



Mechanisms Status and Practical Pathways for Digital Economy Empowering High-Quality Development

Xiaoqi Su, Haiting Liang, Zhenbing Liu, Xinrong Wen *

Baise University, Baise, China

303551163@qq.com

Abstract. With the acceleration of global digitalization, the digital economy has emerged as a pivotal engine driving high-quality economic development. This study systematically explores the intrinsic mechanisms, current achievements, and practical pathways through which the digital economy empowers high-quality development. Utilizing a comprehensive literature review and robust data analysis, the study identifies the digital economy's crucial role in reorganizing factor resources, optimizing economic structures, and reshaping competitive landscapes. Significant achievements in efficiency enhancement and deep integration are highlighted, alongside an analysis of risks such as digital monopolies, digital divides, and ethical concerns. The study proposes actionable measures, including strengthening research and development of key technologies, accelerating the construction of new infrastructure, improving digital economy governance systems, and deepening international cooperation. These strategies aim to foster the integration of the digital economy with the real economy, regulate its development, and collaboratively build a community with a shared future in cyberspace. The findings provide theoretical support for digital economy governance and practical references for its seamless integration with the real economy, contributing to sustained high-quality economic development.

Keywords: Digital Economy; High-Quality Development; Factor Reorganization; Modernized Economic System; Digital Governance

1 Introduction

The digital economy is a vital direction for global future development and a strategic choice to address the new wave of technological and industrial revolutions [1]. President Xi Jinping has emphasized the importance of developing the digital economy, recognizing it as a critical force in reorganizing global factor resources, reshaping global economic structures, and altering global competitive landscapes [2]. In recent years, the deep integration of digital technology with the real economy has given rise to new industries, new business formats, and new models, promoting the transformation and upgrading of traditional industries and shaping new national competitive advantages [3].

Against the backdrop of the overarching strategy of the great rejuvenation of the Chinese nation and unprecedented global changes, seizing the opportunities of digital technological transformation to promote high-quality development of the digital economy has become a pressing issue. By analyzing literature and data, this study systematically examines the intrinsic mechanisms, current achievements, and practical pathways of the digital economy's empowerment of high-quality development. The aim is to provide theoretical support for digital economy governance and practical references for its integration with the real economy.

2 Intrinsic Mechanisms of Digital Economy Empowering High-Quality Development

The digital economy, as a new driver of high-quality economic development, plays a core role in reorganizing factor resources, optimizing economic structures, and reshaping competitive landscapes.

2.1 Reorganizing Factor Resources: Driving a New Development Pattern

The digital economy transcends spatial and regional constraints, accelerates the flow of factor resources, and promotes the integration of market entities and the restructuring of organizational models, thereby enhancing the new momentum for economic development. In 2023, China's core digital economy industries generated over 12 trillion RMB in added value, accounting for approximately 10% of GDP [4]. Simultaneously, the digital economy fosters mutual reinforcement between domestic and international circulations, facilitating the rapid development of cross-border e-commerce, with import and export values reaching 2.38 trillion RMB in 2023, a 15.6% year-over-year increase [4].

Moreover, digital platforms have emerged as critical intermediaries connecting producers, consumers, and various market participants. These platforms optimize resource allocation and enable new business models, such as the gig economy, that enhance productivity and responsiveness to market demands. By improving connectivity and streamlining transactions, digital platforms lower barriers to entry and stimulate entrepreneurship, thus reinforcing economic dynamism and growth.

2.2 Optimizing Economic Structures: Building a Modernized Economic System

As a key engine for a modernized economic system, the digital economy accelerates the formation of new productive forces and drives systemic transformation in traditional productive systems. Data has emerged as a new production factor, providing sustainable momentum for economic development. In 2023, the contribution of the digital economy's total factor productivity growth rate reached 22.5%, accounting for over 50% of total factor productivity growth, thereby becoming a crucial force in building a modernized economic system [5].

This surge in productivity is evident in sectors that leverage data analytics, artificial intelligence, and the Internet of Things (IoT). For instance, smart manufacturing integrates real-time data and automation to optimize production processes, reduce waste, and improve product quality. The resulting efficiencies are not confined to manufacturing; service sectors such as finance, healthcare, and logistics also utilize digital tools to enhance decision-making, cut costs, and deliver improved value to customers.

2.3 Reshaping Competitive Landscapes: Establishing New National Advantages

Digital technologies are widely integrated into various fields of economic and social life, accelerating the formation of new global competitive advantages. The rapid development of technologies such as the Internet, big data, cloud computing, and artificial intelligence has profoundly transformed development concepts and economic structures. Countries are competing to develop digital economy strategies, aiming to seize future strategic high grounds and establish globally competitive digital industry clusters.

By nurturing innovation ecosystems, governments and businesses encourage the growth of digitally enabled industries. These ecosystems facilitate knowledge spillovers, promote specialization, and attract top talent, fueling a virtuous cycle of growth and innovation. As a result, nations that embrace the digital economy are better positioned to influence international economic norms, set global standards, and shape the evolution of emerging markets.

3 Current Achievements of Digital Economy Empowering High-Quality Development

3.1 Significant Achievements

3.1.1 Quality Enhancement.

The empowerment effects of the digital economy have become increasingly evident. According to the "China Digital Economy Development White Paper (2024)," the ratio of digital industrialization to industrial digitization shifted from approximately 3:7 in 2012 to 2:8 in 2023. Digital industrialization and industrial digitization accounted for 18.7% and 81.3% of the digital economy in 2023, respectively [5]. This trend highlights a decisive shift towards integrating digital technologies into traditional industries, improving their overall quality and competitiveness.

3.1.2 Efficiency Improvement.

The digital economy's position in the national economy has been further consolidated. The same report indicated that in 2023, the digital economy accounted for 42.8% of GDP, up 1.3 percentage points from the previous year. Its nominal growth rate of 7.39% outpaced GDP's nominal growth by 2.76 percentage points, contributing 66.45% to GDP growth [5]. These figures demonstrate the digital economy's central

role in enhancing efficiency, driving economic expansion, and sustaining higher growth rates than traditional sectors.

3.1.3 Integration Deepening.

The integration of the digital economy with the real economy has deepened. The report highlighted that the digital economy's penetration rates in the primary, secondary, and tertiary industries were 10.78%, 25.03%, and 45.63% in 2023, respectively, marking increases of 0.32, 1.03, and 0.91 percentage points year-over-year [5]. This continuous integration enables cross-sectoral synergies, creating conditions for sustainable, innovation-driven development.

For instance, in agriculture, digital technologies support precision farming, resource optimization, and enhanced supply chain management. In manufacturing, the fusion of IoT and advanced analytics improves production efficiency. In services, digital platforms reduce transaction costs and expand market reach. Together, these achievements signify the digital economy's profound impact on reshaping economic structures and boosting resilience.

3.2 Risks and Challenges

3.2.1 Digital Monopolies Leading to Unfair Competition.

Lenin observed that "free competition leads to concentration of production, and concentration develops into monopoly at a certain stage" [6]. In the digital economy, those who control core digital technologies and vast data can dominate competition and reap high profits. Without intervention, this trend could result in digital monopolies. For instance, some Internet platforms leverage their advantages to implement anti-competitive strategies such as "either-or" tactics and excessive subsidies [7]. These behaviors stifle competition, discourage innovation, and potentially harm consumer interests.

Addressing digital monopolies requires robust antitrust policies, enhanced oversight, and the enforcement of fair competition regulations. Policymakers must balance promoting innovation and growth with preventing market dominance and fostering a level playing field for all participants.

3.2.2 Digital Divides Widening Development Gaps.

Digital economy development relies on digital environments, technologies, infrastructures, literacy, and skills. Marx noted that "people make their own history, but they do not make it as they please, under conditions they choose, but under directly encountered, given, and inherited conditions" [8]. Regional disparities in economic development can lead to digital divides. In 2023, China's urban Internet penetration rate was 83.3%, compared to 66.5% in rural areas, with a gap of 16.8 percentage points [4]. This unequal access to digital technologies hinders inclusive development and exacerbates existing socio-economic inequalities.

Bridging digital divides requires targeted investments in infrastructure, education, and capacity-building. Policymakers must ensure that underdeveloped areas have

access to high-speed Internet, affordable devices, and digital literacy programs. By expanding digital accessibility, societies can realize the inclusive potential of the digital economy.

3.2.3 Digital Overuse Raising Ethical Issues.

While facilitating industrial transformation and upgrading, digital economy overuse may also lead to ethical concerns. Examples include consumer privacy breaches by platforms, AI algorithms that unduly pressure delivery workers to reduce delivery times, and the application of digital technologies in animal husbandry. Excessive or improper use of digital technologies can trigger ethical dilemmas that undermine trust and social cohesion.

Addressing these issues involves establishing robust legal frameworks, privacy protection standards, and ethical guidelines. Stakeholders—governments, enterprises, and civil society—must collaborate to define appropriate boundaries, ensure data security, and uphold ethical values. Transparent governance and public engagement are essential for aligning technological progress with societal well-being.

4 Practical Pathways for Digital Economy Empowering High-Quality Development

4.1 Developing Core Digital Technologies: Securing Autonomy

Core digital technologies are the driving force for digital economy development and a crucial guarantee for high-quality development [9]. President Xi emphasized that "key technologies cannot be begged, bought, or borrowed" [9]. Independent innovation, strategic research planning, and a focus on critical common and frontier technologies are essential to ensuring competitive advantages in the digital economy.

By investing in research and development, nations can cultivate technological sovereignty. Prioritizing fields such as AI, quantum computing, cybersecurity, and semiconductor manufacturing fosters resilience and reduces dependence on external sources. Cultivating talent and strengthening intellectual property protection also encourage a thriving innovation ecosystem.

4.2 Accelerating New Infrastructure Construction: Integrating Digital and Real Economies

New infrastructure underpins digital economy development. Initiatives include building 5G networks and national data centers to enhance information flows and accelerating innovation in critical software technologies to enable digital transformation across traditional industries such as manufacturing, services, and agriculture.

Building robust digital infrastructure ensures that data can be efficiently collected, processed, and transmitted. With widespread 5G coverage, industries can adopt smart sensors, automation, and cloud-based services. Manufacturers can implement intelligent production lines, service providers can adopt AI-driven solutions, and farmers can

utilize precision agriculture techniques. These advancements not only boost efficiency but also promote sustainable growth and reduce environmental footprints.

4.3 Improving Governance Systems: Regulating Development

Addressing risks such as digital monopolies, digital divides, and ethical concerns requires robust governance systems. This includes establishing multi-stakeholder oversight mechanisms, optimizing regulatory technologies, and developing comprehensive legal frameworks to ensure safe and sustainable development.

Multi-stakeholder participation brings together government, industry, academia, and civil society to devise balanced regulatory approaches. Regulatory sandboxes allow for policy experimentation and refinement, while data protection laws and antitrust regulations safeguard consumer interests and market fairness. By harmonizing legal frameworks, nations can create conditions conducive to responsible innovation and market stability.

4.4 Deepening International Cooperation: Building a Shared Cyberspace Future

In the context of rapid global digital economy growth, international cooperation is essential. Measures include supporting enterprises in expanding global markets, attracting foreign investment, and promoting collaborative international governance of the digital economy through platforms like the Belt and Road Initiative. Coordinated actions can foster shared digital infrastructure, mutually recognized standards, and joint problem-solving for transnational challenges such as cybersecurity threats and data privacy issues.

Global forums, such as the G20 and the World Economic Forum, provide opportunities to align digital governance policies and share best practices. By embracing multilateralism, countries can ensure that digital transformation unfolds inclusively and transparently, contributing to a stable and prosperous global digital landscape.

5 Conclusion

In summary, this study comprehensively explores the mechanisms, status, and practical pathways of the digital economy empowering high - quality development. The digital economy, with its unique advantages in reorganizing factor resources, optimizing economic structures, and reshaping competitive landscapes, has become an indispensable force in promoting high - quality economic development. It has achieved remarkable results in terms of quality enhancement, efficiency improvement, and integration deepening. However, it also faces risks such as digital monopolies, digital divides, and ethical issues during its development.

To address these challenges and better promote the digital economy to empower high - quality development, the proposed practical pathways, including developing core digital technologies, accelerating new infrastructure construction, improving

governance systems, and deepening international cooperation, are of great significance. These measures can not only enhance the independent innovation ability of the digital economy, but also promote the integration of the digital economy and the real economy, regulate the development of the digital economy, and jointly build a community with a shared future in cyberspace.

This research provides a theoretical basis for the governance of the digital economy and practical references for its integration with the real economy. It is hoped that future research can further explore the specific implementation effects of these strategies in different regions and industries, and continuously optimize the development path of the digital economy to achieve more sustainable and high - quality economic development.

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