

# HOW TAKEOUT PACKAGING UNDERMINES CONSUMER RIGHTS: AN EMPIRICAL INVESTIGATION

YuanKun Liu

Guangzhou University School of Law, Guangzhou 510006, Guangdong, China.

Corresponding Email: [liuyanling6140@sina.com](mailto:liuyanling6140@sina.com)

**Abstract:** This paper, through empirical investigation, exposes the hidden violations of consumer rights in takeout packaging and attempts to propose corresponding countermeasures. The research findings reveal that takeout packaging issues pose invisible infringements on consumers' right to information, right to opt, right to just and fair dealings, and right to food safety. Consequently, this paper suggests establishing and improving laws, policies, and standards for takeout packaging, constructing a comprehensive and efficient regulatory mechanism, enhancing diversified dispute resolution mechanisms, and clarifying platform responsibilities and obligations.

**Keywords:** Takeout packaging; Hidden violations; Consumer rights; Right to information; Right to opt; Right to just and fair dealings; Right to food safety

## 1 INTRODUCTION

In recent years, China has entered a new phase of economic development, characterized by profound adjustments in economic models and industrial structures. The rapid growth of digital economy, platform economy, and sharing economy has been particularly notable. The takeout industry, as a product of the "lazy economy" and "fast-paced lifestyle" under the internet economy, has flourished alongside the expansion of platform economies. According to the "Annual Report on China's Sharing Economy Development (2019)" released by the State Information Center, the revenue share of the online food delivery industry experienced a significant increase from 1.4% to 10.6% between 2015 and 2018, with an average annual growth rate of approximately 117.5%, which is 12.1 times that of the traditional catering industry. [1]By 2021, the number of food delivery users had reached 540 million, and the revenue share of online food delivery had risen to 21.4%, doubling from 2018, thereby occupying a pivotal position within the catering industry. [2]While consumers initially seemed to enjoy increasing convenience and benefits, over time, the market has seen the emergence of numerous violations of consumer rights that are difficult to detect, with takeout packaging being a prime example.

Takeout packaging refers to containers, materials, and auxiliary items used in the circulation process to protect products, facilitate storage and transportation, and promote sales, employing specific technical methods. [3]In practice, as the use of takeout packaging has surged, some hidden issues have emerged: (1) Pricing issues, such as opaque pricing and excessive charges; (2) Quality issues, including packaging damage, leakage, and poor heat retention; (3) Environmental issues, such as over-packaging and plastic pollution. These issues infringe on consumer rights, disrupt market order, and exacerbate environmental pollution.

The initial purpose of setting packaging fees for takeout meals was to reduce the use of plastic shopping bags, guide consumers to use plastic bags rationally, and promote "green consumption". [4]However, the reality appears to deviate from this objective. Therefore, our research team raises the following concerns: First, is the pricing of takeout packaging fees reasonable? Second, in the process of charging packaging fees, are consumer rights respected and protected? Can consumers clearly understand the composition of these fees? Lastly, is the hygiene and safety of the packaging up to standard? Can it ensure that food safety is not compromised?

Given this context, this study aims to expose the hidden infringements on consumer rights in takeout packaging through multi-faceted investigations and propose corresponding recommendations and countermeasures. The ultimate goal is to establish and improve legal, policy, and standard systems, construct efficient regulatory mechanisms and diversified dispute resolution mechanisms, protect consumer interests, reduce environmental pollution, and promote the green and sustainable development of the takeout industry.

## 2 EMPIRICAL RESEARCH DESIGN

To comprehensively understand the hidden issues in the takeout industry and explore their infringements on consumer rights, this study primarily employs a combination of questionnaire surveys and in-depth interviews. For the questionnaire survey, convenience sampling and purposive sampling methods were used, distributing questionnaires to target consumer groups through social media, online forums, and email. To further investigate the underlying reasons behind merchants' packaging fees and their choice of packaging materials, the research team conducted face-to-face or telephone interviews with various takeout merchants in Guangzhou.

In analyzing and discussing the research results, this study utilized the Wenjuanxing platform and its SPSSAU platform for statistical analysis of questionnaire data. Interview transcripts were machine-transcribed and then manually organized and categorized by the research team to ensure accurate and in-depth understanding.

## 2.1 Questionnaire Survey

After literature review, focus group discussions, and preliminary surveys, the research team designed the "Takeout Packaging Issues Questionnaire." The questionnaire consists of 24 questions, divided into demographic information and main sections. The demographic section collects basic information such as gender, age, and occupation. The main section comprises four scales: (1) Perception of packaging costs, including transparency and reasonableness of fees; (2) Perception of packaging quality, including issues encountered (e.g., cost, damage, insulation, environmental friendliness); (3) Packaging material types, including the materials provided by merchants and consumers' awareness and approval of the packaging; (4) Environmental friendliness of packaging, including consumers' understanding and use of the "none" option and their willingness to choose eco-friendly packaging. Except for multiple-choice questions, some survey questions used a Likert five-point scale, ranging from "strongly disagree" (1) to "strongly agree" (5). From March to September 2024, the research team distributed the questionnaire widely online. By September 31, 2024, a total of 261 questionnaires were distributed, with 242 valid responses collected, yielding a response rate of 92.7%. The respondents were from regions including Guangdong, Shanghai, Beijing, and Shaanxi. Demographically, the gender ratio was 21:29 (male:female), with ages primarily between 18-50, and occupations including students, office workers, and freelancers. Given that takeout consumers are mainly young students and office workers, the sample is representative.

## 2.2 In-depth Interviews

From March to September 2024, the research team conducted semi-structured in-depth interviews with takeout merchants in Guangdong. The interviews aimed to comprehensively understand the current state of takeout packaging among merchants. In addition to collecting basic information and service profiles, the interviews focused on two issues: (1) The charging of packaging fees by takeout merchants; (2) The choice of packaging materials by takeout merchants. In selecting interviewees, the research team employed a combination of multi-stage random sampling and purposive sampling, ensuring sample diversity and randomness while considering the differences in packaging practices among merchants. All interviewees were informed of the interview's purpose, procedures, and confidentiality measures before the interviews began, and their informed consent was obtained.

## 3 ANALYSIS AND DISCUSSION OF RESEARCH RESULTS

Drawing on the investigation findings, this study identifies four primary areas of consumer rights infringements in takeout packaging: the right to information, the right to opt, the right to just and fair dealings, and the right to food safety.

### 3.1 The Right to Information

Article 8 of the "Law of the People's Republic of China on the Protection of Consumer Rights and Interests" (hereinafter referred to as the "Consumer Law") stipulates that consumers have the right to request information on the price, origin, producer, purpose, performance, specifications, ingredients, production date, shelf life, quality certification, usage instructions, and after-sales services of goods or services. The questionnaire data indicates that when asked whether merchants should provide detailed packaging information, the majority of consumers (72.8%) expressed a desire for sufficient information to make informed choices and only 29.5% of consumers believed that packaging information transparency was relatively high.

Further analysis of consumers' understanding of packaging details when ordering revealed that most consumers lacked sufficient information. Specifically, 65.9% were unaware of the type, specifications, performance, and grade of packaging materials; 50.57% were unclear about packaging costs; 32.18% were unaware of detailed packaging fees; and 28.74% were unaware of hidden charges. Only 6.13% of consumers claimed to know all the above information. This highlights a significant lack of transparency in takeout packaging information, with most consumers making choices without adequate knowledge.

### 3.2 The Right to Opt

Article 9 of the "Consumer Law" stipulates that consumers have the right to independently choose goods or services. However, our in-depth interviews reveal that most takeout businesses generally follow industry practices by sourcing from the same suppliers, resulting in very limited options for packaging materials and undermining consumer freedom of choice. The survey results show that while preferences for different types of meal boxes vary by cuisine, plastic materials still dominate merchants' choices, accounting for 86.21% of packaging. The use of eco-friendly materials such as paper boxes (33.33%) and biodegradable meal boxes (30.65%) has increased, while foam boxes (9.96%) and aluminum foil (18.01%) are less common but still hold a market share. For packaging bags, ordinary plastic bags remain the most common type, accounting for 83.14%, followed by biodegradable plastic bags (31.42%), paper bags (36.4%), and cloth bags (11.11%).

Regarding consumers' perception of merchants' packaging choices, only 16.09% of consumers reported being offered diverse packaging options, indicating that the majority (83.91%) were not given the right to opt. Additionally, 10.73%

of consumers felt that the packaging chosen by merchants was unsuitable. Therefore, It is evident that the majority of takeout businesses have not placed sufficient emphasis on or adequately considered the personalized needs of consumers. All in all, they have neglected their market responsibilities because of their failure to expand the range of packaging materials and safeguard consumers' right to opt.

### 3.3 The Right to Just and Fair Dealings

Article 10 of the Consumer Law stipulates that consumers have the right to just and fair dealings, including quality assurance, reasonable pricing, and accurate measurement, when purchasing goods or receiving services. They also have the right to refuse coercive trading practices by business operators. However, in the current online food delivery industry, platforms control the actual information about goods or services and possess strong dynamic pricing capabilities. They often exploit this ability to engage in "personalized pricing" for consumers, failing to disclose the true prices of goods or services. Additionally, individual consumers are often unable to determine whether the online prices they see are consistent with those seen by other consumers. [5]This frequently results in excessively high consumer prices.

The survey results reveal that a significant portion of consumers (55.17%) agree that food delivery packaging fees are too high. Among them, 31.42% of consumers "somewhat agree," while 23.75% "strongly agree." Only a small minority either "somewhat disagree" (5.75%) or "completely disagree" (3.07%).

To further explore this issue, analysis of the answers to the question "In the past six months, which of the following unreasonable packaging fee practices have you encountered?" reveals the following probabilities of occurrence (see Table 1):

**Table 1** Hidden Issues in Food Delivery Packaging Fees

Issue	Example	Probability of Occurrence
Excessive fees	Packaging fees account for an excessively large proportion of total expenses, even exceeding the price of the goods.	42.15%
Unreasonable pricing methods	Businesses charge by "portion," calculating fees based on the quantity or volume of goods, requiring consumers to pay for multiple portions even when fewer bags are used.	42.15%
Overcharging or multiple charges	Charging packaging fees for items that do not require additional packaging, such as canned beverages.	26.82%
Inconsistent fee standards	Significant differences in packaging fees for similar goods across different businesses, or even within the same business for items of the same size and weight but different flavors.	24.90%
Disproportionate fees to material quality and cost	Businesses use low-quality, inexpensive materials but charge high fees.	36.02%
Other issues	Consumers cannot cancel duplicate packaging fees; The milk tea shop enforces the use of insulated bags for drink delivery; there is a discrepancy in packaging fees between online and offline orders; and the labeling of packaging fees is unclear.	0.77%

In summary, the above analysis results indicate that high packaging fees and various unreasonable charging practices constitute coercive trading behaviors by takeout businesses, infringing on consumers' right to just and fair trading.

### 3.4 The Right to Food Safety

To analyze the prevalence and frequency of food safety issues caused by takeout packaging, the research team conducted a frequency distribution analysis of the questionnaire item, "Have you encountered the following issues when ordering takeout?" The data shows that among consumers who selected "poor insulation, susceptibility to moisture, poor sealing, etc.," occasional encounters were the most common (57.73%), followed by frequent encounters (23.71%), and always encountering such issues was the least common (4.12%). For "chemical residues, unsanitary conditions, environmental unfriendliness, etc.," occasional encounters were the most frequent (51.61%), followed by frequent encounters (30.11%) and always encountering such issues (7.53%).

These results may seem to be positive. However, the truth lies in the fact that many consumers may not directly perceive the hazards of packaging materials in daily consumption. Issues such as chemical residues, unsanitary conditions, or environmental unfriendliness not only reflect inadequate physical properties of materials but may also indicate the potential migration of harmful components. For example, poorly insulated and sealed packaging cannot effectively isolate external contamination, potentially leading to food moisture, oxidation, or microbial contamination, accelerating food spoilage. Chemical residues primarily originate from additives in packaging materials, such as plasticizers and bisphenol A. Unsanitary packaging conditions may lead to microbial contamination, such as bacteria and mold. Additionally, harmful components in materials may migrate into food during storage and transportation. For instance, phthalates and bisphenol A in plastic packaging may leach into food when exposed to high temperatures or oily foods, while fluorescent whitening agents in paper packaging may transfer to food upon contact. [6]Therefore, the survey results still demonstrate that the occasional or frequent incidence of non-standardized packaging in takeout food

should not be disregarded, as it may pose significant health risks to consumers and result in serious food safety concerns, which could lead to substantial violations of consumers' right to food safety.

#### **4 COUNTERMEASURE ANALYSIS: PROTECTING CONSUMER RIGHTS**

Based on the above analysis of empirical investigation data and literature review, the research team has formulated some countermeasures aimed at enhancing consumer rights protection within the rapidly evolving food delivery industry.

##### **4.1 Establishing and Improving Laws, Policies, and Standards for Takeout Packaging**

Currently, China's legal regulations on takeout packaging are scattered across laws such as the Consumer Protection Law, Price Law, Food Safety Law, Environmental Protection Law, and Product Quality Law. Basic consumer rights such as the right to information, right to opt, and right to just and fair dealings are only broadly outlined in the Consumer Protection Law. The Solid Waste Pollution Prevention and Control Law provides guiding provisions on the responsibility for pollution caused by takeout packaging waste. Although the Circular Economy Promotion Law and the Clean Production Promotion Law mention environmental requirements for takeout packaging, they lack detailed implementation guidelines.[7]

At the policy level, while there are policies addressing food safety and environmental management, specific packaging requirements for the takeout industry are still lacking. Although the government advocates for eco-friendly packaging and reducing plastic pollution, the lack of systematic policy support for takeout packaging has led to practical challenges for businesses in implementing environmental policies, such as cost control and supply chain management, resulting in limited enforcement.

In terms of standards, a dedicated standard system for takeout packaging has yet to be established. Existing standards primarily focus on food quality and safety, with insufficient detailed regulations on the selection, use, and recycling of packaging materials. This lack of clear guidance for producers and consumers in choosing packaging materials poses challenges for the green development of the takeout industry.

Establishing and improving laws, policies, and standards for takeout packaging does not refer to a single regulation but rather a scientific system comprising multiple laws, policies, and standards related to takeout packaging. Vertically, this system should include national laws and regulations, local government standards, and industry standards set by associations and major platforms. Horizontally, it should cover the production, sale, use, and recycling of takeout packaging, ensuring comprehensive management from source to end.[7]

##### **4.2 Constructing a Comprehensive and Efficient Regulatory Mechanism**

First, introduce a business behavior review mechanism to strengthen the examination and supervision of merchant qualifications, ensuring that they meet market entry standards with good credibility and service quality, thereby reducing disputes caused by improper business practices. Government departments should enhance business license approval processes, strictly control market entry thresholds, and establish comprehensive review mechanisms covering product development, pricing, and packaging to promptly identify and correct behaviors that may harm consumer rights.[8]

Second, strengthen the dual regulatory responsibilities of administrative departments and takeout platforms, forming a multi-stakeholder governance model led by the government, with industry associations and the public as supplementary forces. Accelerate the construction of an online regulatory information system, enhance the data analysis capabilities of industrial and commercial administrative departments, and improve the collection and management of online market entity information. By establishing a comprehensive database of online business entities and implementing credit rating functions, ensure the precision and efficiency of regulatory work. Regularly conduct spot checks on takeout packaging, requiring producers, users, and sellers to rectify non-compliant packaging materials within a specified period and guiding them to transform their production and sales methods.[9]

##### **4.3 Improving Diversified Dispute Resolution Mechanisms**

Platform-internal dispute resolution mechanisms, characterized by independence, convenience, and professionalism, provide consumers with efficient avenues for resolving disputes. This study analyzed data on the outcomes of complaints regarding packaging issues on platforms. Consumer satisfaction with platform complaint handling showed some divergence, with the highest proportion being "somewhat satisfied" (40.71%), followed by "neutral" (47.14%). This indicates that most consumers hold neutral or somewhat satisfied attitudes toward the resolution outcomes.

However, relying solely on platform-internal complaint mechanisms is insufficient. Expanding judicial remedies is essential. In practice, the amounts involved in consumer-merchant disputes are often small. Considering litigation costs, specialized small claims courts and online small claims platforms can be established, with relaxed standards for small claims in consumer disputes. Additionally, strengthening consumer associations' litigation rights and establishing consumer dispute arbitration tribunals can effectively address issues such as lengthy litigation time and adducing evidence difficulties.[10]

#### 4.4 Clarifying Platform Responsibilities and Obligations

From the perspective of basic legal relationships, the completion of a takeout transaction involves three parties: the consumer, the platform, and the merchant. As an intermediary in civil law, the platform is obligated to provide contracting opportunities and facilitate the completion of transactions. Specifically, in the takeout ordering process, the platform must provide accurate merchant information, supervise merchants in disclosing packaging information, and facilitate the formation of contracts between consumers and merchants. Simultaneously, the platform must ensure that consumers have the right to autonomously choose whether to use packaging during the contracting process.

From the perspective of platform responsibilities, takeout platforms, as profit-making entities that distribute profits to shareholders and other investors, inherently bear social responsibilities. Given the significant influence of takeout platforms in social life, they should actively promote resource conservation and environmental protection through various means within the platform. Leveraging their extensive user base and communication capabilities, platforms should advocate for eco-friendly packaging materials and reduce unnecessary packaging through internal and external channels.

#### 5 CONCLUSION

This study, through an in-depth investigation of the hidden takeout packaging issues, reveals the infringements of consumers' rights to information, right to opt, right to just and fair dealings, and right to food safety in takeout packaging. To address these issues, we propose several countermeasures, including establishing and improving laws, policies and regulations for takeout packaging, constructing efficient regulatory mechanisms, enhancing dispute resolution mechanisms, clarifying platform responsibilities and obligations to protect consumer rights, and promote the sustainable development of the takeout industry.

Finally, the issue of takeout packaging is not only a matter of consumer rights protection but also a concern for people's livelihoods, national grassroots rule of law, and social sustainable development. Through this research, we hope to draw widespread attention from all sectors of society and promote the introduction and improvement of relevant laws and policies, contributing to the construction of a healthier and greener takeout ecosystem. Future research could further explore how technological innovation can optimize takeout packaging solutions and how international cooperation and exchange can be promoted in a globalized context to jointly address this global challenge.

#### COMPETING INTERESTS

The author has no relevant financial or non-financial interests to disclose.

#### FUNDING

This research was funded by Guangzhou University and has been awarded the Second Prize in the 19th "Challenge Cup" Extracurricular Academic Science and Technology Works Competition of Guangzhou University.

#### REFERENCES

- [1] National Information Center, China Sharing Economy Development Annual Report (2019). Ministry of Informatization and Industrial Development, March 1, 2019. [http://datasec.sic.gov.cn/sic/82/568/0301/9902\\_pc.html](http://datasec.sic.gov.cn/sic/82/568/0301/9902_pc.html).
- [2] National Information Center, China Sharing Economy Development Annual Report (2022). Ministry of Informatization and Industrial Development, February 22, 2022. [http://www.sic.gov.cn/sic/82/568/0222/11273\\_pc.html](http://www.sic.gov.cn/sic/82/568/0222/11273_pc.html).
- [3] Wang Shoupeng. Research on the Governance Strategy of Excessive Takeout Packaging from a Legal Perspective. *Shanghai Packaging*, 2024, (06): 138-140. DOI: 10.19446/j.cnki.1005-9423.2024.06.045.
- [4] Zhang Wenli, Liu Songyao. Takeaway Packaging Fees: Unreasonable Charges and Hidden Costs. *China Quality Daily*, 2024, T06. DOI: 10.28164/n.cnki.nczlb.2024.000815.
- [5] Dengya Zhu, Hongchuan Wang, Elizabeth Chang. Information Ecological Imbalance and Information Intervention Policies in Digital Ecosystems. 2009 3rd IEEE International Conference on Digital Ecosystems and Technologies. 2009, 487-492. DOI: 10.1109/DEST.2009.5276746. <https://ieeexplore.ieee.org/stamp/stamp.jsp?tp=&arnumber=5276746>.
- [6] Gong Feifei, Qiu Songlin. Problems and Countermeasures of Takeaway Food Packaging. *Fujian Light Textile*, 2023, (05): 16-20. DOI: 10.3969/j.issn.1007-550X.2023.05.004.
- [7] Wang Shoupeng. Research on the Governance Strategy of Excessive Takeout Packaging from a Legal Perspective. *Shanghai Packaging*, 2024, (06): 138-140. DOI: 10.19446/j.cnki.1005-9423.2024.06.045.
- [8] Yuan Jin. On the Conflict Between Business Autonomy and Consumers' Right to Free Choice. Master's thesis, Nanchang University, 2022. DOI: 10.27232/d.cnki.gnchu.2022.003470.
- [9] Cao Yinxiao. Research on the Right to Food Safety Protection for Consumers in China. Master's thesis, Wuhan Institute of Technology, 2016.

- [10] Yuan Jin. On the Conflict Between Business Autonomy and Consumers' Right to Free Choice. Master's thesis, Nanchang University, 2022. DOI: 10.27232/d.cnki.gnchu.2022.003470.