

Governance Dilemmas and Optimization Paths of Platform Companies in the Digital Economy — A Case Study of Didi Chuxing

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Abstract: *Driven by the rapid development of digital technologies, platform companies have become a core force reshaping industrial landscapes and transforming lifestyles with their unique connection and matching functions. As a typical platform company in the transportation sector, Didi Chuxing's governance directly bears on travel safety, market order, and public interests. Taking Didi Chuxing as an example, this paper deeply analyzes the governance dilemmas of platform companies in the digital context, including the contradiction between platform monopoly and market competition, data security and value mining, algorithm efficiency and social responsibility, and the imbalance of demands among multiple stakeholders. On this basis, it proposes optimization paths for platform company governance from four dimensions: improving the regulatory system, strengthening data governance, optimizing algorithm design, and building a benefit coordination mechanism, providing theoretical references and practical lessons for the high-quality development of platform companies in the digital era.*

Keywords: *Digital Economy; Platform Economy; Corporate Governance*

1. Introduction

1.1. Research Background

Currently, digital technologies represented by big data, cloud computing, artificial intelligence, and the Internet of Things are driving the restructuring of the global economy and social structure with unprecedented depth and breadth. Against this tide, the platform economy, as an emerging organizational form and economic paradigm, has risen rapidly and become a key engine driving innovation, optimizing resource allocation, and boosting growth. As the core operators of the platform economy, platform companies have broken the linear value chains and geographical and temporal constraints of traditional industries by building digital ecosystems connecting multilateral groups, achieving precise and efficient matching of supply and demand, and profoundly reshaping the competitive landscape and user experience in retail, finance, social networking, mobility, and many other fields.

As one of the most dynamic countries in the global digital economy, China has witnessed particularly rapid growth of the platform economy. Domestic platform companies have made remarkable achievements in market scale, business model innovation, and application scenario expansion. However, their development has also been accompanied by growing pains in governance. In recent years, from anti-monopoly law enforcement and data security reviews to algorithm governance regulations and the protection of workers in new forms of employment, China's regulatory framework has been accelerating to improve, aiming to guide the platform economy from "wild growth" to "regulated, healthy, and sustainable development".

Didi Chuxing epitomizes the development of China's platform economy. Relying on digital technologies to build a ride-hailing platform, it efficiently integrates driver and passenger resources, innovates the traditional travel service supply model, and enhances urban travel convenience and efficiency. Yet its development history has exposed multiple governance dilemmas of platforms: cutthroat competition and market consolidation in the early stage, safety incidents and public trust crises during the growth period, and compliance challenges including cross-border data transmission security reviews during expansion. In 2021, Didi was subjected to a cybersecurity review for serious illegal collection and use of personal information, highlighting the fragility of platform data governance and risks to national security and public interests. While digital empowerment has enabled exponential

growth of platforms, the impact of governance deficiencies has amplified proportionally, and the improvement of governance capacity has failed to keep pace with business expansion and technological iteration.

1.2. Research Significance

Theoretically, existing research on platform governance mostly focuses on single-dimensional issues or influencing factors, lacking a systematic and integrated analysis of core contradictions, and targeted research combining specific cases to analyze contradictions and corresponding paths is scarce. Taking Didi Chuxing as a case, this paper systematically dissects the governance dilemmas of platform companies in the digital context, fills the gaps in existing research, enriches the theoretical system at the intersection of platform economy and corporate governance, and provides an analytical framework and theoretical reference for similar studies.

Practically, against the dual background of prominent global platform governance challenges and the regulated development of China's platform economy, this paper proposes implementable optimization paths targeting the governance pain points exposed by Didi Chuxing, offering practical references for ride-hailing and other platform companies to improve their governance systems and balance commercial value and public interests. Meanwhile, it provides a practical basis for regulators to formulate governance policies adapted to the characteristics of the platform economy and build a digital ecosystem that balances efficiency, fairness, and security, promoting the high-quality development of the platform economy.

1.3. Literature Review

At present, domestic and foreign scholars have formed rich research results on the governance of platform enterprises and related topics, with increasingly diversified research perspectives. Domestic research, closely linked to the development of the digital economy, has deepened relevant studies on platform enterprise governance from multiple dimensions. In the field of ESG, Peng Xiaojia et al. ^[1] proposed and explored the configurational paths of ESG performance of platform enterprises based on the TOE framework, finding that different combinations of influencing factors exert differentiated effects on corporate ESG performance. Meanwhile, Wang Xuanyi ^[2] proposed integrating the ESG concept into the income approach to explore an improved path for platform enterprise value evaluation, providing a new perspective for measuring corporate value.

In terms of data empowerment and value creation, Chen Xiaochun ^[3] focused on the core role of data elements and analyzed the driving mechanism of data empowerment for platform enterprise value creation. Han Xizi ^[4] specifically discussed the value creation paths of manufacturing platform enterprises, expanding the industry dimension of platform value research. Regarding factors influencing corporate performance, Zhao Yudi ^[5] focused on the role of social trust as an informal institution, empirically verifying that social trust has a significant impact on platform enterprise performance. Jin Jingwei ^[6] focused on corporate social responsibility, exploring the correlation between social responsibility performance and corporate performance of platform enterprises, providing theoretical support for platforms to balance social and economic benefits. In the field of competition governance and algorithm regulation, Shi Purun et al. ^[7] analyzed the problems in non-price competition of platform enterprises in the digital economy from the perspective of algorithm auditing and put forward countermeasures and optimization suggestions, responding to the core pain points of platform competition governance in the digital context.

Overall, existing research has covered multiple subdivisions of platform enterprise governance, forming a multi-dimensional research pattern, but still has obvious shortcomings: first, most existing studies focus on single-dimensional governance issues or influencing factors, lacking a systematic and integrated analysis of the core contradictions of platform enterprise governance in the digital context; second, targeted research combining specific enterprise cases to conduct corresponding analysis of governance contradictions and optimization paths is scarce. Based on this, this paper takes Didi Chuxing as an example to deeply explore the core contradictions of platform company governance in the digital context and propose corresponding optimization paths, aiming to make up for the deficiencies of existing research.

2. Theoretical Basis

2.1. Digitalization

Digitalization refers to the process of transforming and upgrading traditional production and lifestyle using digital technologies. Its core lies in realizing efficient resource allocation and in-depth value excavation through data collection, transmission, analysis, and application^[3]. At the enterprise level, digitalization manifests as enterprises reconstructing their business processes, management models, and business models with the help of technologies such as big data, cloud computing, and artificial intelligence to improve operational efficiency and core competitiveness. For platform-based companies, digitalization is an important source of core competitiveness. Relying on digital technologies, platforms can achieve accurate matching of supply and demand sides, full control of service processes, and continuous optimization of user experience, which is an important foundation for platforms to create value.

2.2. Platform-based Companies

Platform-based companies refer to enterprises that build online platforms to connect two or more interdependent interest groups, provide them with trading venues, information services, and value-creation opportunities, and achieve profitability by charging commissions, advertising fees, etc. Platform-based companies have typical characteristics such as two-sided markets, network effects, and cross-border integration. Their core competitiveness lies in facilitating transactions between users in two-sided or multi-sided markets. An increase in the number of users on one side will drive a synchronous growth in the number of users on the other side, thereby forming significant network effects^[8]. Compared with traditional enterprises, platform-based companies do not directly produce products or provide services; instead, they play the role of intermediaries in resource allocation by integrating resources and building ecosystems. Didi Chuxing, as a typical platform-based company, its core business is to connect drivers and passengers through an online ride-hailing platform, providing services related to travel transactions for both parties, which is a typical manifestation of the characteristics of two-sided markets and network effects in the travel field.

2.3. Corporate Governance

Corporate governance refers to a series of activities that coordinate the interest relations between the company and all stakeholders through a set of formal and informal, internal and external systems and mechanisms, ensure scientific and effective corporate decision-making, and thereby realize the maximization of corporate value. Traditional corporate governance mainly focuses on the principal-agent relationship among shareholders, the board of directors, and management. However, the governance of platform-based companies is more complex and diverse, requiring consideration of the demands of multiple stakeholders such as platform operators, suppliers, demanders, and government regulatory authorities. The scope of governance extends from the interior of the enterprise to the entire value chain of the platform ecosystem. The governance effect of platform-based enterprises not only affects their own performance but also is deeply related to external factors such as social trust and the fulfillment of social responsibilities, directly related to the balance of interests among multiple subjects.

3. Governance Dilemmas of Platform Companies in the Digital Context — A Case Study of Didi Chuxing

The governance issues of platform companies do not exist in isolation, but are the externalization of internal tensions in the operation of their business models in the digital environment. Taking Didi Chuxing as an example, its governance dilemmas are concentrated in the following four interrelated core contradictions, which are rooted in its daily operations and long-term strategies.

3.1. Contradiction between Platform Monopoly and Healthy Market Competition

Pursuing scale is inherent in platform business logic, but Didi's path reveals problems caused by an overly concentrated market structure. In the early stage, through intensive capital subsidies, Didi consolidated the market in a short time, occupying more than 80% of China's ride-hailing market at its peak. This dominant position gave it pricing power. On the one hand, drivers complain about opaque and

rising platform commission rates, which even exceed 30% in some orders, squeezing drivers' actual income. On the other hand, although passengers enjoyed low-price dividends in the early stage, subsequent controversies over "data-based price gouging" have persisted, with regular passengers facing higher quotes for the same route. The lack of effective competitors in the market has weakened the choice and bargaining power of drivers and passengers. Despite regulators' repeated emphasis on anti-monopoly, how to truly foster effective competition and prevent platforms from abusing their market position in a market with huge network effects remains an unsolved problem.

3.2. Contradiction between Data Value Mining and Data Security Compliance

Data is Didi's core asset, used to optimize scheduling, predict demand, and make business decisions. However, data collection, use, and cross-border flow bring huge risks. In 2021, the Cyberspace Administration of China launched a cybersecurity review on Didi, pointing out its serious illegal collection and use of personal information, followed by the removal of its App from app stores. This incident exposed that the platform ignored security bottom lines amid rapid expansion. Didi holds precise travel trajectories, time habits, and even home addresses of hundreds of millions of users. Once leaked or abused, such data not only violates personal privacy but also endangers national security. Business departments have a strong incentive to continuously mine data value to improve performance, while compliance and security departments need to impose numerous restrictions. This inherent conflict between business expansion and security compliance is highly likely to lead to out-of-control risks without effective high-level checks and balances and clear rules.

3.3. Contradiction between Algorithm Efficiency Priority and Social Fairness Responsibility

Didi's operations are highly dependent on algorithms, but algorithms often sacrifice individual fairness and social value when pursuing overall efficiency. For example, the early order-assigning system prioritized drivers closer to passengers, which seemed efficient but might prevent experienced but slightly farther drivers from receiving orders, affecting their income stability. More prominently, algorithm-set incentive mechanisms implicitly encouraged drivers to work long hours, planting hidden dangers of driver fatigue. For passengers, the complex dynamic pricing model lacks transparency, and several-fold price hikes during peak hours often trigger accusations of "profiteering". In the event of driver-passenger disputes, liability judgments relying on algorithms often appear rigid, lacking human touch and contextual consideration. The platform regards algorithms as tools to improve operational efficiency but ignores its responsibility as a maker of social rules, leading to efficiency overriding fairness and safety.

3.4. Contradiction between Platform Profit Pursuit and Public Management Responsibility

Legally positioned as an information intermediary, Didi actually undertakes multiple public management functions such as rule-making, price-setting, dispute arbitration, and access review in reality. This role dislocation results in a mismatch of power, responsibility, and interest. To pursue profits and capital returns, the platform naturally tends to formulate rules favorable to itself, such as adjusting commission rates and designing pricing and reward-punishment rules beneficial to the platform. However, when safety accidents occur, society and regulators demand it to assume social main responsibilities far beyond those of an intermediary. The relationship between drivers and the platform is not a traditional employment relationship; drivers lack social security but are strictly constrained by the platform in management and assessment. This "quasi-employee" but "non-employee" status puts drivers at a disadvantage in income, welfare, and voice, making it difficult to fairly coordinate the interests among the platform, drivers, users, and the public through existing mechanisms.

4. Optimization Paths for Platform Company Governance in the Digital Context

4.1. Improve the Regulatory System to Balance Platform Monopoly and Market Competition

Government regulators need to speed up filling the gaps in laws and regulations in the platform economy sector, clarify market access thresholds, fair competition boundaries, and legal liabilities for violations of platform companies, formulate quantitative penalty standards for typical issues such as platform abuse of market dominance and data-based price gouging, and form an effective regulatory deterrent by strengthening law enforcement rigidity. Build a diversified regulatory pattern featuring

coordinated efforts of government supervision, industry self-regulation, and social supervision. Formulate unified self-regulatory codes relying on platform economy industry associations to standardize platform competition behaviors; smooth public complaint and reporting channels, encourage media supervision and exposure of platform violations, and form an all-round regulatory network. Use digital technologies such as big data and artificial intelligence to build a dynamic regulatory platform for real-time monitoring of key indicators such as platform pricing, commission rates, and market share changes, improving the accuracy and timeliness of regulation. For Didi Chuxing, it needs to take the initiative to align with regulatory requirements, disclose commission calculation rules and rate ranges, establish a pricing publicity mechanism, and actively cooperate with market competition reviews by regulators, reserving reasonable development space for other platforms in the industry to jointly maintain a healthy market ecosystem.

4.2. Strengthen Data Governance to Achieve Synergistic Development of Data Security and Value Mining

Platform companies should establish a governance system covering the whole process of data collection, storage, transmission, and use, clarify data security responsibility ownership, implement hierarchical and classified management of sensitive data such as user travel trajectories and identity information, and build security lines of defense using technical means such as encrypted storage and access control. For example, Didi Chuxing must strictly comply with the Personal Information Protection Law and Data Security Law, conduct regular data security risk assessments, formulate special prevention and control measures for risk points such as cross-border data transmission and third-party cooperation and sharing, and put an end to illegal collection and use of personal information. On the premise of ensuring data security, platforms should explore compliant paths for data value mining. Through data desensitization and aggregate analysis, massive travel data can be transformed into public service resources such as urban traffic planning and capacity scheduling optimization, realizing the social utilization of data value. Government departments need to accelerate the construction of the data element market, improve data property rights definition, trading rules, and income distribution mechanisms, provide institutional guarantees for platform companies to mine data value within the security and compliance framework, and resolve the contradiction between data security and value release.

4.3. Optimize Algorithm Design to Balance Algorithm Efficiency and Social Responsibility

Platform companies need to embed ethical considerations into the whole process of algorithm research and development, establish an algorithm ethics review committee, and conduct comprehensive evaluations of core algorithms such as order assignment and pricing from three dimensions: fairness, transparency, and security. Didi Chuxing can targetedly optimize order-assigning logic by incorporating multiple indicators such as driver service quality and order acceptance stability in addition to distance to avoid algorithmic discrimination; reconstruct the pricing algorithm model, simplify dynamic pricing rules, clarify trigger conditions and caps for peak-hour price hikes, and eliminate public doubts about “profiteering”. Improve algorithm transparency, disclose core algorithm logic, order allocation rules, and pricing factors to drivers and passengers through a visual interface to protect users’ right to know and participate. Establish an algorithm accountability mechanism to clarify the responsible subject of algorithm decisions. When algorithm deviations cause losses to drivers’ income or infringements on passengers’ rights and interests, responsibilities can be traced in a timely manner and rectification procedures initiated. Government departments should speed up the introduction of industry standards and laws and regulations related to algorithm governance, delineate prohibited boundaries for algorithm application, and guide platform companies to embed social responsibility into the underlying logic of algorithm design.

4.4. Build a Benefit Coordination Mechanism to Balance the Demands of Multiple Stakeholders

Platform companies need to build diversified channels for stakeholder participation, integrating core groups such as drivers and passengers into the platform decision-making process. Didi Chuxing can establish a drivers’ committee and a passengers’ committee, organize regular consultation meetings with representatives of all parties to fully communicate on key issues such as commission rate adjustment, service standard optimization, and rights protection measures, and form consensus-based solutions. Establish a reasonable benefit-sharing mechanism, scientifically set driver commission rates based on platform revenue and cost accounting, and improve drivers’ income stability by setting up driver incentive funds and social security subsidies; build an efficient passenger feedback processing system,

implement closed-loop management of user complaints and suggestions, and optimize service processes in a timely manner. Government regulators should act as a bridge, build a communication platform for platforms, drivers, and passengers, promote the establishment of a standardized dispute resolution mechanism, and clarify the platform's liability identification standards and compensation processes in driver-passenger disputes. To address the rights protection dilemma of drivers' "quasi-employee" status, industry-specific guidelines can be issued to promote platforms to purchase commercial insurance and provide vocational skills training for drivers, achieving a balanced development between the platform's profit demands and the interests of drivers, passengers, and other groups.

5. Conclusions and Prospects

5.1. Conclusions

The in-depth penetration of digital technologies and the large-scale expansion of the platform economy have completely restructured the operational logic, value creation models, and responsibility boundaries of platform-based companies, making their governance systems exhibit characteristics of complexity, systematicness, and publicness that go beyond traditional corporate governance. This article takes Didi Chuxing as a typical research sample to systematically analyze the governance dilemmas of platform-based companies in the digital economy. These dilemmas are not isolated; rather, they are inherent conflicts between the platform's business model, technological applications, commercial profit-seeking nature on one hand, and social public interests, regulatory rules, and ethical bottom lines on the other. These conflicts are intertwined and amplified, collectively forming the core dilemmas of platform governance. The problems exposed by Didi Chuxing in market integration, data compliance, algorithm application, and coordination of multi-stakeholder interests are not only typical reflections of the governance of the online ride-hailing industry but also mirror the common challenges faced by platform-based companies across the industry in the rapid development of digitalization, such as governance capabilities lagging behind business expansion, technological iteration outpacing rule improvement, and commercial goals taking precedence over social responsibilities.

The research further indicates that the deep-seated roots of the governance dilemmas of platform-based companies lie in the following: Firstly, platform-based companies have a dual identity as both enterprises and markets. While pursuing the maximization of their own interests, they actually undertake public functions of resource allocation and rule-making. The ambiguity of role boundaries leads to an imbalance between rights and responsibilities. Secondly, digital technologies have endowed platforms with unprecedented data control and algorithmic dominance. However, technological empowerment does not naturally lead to good governance; on the contrary, in the absence of effective checks and balances, it has amplified information asymmetry and interest conflicts. Thirdly, the interest demands of multiple subjects in the platform ecosystem are highly differentiated. The traditional corporate governance framework centered on shareholder value is unable to accommodate the legitimate rights and interests of stakeholders such as drivers, passengers, and the public, and the institutional gaps in the governance structure urgently need to be filled.

The governance of platform-based companies is by no means a patchwork of individual issues but a systematic project covering market competition, data security, algorithmic ethics, and interest coordination. Its core goal is to achieve a dynamic balance between commercial value and public interests, technological efficiency and social equity, and innovative development and standardized governance. Only by embedding governance capabilities into the underlying layers of the platform's business model and technological logic can a new order of platform governance that balances efficiency, equity, security, and sustainability be constructed in the process of in-depth development of the digital economy.

5.2. Prospects

With the continuous iteration of digital technologies and the evolving ecosystem of the platform economy, the governance environment for platform-based companies will become increasingly complex, and governance issues will continue to emerge. In the future, cutting-edge technologies such as artificial intelligence, blockchain, and privacy computing will further reshape the technological foundation of platform governance, promoting the evolution of algorithms from efficiency tools to governance hubs, and also providing new possibilities for resolving the inherent contradictions between data value mining and security compliance. At the same time, platform governance has become a systemic challenge faced globally. Different jurisdictions such as the European Union and the United States have formed

distinctive regulatory practices in areas such as gatekeeper liability, antitrust, and data security. Strengthening international comparisons and experience sharing will help refine common laws and promote open and inclusive global governance dialogues. Based on the Chinese context, the platform economy has entered a new stage from rapid expansion to regulated, healthy, and sustainable development. Future research should be more rooted in local practices, thoroughly summarize China's experience in platform governance, explore governance models that adapt to the development stage of the digital economy and meet the requirements of national governance modernization, and incorporate governance capacity building into the long-term development strategy of platform-based companies. By improving the board structure, establishing independent data security and algorithm ethics committees, and building a consultative and co-governance mechanism involving multiple stakeholders, we can promote the transformation of the governance structure from passive response to active construction, and from external regulatory pressure to endogenous capability-driven development. Ultimately, in the coordinated evolution of technological change, institutional innovation, and social expectations, we will achieve theoretical innovation and practical breakthroughs in platform governance, helping platform-based companies move towards high-quality and sustainable development in the digital economy era.

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