

The Influence of Administrative Anti-Monopoly Measures on the Innovation Enthusiasm of Digital Economy Enterprises and Countermeasures

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Abstract. This paper deeply discusses the impact of administrative anti-monopoly measures on the innovation enthusiasm of digital economy enterprises, analyzes the characteristics of the rapid growth of the digital economy and platform economy, and discusses the challenges faced by administrative anti-monopoly in this industry. By interpreting the development status and innovation cases of domestic and foreign anti-monopoly laws and regulations, this paper reveals the positive role of digital economy administrative anti-monopoly regulation in promoting market fair competition, protecting consumers' rights and interests, and encouraging enterprises' innovation and points out the difficulties and existing problems of digital economy administrative anti-monopoly regulation, such as complicated market definition and lagging regulatory policies. Finally, countermeasures such as improving anti-monopoly laws and regulations, enhancing law enforcement and judicial capabilities, strengthening market definition and identification of monopoly behavior, and enhancing coordination and unification of administrative supervision are put forward, which provides policy suggestions for the healthy development of the digital economy.

1 Introduction

1.1 Research background

The digital economy refers to a series of economic activities that leverage data resources as a crucial production factor, modern information networks as an essential carrier, and the effective utilization of information and communication technologies (ICT) as a vital driver for efficiency enhancement and economic structural optimization [1].

In February 2023, the Central Committee of the Communist Party of China and the State Council issued the "Overall Plan for the Construction of Digital China," outlining a comprehensive framework for the development of a digital China, thereby fostering the digitization of industries and the emergence of digital industries. Currently, China's digital

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economy has entered a phase of rapid growth, marked by the accelerated digital transformation of traditional industries, leapfrog progress in digital economy infrastructure, and the vigorous development of new business formats and models.

Between 2016 and 2022, the overall scale of China's digital economy expanded year on year, reaching 50.2 trillion yuan in 2022, a year-on-year increase of 10.3%, with projections for it to surpass 70.8 trillion yuan by 2025 [2]. In 2023, the added value of core industries within China's digital economy accounted for 10% of the country's Gross Domestic Product (GDP). The digital economy has become an integral part of China's economic and social development, permeating all sectors and processes, from everyday activities like online shopping, food delivery, and electronic payments to 5G network construction, mobile Internet of Things coverage, AI applications, and industrial digital transformation. It is characterized by rapid growth, broad coverage, and profound impact.

1.2 Literature review

Furthermore, Wang proposed that compared to traditional economies, the digital economy exhibits unique features such as high market concentration, strong monopoly tendencies, and ease in capturing consumer trends [3]. Additionally, as digital economy enterprises grow and expand, market monopolies in the digital economy have gradually shifted from commodity price monopolies to platform monopolies. Sun believed that in the digital era, this necessitates heightened demands on the government's antitrust policies [4]. A fair market is imperative for the digital economy, and digital economy enterprises require a more competitive environment to better leverage and develop the digital economy, thereby promoting high-quality economic development.

Whether the current antitrust policies being employed are suitable for the digital economy era, align with the development status and inherent characteristics of the digital economy, and can foster innovation among digital economy enterprises has become a topic of increasing discussion among scholars.

In the current research, some scholars view internet platforms as a form of "infrastructure" or "public utility", arguing that as the platform economy grows, internet platforms will naturally evolve into monopolies [5]. However, this perspective overlooks the competition and innovation that exist among digital enterprises. Most scholars disagree with this viewpoint, maintaining that the digital economy should not be considered a natural monopoly sector since the monopolistic or dominant positions of digital enterprises arise from market competition. Consequently, antitrust regulation of digital giants should not adopt the same approach as that used for infrastructure providers like power grids or oil and gas pipelines, nor should they be subjected to "nationalization" or "public ownership" [3]. Furthermore, scholars hold diverging views on whether administrative antitrust measures are conducive to corporate innovation. Some scholars remain neutral towards government intervention, observing that the implementation of antitrust laws has led to a noticeable decrease in patent output from monopoly enterprises, suggesting that government intervention stifles innovative activities within monopolistic firms [6]. In contrast, other scholars argue that administrative antitrust actions contribute to a fairer, more transparent, and stable market, reducing the likelihood of credit rent-seeking and allowing market-based resource allocation, which in turn lowers entry barriers and increases overall societal investment in innovation [7].

1.3 Research framework

Current research on the correlation between administrative monopoly and corporate innovation primarily focuses on traditional enterprises. There is a paucity of studies examining the impact of administrative antitrust measures on the innovation incentives of

digital economy enterprises, despite the significant role that the innovation drive of these enterprises, including those in the platform economy, plays in promoting technological innovation and macroeconomic development.

2 Current situation of antitrust rules in digital economy

Competition is a fundamental characteristic of a market economy. With the development of market economies and the improvement of the legal system, legal frameworks for antitrust and competition protection are continually being refined and revised. In recent years, major antitrust jurisdictions such as the European Union, the United States, Germany, the United Kingdom, Australia, and Japan have studied and innovated in the enforcement of antitrust regulations and policies tailored to the characteristics of the digital economy and platform economy. In 2020, the European Union proposed the “Digital Markets Act” (DMA), clarifying the responsibilities of digital economy enterprises and providing safeguards for the development of a fair digital market. In 2021, the US government also passed six bills to advance antitrust innovation in the platform economy, including the “Ending Platform Monopolies Act,” “American Choice and Innovation Online Act,” and “Platform Competition and Opportunity Act of 2021.” These bills aim to promote antitrust reforms for large technology and digital enterprises, with the “American Choice and Innovation Online Act” specifically outlining prohibited behaviors in more categories, providing a basis for antitrust enforcement [8].

Similarly, China is engaged in institutional innovation tailored to the characteristics of a socialist market economy to adapt to the digital wave. In addressing cases of monopoly by digital enterprises, China, in addition to applying the “Antitrust Law” and relevant regulations, introduced an innovative approach in 2021 when the State Council Antitrust Commission formulated and issued the “Guidelines on Antitrust in the Platform Economy Sector” (hereinafter referred to as the “Guidelines”). Distinguishing itself from the “settlement agreements” or “mandatory orders” commonly employed in regions or countries like the EU and the US, the “Guidelines” set specific requirements or define non-negotiable red lines. This approach not only prevents enterprises from delaying the implementation of antitrust measures through bargaining during negotiations but also significantly reduces the enforcement costs of antitrust administrative law while safeguarding against unintended consequences on compliant corporate behaviors resulting from mandatory administrative orders [9].

3 The influence of administrative anti-monopoly measures on digital enterprises

3.1 Positive impacts of administrative antitrust measures on digital economy enterprises: a case study of “Alibaba Monopoly”

In 2020, the Alibaba Group was found guilty of abusing its dominant market position and engaging in monopolistic practices such as “either-or” policies, which required merchants on its platform to exclusively operate on Alibaba’s platform, prohibiting them from opening stores or participating in promotional activities on other competitive platforms. This conduct led to a ruling that Alibaba must pay JD.com Group 1 billion yuan in compensation. Additionally, Alibaba was ordered to cease its illegal activities and was fined 18.228 billion yuan, equivalent to 4% of its sales in China in 2019. As the two largest e-commerce platforms in China, this case carries significant implications for refining the enforcement principles and implementation mechanisms of China’s Anti-Monopoly Law [9].

3.1.1 Promoting fair market competition

Breaking Monopoly Barriers: Alibaba's punishment for engaging in the "exclusive choice" monopolistic behavior underscores the effective implementation of administrative antitrust measures in the digital economy, highlighting the authority and effectiveness of legal frameworks such as the Anti-Monopoly Law and the Guidelines. Through antitrust enforcement, Alibaba's monopoly position in the online retail platform service market has been effectively dismantled, fostering a more equitable competitive environment for other players like JD.com, Pinduoduo, and others. This prevents market-dominant enterprises from abusing their advantages and restricting competition.

Stimulating Market Vitality: With the dismantling of monopoly barriers, market competition intensifies, igniting the innovative spark within digital economy enterprises. Simultaneously, it promotes the free flow and optimal allocation of resources across broader markets, enhancing overall societal resource allocation efficiency.

3.1.2 Protecting consumer rights and interests

Enhancing Consumer Choice: Following Alibaba's punishment, merchants are no longer bound by the "exclusive choice" constraint, enabling them to open stores or participate in promotional activities across multiple platforms. This augmentation of consumer choice allows for more convenient and cost-effective shopping experiences.

Safeguarding Consumer Rights: The enforcement of administrative antitrust measures helps prevent enterprises from leveraging market dominance to infringe upon consumer rights, such as through price discrimination or forced bundling. This further elevates consumer satisfaction and loyalty, fostering the healthy development of the digital economy market.

3.1.3 Stimulating enterprise innovation

Protecting Innovation Outcomes: Administrative antitrust measures combat unfair competition practices like stealing trade secrets and infringing upon intellectual property rights, thereby safeguarding enterprises' innovative achievements and intellectual property. This, in turn, motivates enterprises to innovate.

Facilitating Technology Diffusion: Antitrust enforcement encourages enterprises to enhance competitiveness through technological innovation, fostering technology diffusion and sharing. It prevents technology monopolies from erecting barriers. In the digital economy era, rapid technological iteration and widespread adoption are pivotal to industry advancement. Antitrust policies accelerate this process.

3.1.4 Driving industry standardization

Establishing Industry Benchmarks: Alibaba's monopoly case punishment serves not just as a penalty for an individual enterprise but also as a warning to the entire industry. It sends a clear message to other digital economy enterprises that any abuse of market dominance will be subject to legal sanctions. This prompts them to strengthen compliance and avoid future monopolistic behaviors, contributing to a healthier, more sustainable development trajectory for the platform economy.

Improving Regulatory Systems: Innovative administrative antitrust measures establish clear rule boundaries in the digital economy, guiding enterprises towards lawful and compliant operations, thereby reducing unfair competition. This provides a more stable and predictable regulatory environment conducive to the long-term development of digital

economy enterprises. The handling of this case has enriched regulatory authorities' experience in antitrust enforcement within the digital economy, aiding in the improvement of relevant laws, regulations, and supervisory systems. This maintains market order stability and predictability, offering robust safeguards for the healthy development of the digital economy.

3.1.5 Encouraging corporate self-reform

Advancing Compliance Construction: Post-punishment, Alibaba must undertake comprehensive rectification in accordance with regulatory requirements, including strengthening internal control and compliance management and upholding fair competition. This will propel the establishment of more robust compliance systems and enhance risk prevention and control capabilities.

Promoting Business Model Innovation: Facing antitrust penalties and market competition pressures, digital economy enterprises like Alibaba must continually explore new business models and development paths rather than relying on monopoly positions for illicit gains. This will accelerate technological innovation, transformation, and upgrading, enabling enterprises to adapt to market changes. It also contributes to technological advancements and industrial upgrading across the digital economy sector.

3.2 Issues in administrative antitrust measures for development of digital economy enterprises

3.2.1 Difficulties in defining relevant markets and monopolistic behaviors

Digital economy enterprises operate across a broad spectrum of businesses, encompassing multiple sectors and markets, rendering traditional methods of defining relevant markets insufficiently precise for their scope. Additionally, the dynamic and uncertain nature of their market shares and influence pose challenges to accurately assessing market dominance through traditional market share calculations. Behaviors such as algorithmic collusion, data monopolization, and price discrimination, characterized by both complexity and concealment, are difficult for external observers to detect and are often beyond the effective identification and regulation of traditional antitrust tools, hindering regulatory authorities from obtaining sufficient evidence. These multifaceted factors collectively contribute to the difficulties faced by antitrust enforcement.

3.2.2 Fragmentation and lagging of regulatory policies and regulations

The current regulatory landscape in the digital economy is fragmented, with digital enterprises operating across diverse sectors and industries, subject to intersecting, overlapping, or even conflicting administrative policies and regulatory requirements across regions and industries. This undermines the systematic and enforceable nature of policies. As an emerging field, the rapid pace of development in the digital economy outpaces the adaptability of existing regulatory frameworks, preventing the formation of a unified and coordinated regulatory system. Furthermore, the exceptional innovation rate in the digital economy, with novel business models and technological advancements continually emerging, often precedes the formulation of regulatory policies, leading to a lag that may prevent timely responses to new issues and challenges [10], thereby introducing uncertainty for business development.

3.2.3 Inadequate protection of consumer rights and interests

Data has become a crucial factor in production and economic activity. Digital economy enterprises transcend the barriers of time and space to serve global users. However, in the process of collecting and exploiting user data, there may be violations of user privacy and security. At the same time, in China, the monopoly of Internet platforms leads to the existence of low-quality traps and other problems [11]. The traditional supervision methods and The current antitrust legislation fall short of adequately safeguarding consumer rights and interests, making it difficult to curb such illegal practices effectively. Moreover, some digital economy enterprises may leverage their dominant market position to engage in unfair competitive practices like tying sales, exclusive dealing, and self-preferencing, significantly infringing upon consumer rights and disrupting fair market competition.

4 Suggestions on administrative anti-monopoly in the development of digital economy enterprises

4.1 Improving the antitrust legal and regulatory framework

4.1.1 Refining administrative antitrust regulations and strengthening complementary legislation

Companies shall incorporate special provisions targeted at the digital economy into the antitrust laws, clearly defining the relevant markets and monopolistic behaviors of digital platform enterprises. Expedite the issuance of complementary regulations, guidelines, and normative documents that are compatible with the antitrust laws, such as the “Regulations on the Prohibition of Monopoly Agreements” and the “Regulations on the Prohibition of Abuse of Market Dominance,” to form a comprehensive and well-structured legal framework [12]. Tailored and actionable market conduct norms or enforcement guidelines should be formulated for typical sectors like internet information services and e-commerce.

4.1.2 Enhancing international communication and cooperation for shared experiences and achievements

Drawing on international best practices while considering domestic realities, companies should develop detailed antitrust enforcement guidelines to improve the operability and pertinence of laws. Actively participate in international antitrust cooperation mechanisms like the International Competition Network (ICN), sharing enforcement experiences with other countries and regions to jointly address antitrust challenges posed by multinational digital enterprises [13]. Establish bilateral or multilateral antitrust cooperation mechanisms with major economies, enhancing information sharing, enforcement coordination, and technical exchanges to bolster our capability in dealing with cross-border monopolistic conduct.

4.2 Upgrading antitrust enforcement and judicial capabilities

4.2.1 Strengthening enforcement agency building and innovating enforcement methods

Companies should formulate detailed antitrust enforcement procedures and operational guidelines to ensure standardization and consistency in enforcement activities. Establish professional antitrust enforcement teams within government agencies, upgrading the professionalism and competence of enforcement personnel. Attract multidisciplinary talents with backgrounds in law, economics, computer science, and other relevant fields to bolster the comprehensive quality and innovation capabilities of the teams. Develop a rapid response mechanism for digital markets, promptly intervening in investigations of detected monopolistic behaviors to prevent market damage from escalating.

Leverage digital information technologies such as big data and artificial intelligence to enhance the efficiency and accuracy of antitrust administrative enforcement against digital enterprises. Establish an antitrust enforcement database to collect and analyze market behavior data of digital platform enterprises, providing robust support for antitrust enforcement.

4.2.2 Strengthening coordination and unification of regulatory policies

Enhance the coordination and cooperation between antitrust enforcement agencies and other departments to form a synergy in addressing antitrust issues in the digital economy. Coordinate the systematization of administrative regulations across departments, clarifying the regulatory responsibilities of industry authorities to avoid policy conflicts and regulatory gaps. Strengthen the coordination and integration of antitrust laws with relevant regulations such as the Cybersecurity Law, Consumer Rights and Interests Protection Law, Patent Law, Price Law, and E-commerce Law.

Formulate unified antitrust regulatory policies to ensure fair competition among all types of digital platform enterprises under the same rules. Intensify efforts to combat local protectionism, regional barriers, and market segmentation, promoting the formation of a unified and robust market.

4.3 Reinforcing market definition and monopolistic behavior identification

Employ more flexible and scientific market definition methodologies tailored to the characteristics of digital platform enterprises. Comprehensive considerations should be given to factors such as network effects, data and user switching costs, consumer biases, and traffic flow conduct to define relevant markets accurately [14]. Establish a robust mechanism for identifying monopolistic behaviors continuously monitoring and assessing the market conduct of digital platform enterprises. Strengthen the identification and research of emerging monopolistic behaviors like data monopolies and algorithmic collusion, promptly formulating countermeasures.

4.4 Strengthening consumer rights protection and perfecting the rights protection system

Include provisions on consumer rights protection in the antitrust laws, clarifying the responsibilities and obligations of digital platform enterprises in safeguarding consumer rights and interests. Strengthen the synergy with laws such as the Consumer Rights and

Interests Protection Law and the Personal Information Protection Law to form a concerted effort to protect consumer rights. Establish and improve a consumer complaint and reporting mechanism, encouraging consumers to participate actively in antitrust enforcement activities and safeguarding their legitimate rights and interests.

5 Conclusion

This paper deeply discusses the influence of administrative anti-monopoly measures on the enthusiasm for innovation in digital economy enterprises and countermeasures. In the context of the rapid development of the digital economy, the scale of China's digital economy continues to expand, and the phenomenon of market monopoly has gradually emerged. This paper points out the importance of the digital economy and the necessity of anti-monopoly and analyzes the status quo of anti-monopoly policy in the digital economy and its impact on enterprise innovation. Taking the Alibaba monopoly case as an example, the author elaborates on the positive impact of administrative anti-monopoly measures on digital economy enterprises, including promoting fair competition in the market, protecting consumers' rights and interests, and encouraging enterprises' innovation. At the same time, it also points out the problems faced by the digital economy antitrust, such as the difficulty of market definition, the lagging of regulatory policies and regulations, and the insufficient protection of consumer rights and interests. In response to the existing problems, countermeasures such as improving the system of anti-monopoly laws and regulations, enhancing anti-monopoly law enforcement and judicial capabilities, strengthening market definition and monopoly behavior identification, and strengthening consumer rights and interests protection are proposed, which provide important references for the academic community and policymakers, and help promote the healthy and orderly development of the digital economy.

Due to the limited access to data and cases, the analysis of this paper may be one-sided. Meanwhile, the research of this paper focuses more on China's domestic anti-monopoly practice, and the anti-monopoly issues of multinational digital enterprises and international organizations are not discussed enough. In addition, further long-term tracking and evaluation of the specific effects of digital enterprise antitrust measures are still needed to obtain more direct and accurate data. Future research can be further deepened and expanded in these aspects.

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