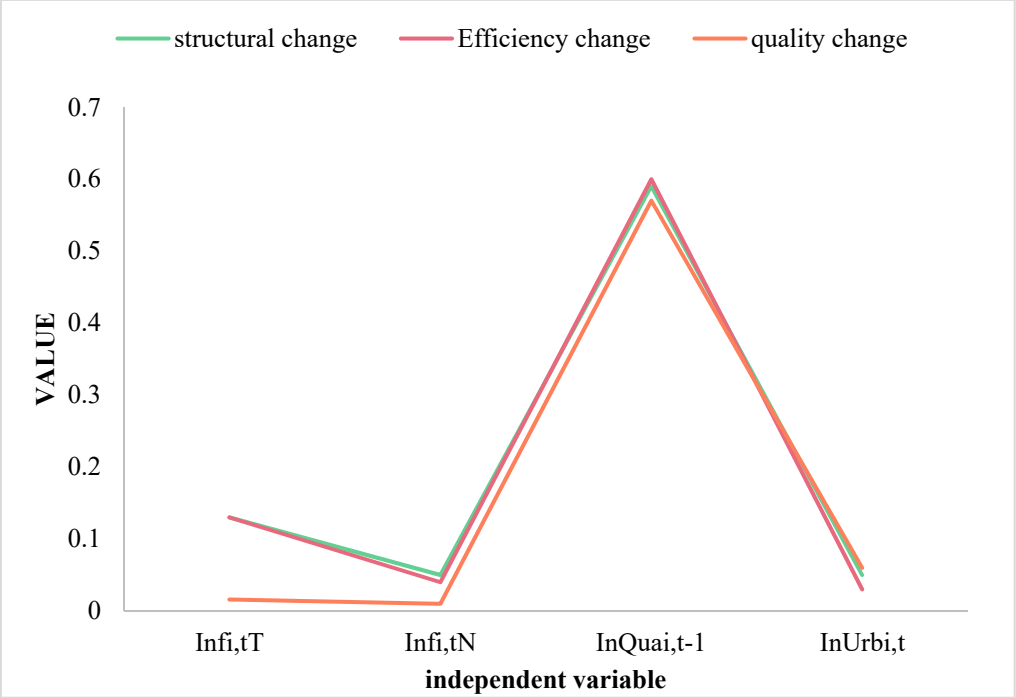

Figure 2. Model regression results

5. Conclusions

Driven by new development concepts and based on technological innovation, the new infrastructure is oriented towards high-capacity development, providing infrastructure for digital transformation, intellectual upgrading, and integrated innovation. The new infrastructure introduced by digital empowerment will become an important starting point for the transformation of my country's economy and the promotion of high-level economic development. This paper focuses on explaining the internal structure of new infrastructure to promote development from the micro, medium and macroeconomic levels, improving the original literature on infrastructure research and expanding the field of political economy. Through the internal project of promoting high-quality development through new infrastructure, he realized that accelerating the construction of new infrastructure is an important milestone for Jiangxi Province to realize the upgrade of the digital

economic system and promote high-quality development, which is of theoretical significance.

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