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Legal Regulation of Data Monopoly on Internet Platforms in China

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Abstract: In the era of the digital economy, data has become a core production factor and a key source of market power. Internet platforms, by leveraging their dominance in user aggregation, algorithmic optimization, and build "Data Silo", increasingly concentrate and monopolize data resources, giving rise to a new form of structural market dominance: data monopoly. This phenomenon not only disrupts fair competition and reduces data allocation efficiency but also challenges the adequacy of existing antitrust legal frameworks. This paper examines the unique characteristics and regulatory dilemmas of platform-based data monopolies in China. It identifies key legal challenges, including ambiguous legal definitions, fragmented enforcement mechanisms, and difficulties in applying traditional antitrust tools to algorithm-driven conduct. Drawing on international regulatory experiences, the study explores how China can construct a localized, forward-looking regulatory system that balances innovation with control, and competition with data security. Focusing on the enhancement of the Anti-Monopoly Law's implementation mechanisms, this research proposes a multi-dimensional regulatory framework involving legal reform, institutional coordination, technical upgrading, and governance localization. The goal is to contribute to the modernization of China's digital governance regime and ensure effective oversight of platform-based data monopolies.

Keywords: Data monopoly; Internet platform; Economy; China's Anti-Monopoly Law; Platform governance.

1. Problem Statement: Data Monopoly as a New Challenge for Legal Regulation

With the rapid advancement of the digital economy and information technologies, the global economic paradigm is shifting from a scale-driven industrial economy to a data-driven platform economy. In this transformation, internet platforms have emerged as the central actors and organizers of the digital age, their accelerated evolution has ushered in a new era of regulatory challenges, particularly in the realm of competition law. Antitrust authorities around the world are facing growing pressures in addressing the complex phenomenon of data-driven market, where the control of data not only creates unprecedented barriers to entry but also fundamentally reshapes the nature of market competition. In China, this has likewise become a growing concern, as Chinese leading internet platform companies have leveraged their expansive digital ecosystems to accumulate vast amounts of data, reinforcing their competitive advantages and raising regulatory difficulties.

As data serves as the fundamental resource in the digital economy, driven by the logic of "data as productivity", internet platforms are actively seeking to consolidate their possession and monopolistic control over data, through user aggregation, algorithmic optimization and the construction of closed digital ecosystems. This phenomenon is not merely the outcome of technological competition but, more fundamentally, reflects the formation of a structural form of market dominance. Although the digital economy is taking on increasingly complex forms, its underlying dynamics remain clear: platform operators build their business models around a continuous cycle of data collection, processing, and service delivery. By aggregating and analyzing massive datasets, internet platforms not only deliver personalized services and optimize operational efficiency, but also gain comprehensive market intelligence and behavioral insights, thereby establishing substantial control over market. This phenomenon of data concentration poses significant challenges to maintaining competitive markets and protecting consumer interests. In this context, data has evolved into a fundamental factor of production that plays a pivotal and irreplaceable role in platform enterprises' commercial activities. Without access to this critical resource, platforms would lose their competitive edge and operational viability.

These structural tendencies have found concrete expression in China's rapidly evolving digital landscape. As China's digital economy has rapidly expanded, the phenomenon of platform-based data monopoly has become increasingly prominent. Some leading internet platform companies have leveraged their dominance in traffic gateways and closed ecosystem strategies to create highly concentrated "data silos". For example, Alibaba's imposition of exclusive dealing clauses that required merchants to choose between competing platforms, and Meituan's implementation of differentiated pricing strategies based on user profiling. These platforms have employed tactics such as forced exclusivity, personalized price discrimination, and restrictions on data crawling, effectively internalizing data resources within their corporate systems while denying access to third parties. Such practices have not only diminished the overall efficiency of data allocation in the market, but have also directly undermined the competitive viability of small and medium-sized platforms and limited consumer autonomy. As a result, growing concerns have emerged over the abuse of "data advantages" by dominant platforms.

However, China's existing legal framework faces substantial challenges in addressing the issue of platform-based data monopolies. On one hand, the current Anti-Monopoly Law lacks a comprehensive and authoritative set of rules for regulating data control practices in the context of internet platforms. Key areas such as the identification of market dominance and the definition of data-related conduct

remain difficult to apply in practice, particularly in relation to emerging issues such as “data control” and “Algorithmic Bias”, for which no systematic legal standards have yet been established. On the other hand, although laws such as the Personal Information Protection Law, Data Security Law, and E-Commerce Law offer partial regulatory responses from the perspective of individual rights and information security, the current legal system has yet to develop a systematic regulatory mechanism to address data-based monopoly behavior. In addition, regulatory responsibilities are dispersed among multiple agencies, leading to fragmented governance, overlapping functions, and the absence of a unified and efficient enforcement framework.

Therefore, Data monopoly of internet platforms is not merely market phenomena driven by technological advancement, but also legal challenges arising from institutional inadequacies. Against the backdrop of promoting the healthy development of China’s digital economy, there is an urgent need to establish a regulatory framework for platform-based data monopolies that aligns with the country’s specific national conditions. Anchored in the practical realities of China’s digital economic development, this study systematically analyzes the legal characteristics of platform data monopolies and the challenges inherent in their regulation. By drawing on comparative international regulatory experiences, it explores the construction of a governance framework that balances efficiency and fairness, as well as innovation and regulation. The research centers on improving the implementation mechanisms of the Anti-Monopoly Law, with a particular focus on addressing key issues such as the standards for identifying data monopolies, the innovation of regulatory tools, and the coordination of enforcement mechanisms. It aims to provide both theoretical foundations and policy recommendations for enhancing China’s digital economy governance system.

2. The definition of data monopoly on internet platform

In the contemporary global regulatory landscape, there is no unified international consensus on the definition and legal connotation of “monopoly”, as different countries have differences in the scope of legal regulation, applicable standards, and regulatory methods for monopolistic behavior, which are usually influenced by multiple factors such as economic development level, legal tradition, market structure, and political goals. Against this backdrop of conceptual pluralism, authoritative definitions still serve as useful references. According to Black’s Law Dictionary, a monopoly refers to the exclusive privilege or advantage granted by the government to an entity, enabling it to control the production, distribution, or provision of a particular good or service. In a broade sense, the term encompasses a market structure wherein a single firm or a small group of firms dominates the supply of goods or services, thereby potentially restricting competition, distorting pricing mechanisms, and raising barriers to market entry. At its core, monopoly is characterized by the formation and maintenance of market power, which enables the exclusion of competitors and manipulation of resource allocation, thereby significantly impacting market dynamics and the freedom of transaction.

This foundational understanding is undergoing transformation in the context of the digital economy, the conceptual boundaries of monopoly are undergoing expansion and reconfiguration. A notable manifestation of this transformation is the emergence of data monopoly—a novel form of market dominance increasingly central to regulatory and academic discourse.

In parallel with the evolving definition of monopoly, the concept of data monopoly can be understood both broad and narrow perspectives. Broadly defined, it refers to a structural phenomenon whereby platform enterprises, through the aggregation and control of data resources, attain de facto dominance that systematically reshapes competitive conditions. This typically manifests in large-scale platforms accumulating user data at scale, constructing high entry barriers via proprietary ecosystems, and exerting substantial influence over the flow of information, thereby impeding effective market participation by rival firms. Narrowly defined, data monopoly denotes the conduct of platform enterprises that, by leveraging their control over vast volumes of data, reinforce their market power through the collection, processing, and utilization of data in exclusionary or discriminatory ways—suppressing potential competitors, impairing consumer rights, or even manipulating market outcomes. Moreover, the formation of data monopoly follows a discernible structural logic: first, the concentration of data is a prerequisite for its transformation into economic capita; second, the institutional rise of platform enterprises provides the organizational vehicle for monopolistic consolidation; third, advances in algorithmic technologies and data analytics constitute the technical infrastructure that enables the operationalization of monopoly; Together, these elements render data a strategic and controlling economic asset in the digital era.

Building on the conceptual analysis above, the specific connotation of "Internet platform data monopoly" can be further clarified. It refers to a market condition in which platform enterprises, by virtue of their comprehensive capacity to collect, process, and apply large-scale behavioral data, attain and maintain exclusive control over critical data flows and digital infrastructures. This control enables them to reshape market competition through algorithmic governance, flow distribution, closed data ecosystems, and pricing strategies—ultimately entrenching their market dominance. Such monopoly is not limited to the factual possession of data, but also encompasses the institutionalized control over the economic, technological, and platform ecosystems mediated by data. It represents a shift in the locus of market power from tangible goods to intangible digital assets, demanding a recalibration of legal norms and regulatory paradigms in the governance of the digital economy.

Finally, the evolution of the global data economy has fundamentally reshaped the threshold and scope of issues that traditional antitrust law is required to address. This transformation not only alters the nature of the regulatory challenges faced by existing legal frameworks, but also calls into question the adequacy of established antitrust doctrines and analytical methodologies. The emergence of data-centric business models has given rise to new forms of monopolistic challenges, with “data monopoly” constituting a distinctive type of market dominance characteristic of the digital economy era.

3. Core legal features of data monopoly on internet platform

In the context of the digital economy, data monopoly as exercised by dominant internet platforms displays several distinct legal features that differentiate it from traditional forms of monopoly rooted in tangible goods or conventional services. These features reflect the structural complexities, technological dependencies, and regulatory uncertainties inherent in the digital environment. A nuanced understanding of these characteristics is essential for developing targeted legal frameworks and enforcement strategies.

3.1. The composite legal identity of internet platforms

Data monopoly on internet platforms exhibits complex characteristics at the subject/entity level that distinguish it from traditional forms of monopoly. This distinctiveness stems from the profound transformation of the identity and functions of platform enterprises in the digital economy era. From the perspective of legal subjectivity, such uniqueness is primarily manifested in the following aspects:

First of all, according to the definition in Article 73 of the Personal Information Protection Law of the People's Republic of China (PIPL), internet platforms in practice simultaneously assume the dual legal identities of “data controller” and “data processor.” This role conflation creates unique challenges in defining rights and responsibilities: platforms both determine the purposes and means of data processing as controllers and specifically execute data operations as processors. Taking e-commerce platforms as an example, they not only establish rules for user data collection (controller function) but also actually perform data analysis and application (processor activities).

At the same time, the phenomenon of platforms acting as both “players and referees, “as highlighted in Article 35 of the E-Commerce Law of the People's Republic of China, is particularly pronounced in the data domain. Leading platforms unilaterally impose data rules through user agreements, forming a “private governance” system. Many platform user agreements contain exclusionary data clauses, and this combination of rule-making authority and market competitive power not only breaks through the traditional antitrust law's framework for regulating market entities but also underscores the unique legal status of platforms where their roles as market participants and rule-makers overlap.

3.2. The opacity of monopolistic conduct: technological dependence and algorithmic control

The behavioral opacity of data monopoly on internet platforms is primarily reflected in two dimensions: the complexity of the underlying technical mechanisms and the indirect nature of the monopolistic conduct. This opacity poses significant challenges to traditional antitrust enforcement tools, highlighting the urgent need to develop new frameworks for identification and regulation.

In terms of technology, The algorithm system and data control system constructed by platform enterprises constitute a key hidden barrier, among which complex algorithm models such as deep learning have natural interpretability, making it difficult for regulatory agencies to penetrate technical appearances and identify monopolistic intentions. Taking the dynamic pricing algorithm as an example, it can monitor and automatically adjust prices in real time, achieving surface technical neutrality while potentially achieving implicit price synergy. However, due to the autonomous decision-making nature of the algorithm, the "intention connection" requirement in traditional antitrust investigations faces a proof dilemma. Moreover, the concealment of this technology is further enhanced through the infrastructure design of the ecosystem. Platform enterprises adopt differentiated data interface permissions, exclusive data format standards, and other technical means to implement de facto data blocking under the reasonable guise of network security or user experience. It is worth noting that the technical barriers to data control have a dual hidden feature: they can be defended through compliance reasons, but their professionalism goes beyond the scope of conventional cognition, making it difficult for ordinary market entities and regulatory agencies to detect their exclusive nature. With the continuous iteration of technology, platform enterprises are constantly optimizing technical tools such as data encryption and user tracking, embedding monopolistic behavior deeper into the technical architecture. The dynamic evolution of this technological complexity further increases the difficulty of regulatory penetration.

From a behavioral perspective, one of the most salient features of data monopoly is its indirectness—a non-explicit mode of excluding competitors that further reinforces its opacity. Unlike traditional monopolistic conduct, which often relies on direct market foreclosure or price suppression, platform enterprises tend to consolidate their dominance through more subtle mechanisms such as traffic allocation and ecosystem bundling. For instance, some super-platforms systematically reduce the visibility of competitors’ content by adjusting parameters in search algorithms and recommendation systems, all without formally altering access rules. Because such practices appear “technically neutral” on the surface, they are difficult to qualify as monopolistic under conventional legal standards. Even more concealed are data-driven discriminatory practices, where platforms exploit their informational advantage to offer differentiated support to self-operated businesses versus third-party vendors. These micro-level forms of data favoritism are often buried within vast volumes of daily operational data and require sophisticated econometric analysis to detect. Moreover, the network effects inherent in platform economies further amplify the hidden consequences of such indirect conduct. Business decisions that appear neutral on their face can—through positive feedback loops in user base expansion—lead to de facto market foreclosure. Yet the causal relationship between platform strategy and competitive harm often only becomes observable through long-term market analysis.

3.3. The multidimensional and systemic effects of data monopoly

The impact of data monopolies on internet platforms exhibits pronounced multidimensionality and systemic complexity, primarily due to the foundational role of data in the digital economy and its inherent network externalities. From a legal regulatory perspective, the effects of data monopoly are manifested across three interrelated dimensions:

First, at the level of market structure, data monopolies induce a systemic distortion of the competitive landscape. Platform enterprises construct “data barriers” by controlling critical data resources, which not only raise the

costs of market entry but also create insurmountable “data gaps.” For instance, in the social networking sector, platforms such as WeChat possess exclusive access to user relationship data, thereby preventing emerging applications from achieving the necessary network effects to compete effectively. This structural barrier challenges the applicability of Article 18 of the *Anti-Monopoly Law*, which requires assessment of the ease of market entry.

Second, in terms of innovation incentives, data monopolies may suppress technological advancement. By internalizing innovation resources within closed data ecosystems, dominant platforms hinder external innovation—a phenomenon sometimes referred to as "innovation suffocation." This chilling effect on innovation runs counter to the legislative intent of the Anti-Monopoly Law, particularly the principle of “encouraging innovation” articulated in Article 1.

Third, at the consumer welfare level, data monopolies result in significant quality degradation and reduced consumer choice. Practices such as algorithmic price discrimination (“big data price gouging”) not only directly infringe on consumer rights but also diminish overall service quality by reducing competitive pressure. These effects are often subtle and long-term, making them difficult to address through the ex post remedies available under the Consumer Protection Law.

To conclude, the multifaceted and interlocking effects of data monopolies underscore the urgency of rethinking traditional legal and regulatory paradigms. As data becomes an increasingly strategic asset in the platform economy, regulators must adopt a more nuanced, multidimensional approach that not only addresses market structure, innovation dynamics, and consumer welfare independently, but also recognizes their systemic interdependence. Without such a shift, the legal system risks lagging behind the evolving realities of digital power concentration.

4. The regulatory dilemma of data monopoly on China’s internet platforms

The regulation of data monopoly on China’s Internet platforms faces multiple challenges, including the limitations of the legal system itself and new problems brought by the dynamic development of the digital economy. Based on China's anti-monopoly law enforcement practice, judicial cases, and policies, the current regulatory dilemma is mainly reflected in the following aspects:

4.1. Domestic challenges in regulating platform data monopoly

The governance of data monopoly on China's Internet platforms is faced with triple challenges of law application, law enforcement ability and digital economy dynamics, forming the core contradiction of regulatory dilemma.

From the perspective of the legal system, the Anti Monopoly Law has structural deficiencies in regulating data elements. It is not yet clear whether data constitutes a "critical facility" in the sense of anti-monopoly law, which leads to a lack of basis for determining the illegality of platform refusal of data sharing behavior. Although the 2022 revision of the Anti-Monopoly Law introduced specific articles concerning the internet platform, it failed to clarify the criteria for identifying data monopolies. As a result, enforcement authorities had to resort to broad interpretations of the "abuse of market dominance" clause in cases such as Alibaba's "choose one out of two" and Meituan's algorithm-based price discrimination. In terms of data ownership, the current legal framework has a clear institutional gap. The Personal Information Protection Law establishes rights over personal data, but it provides ambiguous definitions regarding corporate data interests—particularly with respect to the ownership of user behavior data and derivative data. This not only hampers the attribution of responsibility in antitrust enforcement but also obstructs the market-oriented allocation of data as a production factor.

The rapid development of algorithmic technologies has further intensified the challenges in legal application. In the platform economy, algorithmic practices such as personalized recommendations and dynamic pricing are highly covert, making it difficult for traditional antitrust frameworks to address algorithm-driven forms of monopoly. Although the Regulations on the Administration of Algorithmic Recommendations for Internet Information Services represent the first attempt to regulate algorithm usage, their focus lies primarily on ethical considerations rather than competition regulation. As a result, practices such as algorithmic collusion and algorithmic discrimination remain largely outside the scope of regulatory oversight. Another prominent issue is the outdated approach to defining relevant markets. In the Tencent Music exclusive licensing case, enforcement authorities still relied on the traditional SSNIP test, which failed to capture the characteristics of cross-market competition in data-driven markets. This analytical method is increasingly disconnected from the realities of the digital economy.

From the enforcement perspective, investigations into data monopoly cases require specialized digital technology support. However, it seems that current antitrust enforcement agencies need to enhance their technical capabilities in areas such as algorithm auditing and big data analysis. More notably, there is a conflict between the standards applied in administrative enforcement and judicial adjudication. The State Administration for Market Regulation focuses on analyzing competitive effects in administrative penalties, whereas courts in civil litigation tend to emphasize the contractual nature of disputes. This divergence is particularly pronounced in cases involving China’s super-platforms.

The dynamic evolution of the digital economy continues to challenge existing regulatory frameworks. Platform enterprises rapidly expand their market power through data aggregation—for instance, Tencent's acquisition of game streaming platforms such as Huya and Douyu helped it establish a closed data ecosystem. However, the current merger review system does not incorporate data monopoly risks into its assessment criteria. The dynamic evolution of the digital economy continues to challenge existing regulatory frameworks. Platform enterprises rapidly expand their market power through data aggregation—for instance, Tencent's acquisition of game streaming platforms such as Huya and Douyu helped it establish a closed data ecosystem. However, the current merger review system does not incorporate data monopoly risks into its assessment criteria. Moreover, New forms of monopoly behavior are constantly emerging, evolving from early practices like “choose one out of two” to current tactics such as “data blocking” and “self-preferencing.” The pace of legal revisions often lags far behind the speed of innovation in business models. The more

fundamental contradiction lies in balancing innovation incentives with regulatory intensity. Excessive emphasis on data sharing may undermine companies' motivation to innovate, while unchecked data monopolies can stifle market competition. This dilemma is evidenced by the experience of small and medium-sized enterprises struggling under the EU's GDPR regime, where stringent regulations have, in some cases, hindered their growth.

The tension between international experience and local adaptation

4.2. Difficulties in localizing international experience

Although the European Union's Digital Markets Act (DMA) introduces a systematic "gatekeeper" regime, its applicability to China's platform economy is limited. The European market is dominated by specialized platforms, whereas China is characterized by the prevalence of "super apps" like WeChat, which integrate services across social networking, payments, e-commerce, and more. Simply transplanting the DMA's gatekeeper classification criteria would likely lead to regulatory failure in the Chinese context. The ecological development of China's super apps has blurred traditional industry boundaries, making it difficult to apply "gatekeeper" standards that are designed around specific business sectors. This fundamental divergence in the development path of the platform economy means that China must undertake substantial institutional innovation and adaptive reform when drawing on the EU's regulatory experience.

Similarly, the "consumer welfare standard" in the United States antitrust law is not readily applicable to China, where regulatory priorities focus more on maintaining fair competition order rather than solely on price-related outcomes. From the perspective of comparative governance systems, the United States continues to rely primarily on its traditional judiciary-centric approach in regulating data monopolies. It addresses platform monopoly issues through case-by-case enforcement by the Federal Trade Commission (FTC) and the Department of Justice (DOJ), as exemplified by the 2023 lawsuit against Amazon for abuse of market dominance. In contrast, China—given the scale and stage of its digital economic development—has progressively established a systematic governance framework. This includes a risk assessment mechanism under the Data Security Law, dedicated provisions on platform behavior in the revised Anti-Monopoly Law (2022), and a multi-agency collaborative regulatory system. This fundamental difference reflects divergent governance needs and capacities between legal systems, each shaped by distinct institutional structures and expectations regarding the effectiveness of digital economy regulation.

If the U.S. litigation-centered model were simply transplanted into China, it would not only be ill-suited to the country's unique governance environment, but could also lead to practical challenges such as regulatory delays and difficulties in attributing responsibility, thereby undermining overall governance effectiveness. Therefore, China should build upon its domestic realities and continue to improve a regulatory paradigm that is risk-prevention oriented and administratively driven. This approach not only aligns with the principles of socialist rule of law but also provides a more effective response to the complex challenge of platform data monopolies.

5. Improving the regulation of internet platform data monopoly with Chinese characteristics

In response to the multiple challenges exposed in regulating data monopolies on Chinese internet platforms—including unclear legal applicability, weak enforcement mechanisms, lagging technological adaptation, and the inapplicability of foreign regulatory models—China must develop a forward-looking and adaptive regulatory framework. This requires efforts across four key dimensions: reconstructing legal theory, improving institutional design, enhancing technical capabilities, and implementing localized strategies to achieve effective governance of platform-based data monopolies.

5.1. Enhancing the legal framework to establish a clear foundation for data monopoly Regulation

Improving the legal regulatory framework for data monopolies on Chinese internet platforms requires systemic institutional innovation. At the legislative level, it is recommended that a dedicated chapter on "Competition Rules for the Digital Economy" be added to the Anti-Monopoly Law. This chapter should focus on addressing three core issues: First, it should establish clear criteria for identifying data elements as "essential facilities," taking into account factors such as the non-replicability of data and its indispensability in the market; second, it should develop a typological framework for identifying data monopoly behaviors, incorporating emerging forms of monopolistic conduct such as data blocking and algorithmic collusion into the scope of regulation; third, it should introduce a dynamic assessment mechanism requiring major platforms to regularly submit data flow reports and supporting the creation of a "Data Monopoly Risk Index" as an early warning system. At the same time, an effective strategy would involve introducing a supporting Guideline on Data-Related Antitrust Enforcement, which would establish practical and operable criteria for assessing behaviors such as data refusal to deal and algorithmic coordination, thereby enhancing the precision and effectiveness of law enforcement.

It is worth noting that with the development of the digital economy, data has become a new factor of production. Therefore, the merger review regime must pay particular attention to data-related elements. It is recommended to establish a dedicated review mechanism for data-related mergers, which would include separate valuation of data assets and the addition of a "data market" dimension to the traditional product market analysis. Moreover, acquiring parties should be required to make binding commitments, such as maintaining open data interfaces and refraining from exclusive agreements. For systemic data monopoly cases, structural remedies could be explored—for example, requiring the divestiture of non-core data assets to mitigate anticompetitive effects.

From the perspective of constructing a data rights framework, it is advisable to build upon China's existing Personal Information Protection Law by establishing a multi-tiered rights confirmation system that encompasses raw data, derived data, and enterprise data. Particular attention should be given to clarifying the legal subjects of various types of data, delineating usage boundaries, and defining circulation rules. In particular, the relationship between users' personal

information and enterprise data assets should be clarified, so as to provide a solid legal foundation for the market-oriented allocation of data as a factor of production. To that end, it is further recommended to advance the enactment of a dedicated Data Circulation Promotion Law. Such legislation should adopt a classified and tiered data governance approach, thereby striking a more refined balance between data protection and the lawful, efficient circulation and utilization of data.

5.2. Reinforcing regulatory institutions by establishing coordinated and specialized support frameworks

With the continued advancement of the digital economy, traditional regulatory models have become increasingly inadequate in addressing the challenges posed by data monopolies on internet platforms. Innovating regulatory implementation mechanisms requires a systematic reconstruction across three dimensions: regulatory architecture, technological tools, and governance models, in order to build a new regulatory framework tailored to the characteristics of the digital economy.

In terms of regulatory organizational structure, China's current regulation of the digital economy urgently requires the establishment of a coordinated and efficient governance architecture. It is proposed that a Digital Economy Regulatory Coordination Office should be established under the framework of the State Council Anti-Monopoly Commission. This office would facilitate the creation of a cross-departmental joint working mechanism to integrate the regulatory functions of key agencies, including the State Administration for Market Regulation (SAMR), the Cyberspace Administration of China (CAC), and the Ministry of Industry and Information Technology (MIIT), thereby promoting institutional synergy. This innovative mechanism should focus on cultivating three core capabilities: the formation of specialized technical teams to enhance regulatory penetration and analytical depth, the development of a unified standards system that covers the entire data lifecycle—from collection and storage to processing and circulation, and the construction of a cross-regional, multi-level collaborative enforcement network to ensure consistent and timely regulatory responses.

From a long-term perspective, consideration should be given to establishing a higher-level coordination body to overcome traditional regulatory limitations and focus on building three strategic capabilities: technological supervision, which would incorporate RegTech tools to improve behavioral monitoring and risk identification; standards leadership, which would balance alignment with national conditions and international best practices; risk forecasting, which would rely on big data to build predictive early warning systems. This incremental reform model offers a pragmatic path to addressing current issues such as fragmented standards and low enforcement efficiency caused by overlapping jurisdictions. At the same time, it provides a foundation for the modernization of China's digital regulatory system.

Importantly, this institutional design is well aligned with the existing legal and policy framework: Article 10 of the Anti-Monopoly Law provides a legal basis for reform; the 14th Five-Year Plan for the Development of the Digital Economy calls for improving governance systems; and the establishment of the National Data Administration in 2023 offers robust organizational support. Through this reality-based and future-oriented institutional innovation, China can gradually build a rule-of-law-based regulatory system suited to the characteristics of the digital economy—one that ensures policy continuity while allowing room for adaptive development, ultimately achieving a dynamic balance between regulatory effectiveness and market vitality.

5.3. Promoting localized Institutional innovation and constructing a regulatory path with Chinese characteristics

Within the global landscape of digital economy governance, China faces unique challenges in institutional adaptation. Regulatory models adopted by Western countries—such as the "gatekeeper" regime in the EU and the "consumer welfare standard" in the U.S.—do not fully align with the current structure of China's digital economy. These differences are primarily reflected in three aspects: first, Chinese internet platforms commonly operate under a closed-loop development model, with business activities spanning multiple sectors; second, the integration between platform economies and the real economy in China is particularly deep; third, China's legal traditions and regulatory culture exhibit distinct characteristics. In light of these differences, there is an urgent need to develop a localized regulatory framework that is tailored to China's national conditions.

In response to the cross-ecosystem development characteristics of China's super platforms, traditional regulatory frameworks focused on single business sectors are no longer adequate to address the multidimensional nature of platforms such as WeChat and Alipay, it is essential to innovate regulatory identification standards. It is recommended to establish a new evaluation system that focuses on three key dimensions, which are the intensity of data control in the platform's core business, the degree of cross-sector data aggregation and the indicators of ecosystem closure. This set of standards should be dynamically adjustable, allowing it to promptly reflect changes in the competitive landscape resulting from platform expansion. At the same time, it is also proposed to develop a differentiated regulatory classification mechanism that categorizes platforms into three tiers—foundational, key, and general—in order to implement targeted and precise regulation.

In the realm of regulatory tool innovation, it may be worthwhile to explore institutional designs with Chinese characteristics. One such approach is the potential pilot implementation of a "data trust" model, whereby independent third-party professional institutions are entrusted with the management of core platform data infrastructure. This institutional arrangement could not only enhance data security but also facilitate the orderly circulation of data as a key production factor. For effective implementation, it is important to clearly define the legal status, management authority, and operational rules of data trusts, establish a scientific mechanism for data valuation, and improve systems for oversight and accountability. Another innovative direction involves the establishment of a "regulatory sandbox" mechanism to provide platform enterprises with a controlled testing environment. By setting clear testing boundaries, implementing risk isolation protocols, and developing robust exit and evaluation criteria, such a framework can encourage innovation while effectively mitigating potential risks.

In light of the distinctive characteristics of China's platform-based digital economy, establishing a dynamic

response mechanism could serve as a crucial approach to enhance regulatory effectiveness. It is recommended to develop a Platform Economy Competition Health Index System, incorporating core indicators such as market concentration ratio, survival duration of new entrants, and data accessibility. The quarterly release of index reports would achieve three primary objectives: providing data-driven support for regulatory decision-making, communicating policy signals to the market, and facilitating self-rectification among platforms. Furthermore, it is essential to refine the early warning and response mechanism by implementing a three-tier (red-yellow-blue) classification system that enforces differentiated intervention measures based on varying risk levels. Regarding the implementation pathway, a dual strategy combining pilot initiatives with legislative safeguards should be adopted. Priority could be given to digitally advanced regions like Hangzhou and Shenzhen for pilot programs, with particular focus on evaluating the efficacy of innovative regulatory tools. These pilot initiatives should establish comprehensive evaluation mechanisms to systematically document and disseminate replicable best practices.

Building a digital economy governance system with Chinese characteristics requires a development path that emphasizes being rooted in domestic realities while drawing on international experience in a dialectical manner. Given the structural differences between China and Western countries in terms of digital economy development stages, market configurations, and regulatory traditions, the direct transplantation of foreign models is neither feasible nor desirable. However, this does not imply a rejection of international best practices. Rather, it calls for their creative adaptation on the basis of a solid domestic legal foundation. Specifically, China should continue to refine its core legal frameworks—such as the Anti-Monopoly Law and the Data Security Law—while selectively incorporating useful elements from foreign approaches to algorithmic governance and risk-based regulation. Crucially, such incorporation must undergo a process of localization and contextual adjustment to ensure compatibility with China's unique governance needs. This form of governance innovation—one that upholds institutional foundations while embracing inclusivity—can foster a virtuous cycle of government guidance, proactive platform accountability, and effective social oversight. It enables the regulation of market order while simultaneously stimulating innovation and vitality in the digital economy.

6. Conclusion

This study demonstrates that the rise of data monopolies on internet platforms is not merely a technological or market phenomenon, but a profound legal and institutional challenge that requires a fundamental rethinking of competition regulation. In China, the convergence of platform dominance, data centralization, and algorithmic opacity has given rise to new forms of exclusionary and discriminatory behavior that traditional antitrust frameworks are ill-equipped to address. Current regulatory tools struggle to define relevant markets, identify monopolistic conduct, and allocate enforcement responsibilities across fragmented institutional structures.

In light of these challenges, the research proposes a regulatory framework with Chinese characteristics that emphasizes systemic legal reform, inter-agency coordination, technical capacity-building, and locally adapted innovation. The recommended approach includes revising the Anti-Monopoly Law to better reflect the realities of data-driven markets, developing specialized guidelines for algorithmic conduct, strengthening institutional capacities through the creation of coordinated regulatory bodies, and promoting experimental governance tools such as data trusts and regulatory sandboxes.

Furthermore, the study underscores the importance of balancing domestic governance needs with lessons from international experience. Rather than directly transplanting foreign models, China must pursue a path of creative adaptation—integrating global best practices within its own institutional and economic context. Ultimately, a localized and forward-looking regulatory strategy will not only improve the oversight of data monopolies, but also foster fairer, more innovative, and more secure development of the digital economy.

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