How do online meal ordering platforms impact the agency problem in the takeaway service of restaurants

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Abstract. The increasing prevalence of e-commerce and mobile technology has led to a surge in popularity of online ordering platforms, which have significantly impacted the agency problem within restaurant delivery services. This paper examines the agency issues involved in restaurant takeaway services, analyzes in detail the positive and negative impacts of online meal ordering platforms on the agency issues of restaurant takeaway services, and puts forward targeted policy suggestions for the negative impacts.

Keywords: Online meal ordering platforms; agency problem; takeaway service of restaurants.

1. Introduction

In recent years, the advancement of science and technology has significantly influenced consumer-business interactions. The increasing prevalence of e-commerce and mobile technology has led to a surge in popularity of online ordering platforms. The global food ordering and delivery market is worth more than $150 billion, with valuations tripling since 2017[1]. The surge in this trend has been further propelled by shifts in consumer demand, as individuals increasingly prioritize convenience and efficiency in their purchasing behaviors. The research disclosed that in the time span from 2018 to 2021, roughly three-fourths of adults in Australia, Canada, Mexico, the United Kingdom, and the United States would purchase at least one meal per week that was made outside their homes, and between one-fourth and one-third would make use of online food delivery services. Furthermore, the average quantity of meals bought through online delivery services nearly doubled in all these countries from 2018 to 2021, while the overall purchases of meals prepared outside the home hardly changed [2].

Advancements in business models also have played a pivotal role in the rise of online ordering platforms. Companies are continuously exploring novel approaches to engage with customers and deliver a seamless shopping experience. Consequently, there has been a proliferation of diverse online ordering platforms catering to various industries such as food delivery, grocery shopping, and even healthcare services. With technology advancing at an accelerated pace and consumer demands becoming increasingly varied, the expansion of online ordering platforms is anticipated to persist. The incorporation of artificial intelligence, virtual reality, and other state-of-the-art technologies is poised to further enrich the user experience on these platforms. Moreover, businesses will be required to adjust their strategies to meet the evolving consumer demands for customization and personalization. In general, it is evident that online ordering platforms are continuing to expand as technology progresses and consumer preferences evolve.

2. Agency Problem in the Takeaway Service of Restaurants

Before delving into an analysis of the impact of online ordering platforms on restaurant delivery services, it is pertinent to briefly examine the concept of agency problem. Agency problems manifest when there is a conflict of interest between the principal (the individual delegating the work) and the agent (the individual executing the work), stemming from discordant motives or asymmetric information. This issue commonly arises when the actions of the agent influence the outcomes for the principal, yet full monitoring or control over these actions is not feasible. The fundamental components of agency problem encompass the principal-agent relationship, conflict of interest, information asymmetry, and associated costs. A remarkable instance is the bankruptcy filing of the energy giant Enron in 2001. Accounting reports were faked to create the perception that the company possessed more funds than it actually earned. These counterfeits resulted in the rise of the company's share price when executives sold some of their shares. When Enron declared bankruptcy, it was the biggest bankruptcy in the United States at that time. Despite the obligation of Enron management to protect the best interests of shareholders, the agency problem led management to act only in its own best interests [3].

Prior to the advent of online ordering platforms, issues of agency were confined to the relationship between restaurants and deliverymen. When the interests of both parties are not perfectly aligned, agency issues arise between the restaurant and the deliverymen in the context of a food delivery service. The restaurant, as the principal, depends on the deliverymen, acting as an agent, to efficiently deliver food to customers in good condition. However, there is potential for divergence in priorities as the deliverymen may prioritize their own convenience or revenue over those of the restaurant and customer.

The advent of online food ordering platforms has significantly impacted the agency problem within restaurant delivery services. With the introduction of these platforms, restaurants continue to act as the principal while the platform and delivery staff serve as agents. In the realm of restaurants and delivery services, agency problems might encompass: delivery partners giving precedence to personal convenience over prompt service. Restaurants might make compromises on quality with the aim of maximizing profits. Platforms are preoccupied with their commissions instead of ensuring the profitability of restaurants or customer satisfaction. Online food ordering platforms have exerted numerous positive as well as negative impacts on these agency issues.

3. Positive Impacts on Agency Problem

Let's initially concentrate on the positive effects. Delivery time and the services provided by various platforms, the availability of discounts and offers, the quality of food, as well as the opinions and reputations of the products or restaurants are the key factors that most people consider when ordering food online. These elements have a considerable impact on shaping their decisions and influencing their choices. The high quality of food is of the greatest importance as it directly affects dining satisfaction. Furthermore, the positive reviews and good reputations of the products or restaurants build trust and confidence, encouraging people to make orders. So online food ordering platforms have considerably enhanced supervision and accountability. They have utilized advanced technologies to accurately trace and closely supervise each order, thus providing a high degree of operational transparency. Distinctive aspects like real-time delivery tracking and comprehensive customer feedback mechanisms have been of vital significance in minimizing information asymmetry. Through these systems, the performance of delivery partners can be carefully monitored and evaluated continuously. This vigilant supervision helps to effectively lower the probability of any evasion or non-compliance, guaranteeing a smooth and reliable food delivery procedure. Online food ordering platforms combine technology, policies, and feedback systems to supervise and make restaurants and delivery man responsible. For restaurants, performance indicators serve as a crucial standard: the platform records the time for restaurant preparations, the accuracy of orders, and customer evaluations. Metrics like delivery durations, food quality, and order consistency are examined to spot restaurants with poor performance. Customer feedback is also extremely important: reviews and ratings are collected after each order. Frequent grievances about quality, hygiene, or incorrect orders may cause penalties or removal from the platform. The platform also conducts regular health and compliance checks: some platforms carry out regular audits or require health certifications. Complaints of foodborne diseases are investigated, and serious cases might lead to delisting. For the deliverymen, the platform conducts real-time tracking. Through GPS tracking, the platform can supervise the delivery routes, times, and compliance with assigned tasks [4]. Unnecessary delays or deviations from the routes are flagged for review. Customer and restaurant ratings also act as an effective measure: Deliverymen are evaluated by customers and, in certain circumstances, by restaurants. Repeated low ratings may result in performance reviews, retraining, or suspension. At the same time, the platforms also perform an order handover audit: Some platforms mandate the delivery person to take a photo or obtain a digital signature upon delivery to confirm the completion of the order.

Furthermore, the incentive mechanism of the network platform has had an extremely notable and positive effect. Online food ordering platforms provide financial incentives, increased visibility, operational assistance, and performance-based rewards to stimulate restaurants and deliverymen. For restaurants, to begin with, online ordering platforms contribute to the expansion of their market coverage. These platforms provide a wider customer group, enabling restaurants to draw in more orders and frequently showcase those with outstanding performance or popularity, thereby increasing visibility and potential sales as well as revenue. Secondly, online food ordering platforms make use of big data to carry out detailed analyses of customer preferences, order trends and peak periods to help restaurants optimize menu and pricing strategies and guide inventory management, reducing waste and improving profitability [5]. Thirdly, online ordering platforms boost the operational efficiency of restaurant delivery services. The platform manages the distribution logistics, relieving restaurants from the burden of maintaining their own deliverymen and facilitating their concentration on food preparation [6]. This allows restaurants to devote more time and energy to enhancing the quality of food. Fourthly, the network platform will implement a performance-based reward mechanism. Restaurants that have high customer ratings and punctual service are more likely to be ranked higher in the search results, thereby motivating restaurants to maintain quality and timely service. For the deliverymen. The platform adopts performance incentives for salespeople. For example, Peak demand surges and incentives (such as during lunch/dinner periods or adverse weather circumstances) present prospects of higher earnings. Deliverymen are compensated for completing a certain number of deliveries, delivering punctually, or maintaining high customer ratings, and the platform rewards delivery man with excellent performance by giving them priority for profitable delivery tasks. This urges them to carry out the delivery work more proficiently. There are also peak demand spikes and incentives (for instance, during lunch/dinner times or bad weather) that provide opportunities for increased income. Additionally, the web ordering platform offers technical support via a GPS-enabled application. This can optimize delivery routes, improve task efficiency, and reduce the time spent on each order. Moreover, the system provides aid to deliverymen when problems occur, creating a safety net for resolving issues. The key point is that the online ordering platform will ensure a constant demand for salespeople. Before the emergence of online food ordering platforms, there were limitations in the connection between delivery workers and restaurants, and delivery workers would be idle when several of the restaurants they served were not performing well. Nevertheless, online ordering platforms usually generate a continuous demand for couriers, reducing idle time to a minimum and guaranteeing a stable income stream. Through financial incentives, technical support, operational efficiency, and flexible working conditions, online ordering platforms establish an ecosystem in which both restaurants and deliverymen are encouraged to perform at their best, ensuring a seamless customer experience.

4. Negative Impacts on Agency Problem

After demonstrating the positive impact of online food ordering platforms on the agency issue of restaurant delivery services, now let's shift our focus to the negative consequences. Improper incentives may arise in delivery services because of inconsistent objectives, overly rigorous performance indicators, or unfair compensation structures. These incentives can have a negative effect on delivery quality, employee satisfaction, and customer experience. Online food ordering platforms give priority to delivery speed rather than quality and do not offer rewards for quality. Platforms often motivate deliverymen based on speed, for example, by obtaining bonuses for completing a certain number of deliveries within a specified time. However, this might bring about several unfavorable situations: Unsafe driving behaviors to meet the deadlines [7]. Improper handling of food affects its quality. It could also cause a negative customer experience. Although speed is given priority, food may arrive in a bad state (for instance, spillage or damage), thus influencing customer satisfaction. The platform has no incentives for good service and does not reward the deliverymen appropriately for providing excellent customer service, like handling food carefully or solving customers' problems. Furthermore, it may lead to excessive competition among couriers. Deliverymen on the platform often surpass the peak demand, creating excessive competition during off-peak hours [8]. Deliverymen could be forced to participate in unhealthy competition, rushing to get orders even at the cost of lower incomes, leading to dissatisfaction and a decline in service quality. Sometimes, platforms attach too much importance to customer reviews. Customer ratings can have a considerable influence on the income and order distribution of delivery workers. However, ratings are often subjective and might be affected by factors beyond the control of the deliverymen (like food quality or platform malfunctions). A bad rating can have a disproportionate impact on overall performance indicators and demotivate the deliverymen. It might even cause conflicts between the deliverymen and the customer.

In addition to distorted incentives, problems of opaqueness and inequality persist. Firstly, the ranking of restaurants on online platforms may give preference to those with higher commissions or exclusive partnerships. Due to larger advertising budgets, large or chain restaurants often have greater visibility on platforms, while small, local restaurants are pushed to the margins. Secondly, online ordering platforms might have unjust pricing models, prioritize their own profits over fair pricing structures, and high commissions, sometimes as much as 30% [9]. Placing an excessive burden on small restaurants, forcing them to either raise prices or absorb costs, thus reducing their profitability. Thirdly, the big data algorithms utilized by online food ordering platforms could allocate delivery tasks unfairly, give priority to efficiency rather than the welfare of deliverymen, and take advantage of deliverymen. Deliverymen often face low salaries, a shortage of benefits, and inconsistent payment systems, leading to a diminishing trust and loyalty towards the platform.

5. Summary

In summary, the emergence of online food ordering platforms has a significant impact on the agency issue in restaurant delivery services. It brings both positive and negative consequences. Concerning the resulting improper incentives and inequities, online food ordering platforms should adopt certain tactics to minimize these effects.

For improper incentives, platforms need to balance the incentives by introducing a combination of indicators related to speed, quality, and customer satisfaction to reward overall performance. It is also essential to carry out continuous monitoring and offer additional rewards for consistently high ratings and positive feedback. Furthermore, the platform should carry out a rational distribution of the workload for the deliverymen prevent the delivery staff from skipping specific orders and ensure timely deliveries to all customers. Restrict excessive recruitment and reduce excessive competition among deliverymen.

Concerning inequality and inequity, platforms need to adopt equal-opportunity algorithms that clearly disclose the ranking mechanism of restaurants. Through the imposition of exclusivity contracts and price parity clauses on catering partners, limit commissions to guarantee that restaurants of all sizes can afford them and avoid monopolization [10]. Clear, transparent, and efficient dispute resolution procedures should be strictly carried out, ensuring that each step is clearly defined and accessible to all relevant parties. Ultimately, it is essential to provide fair wages and benefits for the deliverymen, enhance the trust of the deliverymen in the platform, and thereby increase customer satisfaction with the platform and the restaurant.

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