The Boundary and Application of the Duty of Safety in Platform Tort Liability------Based on the Construction of a Dynamic Scenario-Based Assessment System

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Abstract. Article 1198 of the Civil Code stipulates that online platforms must fulfill the duty of safety within "reasonable limits." However, the vague boundary of "reasonable limits" has led to significant divergence in judicial rulings. There is an urgent need to reconstruct the method for determining the platform's duty of safety, comprehensively considering its scope and depth. This paper argues for abandoning a static, unified standard and instead constructing a dynamic scenario-based assessment system centered on service type, risk level, and platform control capability. Addressing the dilemmas in judicial practice, the following suggestions are proposed: refining a graded and categorized list of platform obligations, clarifying core duties for different types and scenarios; introducing a "Risk Probability Model" (Probability × Severity / Cost) to quantify the reasonableness of safety measures; applying presumption of fault liability to balance the burden of proof; and determining liability hierarchically based on the platform's degree of involvement (joint and several liability for direct infringement, proportional liability for indirect infringement). Through the synergistic effect of a three-dimensional dynamic framework (service type, risk level, control capability), quantitative models, and a hierarchical mechanism, it is hoped to achieve a multi-faceted balance between user rights protection, platform innovation and development, and judicial efficiency.

Keywords: Platform Tort Liability, Duty of Safety, Dynamic Scenario-Based Assessment, Risk Probability Model, Presumption of Fault.

1. Introduction

Article 1198 of the Civil Code for the first time includes online platforms within the scope of subjects bearing the duty of safety. Article 38 of the E-Commerce Law further strengthens the platform's responsibility to safeguard the life and health of consumers. However, the lack of a legislative definition for "reasonable limits" has led judicial practice into the following three dilemmas: blurred boundaries of duty – platforms for social interaction, e-commerce, ride-hailing, content, etc., have significantly different service natures and risks, yet the same abstract standard is applied, leading to unclear scope of duty; conflict between technological neutrality and risk control – there is a lack of basis for determining the platform's ability to foresee and the scope of its control over user or third-party behavior, often leading to the abuse or improper restriction of the technological neutrality defense; and fragmented adjudication logic – contradictory phenomena coexist in similar cases, including excessive expansion of liability (e.g., demanding platforms foresee all offline risks) and abuse of "technological neutrality" exemptions (e.g., neglecting the platform's reasonable review obligations) [1].

The contradiction between abstract standards and diverse scenarios is centrally manifested as the coexistence of excessive liability expansion and abuse of the "technological neutrality" defense [2]. Against this background, determining the boundary of the duty of safety has become a core area of controversy in platform tort liability. This paper aims to draw on comparative law experience, combine typified cases, reconstruct the path for determining the duty of safety using dynamic scenario-based standards, and propose practical suggestions for institutional improvement.

2. Controversies in Norms, Doctrines, and Practice

2.1. Doctrines and Norms

Currently, academia holds three mainstream views regarding the boundary and determination standards of the platform's duty of safety.

2.1.1 Doctrine of Technological Neutrality

Platforms are essentially information channels or intermediaries, only liable for direct infringing content they "know or should have known" about, avoiding the imposition of universal, proactive review obligations. Its legal basis can be traced back to the spirit of the "safe harbor" principle found in regulations like Article 22 of the Regulations on the Protection of the Right to Network Dissemination of Information [3].

2.1.2 Doctrine of Risk Control Capability

It emphasizes that the platform's obligations should match its actual technical means, data acquisition, and analysis capabilities. The stronger the platform's capability, the broader its obligation to foresee and prevent risks should be. This view aligns with the legislative intent of "corresponding liability" in Article 38 of the E-Commerce Law.

2.1.3 Doctrine of Benefit-Risk Balance

Platforms continuously profit from their operations; according to the principle of balancing benefits and risks, they must bear risk prevention and control responsibilities commensurate with their profit scale and business model risk, echoing the fairness principle in Article 1198 of the Civil Code.

Article 38 of the E-Commerce Law requires platforms to bear "corresponding liability" in scenarios involving consumer life and health, while Article 1198 of the Civil Code uses the expression "reasonable limits." There is room for interpretation regarding their application priority and specific connotations (especially whether "corresponding liability" equates to joint and several liability) in high-risk, high-control scenarios like medical aesthetics, ride-hailing, and food delivery, which easily leads to disputes in practice [4].

2.2. Judicial Practice

Due to doctrinal disputes and normative ambiguity, significant divergence exists in judicial practice regarding the determination of the platform's duty of safety, mainly manifested in three adjudication paths, exposing the failure of abstract standards to adapt to complex scenarios:

2.2.1 Tendency Towards Expanding Strict Liability

In Li v. A Food Delivery Platform, the platform failed to effectively review the food business license of a merchant, leading to user food poisoning from unclean food. The court held that the platform possessed and should have fulfilled the basic obligation to review merchant qualifications. Its failure constituted gross negligence, and the court ordered the platform to bear full compensation for the user's damages. This judgment emphasized the platform's management responsibilities, imposing a high requirement for "reasonable limits," especially concerning basic review obligations related to personal safety.

2.2.2 Tendency Towards Exemption Based on Technological Neutrality

In Zhang v. A Social Platform, a user met someone through the platform and suffered property loss due to fraud during offline interaction. The platform defended itself by stating it "only provides information publishing and exchange services and cannot foresee or control user offline behavior." The court adopted this view, holding that the platform had no foreseeable possibility or control over the user's offline activities, and thus ruled the platform not liable. This judgment focused on the "intermediary" nature of the platform, tending to exempt platform liability for damages caused by user offline behavior based on technological neutrality and lack of control.

2.2.3 Dynamic Balancing Compromise Path

In Wang v. A Ride-Hailing Platform, a ride-hailing driver deviated from the route during nighttime service and assaulted the passenger. The platform failed to monitor and intervene in the route deviation in real-time but actively assisted the police and provided information after the incident [3]. The court held that considering the high risk of nighttime travel and the feasibility of existing technology for real-time monitoring, the platform was at fault for not taking more effective measures (e.g., strengthening alerts for abnormal routes at night). However, since the damage was mainly directly caused by the driver and the platform handled the aftermath properly, the court (ultimately ruled) that the platform bear 30% supplementary compensation liability. This judgment attempted a comprehensive assessment based on the specific scenario (service type, time, risk), platform capability (technical feasibility), and degree of fault (prevention vs. post-incident response), determining the liability share according to the degree of causal contribution [5]. However, some judgments reason the "reasonable limits" too abstractly (e.g., merely stating "the platform failed to exercise necessary duty of care"), lacking in-depth analysis of service type, specific risk points, actual platform capability, and cost-benefit, leading to insufficient legal reasoning and low predictability.

3. Construction and Improvement Directions for a Dynamic Scenario-Based Assessment System

Given that the essence of "reasonable limits" is dynamic, a "one-size-fits-all" standard should be abandoned in favor of constructing a scenario-based assessment system as the general path for determining platform liability.

3.1. Constructing a Three-Dimensional Dynamic Scenario-Based Assessment Framework

The "reasonable limits" of a platform's duty of safety should be dynamically determined by comprehensively considering the following three interrelated dimensions:

3.1.1 Service Type Dimension

Basic obligation levels should be divided according to the platform's core business attributes and inherent risks. For example, ride-hailing and medical health platforms directly involve user personal safety, thus having the highest obligation level; food delivery and food e-commerce platforms mainly involve food safety, with the next highest level; online marketplaces typically involve property security, with a lower level; while content social and information publishing platforms involve risks that are generally more indirect and diverse, with the relatively lowest obligation level [6].

3.1.2 Risk Level Dimension

Building on the basic type, risk variables in specific service scenarios need to be overlaid and considered, such as service content characteristics, including special circumstances like nighttime service, long-distance transportation, or high-value transactions; user group characteristics, e.g, situations where vulnerable user groups like minors or the elderly are concentrated; geographical or environmental features, covering special environments like high-crime risk areas or natural disaster-prone areas; and specific time periods or events, such as promotional peaks or sensitive periods for social events [7].

3.1.3 Platform Control Capability Dimension

It assess the platform's actual ability to foresee and prevent risks in specific scenarios, focusing on multiple aspects: technical feasibility, e.g., whether it supports real-time location tracking, AI behavior recognition, content filtering, and emergency contact notification functions; the scope and depth of data acquisition, including access to driver background information, user credit history, and real-time location data; furthermore, the economic cost required for prevention and control measures and the potential benefits should be comprehensively weighed.

In the scenario of minors tipping on live streams, the platform's service combines content social interaction and high-value transactions. The core risk lies in the potential for significant property loss due to minors' underdeveloped cognitive abilities. Technically, the platform already possesses capabilities like real-name authentication, facial recognition, and payment limit settings. Therefore, the platform should establish special mechanisms including mandatory identity verification, per-tip and daily tipping limits, a cooling-off period, and a parental confirmation mechanism.

In the ride-hailing nighttime service scenario, the platform service directly involves transportation and user personal safety. Increased nighttime crime rates pose a significant risk. Meanwhile, the platform can already employ technical means like GPS positioning, trip sharing, one-click emergency alerts, and audio/video recording. Based on these scenario characteristics and technical feasibility, the platform should further strengthen background checks for nighttime drivers – e.g., verifying their qualification for nighttime service, mandating the activation of trip recording, optimizing real-time deviation alerts, and enhancing safety reminders for passengers [8].

3.2. Introducing a "Risk Probability Model" to Quantify Reasonable Measures

Drawing on the "reasonableness test" principle proposed in §7 of the American Restatement (Third) of Torts, a quantitative assessment model can be constructed to assist in judging whether a platform's adoption or omission of a specific safety measure is reasonable. The core of the model can be expressed as: Reasonableness Judgment ≈ (Probability of Risk P × Severity of Harm S) / Cost of Prevention C. Here, Probability P refers to the statistical probability of a specific type of harm occurring in a given scenario, estimable based on platform-specific data, industry data, or public data. Severity S reflects the extent of loss typically caused by such harm, including personal injury, property damage, and mental distress, quantifiable by referencing historical compensation amounts and industry standards. Cost C refers to the economic cost, technical resources required for the platform to adopt or improve a specific preventive safety measure, and the potential negative impact of the measure on business efficiency.

In a ride-hailing sexual assault case, if platform internal data or industry reports indicate a historical probability P of serious sexual assault harassment for female passengers at night is approximately 0.1%; referencing similar cases, the average compensation S per such event is about 1 million RMB; and the cost C of deploying an AI real-time audio monitoring system covering all nighttime orders is about 5 RMB per order.

Calculation: (P × S) / C = (0.001 × 1,000,000) / 5 = 200. This value is much greater than 1, indicating the potential risk cost (200 RMB/order) far exceeds the prevention cost (5 RMB/order). In this case, the platform's failure to deploy this relatively low-cost measure, which can effectively deter and preserve evidence, constitutes a violation of the "reasonable limits" of the duty of safety.

3.3. Optimizing the Burden of Proof and Hierarchical Liability Determination Mechanism

To balance the difficulty of user proof and platform liability burden, a hierarchical determination mechanism is suggested:

3.3.1 Basic Fact Proof

The user (plaintiff) bears the initial burden of proof to demonstrate the use of platform services, the existence of damage, and a basic connection between the damage and the platform service (e.g., booked the involved ride-hailing service via the platform and paid the fare; purchased the problematic food from a merchant on the platform; made the disputed tip in a platform live stream room) [9].

3.3.2 Presumption of Fault and Platform Self-Justification

After the user fulfills the basic burden of proof, it is presumed that the platform was at fault for failing to fulfill the duty of safety within reasonable limits. The platform then bears the burden of proof to demonstrate that it has taken reasonable safety measures matching the service type, risk level, and its own control capability in that specific scenario (e.g., submit merchant qualification review

records, risk control logs, safety feature design documents, algorithm rule explanations, proof of historical safety investment, etc.).

3.3.3 Hierarchical Liability Determination

It Distinguish forms of liability based on the platform's degree of involvement and control over the occurrence of the damage:

Direct Liability / Joint and Several Liability: The platform's action is the main cause or necessary condition for the damage (e.g., failed to review or knew/should have known that the settled service provider – driver, merchant lacked basic qualifications or permits; the platform's own system defect directly caused the damage; the platform actively recommended or facilitated high-risk transactions/behavior and failed to provide conspicuous warnings).

Proportional Liability (Supplementary Liability): The platform failed to fulfill reasonable safety obligations, and its omission is a secondary or indirect cause of the damage (e.g., failed to exercise reasonable duty of care regarding third-party infringement; safety measures were inadequate but not fundamentally absent). The court should determine the compensation share the platform should bear based on the degree of its fault and the causal contribution of its omission to the damage result [10].

4. Conclusion

The content above includes the proposed dynamic scenario-based assessment system, the introduction of the risk probability model, and the optimization of proof rules and hierarchical liability. These can provide a quantifiable standard for determining the reasonable limits of platform obligations. Beyond these focal points, there is a greater need for future macro-level legislative and judicial guidance, and the active construction of a tripartite collaborative governance mechanism involving the government, platforms, and insurance, to fully protect user rights and achieve a multi-faceted balance between user rights protection, platform innovation, and judicial justice.

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