

Legal Regulation Strategies for Sustainable Development of Sharing Economy

Jian Xiao^{1,a,*}, Song Jin^{2,b}

*¹School of Economics and Management, Guangzhou Institute of Science and Technology,
Guangzhou, 510540, Guangdong, China*

*²Institute of Economics and Management, Kyrgyz State University Named After I. Arabaev, Bishkek,
720001, Kyrgyz Republic*

^ajianxiao1986@163.com, ^b13232887338@163.com

**Corresponding author*

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Abstract: With the rapid development of the sharing economy, the legal relationship between workers and platforms is becoming increasingly complex. This article adopts a qualitative research method, through semi-structured interviews, case observations, and policy literature analysis, to deeply explore the legal status, rights and risks, and platform responsibilities of workers on shared mobility platforms. Specific measures include detailed analysis of workers' income dependence, work-related injury risks, occupational safety hazards, organizational capabilities, and platform control mechanisms, and evaluation of the role of government intervention and non-governmental organization intervention in protecting rights and risk diversification. Research has found that there are significant shortcomings among workers in terms of income stability, work-related injury protection, social organizational capacity, and data autonomy. The definition of platform responsibilities is vague, and privacy protection enforcement is uneven. By introducing external intervention mechanisms, improving work injury insurance coverage, establishing mutual aid funds and data sharing mechanisms, and strengthening legal supervision and platform governance, the level of protection of workers' rights and interests can be significantly improved, occupational risks can be reduced, and the efficiency of resource utilization in the sharing economy can be improved. Improving legal recognition, social security, and platform governance mechanisms is a key path to safeguarding the rights and interests of workers in the new forms of employment in the sharing economy, enhancing social equity, and achieving sustainable economic, social, and environmental development.

1. Introduction

With the widespread application of digital technology and the continuous transformation of resource allocation methods, the sharing economy has become an important force in promoting the transformation of modern economic structure. It relies on the Internet platform to achieve efficient

circulation of idle resources, which not only improves the utilization rate of social resources, but also promotes the implementation of sustainable development goals to a certain extent. However, as platform driven business models continue to expand, new forms of labor relations have emerged, posing unprecedented challenges to the traditional binary classification system centered around "employment self employment". A large number of workers who rely heavily on platforms for their livelihoods are gradually showing structural risks such as economic dependence, insufficient organization, and weak rights protection, which has led to a significant lag in the current labor legal system in identifying labor relations and providing protection.

In view of this, this article starts from the employment practice of sharing economy platforms, analyzes the difficulties in determining the legal nature of workers under China's new employment form, and conducts qualitative research based on typical cases to explore the role and mechanism of key factors such as workers' economic dependence, platform control, and occupational risk bearing mechanism in legal regulation. Furthermore, the article proposes a collaborative institutional optimization path among the government, platforms, and workers, aiming to provide theoretical references and policy recommendations for the standardization and sustainable development of China's sharing economy.

2. Related Works

In recent years, research on the sharing economy, digital transformation, sustainable development, and platform economy has become increasingly abundant. Scholars have explored from multiple dimensions such as theory, policy, technology, and society, forming a deep understanding of consumer, producer, worker, and business behavior. Below, this study summarizes several representative research results. Tham et al. used the ADO (Antecedent Decision Future) and TCM (Theory Context Method) frameworks to summarize the theory, methods, and application scenarios of sharing economy research, and proposed future research directions, providing comprehensive references for understanding consumer and producer behavior [1]. Tan and Salo's research suggests that blockchain can enhance transparency, trust, and collaboration, promoting a stakeholder centric capitalist model. They proposed future research directions, emphasizing three paths of stakeholder theory description, tools, and norms, providing guidance for understanding how blockchain can promote collaborative marketing, value chain innovation, and sustainable business models (including metaverse scenarios) [2]. Kalashnikov et al. evaluated the impact of national regulation on rural sustainable development in Eurasian Economic Union countries, pointing out its relationship with economy, ecology, and food security. They believed that the state was the core entity in promoting sustainable rural development, and policy focus should be placed on small-scale producers, family farms, and farmers to enhance the resilience and sustainability of rural development [3]. Based on Hayek's knowledge economy perspective, Cha et al. constructed an internationalization theory for sharing economy enterprises, emphasizing their reliance on digital platform algorithms to drive transactions between autonomous participants, thereby forming a self-organizing business ecosystem. They pointed out two key points: firstly, the competitive advantage of the sharing economy mainly comes from platform algorithms; second, the differences in global e-commerce policies and national Internet systems can profoundly affect the transnational expansion of such business models [4]. Jover and Cocola-Gant focused on tourism driven housing investment and conducted an in-depth analysis of investor characteristics related to short-term rental property management companies in post entrepreneurial urban systems. The development of the tourism industry provided opportunities for housing financialization through the specialization of short-term leasing, and promoted the allocation of interest bearing capital in the tourism related real estate sector [5]. Van Doorn and Vijay pointed out that global gig platforms are highly dependent on

low-cost labor from immigrants and minority groups. They took immigrant workers from Berlin, Amsterdam, and New York as examples to analyze why they enter the platform for work, how they integrate into their daily lives and migration paths, and explore how the platform becomes a new political and economic participant in immigration [6]. Mastrucci et al. pointed out the shortcomings of existing models in evaluating the transformation of buildings towards low energy consumption by analyzing three major trends: social behavior, infrastructure and technology intervention, digitization, sharing economy, and circular economy. They also proposed improvement suggestions to enhance the model's ability to support sustainable development decisions [7]. Roberts et al. explored the role of Artificial Intelligence (AI) in driving the transformation of Circular Economy (CE), pointing out that AI can be used for sustainable product design, circular business model construction, and related infrastructure support [8]. Zhu et al. summarized the key elements of sustainable transportation in shared mobility systems, including carpooling, shared cars, micro mobility, on-demand travel, and shared autonomous vehicles. He proposed a shared mobility framework, analyzed the supply-demand relationship between users and businesses, and summarized core issues such as travel behavior, business supply, policies, and sustainability [9]. Pignot explored the negative impact of digital control and monitoring, emphasizing the emotional manipulation of digital labor by algorithmic ideology, which makes workers obedient but difficult to resist. Combining labor process theory with post structuralist psychological analysis, he analyzed the mechanism by which drivers of ride hailing services in the platform economy are influenced by algorithmic management. It revealed how emotional control, ideological fantasy, and "worldly pleasures" maintain labor compliance and discussed their ethical significance [10]. Although existing research has made significant progress in areas such as the sharing economy, digital transformation, and sustainable development, there are still bottlenecks such as insufficient theoretical integration, limited cross-border comparisons, weak practical guidance, and insufficient attention to social equity and ethical issues.

3. Methods

3.1 Advantages of the Sharing Economy

In addition to its economic impact, the current growth rate of the sharing economy has also brought the following benefits: firstly, with the rise of the sharing economy, a large number of sharing economy platforms have emerged. Through these platforms, the sharing economy is closely intertwined with the personal credit system. People therefore attach greater importance to personal credit, which can also ensure the quality of development of the sharing economy. From the perspective of causes, in a typical market transaction process, both parties must establish a high degree of credit trust, and a stable trust system can only be established through sustained and long-term cooperation. In addition, the trust relationship established based on traditional transaction cooperation is very fragile, as it relies on factors such as mutual introductions between new and old customers. The sharing economy model in the Internet economy can promote both parties to establish a more stable cooperative relationship in the transaction. Taking the second-hand trading platform "Xianyu" as an example, due to the introduction of the Taobao credit system, consumers can understand the other party's credit status throughout the entire transaction process. Based on evaluation, transaction rate, and other factors, they can also assess the creditworthiness of both parties involved in the transaction. All participants attach great importance to the credit system to increase transaction volume; On the other hand, credit guarantees can further reduce transaction risks. Secondly, the sharing economy system has improved transaction matching efficiency while further reducing transaction costs. This is because the sharing economy depends on the Internet, and big data technology can accurately match the trading parties.

3.2 Legal Regulation of Sustainable Development and Sharing Economy

(1) Legal issues related to intellectual property rights

The sharing economy involves various intellectual property rights such as patents, copyrights, trademarks, etc. Due to the fact that transactions are often conducted through platforms, infringement often involves concealment, making it difficult to determine liability. For example, the images of shared accommodation platforms may infringe on the copyright of others, and the technological implementation of shared travel platforms may also involve patent infringement. Therefore, from the perspective of sustainable development, legal regulations should clarify the definition and division of responsibilities for intellectual property infringement, which not only protects the interests of rights holders, but also promotes innovation and standardized development of the sharing economy.

(2) Legal Issues on Tort Liability

The tort liability in the sharing economy mainly includes the type of behavior, constituent elements, identification of responsible parties, and compensation standards. For example, in the event of a traffic accident involving a shared travel vehicle in motion, it is necessary to clarify the responsibilities and compensation standards between the driver and the platform; If there are safety hazards in the shared accommodation platform, it is necessary to clarify the division of responsibilities. The law can establish a clear responsibility determination mechanism to ensure the personal and property safety of users, while reducing potential risks and promoting the safe and sustainable development of the sharing economy.

(3) Legal Issues Concerning Personal Information Protection

Sharing economy platforms need to collect and use users' personal information in the process of providing services, but some platforms have the risk of excessive information collection or leakage. Therefore, regulations should include the legality of information collection, usage norms, risk prevention, and leakage response measures to ensure the protection of user privacy, while supporting the normal operation of the platform and improving service efficiency.

(4) Legal issues related to employment for practitioners

Sharing economy practitioners are often seen as independent contractors rather than traditional employees, thus lacking legal protection in areas such as work injury insurance, unemployment insurance, and retirement security. Unlike traditional employees, sharing economy practitioners have the freedom to arrange their work time and use their own tools to complete tasks, and the platform does not assume employer responsibility. The law should establish safeguard measures for their special labor relations, such as applying work-related injury insurance, occupational disease prevention, and supplementary social security programs, to fill institutional gaps and ensure social equity and sustainable economic development.

(5) Uncivilized use of vehicles and protection of property rights

Unauthorized occupation and destruction of shared bicycles and other shared resources. For example, some users remove electronic locks or install private locks, taking their shared bicycles as their own, causing other users to be unable to use them normally. Such behavior violates the property rights of the platform. According to the *Criminal Law*, those who steal public or private property, if the amount is relatively large, shall be sentenced to fixed-term imprisonment of not more than three years, detention or surveillance, and may also be fined; Those with huge amounts or serious circumstances shall be fined or have their property confiscated starting from three years. If the behavior does not constitute a criminal offense, it can be handled in accordance with the Public Security Administration Punishment Law: those with minor circumstances shall be detained for five to ten days and fined up to 500 yuan; Those with more serious circumstances shall be detained for not less than ten days but not more than fifteen days, and may be fined not more than

one thousand yuan. By clarifying legal responsibilities and penalty standards, users can be guided to use shared resources in a standardized manner, protect platform property and public interests, and achieve sustainable economic, social, and environmental development.

3.3 Relevant Thoughts on Improving the Legal Nature Recognition of New Forms of Employment under the Sharing Economy Model in China

With the rapid development of the sharing economy, traditional employment models are being replaced by diverse new forms of employment. Taking Germany as an example, workers are divided into three categories: employees, self-employed individuals, and third-party workers. Among them, employees are in a subordinate position in traditional labor relations, self-employed individuals emphasize economic independence and individual independence, while third-party workers fall between the two and have a certain degree of economic dependence: their main source of income depends on a single platform or company, and their work must be completed by themselves. The third-party worker model breaks the traditional binary structure of employment and self employment, providing an extended protection mechanism for new types of workers and a feasible path to solve the difficulty of identifying labor relations.

In the sharing economy of online platforms, workers show a clear trend of "atomization": due to platform control of communication channels, interactions between workers are reduced, and organizational capabilities are limited. In this situation, workers are in a disadvantaged position and lack self-protection ability when their rights are infringed upon. To achieve sustainable development, laws and policies should introduce reasonable external intervention mechanisms to ensure the economic security, social equity, and occupational safety of workers.

Firstly, government led intervention in public power is crucial. Relevant departments should protect the rights and interests of workers by establishing databases, providing information and the right to know, and participating in dispute mediation. At the same time, public welfare funding support can be provided to help workers establish independent online communities or forums, and restore their ability to communicate and assist each other in groups. The government can also assist in designing a social security system suitable for platform workers, such as flexible work-related injury insurance or mutual aid funds, to enhance workers' risk resistance capabilities. This administrative intervention not only protects the rights and interests of workers, but also contributes to the sustainable development of platforms and society.

Secondly, the government should take the lead in promoting the construction of non-governmental organizations or self-organized workers to enhance their ability to protect their rights. For example, organizing platform workers to establish trade unions, with trade unions representing workers to negotiate with the platform, to alleviate the imbalance that was originally in a situation of "unorganized versus organized". In addition, attention should be paid to the issue of sharing responsibility for occupational risks. Sharing economy workers face high safety hazards and accident risks in their work processes. Improving the work-related injury insurance system and covering new forms of employment can help to diversify occupational risks and achieve social security fairness.

At the same time, the development of the sharing economy must take into account consumer privacy protection. The platform needs to collect user information when providing services, but excessive or irregular collection may violate personal privacy. Legal regulations, such as the *Civil Code* and the *Cybersecurity Law*, provide institutional basis for privacy protection. From the perspective of sustainable development, platforms should comply with regulations, enterprises should fulfill professional ethics, governments should strengthen supervision, and the public should enhance privacy awareness to jointly create a standardized and sustainable sharing economy

environment.

4. Case Design: Qualitative Study on the Protection of Workers' Rights and Interests on Shared Travel Platforms

4.1 Research Questions

What are the risks to the labor rights of platform workers who are legally recognized as independent contractors?

How to define the responsibilities and obligations between workers and platforms?

What are the shortcomings of existing laws, policies, and platform rules in protecting the rights and interests of workers?

How to optimize the legal regulation and social security system from the perspective of sustainable development, and achieve a balance between economic vitality, social equity, and environmental responsibility?

4.2 Research Object

20-30 shared mobility platform workers (drivers), covering different working hours, income levels, and regions.

5 to 10 platform managers to understand the platform's rule-making and control mechanisms for employees.

2 to 3 representatives from government labor supervision or social security departments to obtain opinions on the implementation of laws and policies.

4.3 Research Methods

(1) Semi structured interview

This paper conducts in-depth interviews with workers to understand their work arrangements, income dependence, work-related injury experiences, rights protection experiences, awareness of platform rules, and satisfaction.

This paper interviews platform management personnel to explore labor classification standards, responsibility allocation, and platform governance mechanisms and interviews government department representatives to understand regulatory strategies and the implementation of social security policies.

(2) Case observation

This paper observes the daily operation of the platform and the actual workflow of workers, including task allocation, evaluation system, complaint handling, and accident response.

(3) Literature and Policy Analysis

This paper collects laws and regulations such as the *Labor Law*, *Social Insurance Law*, *Cybersecurity Law*, *Civil Code*, and relevant judicial cases to analyze the applicability and shortcomings of laws in protecting workers.

4.4 Qualitative Analysis Results

Through semi-structured interviews with 20 shared mobility platform workers, 5 platform managers, and 2 representatives from government labor supervision departments, as well as observation of platform operations and analysis of policy literature, the following key results were extracted from this study:

(1) Risk of Workers' Rights and Interests

There is a significant gap in social security: most workers are not included in the traditional work injury insurance and unemployment insurance system, and when they encounter traffic accidents or occupational diseases, there is a lack of institutional support for economic security.

Income dependence and instability: About 65% of the surveyed workers stated that their main source of income relies on a single platform, and their income fluctuates significantly with order volume, indicating strong economic dependence but weak security.

Low organizational capacity: There is a lack of effective communication channels among workers, making it difficult to form collective bargaining power and limiting their ability to protect their rights.

(2) Insufficient implementation of laws and policies

There is controversy over the determination of labor relations: current laws lack clear definitions for third-party workers or dependent self-employed workers, resulting in workers being in a gray area in terms of social security and rights protection.

The enforcement of privacy protection varies: some platforms collect user information beyond the scope and methods stipulated by law, and there is a gap between consumers' awareness of privacy protection and legal enforcement.

5. Conclusions

This study analyzes the legal nature of workers in new forms of employment under the background of the sharing economy, and qualitatively explores it with typical cases. Research has shown that the platform labor model has broken through the traditional binary structure of "employment self-employment", and a large number of workers exhibit characteristics such as high economic dependence, weak organizational strength, and concentrated occupational risks, making it difficult for the current legal framework to accurately identify their labor relationship attributes. Through in-depth discussions on factors such as platform control methods, worker income structure, information asymmetry, and occupational risk bearing mechanisms, this article further reveals the institutional challenges faced by workers in terms of rights protection, work-related injury insurance coverage, and data and privacy protection. On this basis, the article proposes a sustainable legal regulatory path from the aspects of improving the legal identity determination standards for workers, strengthening external government intervention, enhancing occupational risk sharing mechanisms, and improving platform regulatory responsibilities, in order to build a sharing economy governance system that combines innovative vitality and social equity. Although this study proposes a relatively systematic analytical framework from both case and theoretical perspectives, there are still shortcomings in the selection of case scope, empirical depth, and cross platform differences comparison. Future research can further expand the sample types.

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