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e-ISSN: 2651-5318  
Journal Homepage: <http://dergipark.org.tr/joeep>



## Araştırma Makalesi • Research Article

# Platform Enterprises: Rethinking The Role Of Digital Platforms As Quasi-Governmental Institutions In The Age Of Digital Governance

*Platform Girişimleri: Dijital Yönetişim Çağında Dijital Platformların Yarı-Kamusal Kurumlar Olarak Rolünü Yeniden Düşünmek*

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### MAKALE BİLGİSİ

#### Makale Geçmişi:

Başvuru tarihi: 22 Temmuz 2025

Düzeltilme tarihi: 2 Ekim 2025

Kabul tarihi: 8 Aralık Ocak 2025

#### Anahtar Kelimeler:

Dijital yönetim

Dijital altyapı

Yarı-kamusal girişimler

Alipay

### ARTICLE INFO

#### Article history:

Received: June 22, 2025

Received in revised form: Oct 2, 2025

Accepted: Dec 8, 2025

#### Keywords:

Digital governance

Digital infrastructure

Quasi-public enterprises

Alipay

### ÖZ

Dijital platformlar giderek daha fazla temel kamu hizmetlerinin sunumuna aracılık ettikçe, rolleri ticari araçlardan yarı-kamusal altyapılara doğru dönüşmektedir. Bu çalışma, Çin'deki Alipay örneği üzerinden bu dönüşümü incelemektedir. Alipay, özel mülkiyete sahip bir platform olmasına rağmen, günümüzde sosyal güvenlik ödemeleri, sağlık hizmetlerine erişim, hukuki işlemler ve kamu hizmetleri gibi pek çok alanda yaygın şekilde kullanılmaktadır. Bu bağlamda, temel sorulardan biri, bu tür platformların hâlâ geleneksel özel girişim çerçevelerine göre mi düzenlenmesi gerektiği, yoksa kamusal işlevleri nedeniyle yeni bir düzenleyici yaklaşım mı gerektirdiğidir. Yönetişim teorisi, kamusal değer teorisi ve altyapı çalışmaları çerçevesinden hareketle bu makale, Alipay gibi platformları özel mülkiyete sahip fakat işlevsel olarak kamusal olan yarı-kamusal girişimler olarak konumlandıran Dijital Yarı-Kamusal Modelini geliştirmektedir. Bulgular, piyasa temelli denetim ile kamusal hesap verebilirlik ilkelerini birleştiren hibrit düzenleyici modellere acil ihtiyaç olduğunu ortaya koymaktadır. Bu çalışma, platform yönetişimi, dijital egemenlik ve dijital çağda devlet kapasitesinin yeniden yapılandırılması konularındaki güncel tartışmalara katkı sunmaktadır.

### ABSTRACT

As digital platforms increasingly mediate the provision of basic public services, their role is transforming from commercial intermediaries to semi-public infrastructures. This paper examines this transformation through the case of Alipay in China. Although Alipay is a privately owned platform, it is now widely used in many areas such as social security payments, access to healthcare, legal transactions and public services. In this context, a key question is whether such platforms should still be regulated according to traditional private enterprise frameworks or whether their public functions require a new regulatory approach. Drawing on the framework of governance theory, public value theory and infrastructure studies, this paper develops the Digital Semi-Publicity Model, which positions platforms such as Alipay as semi-public enterprises that are privately owned but functionally public. The findings reveal an urgent need for hybrid regulatory models that combine market-based oversight and public accountability principles. This study contributes to current debates on platform governance, digital sovereignty and the restructuring of state capacity in the digital age.

## 1. Introduction

Over the past two decades, platform economies have emerged as dominant forces in global capitalism, reshaping not only markets but also public service delivery and governance mechanisms. The use of digital platforms is

moving beyond the goal of commercial intermediation and transforming into institutional infrastructure services. Because health services can now be accessed and taxes can be paid through these digital platforms. This transformation can lead to blurring of the boundaries between the public and

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Atf/Cite as: Yiğenoğlu, K. & Kizildere, C. (2025). Platform Enterprises: Rethinking The Role Of Digital Platforms As Quasi-Governmental Institutions In The Age Of Digital Governance. *Journal of Emerging Economies and Policy*, 10(2), 473-482.

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private sectors, questioning these boundaries, and even restructuring them. The transformation of Alipay, a Chinese digital platform, is an example of this. Alipay originally started out as a payment app, but over time it has pushed the boundaries of this function and moved beyond it. Today, social security payments can be made, bills can be paid, and hospital appointments can be made through Alipay. When considered from this perspective, the legitimacy of such platforms is questioned and the idea that regulations regarding their accountability should be made arises. This points to a conclusion that contradicts the traditional structure of platform enterprises established as profit-driven payment methods. This raises the question of how the regulatory frameworks of such digital platforms should be.

This study investigates the evolving regulatory landscape in response to digital platforms assuming quasi-public roles, with particular attention to mechanisms that can enhance public accountability, ensure robust data protection, and facilitate equitable access to digital services. It argues that digital platforms operating at the interface of public service delivery should be classified and regulated as quasi-public enterprises. Such a framework recognizes their dual character: while owned and operated privately, their services are systemically critical, socially indispensable, and often state-integrated. The aim of this paper is to construct a theoretical and empirical foundation for rethinking the regulatory treatment of these entities, with Alipay in China as the primary case. Although this study focuses on the example of Alipay in China, the developed Digital Semi-Publicness Model provides a conceptual framework that can be tested in different contexts, such as India's Aadhaar system, e-government applications in Europe, or the role of Amazon AWS in public services in the United States. In this context, the study aims to fill an important gap in the literature. Although approaches such as platform capitalism (Srnicsek, 2017) and surveillance capitalism (Zuboff, 2019) comprehensively discuss the economic and social impacts of digital platforms, the question of 'which regulatory frameworks should apply when digital platforms take over public services' has not yet been sufficiently addressed. This article contributes to the literature by focusing on how mechanisms can be developed that will increase public accountability, ensure strong data protection, and enable equal access to digital services. Thus, the study not only analyses the example of Alipay in China but also adds a new normative and policy-oriented dimension to digital governance discussions.

To do so, the paper proceeds as follows: Section 2 reviews the relevant literature on platform capitalism, digital governance, and public value. Section 3 introduces the theoretical framework combining governance theory, public value theory, and infrastructure studies. Section 4 presents a detailed case study of Alipay. Section 5 examines existing and emerging regulatory frameworks. Section 6 concludes with policy implications and future research directions.

## 2. Literature Review

In recent years, digital platform enterprises like Alipay have moved beyond their traditional roles to take on roles facilitating essential public services. This issue is also considered worthy of study by academics.

For example, Srnicsek (2017:61-63) and Zuboff (2019:27) examine the dominance of platform enterprises over databases and the economic value they generate through them in their studies on platform capitalism. Zuboff also draws attention to the power asymmetries that emerge when platforms act both as service providers and data gatekeepers (Zuboff (2019:16). Apart from this, there are also authors who emphasize the blurring of the boundaries between the public and private sectors in the context of digital governance. In this regard, there are those who claim that a new regime such as the global digital political economy has emerged, especially through the collaboration of platforms with state institutions (Mayer and Mock, 2025:3). Similarly, Gong et al. (2024:1226) highlight how digital payment infrastructures like Alipay serve as public utilities by virtue of their widespread use in social welfare distribution. This framing challenges the traditional dichotomy of market vs. state and introduces a hybrid governance perspective.

Complementing these arguments, Ferrari (2023:72-73) conceptualizes digital value-transfer systems (e.g., Alipay, PayPal) as post-monetary public infrastructures, essential for enabling societal transactions and increasingly operated by corporate actors. The consequence, as Ferrari argues (p. 136), is a structural dependency on private actors for public functioning, warranting regulatory rethinking. Perevoshchikova (2020:103) echoes this concern by analyzing the competition dynamics in China's open banking regime, suggesting that digital platforms have become de facto gatekeepers of financial and civic life.

The origins of semi-public institutions lie in infrastructure services, alongside the emergence of the modern state. The provision of public services by private companies in areas such as water, electricity and railways has led to the emergence of hybrid institutions between the state and the market (Bozeman, 1987: 55). In the digital age, these functions are increasingly being performed through digital platforms (World Bank, 2024: 69-70). Examples from different countries make this transformation more visible. India's Aadhaar digital identity system serves as a digital semi-public infrastructure, enabling citizens to access healthcare, social assistance, and financial services (Rao & Nair, 2019: 473-476). In Africa, the M-Pesa mobile payment system has become a de facto public infrastructure by providing financial services to millions of people without access to traditional banking (Maurer, 2012: 589). In the European Union, the Digital Services Act (DSA) provides a framework for regulating the public responsibilities of platforms (European Commission, 2022). In the US, Amazon AWS has become a digital public infrastructure supporting government functions through public procurement and cloud infrastructure (Crawford, 2021: 7).

From a public economics standpoint, several studies (Hammer & Yusuf, 2020) underline that platforms operate in spaces traditionally occupied by the state. Their services—though privately provided—exhibit characteristics of quasi-public goods, such as non-rivalry and social essentiality (Zhu & Chu, 2023:883). astly, the study examining the social dimension of digital platform usage highlights the significance of social surveillance and migration controls in giving the country a competitive edge in developing and testing such technologies. It also demonstrates that platform-based employment and digital poverty generate complex trends that influence the nation's economic development (Mokhammad, 2025:73). In the Chinese context, the state-private sector relationship is decisive in digital platforms acquiring semi-public characteristics. The Chinese state applies strict regulatory oversight to large technology companies while also using these platforms as strategic partners in the provision of public services (Creemers, 2018: 9). Alipay's role in healthcare, social security, and legal transactions demonstrates how the state positions these private platforms as quasi-public infrastructure elements (Sun & Wang, 2022: 674).

### 3. Theoretical Framework

As digital platforms increasingly assume roles traditionally fulfilled by the state—such as identity verification, tax collection, welfare distribution, and public payment systems—a new theoretical lens is needed to make sense of their hybrid nature. This framework integrates insights from governance theory, public value theory, and infrastructure studies, while engaging with emerging debates on platformization and state-capital entanglement.

#### 3.1. Governance Theory: From Hierarchy to Hybrid Governance

Traditional public administration literature has long focused on hierarchical state structures (Rhodes, 1996:652), but recent transformations point toward networked and hybrid governance models (Aristovnik et al., 2022:1). Platforms such as Alipay function as nodes within governance networks, offering services not through state command, but via platform-mediated coordination between citizens, enterprises, and government actors. Governance has shifted “from government to governance,” encompassing non-state actors in public policy delivery. This shift requires a rethinking of responsibility, legitimacy, and accountability in the digital age (Gjaltema et al., 2020:1772-1775). The platform-state relationship in China exemplifies symbiotic hybrid governance, where public authority is exercised through privately operated infrastructures.

#### 3.2. Public Value Theory: Platforms as Public Service Vehicles

Mark H. Moore's work *Creating Public Value: Strategic Management in Government* (1995) provides a robust framework for evaluating the legitimacy and performance of public service organisations. Moore (1995:22) emphasises

that public managers must ensure their services meet three fundamental criteria. First, these services must be legally and ethically legitimate, meaning they must comply with the law and align with moral norms. Second, services must be operationally and technically feasible, meaning they must be implementable with existing resources and capacity. Finally, the services must have political and social support, as lasting legitimacy depends on the acceptance and approval of both decision-makers and citizens. Taken together, these three dimensions clearly demonstrate how public value is produced and how public administrators must strike a strategic balance between legal, technical, and political elements.

When platforms like Alipay provide services such as pension payments or health insurance processing, they create or mediate public value, despite being private entities. Thus, their governance must be evaluated in terms of:

- Accessibility (Do they reach all citizens?)
- Accountability (Who audits performance?)
- Transparency (How are decisions made?)

When private platforms perform public functions, their evaluation must go beyond economic efficiency and include public legitimacy.

#### 3.3. Infrastructure Studies: Platforms as Critical Digital Infrastructures

Digital platforms increasingly operate as infrastructures, not just applications. This view is supported by Plantin et al. (2018:306-307) who argue that platforms are becoming “infrastructuralized” as they mediate essential services like identity, payment, logistics, and data flows. Digital platforms have come to function as essential infrastructures, much like roads and railways did in the past, enabling access to and participation in economic and social life (Plantin & Punathambekar, 2019:167).

Platforms that play an infrastructural role are acquiring characteristics similar to public services, and this situation brings with it a number of debates. In particular, ensuring fairness in access, the impartiality of the services provided, and the necessity of regulatory oversight are prominent issues in this context. As platforms increasingly become fundamental elements of social life, they are moving beyond being merely commercial actors to structures with public functions. This raises the question of how platform economies will strike the delicate balance between the public interest and market dynamics.

#### 3.4. The Concept of Quasi-Public Enterprises

Drawing from public enterprise theory, quasi-public enterprises are private or semi-private companies that perform duties of a public character (Bozeman, 1987:50). Examples include utilities, telecom, and transport providers—entities often regulated due to their public function, not ownership status.

In the context of the platform, this concept applies to Alipay and similar companies in the following circumstances: when they provide basic services to all citizens, i.e. when they have a public nature; when the disruption of their activities carries systemic importance to the extent that it jeopardises the functioning of the state; and when they operate in areas such as urban governance or health systems in a manner that is partially aligned with public objectives. These characteristics demonstrate that the platforms in question play a critical role in the social and political order, beyond being mere commercial enterprises.

### 3.5. Technological Sovereignty and Platform-State Symbiosis

China's model presents an example of technological sovereignty through institutional platforms. The state uses platforms such as Alipay not only for service delivery but also for surveillance and social control purposes (Creemers, 2018:1). This raises a number of questions at both the normative and theoretical levels. Firstly, the question arises as to whether platforms truly serve the interests of citizens or those of the state. Furthermore, it is debatable whether private infrastructure should be subject to constitutional constraints. Finally, the issue of how we can protect citizens' subjectivity and agency in the context of platform-mediated governance also emerges as an important problem area.

As shown in Table 1, the authors present a synthesizing framework that draws on four theoretical perspectives to analyze the evolving role of digital platforms in public governance. Each theory contributes a distinct analytical lens:

- Governance Theory highlights the transition from traditional state-led approaches to more networked models, framing platforms as co-governors in policy implementation.
- Public Value Theory provides legitimacy criteria for evaluating public service delivery, focusing on platforms' roles in accessibility and accountability.
- Infrastructure Studies conceptualize platforms as public-critical backbones, thereby supporting the case for public regulation over private actors.
- Quasi-Public Enterprise Concept introduces the idea that private firms may carry out public duties, positioning actors like Alipay within a broader category of public-relevant enterprises.

This framework collectively supports the argument that digital platforms are no longer mere market actors but are increasingly embedded in public service infrastructures and governance processes.

**Table 1:** Synthesizing Framework

Theory	Contribution	Application to Platforms
<b>Governance Theory</b>	Explains shift from state-led to networked models	Platforms as co-governors in policy implementation
<b>Public Value Theory</b>	Establishes legitimacy criteria for public service delivery	Evaluates platform actions on accessibility and accountability
<b>Infrastructure Studies</b>	Frames platforms as public-critical backbones	Justifies public regulation over private actors
<b>Quasi-Public Enterprise Concept</b>	Defines private actors with public duties	Situates Alipay within a broader typology of public-relevant firms

**Source:** Developed by the authors

### 3.6. Theoretical Model: Digital Quasi-Publicity Model

A conceptual framework where platforms are privately owned but publicly impactful, state-integrated, yet legally under-regulated, which creates a need for hybrid regulation schemes (combining tech standards, data laws, and social responsibility frameworks). A Digital Quasi-Public Enterprise is a privately-owned platform that delivers functionally public services, operates as a critical infrastructure in citizens' everyday life, and co-governs with the state, yet remains under private law and commercial governance. This model is designed to bridge the gap between traditional public-private distinctions and the new hybrid role of digital platforms—especially when they deliver or mediate public services.

Platforms such as Alipay operate within a hybrid framework. On the one hand, they function like governments, while on the other, they are managed like companies. This dual structure leads to regulatory gaps, asymmetries in accountability, and various risks in terms of digital citizenship.

As shown in Table 2, the model identifies five core dimensions that characterize the evolving public role of digital platforms such as Alipay. These dimensions help explain how platforms increasingly function as quasi-public infrastructures, blurring the boundaries between private enterprise and public governance:

- Functionality refers to the platform's ability to deliver services that were traditionally provided by the government. In the case of Alipay, this includes services like social security payments, utility billing, and healthcare scheduling.
- Dependency captures the structural reliance of citizens on platforms to access essential services. Alipay's Health Code, which was required to enter public buildings during the COVID-19 pandemic, exemplifies this dimension.

- Integration reflects the platform's direct connection to state infrastructure or legal mandates. Alipay is integrated with China's national healthcare and legal systems, highlighting its embeddedness in state functions.
- Opacity addresses the lack of transparency and public oversight, as the platform operates under corporate logic. For instance, Alipay uses proprietary algorithms to determine service access, with minimal external auditing.
- Governance Gap points to the absence of democratic accountability mechanisms, despite significant civic impact. There is no parliamentary or public control over Alipay's access policies or data governance practices.

Together, these dimensions underscore the need to reconsider regulatory and governance frameworks for digital platforms that increasingly perform public functions.

**Table 2: Core Dimensions of the Model**

Dimension	Description	Example in Alipay
<b>Functionality</b>	The platform delivers services traditionally handled by government.	Social security payments, utility billing, healthcare scheduling
<b>Dependency</b>	Citizens structurally depend on the platform to access essential services.	Alipay Health Code used to enter public buildings during COVID
<b>Integration</b>	The platform is directly connected to state infrastructure or legal mandates.	Integrated with Chinese National Healthcare and Legal systems
<b>Opacity</b>	The platform operates under corporate logic without public oversight.	Proprietary algorithms decide access to services; minimal external audit
<b>Governance Gap</b>	No public accountability mechanisms are in place despite civic impact.	No parliamentary or public control over terms of access or data logic

**Source:** Developed by the authors

- It reframes the regulatory challenge from "how to tame Big Tech" to how to govern private actors with public power.
- It helps policymakers and scholars move beyond simplistic binaries: *private vs. public*, *state vs. platform*, *user vs. citizen*.
- It establishes an analytical category that can be used in comparative research across countries and platforms (e.g., Amazon AWS in U.S. public procurement, India's Aadhaar digital ID system).

#### 4. Case Study: Alipay and Chinese Platform Governance

Alipay, launched by Ant Group (an affiliate of Alibaba), has evolved far beyond a digital payment tool. With over 1.3 billion users globally (with the vast majority in China), Alipay integrates financial services, health insurance, utility payments, public transport, and even civic functions like COVID health codes and legal document filing. Scholars describe platforms such as Alipay as increasingly central social and public infrastructures in everyday life (Sun and Wang, 2022:676). Alipay's integration with government mini-programs enabled hundreds of public services via PPP (public-private partnership) arrangements, reflecting its infrastructural role (Ma et al., 2023:96).

As shown in Table 3, the Alipay platform is positioned as an active host for a wide range of public functions traditionally under the responsibility of state institutions. The table classifies these functions under different service types and reveals how Alipay operates at the intersection of public service delivery and digital infrastructure. In the context of social services, the platform facilitates basic welfare-oriented functions such as pension contributions and housing fund payments, linking these processes directly to the Ministry of Human Resources. In the health sector, it supports services such as hospital registration, insurance claim processing, and health code tracking, which became critical during the COVID-19 period, establishing a formal cooperation mechanism with the National Health Security Administration. In terms of urban governance, Alipay handles functions related to daily city life, such as paying electricity, water and natural gas bills, collecting traffic fines and paying metro fares. In this context, it plays a facilitating role in urban management processes by integrating with city-level smart governance platforms. From a legal and bureaucratic services perspective, the platform incorporates functions such as legal consultancy, litigation processes conducted through e-courts, and identity verification. In this regard, it also acts in cooperation with the justice system, facilitating legal-bureaucratic processes.

This table reinforces the argument that Alipay functions not merely as a financial tool, but as a hybrid platform embedded in the administrative machinery of the state. Through these integrations, Alipay has effectively blurred the boundary between private enterprise and public authority.

These integrations position Alipay as a front-end interface of the Chinese government in citizens' daily interactions, effectively outsourcing state functions to a private interface.

**Table 3:** Alipay's platform hosts a variety of public functions

Service Type	Example Function	State Interface
<b>Social Services</b>	Pension contribution, housing fund	Connected to Ministry of Human Resources
<b>Health</b>	Hospital registration, insurance claims, health codes	Integrated with National Healthcare Security Administration
<b>Urban Governance</b>	Utility bills, traffic fines, subway payments	Linked to city-level smart governance platforms
<b>Legal and Bureaucratic</b>	Legal aid, e-court services, ID validation	Cooperative mechanisms with justice system

**Source:** Developed by the authors

#### 4.1. Platform as a Quasi-Public Enterprise

Using the quasi-public enterprise framework outlined earlier, Alipay displays the following features as shown in Table 4. In Table 4, the features of Alipay are analyzed according to the Quasi-Public Enterprise Framework, highlighting the platform's increasingly public-like role in Chinese society. The table evaluates Alipay based on four key criteria:

- **Universality:** Alipay is used by the majority of the Chinese population, including elderly and rural communities, for essential tasks. This indicates its widespread adoption and critical role in daily life.
- **Criticality:** Disruptions to Alipay services have been shown to cause systemic delays in hospital registrations and welfare payments, demonstrating its essential function in delivering vital public services.
- **Public Dependency:** Citizens are structurally dependent on Alipay for access to various services, showing how deeply integrated the platform is within the socio-economic fabric.
- **State Coordination:** Alipay operates within state-sanctioned and approved regulatory frameworks, often in coordination with government initiatives. This close alignment with public policy underscores its quasi-public status.

Overall, Table 4 illustrates that while Alipay remains a private enterprise, it functions in many ways like a public utility, supporting essential infrastructure and social services through state collaboration and societal reliance.

**Table 4:** Alipay Features According to Quasi-Public Enterprise Framework

Criterion	Observation
<b>Universality</b>	Alipay is used by the majority of the Chinese population, including the elderly and rural populations, for essential tasks.
<b>Criticality</b>	Disruption to Alipay services has been shown to cause systemic delays in hospital registrations and welfare payments.
<b>Public Dependency</b>	Citizens are structurally dependent on Alipay for access to services.
<b>State Coordination</b>	Alipay operates within state-sanctioned and approved regulatory channels, often in co-design with government initiatives.

**Source:** Developed by the authors

These features echo the quasi-public nature of utilities, such as water, telecom, or electricity, in classical public economics.

#### 4.2. Regulatory Gap and Risks

Although Alipay performs public functions, it is not subject to public governance standards. This situation poses significant risks. Firstly, users have no option to refuse to share their data with state-affiliated applications, which poses a serious problem in terms of data protection. Furthermore, the absence of a transparent and accountable complaint mechanism when public services provided on the platform fail indicates a serious accountability gap. The risk of digital exclusion is also noteworthy; older people and individuals with low digital literacy, in particular, may be excluded because services are only available through the platform. Furthermore, the fact that Alipay can be used by the state for social credit systems, behavioural guidance or financial blacklisting practices in a manner that lacks transparency also carries a serious political risk. In short, despite undertaking tasks similar to public responsibilities, the lack of the same level of public accountability clearly demonstrates the need for regulatory reform.

#### 4.3. Implications from a Governance Perspective

The Alipay example demonstrates that while the state delegates operational control of public services to a private platform, it retains oversight and supervisory authority. In this context, the platform is not merely a service provider but also assumes a role as a co-manager. Thus, the citizen-state relationship is increasingly being reshaped through an institutional logic. This situation also reveals that state capacity is being restructured; for the state is delegating not only the infrastructure but also the provision of trust and legitimacy to a private actor. Therefore, it is clear that the current regulatory approach must evolve beyond merely protecting consumer rights to a digital public law framework.

#### 4.4. Comparative Insight

While Western governments (e.g., EU, U.S.) are experimenting with public service digitalization through government portals or e-Government platforms, China's approach represents a unique model of corporate-administered public governance. In Europe, the Digital Services Act (DSA) mandates accountability for large platforms, but does not yet cover platform-state integration for public services, which the Alipay case suggests is a coming frontier.

Table 5 provides a comparative summary of the key characteristics between public institutions and Alipay. This side-by-side analysis highlights the similarities and fundamental differences between the functioning of a traditional public institution and the structure of Alipay, a powerful private digital platform. While the legitimacy of public institutions is based on constitutional or legal authority, this also guarantees their accountability to society. In contrast, Alipay's *raison d'être* is driven by corporate strategies, with its objectives determined by market interests and commercial expectations. In terms of accountability, public institutions are subject to democratic and bureaucratic control mechanisms through elected or appointed managers, while Alipay is controlled solely through internal management boards; this points to a form of accountability to private stakeholders rather than the public. In terms of data management, public institutions store data under public ownership and can open it up for inspection when necessary. In terms of access, Alipay offers a fairly widespread area of use as it has a market-based structure, while access to public institutions is legally defined as a universal right; in contrast, Alipay's access is not universal and legally guaranteed. Finally, considering the effects of failure risk, a disruption in a public service would have a national-scale crisis.

**Table 5:** Summary Table

Feature	Public Institution	Alipay
<b>Mandate</b>	Constitutional / Legal	Corporate Strategy
<b>Accountability</b>	Elected or Appointed Officials	Internal Governance Boards
<b>Data Control</b>	State-held, public audits possible	Corporate, commercial + state dual use
<b>Access</b>	Universal by law	Market-based, though ubiquitous
<b>Failure Impact</b>	National Crisis	Systemic Public Disruption

**Source:** Developed by the authors

#### 5. Regulatory Implications

The increasing quasi-public nature of platform enterprises necessitates new regulations. Table 6 provides a comparative overview of the current regulatory systems in China and Europe, and this section also examines whether they have the regulatory flexibility appropriate for platform

enterprises.

- **Approach:** The basic approach adopted by the EU is a rights approach. In other words, the EU prioritizes user protection and market justice. In contrast, China's regulatory approach is state-centric and prioritizes data sovereignty and national security.
- **Core Focus:** The EU's priority is to control wrong and illegal content in the context of protecting user rights. China, on the other hand, focuses on surveillance and prioritizes data localization and platform compatibility.
- **Target Actors:** While the EU targets systemic actors such as Meta and Amazon, China broadens the scope by targeting local and large platforms.
- **Accountability Measures:** While the EU's accountability measures are implemented through independent and transparent assessments, in China, these measures are implemented by the state and through central implementation.

**Citizen Role:** In the EU, user rights are at the forefront, and therefore user empowerment is encouraged. In China, the priority is national security, so individual autonomy is more limited.

**Table 6**

Aspect	European Union (DSA)	China (Cybersecurity Law, PIPL, DSL)
<b>Approach</b>	Rights-based, user protection & market fairness	State-centric, data sovereignty & national security
<b>Core Focus</b>	Misinformation, illegal content, user rights	Data localization, platform compliance, surveillance
<b>Target Actors</b>	"Very Large Online Platforms" (e.g., Meta, Amazon)	All major internet platforms (Alipay, Tencent, etc.)
<b>Accountability Measures</b>	Independent audits, transparency reports, risk assessments	State-controlled compliance reviews, algorithm registration
<b>Citizen Role</b>	Emphasizes user empowerment	Emphasizes national interest and platform submission to state logic

**Source:** Developed by the authors

The need to move beyond traditional regulatory approaches is becoming increasingly apparent today. Current models are based on a sharp distinction between the public and private sectors; however, this approach is analytically inadequate for regulating digital platforms operating in the public sphere. The fact that platforms operate as public-facing infrastructures necessitates the development of new regulatory logics. In this context, it is necessary to accept

shared authority between the state and platforms, to recognise that platforms are structures deeply intertwined with social and civic life, and to take into account users' asymmetric dependence on these services. Two models that have recently come to the fore in the literature attempt to respond to this need. The first of these, the Public–Private Hybrid Regulatory Model, considers platforms to be co-governance actors responsible for service delivery alongside the state. Key elements of this model include strengthening accountability through joint oversight mechanisms, ensuring public representation on the boards of large platforms, and establishing civil ombudsman institutions to address user complaints in public services. The second approach, the Digital Public Services Model, treats platforms as natural monopolies or public services, such as telecommunications, and accordingly subjects them to universal service obligations, pricing and fairness principles, and transparency obligations regarding algorithms, particularly in areas serving the public. A common feature of both models is that they reflect an understanding that transcends the traditional distinction between the public and private sectors and necessitates the creation of new legal categories. This new approach indicates that platforms are not merely economic actors but also critical components of social life.

### 5.1. Proposed Framework: Quasi-Public Enterprise Regulation

Based on the findings of this study, the following regulatory framework is proposed for platforms fulfilling public roles shown in Table 7. In the regulatory framework outlines a structured set of policy recommendations across eight key regulatory dimensions relevant to digital infrastructure and platforms. Each dimension is paired with a corresponding recommendation aimed at addressing legal, ethical, and operational challenges in the governance of digital systems. The table is summarized as follows:

- **Legal Classification:** Recommends the legal recognition of "Quasi-Public Platforms," acknowledging their public function and societal impact, even if privately owned.
- **Data Governance:** Advocates for mandatory public-interest data use audits that extend beyond conventional privacy policies, ensuring data practices align with societal values and accountability.
- **Accountability:** Calls for the establishment of independent Digital Infrastructure Oversight Boards to provide governance, transparency, and public trust in digital infrastructure operations.
- **Access & Inclusion:** It is about the adoption of universal service obligations to spread digital access in society.
- **Algorithm Transparency:** It is about the implementation of transparent and understandable

AI standards in the public's access to essential services.

- **Public Service Interface:** Encourages the standardization of APIs and protocols for public-facing digital services, ensuring these interfaces are subject to public tender and oversight for accountability and interoperability.
- **Revenue & Ethics:** Suggests the structural separation of profit-driven and public-function components within digital platforms, or alternatively, the implementation of mechanisms for cross-subsidization to support low-income users.

Overall, the framework seeks to enhance democratic oversight, inclusivity, and ethical integrity in the digital governance landscape.

**Table 7**

Regulatory Dimension	Recommendation
<b>Legal Classification</b>	Recognize "Quasi-Public Platforms" in law
<b>Data Governance</b>	Mandatory public-interest data use audits, not just privacy terms
<b>Accountability</b>	Establish independent Digital Infrastructure Oversight Boards
<b>Access &amp; Inclusion</b>	Mandate universal service obligations, similar to public utilities
<b>Algorithm Transparency</b>	Require explainable AI standards for all decision systems affecting public access (e.g., health, justice, finance)
<b>Public Service Interface</b>	Define standardized APIs and protocols for interfacing with state functions, subject to public tender and oversight
<b>Revenue &amp; Ethics</b>	Require separation of profit-generating and public-function modules, or cross-subsidization for low-income service users

**Source:** Developed by the authors

### 5.2. Global Norm Development

Given the transnational reach of platforms, international standards bodies (e.g., ISO, ITU, WTO) should begin drafting digital public infrastructure protocols, especially for:

- Public payments,
- Health information systems,
- Online dispute resolution,
- Smart city platforms.

Multilateral platforms such as the G20 Digital Economy Working Group could serve as forums to harmonize expectations and mitigate regulatory fragmentation.

### 5.3. Summary

The rise of platforms like Alipay illustrates that digital services are no longer peripheral to governance—they are central to its execution. As such, the regulatory response must:

- Extend beyond anti-monopoly or content moderation debates,
- Address structural embeddedness and public criticality,
- Develop governance frameworks that reflect platforms' dual identity as profit-seeking enterprises and public service providers.

Without such regulatory evolution, societies risk privatizing core public functions without democratic oversight, compromising public trust, and deepening digital inequalities.

## 6. Conclusions and Discussion

This study has examined the evolving role of platform enterprises—particularly Alipay in China—as de facto quasi-public institutions within the contemporary landscape of digital governance. Through an embedded case study approach, integrated with theoretical frameworks from governance theory, public value theory, and infrastructure studies, the analysis reveals that platforms like Alipay function far beyond their corporate mandates, increasingly fulfilling state-like responsibilities.

The analysis shows that Alipay has moved beyond its initial function and has transformed into a public infrastructure system in China over time. In other words, Alipay's institutional role has changed, and therefore its market-oriented business function has become less clear and its role as a public service provider has come to the fore. This situation reveals that current forms of regulation are not sufficient and new forms of control need to be implemented for digital platform businesses like Alipay. These new forms of control should not be limited solely to the perspective of economic regulation. Firstly, a legal classification recognising the semi-public nature of digital platforms should be established. Furthermore, public accountability mechanisms should be created; for example, independent audit boards and transparent reporting standards should be implemented. Additionally, robust data protection laws are essential to safeguard users' personal information against both the state and private companies. Finally, equal access to digital services must be ensured, and inclusive policies should be developed, particularly for the elderly, those living in rural areas, or groups with low digital literacy. These recommendations could serve as a guide for managing digital platforms as semi-public actors at the global level, using the Alipay example.

One of the contributions of this product to the literature is the questioning of the power of digital platforms such as Alipay, which are classified as semi-public enterprises.

Secondly, public value infrastructure and infrastructure development provide opportunities to analyze hybrid governance structures with a synthetic interdisciplinary approach. Finally, it emphasizes the connections between institutional infrastructures and governance, which promote the integration of digital platforms with the public sector in an era of widespread digitalization. This statement shows that the current control structure is not sufficient for platforms such as Alipay, which have become actors that only enable commercial actors to continue their public activities, and that the semi-public operation is a new institution. Semi-public accountability policies should also be included in these new mechanisms. It is also important to maintain international coordination for the universal support of this system.

This study is structured using a qualitative case study approach. Data sources include academic literature, documents published by regulatory bodies in China, Alipay's corporate reports, media reports, and policy documents from international organisations. The analysis was conducted using content analysis methods, and the findings were evaluated comparatively within the frameworks of governance theory, public value theory, and infrastructure studies. The limitations of the study can be summarised in three dimensions: (i) it is based solely on secondary data, (ii) it is limited to the context of Alipay and China, and (iii) government and company reports may reflect official discourse. Although these limitations constrain the cross-contextual generalisability of the findings, they present a strong research agenda for the applicability of the proposed model to other country examples. The study carries contextual limitations as it is based on the Chinese example; however, this situation presents a strong research agenda for testing the model in different political-economic regimes. The Alipay example provides a good example of the integration of digital platforms with the public. Thus, findings may not directly extrapolate to liberal democracies where platform autonomy is more tightly contested. Nevertheless, the core issue—how public responsibility can be exercised through private digital systems—is a universal challenge in the digital age. Future research should further investigate the evolving dynamics of platform-state interactions through comparative cross-national studies, particularly between differing regulatory and governance regimes such as those in the European Union, China, and the United States. Such a comparison is important for the legal and political gains in the integration of digital platforms with the public. The privileges also shed light on understanding public service experiences with private platforms. Further work may focus on how algorithmic decision-making on digital platforms can store public service utilization.

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