

Research on the Food Safety Situation of Online-to-Offline Food Delivery Industry in China

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【Objective】

With the rapid growth of economy and fast innovation of internet technology, China has been enjoying a dramatic growth of e-commerce in the past few years. China's e-commerce market size has become the biggest in the world with the total transaction volume of e-commerce reached 34.81 trillion yuan (\$4.98 trillion) in 2019 and over 900 million online shoppers. Since 2012, the Online-to-offline (O2O) food market began to emerge in China, which provides consumers with more diversified choices regarding their everyday catering lives. However, due to the lack of awareness and imperfect regulation, the newly emerging industry has posed inevitable challenges and additional food safety risks to the whole of the food industry has had an asymmetric effect, within the O2O food delivery market, and may occur in all aspects of production, processing, packaging, circulation and consumption due to the virtual nature of network transactions.

This research aims to provide us an overall picture of food safety in the O2O industry and to provide a reference for policy makers in the future. The following research questions have been formulated to achieve the aim of this study: 1. How has O2O food delivery industry developed in the past few years? 2. How do delivery riders view food safety issues in the O2O food delivery industry? What are their perceptions toward hygienic status, business qualification, distribution process and packaging materials? 3. How did consumers view the O2O food delivery industry under Covid-19 pandemic?

【Method】

The author conducted a descriptive and case study approach in this research to examine the food safety situation of the O2O food delivery industry and the consumer's perception of O2O food delivery industry under Covid-19. Secondary data were collected from documents, government and nongovernment reports. Data regarding consumers and suppliers has been gathered mainly from statistical data published in government reports and O2O platforms. Primary data of the case study was collected via field surveys in Shanghai in July and August 2019. Face-to-face interviews and questionnaire were conducted to investigate delivery riders in Shanghai in order to gain a deeper understanding of the current situation surrounding food safety in China's O2O food industry. Data of consumer's perception toward O2O food delivery industry under Covid-19 was conducted from February 6 to February 16, 2020 in two selected cities, Beijing and Shanghai in China. The author commissioned Makromir Co., Ltd. to conduct a questionnaire survey of 2080 consumers, among which 1040 consumers in Beijing and Shanghai each to investigate their basic information, consumption habits, preference for food delivery services, and problems that are expected to be improved.

【Results】

Results show that the main factors affecting food safety in the O2O food delivery industry from the riders' perspective are raw materials and processing, packaging boxes made with inferior materials. Food safety issues respondents most concerned about in distribution are food deterioration in transport due to long waiting time, delivery box not disinfected daily and become unhygienic, food mixing with foreign matter, as well as damage to containers during transport or traffic accidents. For reasons of

business efficiency and in order to comply with delivery times, the following issues pertinent to each subject will affect food safety: The platform partners with unlicensed restaurants, the rider fails to completely disinfect the distribution container, and the rider is involved in a traffic accident. Delivery riders also show great concerns for road safety risks and their working environment.

Online food delivery service has played a critical role for ensuring the food supply as most of the offline restaurants closed or stopped dine-in service under the impact of the Covid-19 pandemic. Results of consumer's perception towards online food delivery services show that over 70 percent of people use online delivery services three times a week and food safety issues have the highest concern for consumers. Regarding the areas that need to be improved in this industry, consumers believe that the introduction of a certification system and strengthening the information disclosure is necessary.

【Conclusion】

There is still much room for improvement in the aspect of the strengthening of regulations and supervision by government in the O2O food delivery industry, not only to ensure the food safety, but also for the health and safety purpose of participants of this industry. Both regulators and delivery platforms have to pay close attention to address the concerns encountered by delivery riders, such as road safety and working environment. Efforts such as control of the total number of orders dispatched to riders and explored the approaches by giving riders more choices to select or refuse orders without affecting future order allocation must be taken into considerations. At the same time, increasing investment in conducting more effective safety education courses for riders and promote industry guidelines are also urgently needed to clarify each participants' rights and obligations. In addition to regulation and supervision from government and food delivery platforms, industry association and consumer association must also take part in ensuring the food safety in O2O food delivery industry. Industry association could form partnership with government to make and promote industry guidance to help participants to understand and meet food safety standards. Consumer associations could work with platforms to facilitate the communication between consumers and other operators of O2O food delivery industry regarding food safety they concerns as well as how to eat in a healthy way.