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Existing Development Issues and Optimised Governance Strategies in the Digital Economy Era

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Abstract. Against the backdrop of the global wave of digital industrial transformation, the digital economy has become a key driver of high-quality economic development in China. In 2024, China's digital economy reached RMB 59.2 trillion, accounting for 43.8% of GDP. Yet rapid expansion has also generated multiple governance challenges. Drawing on industry reports, official regulatory documents, authoritative news cases, and Chinese and international academic literature, this paper systematically examines the practical constraints on the sustainable development of the digital economy from four dimensions: market competition, data security, balanced industrial development, and digital labour. It also analyses the underlying mechanisms of these problems through the representative case of the Ctrip antitrust penalty. The study finds that an incomplete legal framework, fragmented cross-departmental regulation, insufficient supporting industrial policies, and the absence of rules protecting digital workers have collectively contributed to disorderly operation by digital platforms. Accordingly, it proposes a comprehensive optimisation framework at four levels: legal reform, coordinated government regulation, industrial policy support, and protection of workers' rights and interests. The findings offer practical governance guidance for balancing the innovative dynamism of the digital economy with regulated development.

Keywords: digital economy, platform monopoly, data privacy, digital divide, algorithmic governance

1. Introduction

Advances in digital technology have reshaped global modes of production, circulation, consumption and labour, transforming the digital economy from an auxiliary sector into a foundational pillar of national economic growth [1]. Official data released by the State Information Center show that China's digital economy has become deeply embedded in traditional industries, including catering, culture and tourism, and consumer services [2]. While digitalisation has improved productivity and broadened access to the benefits of economic growth, the unconstrained operation of platforms has also generated extensive systemic risks. Existing scholarship has yet to establish a unified and comprehensive governance framework.

Existing literature tends to focus on a single dimension, such as legislation on data privacy or antitrust regulation of digital platforms. Few studies integrate risks to market competition, regional

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development disparities, pressures from industrial transformation, and the rights and interests of digital workers within a unified analytical framework [3]. A clear research gap therefore remains in the absence of a comprehensive set of measures spanning law, government, industry and labour protection. This paper addresses that gap by developing a comprehensive analytical framework for the governance challenges confronting the digital economy.

The principal subjects of this paper are the practical problems that have emerged in the operation of China's digital economy and targeted governance strategies suited to the country's current stage of development.

This study has significant theoretical and practical value. At the theoretical level, it enriches multidimensional research on digital-economy governance by integrating perspectives on markets, data, industry and workers. At the practical level, the proposed governance measures can provide a basis for regulatory decisions aimed at standardising platform conduct, reducing the burden of digital transformation on small and medium-sized enterprises (SMEs), narrowing the urban-rural digital divide, and safeguarding the lawful rights and interests of digitally enabled flexible workers. In this way, they can promote the long-term, sound and sustainable development of the digital economy.

2. Multiple practical governance challenges in the development of the digital economy

2.1. Market governance: platform monopolies and disorderly competition

Large digital platforms leverage vast stores of user data, traffic advantages and capital backing to establish dominant market positions, giving rise to numerous forms of unfair competition [4, 5]. Practices such as forcing merchants into "either-or" exclusivity arrangements, algorithmic price discrimination based on consumer data, and predatory acquisitions undermine fair competition in digital markets [6]. In 2026, the online travel platform Ctrip was fined RMB 3.521 billion for multiple monopolistic practices, including forcing merchants into exclusive agreements, requiring the lowest price available across the internet, and charging unreasonably high commissions. Regulators also ordered it to return RMB 122 million in merchant deposits and confiscated RMB 1.658 billion in illegal gains. The fine amounted to 7.5% of its domestic revenue in 2025 [7]. Leading platforms continually consolidate barriers to entry through capital-driven mergers and acquisitions, raising the threshold for small and medium-sized enterprises (SMEs). As a result, newly established micro-enterprises and digital start-ups struggle to access equal development opportunities, perpetuating an unbalanced competitive environment in digital markets.

2.2. Data security and citizens' rights

Testing by the National Computer Virus Emergency Response Center found that multiple apps had collected personal information unlawfully. Problems included inconspicuous and difficult-to-access privacy notices, failure to provide complete and clear information about the processing of personal data, failure to specify the purposes, methods and scope of data collection by the apps and third parties, and disclosure of personal information to external parties without notification or separate consent [8]. Current rules defining data ownership remain ambiguous, while data circulation and transactions lack comprehensive compliance standards. Corporate standards of data storage security also vary considerably, and incidents involving the leakage of user information are frequently reported.

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2.3. Imbalances in industrial development: regional digital divides and the cost pressures of transformation

Significant digital divides persist between urban and rural areas and across regions. Digital infrastructure, including fibre-optic networks and 5G base stations, remains insufficient in remote villages and mountainous areas [9]. Middle-aged and older rural residents often have limited ability to use digital devices and relatively low levels of digital literacy, preventing them from sharing equally in the benefits of digital services. At the same time, traditional bricks-and-mortar businesses face acute difficulties in digital transformation. Small and medium-sized merchants and micro-enterprises have limited financial resources, while the costs of digital management systems, intelligent equipment upgrades, procurement and maintenance are too high. In the absence of supporting policies, willingness to pursue digital upgrading remains weak, slowing the digital transformation of traditional industries and contributing to uneven industrial digitalisation.

2.4. Social problems arising from digital labour

China has a large population of digitally enabled flexible workers, including food-delivery riders, ride-hailing drivers and livestreaming hosts. In the food-delivery sector, platforms continually pursue greater efficiency. In the first half of 2019, Shanghai recorded 325 road traffic accidents involving the courier and food-delivery industries, resulting in five deaths and 324 injuries. Assessment rules for deliveries lack flexibility in scenarios such as severe weather and traffic congestion, while heavy penalties for late deliveries have become routine [10]. Most flexible workers have no formal employment contract and lack statutory safeguards relating to social insurance, occupational injuries and the right to rest. In addition, algorithms automatically categorise users and workers into different tiers, creating hidden forms of digital discrimination, while false information spreads rapidly through digital platforms, giving rise to a range of social governance risks.

3. Optimised governance strategies for high-quality development of the digital economy

3.1. Improving the legal and regulatory framework for the digital economy

First, legislation should establish the basic principles of algorithmic transparency and non-discrimination [5], while higher penalties should be imposed for monopolistic practices such as data-driven differential pricing, forced "either-or" exclusivity, and algorithmic collusion, substantially increasing the cost of legal violations by platforms [11]. Second, the legal boundaries governing data collection, storage and circulation should be refined, data ownership between enterprises and individuals should be clearly delineated, compliant procedures for data transactions should be standardised, and comprehensive legal provisions protecting user privacy should be established to reduce the risk of personal information leakage. Third, dedicated labour legislation for digitally enabled flexible employment should be introduced to clarify platforms' responsibilities as employers, define criteria for determining the employment status of riders and ride-hailing drivers, and require platforms to provide workers with basic social insurance [12].

3.2. Establishing a coordinated, multi-agency model of government regulation

Information barriers among market regulation, cyberspace administration, transport, human resources and social security authorities should be removed. A cross-departmental mechanism for

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data sharing and joint enforcement should be established, together with regular targeted inspections of algorithmic security and platform monopolies [13]. Independent third-party testing bodies should be engaged to conduct periodic audits and assessments of platform algorithms, and a public allowlist and blocklist system should be established for digital platforms. Long-term complaint and feedback channels for consumers and digital workers should be available both online and offline, and public oversight should be encouraged. This would create a multi-stakeholder governance model comprising government regulation, third-party auditing and public supervision, thereby constraining the unchecked expansion of platform power driven by algorithms and capital [14].

3.3. Introducing tiered supporting policies for industry

Differentiated support schemes should be introduced for small and medium-sized enterprises (SMEs) and rural digital development. Tax reductions and targeted fiscal subsidies should be provided for the digital transformation of micro and small enterprises, reducing the cost of procuring digital tools and maintaining systems. Industry authorities should work with leading platforms to formulate unified baseline standards for digital industries, set minimum rules for competition, and eliminate the dominance of rules imposed by large platforms. Fiscal investment in rural digital infrastructure should be increased, communication base stations in townships and mountainous areas should be improved, and free public digital skills training should be provided to rural residents. These measures would narrow the urban-rural digital divide and promote more balanced regional development of the digital economy [15].

3.4. Strengthening mechanisms to protect digital workers' rights and interests

Technological and legal measures should work in tandem to mitigate algorithmic exploitation. Technically, platforms should be required to optimise their order-allocation algorithms, set daily caps on accepted orders, introduce automatic extensions during severe weather, eliminate unreasonably heavy penalties for late delivery, distribute orders more evenly, and remove hidden discrimination based on distance or order volume. Institutionally, the government should urge platforms to improve their worker protection systems and establish fast-track claims channels for occupational injuries, while third-party bodies should regularly review platform assessment rules to prevent excessive algorithm-driven competition. Channels for public oversight should remain permanently open, allowing workers to appeal against unreasonable algorithmic rules and onerous platform terms, with regulators requiring platforms to rectify problems within specified time limits [16].

4. Conclusion

This paper identifies four principal governance challenges currently facing China's digital economy. In the market, monopolistic practices by leading platforms undermine fair competition. In the data sphere, excessive collection and ambiguous ownership create risks to privacy and security. At the industrial level, the urban-rural digital divide and the cost of transformation for SMEs impede balanced development. In the labour sphere, algorithmic intensification and inadequate social insurance protection harm the rights and interests of tens of millions of flexible workers. Regulatory practice, exemplified by the Ctrip antitrust penalty, also confirms that improving the law and strengthening coordinated regulation are practical means of addressing platform monopolies. These

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problems are rooted in outdated legal provisions, a fragmented regulatory system, insufficient industrial support, and the absence of rules protecting digital workers.

The corresponding governance approach requires a multidimensional and coordinated system spanning law, government, industry and employment. Legislation should define the boundaries of platform, algorithmic and data-related conduct, coordinated cross-departmental regulation and third-party auditing mechanisms should be established, tiered subsidies should support SMEs and rural digital development, and technological improvements should be combined with dedicated labour legislation to provide dual protection for digital workers' rights and interests. Together, these measures can address the tensions arising from the development of the digital economy and balance industrial innovation with the public interest.

This paper relies primarily on a literature review and case analysis and does not incorporate large-scale quantitative survey data. It therefore lacks cross-sectional data comparing digital-economy problems across cities and industries. It also does not distinguish between governance strategies for platforms of different sizes, such as major industry leaders and small local platforms, leaving scope for broader analysis.

Future research could conduct large-scale questionnaire surveys to collect first-hand quantitative data from consumers, riders, and operators of SMEs, thereby measuring the impact of different digital-economy problems. Differentiated regulatory policies could also be designed according to platform size and industry type. In addition, international cases of digital-economy governance in Europe, the United States and Southeast Asia could be compared to identify international governance practices suited to China's national conditions. By constructing a four-dimensional integrated analytical framework, this paper addresses the limitations of previous research based on a single perspective.

References

[1] Li, L., & Zhang, C. (2026). Digital economy has entered a new stage of intelligent economy. *Modern Financial Guide*, (1). https://www.zgxxjzz.com/m/tbch/944.html

[2] National Information Center. (2023, October). Report on digital development of catering industry in China. https://bigdata.sic.gov.cn/sic/83/260/1020/2c97b8cb-8bd0dd95-018b-f631136e-00b9.

[3] Hu, L. (2022). Legal regulation of algorithms for very large internet platforms. *Journal of Chengdu University of Technology (Social Science Edition), 30*(6), 67–74. https://doi.org/10.3969/j.issn.1672-0539.2022.06.009

[4] Yang, D., & Wang, R. (2021). On the influence of traffic conduction behavior on the market power of digital economy platform. *Financial Law*, (4), 41–51. https://doi.org/10.16823/j.cnki.10-1281/d.2021.04.003

[5] Tang, Y., Li, Y., & Wang, L. (2026). Relative market power of digital platform and consumer privacy. *Contemporary Economic Science, 48*(1), 75–89. https://doi.org/10.20069/j.cnki.DJKX.2026006

[6] Chen, L., Xia, J., & Liu, C. (2021). Market-oriented supervision of digital economy and the construction of fair competition order. *Reform*, (7), 44–53. http://naes.org.cn/CJ_zwz/CG/LW/202110/W020210.

[7] She, Y. (2026, July 26). A total of 5.179 billion yuan was confiscated-why Ctrip was severely punished. *China Economic Net*. http://www.ce.cn/xwzx/gnsz/gdxw/202607/t20260726_3108031.shtml.

[8] National Cyber Security Notification Center. (2026, January 6). 71 There is illegal collection and use of personal information in mobile applications. *Xinhuanet*. https://www.news.cn/law/20260106/37376D815B024DD1A52C3123383191ad/c.html.

[9] Zhang, J. (2025, June 29). Urban-rural integration: Let the development achievements "wisdom" reach every inch of land. *Social Sciences News*. [https://shekebao.com.cn/detail/20/28412]

[10] Zhou, Q. (2021, August 19). Under the algorithm, how to comply with the "optimal efficiency" of platform employment? *Workers' Daily*. https://www.rmzxw.com.cn/c/2021-08-19/2936129.shtml?n2m=1

[11] State Council Anti-Monopoly Committee. (2021, February 7). Anti-monopoly guidelines for the platform-economy field. https://policy.mofcom.gov.cn/claw/clawContent.shtml?id=88170

[12] CPC Central Committee & State Council. (2022, December 19). Opinion on building data-related basic systems to better unleash the value of data factors. https://www.gov.cn/zhengce/2022-12/19/content_5732695.htm

DOI: 10.54254/2754-1169/2026.LD38720

[13] National Development and Reform Commission et al. (2021, December 24). Several opinions on promoting the standardized, healthy and sustainable development of the platform economy. https://www.gov.cn/zhengce/zhengceku/2022-01/20/content_5669431.htm
[14] Cyberspace Administration of China & nine other ministries. (2021, September 17). Guiding opinions on comprehensive governance of algorithms for internet information services. https://www.gov.cn/zhengce/zhengceku/2021-09/30/content_5640398.htm
[15] General Office of the CPC Central Committee & General Office of the State Council. (2019, May 16). Strategic outline for digital-rural development. https://www.mohrss.gov.cn/SYrlzyhshbzb/dongtaixinwen/shizhengyaowen/201905/t20190517_317972.html
[16] General Office of the CPC Central Committee & General Office of the State Council. (2026, April 26). Opinion on strengthening service and administration for new-form employment groups. https://www.gov.cn/zhengce/202604/content_7066998.htm