

## Discussion of Establishing Food Safety Control Mechanism of Catering O2O in Distribution Link

Shuyao Guan<sup>1</sup>, Yilei Pei<sup>2\*</sup>, Xiaole Liu<sup>1</sup>, Wanxin Xue<sup>2</sup>, Dandan Li<sup>2</sup>, Yinrui Shen<sup>2</sup>

<sup>1</sup>College of Applied Science and Technology, Beijing Union University, Beijing, 100101

<sup>2</sup>Management College, Beijing Union University, Beijing, 100101

E-mail: guanshuyao@126.com; peiyilei@126.com; 18132787840@163.com; xuewanxin@126.com; lidandanhdj@163.com

**Keywords:** catering O2O, distribution link, food safety control mechanism

**Abstract:** With the rapid development of China's Internet economy, the O2O market of catering industry has formed the blowout growth. But meanwhile, the supervision of catering distribution industry in China is lack of unified industry standards. There are some problems, such as such as difficult quality and safety assurance, poor packaging, difficult standardization of distribution tools, poor quality of distribution staff and frequent complaints against distribution staff. In order to strengthen the supervision and administration of food safety of network catering services and ensure food safety of catering O2O in distribution link, it is necessary to establish food safety control mechanism. Based on food safety chain, the paper establishes food safety control mechanism of catering O2O in distribution link, through building the system to plan as a whole power of administrative supervision from the perspective of the government, strengthening the supervision and education of platform enterprises and logistics and distribution teams from the perspective of O2O catering platform, enhancing supervision effectiveness at the source from the perspective of O2O catering enterprises, and improving distribution quality, means and methods from logistics distribution teams.

### 1. Introduction

In recent years, with the accelerated pace of work and continuously deepen Internet applications, take-out distribution business has come into being and grown rapidly. According to the report released by Media Research, the scale of China's catering O2O market exceeded 300 billion RMB in 2017. The total sales volume of "Mei Tuan" was up to 171 billion, and cooperative enterprises exceeded 2 million. The O2O market of catering industry has formed the blowout growth.

### 2. The necessity of establishing food safety control mechanism of catering O2O in distribution link

China's food safety standards can be divided into four levels roughly: group standards, local standards, industry standards and national standards. Social organizations can formulate group standards without national standards, industry standards and local standards. Business Industry Branch of China Council for the Promotion of International Trade launched the "Norms for Take-out Distribution Service" in 2017 officially. As a group standard, the norms can arouse the attention of all parties to the problem of take-out distribution, and also establish and promote the industry's internal self-discipline. But it is not a national mandatory standard, so it is difficult to solve many problems of the current take-out distribution fundamentally.

### 3. The way of establishing food safety control mechanism of catering O2O in distribution link

In the face of such problems, authors think to build the food safety control mechanism of catering O2O in distribution link based on "four-dimensional integration", as Fig. 1 below.

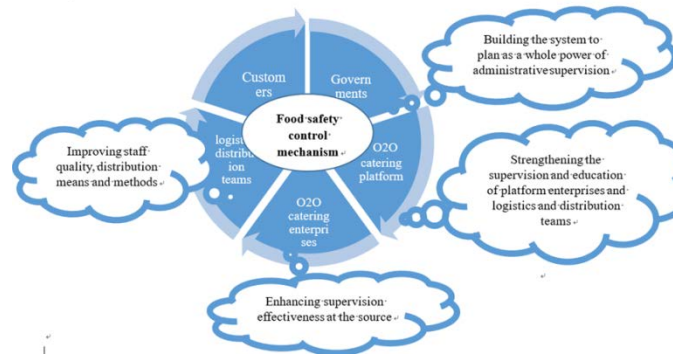


Figure.1 Food safety control mechanism of catering O2O in distribution link based on “four-dimensional integration”

The “four-dimensional integration” is composed of four parties, namely, the relevant government supervision and administration departments, O2O catering platforms, O2O catering enterprises, and logistics and distribution teams, and is a three-dimensional and four-dimensional synergy paradigm. In it, four parties cooperate with each other, promote each other, and form a closed-loop ecological system, which breaks the previous binary safety control mechanism formed only by government supervision and administration departments and enterprises, gives play to characteristics and roles of different parties through multi-party participation, makes each party cooperate with each other, and forms resultant force to ensure the operation and construction of food safety control mechanism of catering O2O in distribution links.

### 3.1 Building the system to plan as a whole power of administrative supervision from the perspective of the government

Food safety of catering O2O in distribution link has a direct impact on people’s live safety, which is a livelihood issue that can not be ignored. After the 19th National Congress of the Communist Party of China, the government proposes to implement the food safety strategy actively and take food safety as the first priority, and attaches great importance to food safety in distribution link.

The first step is to build a multi-agent industry supervision system. The government should join hands with catering platforms, catering enterprises and logistics and distribution teams, make use of big data and other scientific and technological means to realize the visualization and informationization of all data for each participant.

The second step is to build a multi-dimensional monitoring system of ecological platform jointly. Governments should supervise all participants on the platform through administrative means, and create the scoring system. Governments should formulate scoring rules and procedures to ensure the fairness and impartiality of the scoring, with industry associations and experts together. The scoring system is composed of the government’s supervision scoring for each participant, mutual scoring among related participants, and public scoring three parts, through which, forming a quarterly comprehensive scoring of each participant eventually, as the basis of choosing the platform for customer, and also the basis of establishing monitoring objects for the government in the next step. Governments should focus on supervision and inspection, increase the intensity of management and supervision, for enterprises with poor scoring; and adjust the intensity and frequency of supervision appropriately, for enterprises with higher scoring.

The third step is to take the lead by the government, and further strengthen and establish the relevant industry standards and regulations for distribution link. Although “Food Safety Supervision and Management Measures on Network Catering Services” is promulgated and implemented at the beginning of this year in China, and there are also some standardized requirements for distribution link, overall, they are not detailed and specific enough. There are no clear division of responsibilities and specifications for each responsible party, there is no corresponding promulgation of disciplinary measures, and no corresponding disciplinary measures, so the relevant government functional departments should establish industry standards or management methods

focusing on food safety of catering O2O in distribution link, in which governments should make respective responsibilities and requirements of O2O catering take-out platforms, O2O catering enterprises and logistics and distribution teams clear, and promulgate and implement the corresponding reward and punishment measures. On the one hand, governments should give severe punishment on the platform, enterprise or distribution team with problems, expose them, and downgrade the corresponding credit rating; on the other hand, governments should make positive report for excellent platforms, enterprises, and distribution teams, provide more publicity, and increase the scoring, so as to promote their healthy development.

Finally, the relevant government functional departments should plan as a whole relevant function, focus on distribution links and innovate supervision methods. In the past, the relevant government departments all had their own functions and extent of jurisdiction. For example, China Food and Drug Administration is only responsible for the safety of the food supply links, Departments of Administration for Industry and Commerce is responsible for the clearness of catering industry subject responsibility and consumers' rights protection. Catering O2O distribution involves more supervision and administration departments and subjects, so governments should innovate supervision methods, and draw lessons of related supervision experience from foreign countries. For example, the United States establishes a multi-department joint law enforcement supervision, leads by the President's Food Safety Commission, supervise and operate independently, to ensure the efficiency and pertinence of supervision. Hence, China can also set up the special network food safety group which is planned as a whole by the government and is composed of a number of relevant administrative departments, and supervise and control all links of network food safety. In the mode of supervision, there are also breakthroughs in the inherent system barriers, which are to break through the original mode of registered place supervision, and to use a more flexible and more satisfying way.

### **3.2 Strengthening the supervision and education of platform enterprises and logistics and distribution teams**

First, O2O catering platforms should strengthen the sense of responsibility and attach great importance to the safety issues arising in distribution link. As an important carrier connecting logistics and distribution team and O2O catering enterprises, platforms should screen and check the admittance to each catering enterprise and logistics and distribution team at the source strictly, inspect whether each O2O catering enterprise has food production and safety permission, as well as logistics and distribution team's distribution qualification or not completely, and select qualified enterprises to enter the platform for O2O catering supply and distribution.

Second, according to the government's industry scoring system, O2O catering platforms should establish the corresponding platform internal scoring system. They should assess and score catering supply enterprises and logistics and distribution teams that have entered the system periodically, and make the monthly and annual summary based on customers' evaluations. For those backward enterprises, O2O catering platforms should rectify problems; for the last enterprise in scoring, implement the withdrawal mechanism.

Third, O2O catering platforms should strengthen the training and education of existing enterprises. The platforms should hold regular training seminars, invite experts of industry policy and law to train the latest industry policies and current laws and regulations for O2O catering enterprises and logistics and distribution teams existing on the platform

### **3.3 Improving supervision effectiveness at the source from the perspective of O2O catering enterprises**

As the supplier of providing products directly in distribution links, the first important task of O2O catering enterprises is to ensure the safety of the food produced first. If the food itself is unsafe product, the guarantee of all distribution links will be useless

In addition, as catering enterprises, after the food is cooked, it is not be ignored for catering food distribution packaging chosen. As an important carrier for carrying food in distribution links, the packaging should be healthy and harmless, easy to preserve and deliver, with the environmental

biodegradable characteristics, which requires catering enterprises should choose the standard food packaging, in order to provide a strong guarantee for food safety in distribution link. Meanwhile whether catering enterprises choose qualified packaging or not will become the assessment indicator of scoring system government and platform lead.

### **3.4 Improving distribution means and methods from logistics distribution teams**

As the main part of the whole distribution process, logistics distribution team plays an important role in ensuring the safe delivery of food between catering enterprises and users. Therefore, the quality and level of logistics distribution team directly determines the safety and quality of food distribution. Today's logistics distribution teams are divided into platform's self-management team and professional third-party team. They just belong to different management parties, but the essence of its core management is the same, and they both implement the management through the core three elements of logistics distribution, namely, logistics distribution staff, logistics distribution tools and logistics distribution mode. Therefore, to enhance food safety of catering O2O in distribution link should start from these three aspects.

First of all, focus on factors of staff. First, it is indispensable to enhance the admittance to catering industry for logistics distribution staff. First, they should have the basic quality of express industry; Second, they should have a certain understanding and cognition of catering industry; Third, they should have qualified health certificate; More importantly, enterprises should train staff regularly. On the one hand, they should train the business; on the other hand, they should train the laws and regulations of the industry. Meanwhile, they should set up the assessment system of the enterprise in accordance with the requirements of the industry, and train and supervise logistics distribution staff in real time.

In distribution tools, the one is to maintain the applicability of distribution tools, and select the corresponding professional distribution tools to ensure the freshness and temperature of food. The other one is to maintain the safety and cleanliness of distribution tools, and implement regular inspection and replacement.

In distribution mode, establish a variety of logistics chains actively, including cold chain, hot chain, and fresh-keeping chain, in order to adapt to the needs for different foods, thus to meet the requirements of food temperature and humidity.

## **4. Conclusion**

Based on food safety chain of catering O2O in distribution link, the paper establishes food safety control mechanism of catering O2O in distribution link, through building the system to plan as a whole power of administrative supervision from the perspective of the government, strengthening the supervision and education of platform enterprises and logistics and distribution teams from the perspective of O2O catering platform, enhancing supervision effectiveness at the source from the perspective of O2O catering enterprises, and improving distribution quality, means and methods from logistics distribution teams.

## **References**

- [1] Peng Liu, Wendai Li. Network Order Food Safety Supervision: Based on the Perspective of Smart Supervision Theory [J] Journal of Central China Normal University (Humanities and Social Sciences Edition), 2018, 57(01):1-9
- [2] Lan Hong, Xiang Rong Yin, Construction of Network Order Food Safety Early Warning System from the Perspective of Social Co-governance—Based on Bayesian Network Model[J].Journal of Intelligence,2018,37(07):132-138+44.
- [3] Zheng Pin Xia,The Supervision of Catering Delivery needs “means”[J].Journal of Food Safety Guide,2016(11):5.
- [4] Chuan Cao,HuanHuan Dai, Peng Ju, Comparative Study on Chinese and Foreign Food Safety

Supervision System[J].Journal of Anhui Agricultural Sciences,2017,45(14):243-245+248.

[5] KeShan Wang,Xin Su.The Evolution Track and Characteristics of China's Food Safety Policy[J].Reform,2018(02):31-44.

[6] Zhe Niu.Research on the social co-governance of food safety under the background of the new era [J]. Journal of Food Safety Guide, 2018(15):13+15.

[7] Xie Yan,DaoZhi Zhou, Fengxian Zeng. Research on Food Safety Supervision System in Major Developed Countries[J].Modern Food,2018(07):60-62+65.

[8] JiaYi He.The Perfection of China's Network Order Food Safety Supervision Legal System [J]. Legal System and Society, 2018(07):27-28.

[9] FengXia Zheng.A preliminary study on the safety supervision of food ordering on the Internet--based on the perspective of effective connection between third-party platforms and government supervision [J].Legal System and Society,2017(17):192-193.