



The Impact of Food Delivery Apps on Urban Hotels after the Pandemic and its Implications

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Abstract

Purpose: The primary purpose of this research is to investigate the multidisciplinary effect of food delivery apps (FDAs) in urban hotels in the wake of the lockdown due to Covid-19 pandemic. Specifically, the study aims: To explore and scrutinize the primary shifts in customer behavior and preferences in modern urban hotels, and to explore and scrutinize the primary shifts in customer behavior and preferences in modern urban hotels. **Research design, data and methodology:** This study conducted a systematic literature review to gather evidence of the FDA's effect on customer behavior and the hospitality industry during the Covid-19 pandemic. Complying with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) principles guarantees a structured and transparent method to search the literature and its analysis. **Results:** The result based on the systematic review has indicated that the booming business of food delivery at home companies and changing consumer tastes prove the FDA's growing circuit in the hotel industry, thus demonstrating their ability and power to adapt to changing trends. **Conclusions:** Therefore, this study concludes that using FDA's platform, future hospitality managers have to focus on agility in operations, innovation, and technology integration to keep up with changing consumer trends and market conditions.

Keywords : Urban Hotel Management, Food Delivery App, Post-Covid 19 era, Tourism Industry

JEL Classification Code: L63, L83, J32, M31

1. Introduction

In the last few years, a quick explosion of food delivery apps has caused fundamental changes in the dining experience, completely transforming the hospitality industry and urban centers worldwide (Zhao & Bacao, 2020). The arrival of food delivery apps like Uber Eats, DoorDash, and Grubhub shapes how customers act when they eat out and check into a hotel. These platforms provide immense convenience, with users being able to order food from a range of restaurants and have the food delivered to their doorsteps within a few minutes of tapping their smartphone keys (Meena & Kumar, 2022). This convenience factor has affected consumer behavior, creating a massive demand for distributional services, particularly in densely populated

urban zones.

The recent COVID-19 pandemic has urged individuals to opt for food delivery services as an alternative and safer way of getting their favorite dishes, making the usage of food delivery apps higher than ever before (Jun et al., 2021). Conventional City hotels, which have always been resourced with on-site dining facilities and room services, realized that the major challenge was undoubtedly adapting to this new dimension of dining (Meena & Kumar, 2022). As the hospitality sector adjusts to the new normal the pandemic has set, the importance of understanding the effects of food delivery apps on urban hotels is growing.

The outcomes of this study are highly pertinent to the knowledge creation and practical application of the tourism field. This study examines the consequences of food

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delivery applications on hotels located in urban spaces due to the pandemic. This research shows how different hotels can take measures towards competitiveness as the hospitality sector continues to evolve. Other than the shortcoming of specific research investigating the impact of post-pandemic food delivery apps on urban hotels, this study intends to bridge the gap in this field to contribute to this area's development.

The primary purpose of this research is to investigate the multidisciplinary effect of food delivery apps in urban hotels in the wake of the lockdown due to COVID19. Specifically, the study aims: To explore and scrutinize the primary shifts in customer behavior and preferences in modern urban hotels, to examine the financial implications of offering food delivery services as a source of income in the business model for urban hotels and to determine their profits, to explore the functional problems and adjustments needed by hotels in urban areas to incorporate food delivery services into their current facilities properly, and to assess the effectiveness of the branding and market positioning strategies that urban hotels have adopted during the period of food delivery apps towards their continuing competitive edge.

This study is structured as follows: Immediately after this section, the literature review follows. This section offers a detailed analysis of the current research on the role of food delivery apps in urban hotels, four of which the literature has identified as critical effects. This section of the methodology specifies the research approach and methods used for this study, which consists of study selection and analysis of prior works. After conducting the analysis, the findings section covers the effect of food delivery applications on urban hotels. The following section concludes with the valuable implications of these results for urban hotel managers and a discussion that reflects the study's shortcomings.

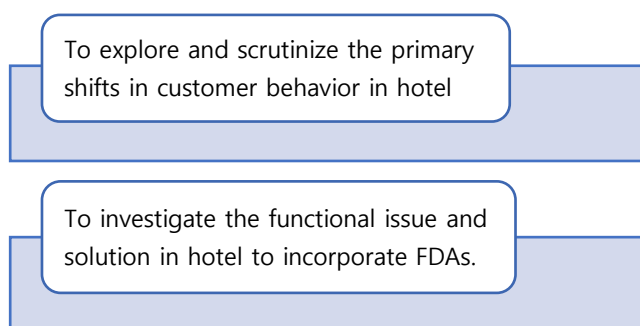


Figure 1: The Research Aims

2. Literature Review

The advent of food delivery apps (FDAs) induced an upheaval in the hospitality business, which raised the issue

of convenience and accessibility for all consumers and new opportunities and challenges for urban hotels. With the growing global adoption of FDAs, urban hotels relied more on these platforms to expand their reach, keep up with new consumer trends, and stand out in the competitive market. This section introduces the role of FDAs in urban hotels and explains why they impacted the hospitality industry.

2.1. Impacts of Food Delivery Apps on Urban Hotels after the Pandemic

2.1.1. Changes in Customer Behavior.

The Covid-19 disease has resulted in sudden and unprecedented changes in how consumers purchase food, with the FDA taking on a key role. Kumar and Shah (2021) focused on the ability of the FDA to go beyond the aesthetic aspect of an app and conceptualize connectivity between the app design and consumers' feelings. The PAD framework, which is a pleasure arousal dominance (PAD) model, was used for analyzing emotional responses to app appearances and their impact on consumers' intentions to use it. The survey from the 341 users indicated that the emotional reactions evoked by the app aesthetics were pleasure, arousal, and dominance, but the strongest predictor of continued usage was pleasure. The study pointed to arousal's intervening role between pleasure and usage intentions, indicating the necessity of aesthetic design as a determinant of a positive consumer experience during crises.

Given the growth in social distancing and mobility restrictions, consumers began to shop for FDAs that provide safer and more convenient dining experiences, which consequently caused the rise of online-to-offline commerce and the realization of technology application in the food consumption system. However, integrating the system led to more complex shifts in consumers' preferences, reflecting their perceptions of the risk, concerns about hygiene, or a willingness to order contact-free meal kits.

2.1.2. Revenue and Profitability

The increasing popularity of online food delivery (FD) outlets dramatically changed the revenue-profit relationship of the food service sector, including during the coronavirus impact. Li et al. (2020) thoroughly reviewed FD ecosystems, commenting on the positive and negative economic consequences. Although FD helped maintain food suppliers and provide job opportunities, there were growing concerns about high commissions and how delivery workers were treated. These economic factors strongly underscore the need for stakeholders to evaluate the profitability issues arising from their engagement in FD platforms.

Ibrahim et al. (2022) evaluated the financial aspects of Malaysian restaurants using online food delivery (F&B) during the pandemic. They discovered that the operators

encountered the problem of the platform fees, where they removed a certain amount of the total profits. Through propensity score matching, they underlined the causal role of FD services in the resultant financial performance and showed that a deeper consideration of various factors is necessary. Moreover, Sharma et al. (2021) conducted an in-depth analysis of customers' behavior issues and food loss apps that rose during e-food orders surge-oriented by the pandemic. They underlined the impact of environmental consciousness on consumer perception, asking for an active waste reduction strategy and efficient profitability on FD platforms.

2.1.3. Operational Adaptations

Urban hotels have undergone various operational changes, mainly due to the increased demand for food delivery during the COVID-19 pandemic. Chanyasak et al. (2021) reported that cutting costs, revenue diversification, and employee training for crisis management are among the critical measures hotels take to keep running while experiencing a crisis. Additionally, Park and Kang (2022) stated that hotels made quick adaptations like reducing staff, observing hygiene practices, and changing their product market to defend against the pandemic's effects. These results draw attention to the fact that businesses keep their stand in a competitive market by enforcing short-term survival tactics and hotel's ability to respond to changing market dynamics.

According to Reardon et al. (2021), digital supply intermediaries, including the e-commerce and delivery industries, played a crucial role in the strategic pivoting of the food industry, enhancing supply chain resilience. Such an analysis highlights the necessity for wide-ranging operational adjustments for food delivery on the part of urban hotels, making them more flexible, innovative, and able to change to the shifting circumstances. Similarly, Türkeş et al. (2021) investigate the creative strategies employed by Romanian restaurants in the context of the pandemic, focusing on food delivery platform utilization. Their findings have demonstrated the importance of technology, finance, and social innovation in restaurant resilience and business performance, as well as in emergencies. These are the causes of innovations that address future hospitality challenges.

2.1.4. Branding and Market Positioning

Food delivery apps have changed urban hotels' branding in the wake of the crisis caused by the pandemic. Yang et al. (2021) investigated the integration of online platforms into luxury hotel restaurants, emphasizing credibility and quality assurance. In this regard, they figured that taste, freshness, and package appeal to guests, compelling them to retune and upgrade their sales brands to

withstand positive competition. Additionally, Ingrassia and her colleagues (2022) examined digital influencers' role in hospitality. Data acquisition exhibited that influencer marketing favors cultural perceptions of tourist destinations and cuisine, in addition to helping brand marketing gain ground in the digital space. This emphasizes the need for the existing digital impact on branding to be allied with the new strategies to bring out the appropriate market positioning in the hospitality sector.

Dai and Wu (2023) examined how online food delivery platforms, as profit-driven entities, lead to food safety risks and interventions by governments. Their analysis highlighted the complexity of these stakeholders' interactions and how platforms' strategies, restaurant behavior, and regulatory responses determine how businesses must reconcile food safety and compliance. Wu et al.'s findings (2020) highlight that food quality, part of convenience, is essential to customer satisfaction and repeat business in food delivery. Therefore, these insights highlight branding, positioning, and service quality as critical success factors of urban hotels that must be aligned with the trends of digitalized delivery patterns in the context of consumer demand in the current market.

2.2. Research Gap and Justification for the Study

Extensive research has been conducted on the influence of the FDA on urban hotels during and after COVID-19. However, there is a gap in understanding the long-term implications of the emerging technologies of hospitality management. Research indicates that FDAs profoundly affected customer behavior, revenues, operations, and branding during the crisis, but the literature lacks studies about the long-term effects. Primarily, such studies do not persuasively discuss the sustained impact of the FDA on the customers' preferences, hotel revenue, hotel operations, and hotel branding post-pandemics. In addition, there is limited comprehensive research on urban hotels in the post-pandemic recovery and earnings from the food delivery service. Uncovering the strategies that hotels deploy to be relevant and thriving in this rapidly transforming business context might require further investigation beyond the immediate impacts of the pandemic.

Hence, the current research study aims to handle the existing research gaps by surveying the long-term effects of FDAs on urban hotels after the COVID-19 era. This research endeavors to fill up unaddressed segments of hospitality management by studying consumer behavior trends, revenue and profit relationships, operational changes, branding, and other aspects. Ultimately, the findings of this study will contribute to the body of knowledge in hospitality management by offering practical recommendations for hotels to thrive in the post-pandemic landscape and

capitalize on emerging opportunities in the food delivery sector.

Table 1: Impacts of Food Delivery Apps on Urban Hotels after the Pandemic

Main Impacts	Evidence From Literature
Changes in Customer Behavior.	Focused researches on the ability of the FDA to go beyond the aesthetic aspect of an app and conceptualize connectivity between the app design and consumers' feelings.
Revenue and Profitability	The increasing popularity of online food delivery (FD) outlets dramatically changed the revenue-profit relationship of the food service sector.
Operational Adaptations.	Cutting costs, revenue diversification, and employee training for crisis management are among the critical measures that hotels take to keep running while experiencing a crisis.
Branding and Market Positioning	Food delivery apps have changed urban hotels' branding in the wake of the crisis caused by the pandemic. Data acquisition exhibited that influencer marketing favors cultural perceptions of tourist destinations and cuisine.

3. Methodology

This study conducted a systematic literature review to gather evidence of the FDA's effect on customer behavior and the hospitality industry during the Covid-19 pandemic. Complying with the PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses) principles guarantees a structured and transparent method to search the literature and its analysis (Kim & Kang, 2022). The standardized framework of PRISMA aids in detecting and selecting the articles, and the protocols for systematic synthesis guarantee the credibility of the findings (Nantharath et al., 2016).

The study includes studies published between 2020 and 2024 to capture the essence of FDA impact during the Covid-19 pandemic and excludes the others not within this range. This study focuses on peer-reviewed articles, conference papers, and reports while emphasizing empirical studies, theoretical frameworks, and qualitative analyses.

The diversity of the methods and the viewpoints used as a tool for a broad and multi-level look at the topic offers a complete and high-quality explanation of the issue being studied.

The screening process unfolds in two stages: first, titles and abstracts are examined, followed by a thorough review of the full-text article. The selection is made according to the previously set inclusion and exclusion criteria. Identified articles are further subjected to an extraction process where information such as study objectives, methodology, findings, and implications of the study are extracted systematically (Hennink & Kaiser, 2022). This recurrent process is carried out to add studies supporting the research objectives and remove irrelevant and low-quality studies.

Systematic data collection is performed by consulting multiple database sources, such as PubMed, Scopus, Web of Science, and Google Scholar, with a thorough manual search for journals and reference lists from the included studies. The search terms include "food delivery apps," "hospitality industry," "consumer behavior," and "Covid-19 pandemic," which expand the search and result in complete literature retrieval in the field. Citation indexing and collaboration with subject experts are also core components of the search strategy and aid in filling up the gaps in literature coverage (Hirt et al., 2021).

Moreover, the qualitative synthesis approach analyses and interprets the extracted data. In this case, the quantitative data helps to identify the common themes, patterns, and discrepancies across the selected studies. The thematic interpretation permits the delineation of many views and the innovation of sophisticated details pertinent to the influences of FDAs on consumer behavior and the hospitality industry during and post-pandemic (Šostar & Ristanović, 2023). This systematic review aims to present an accurate, well-researched, and informative story about the subject matter and a way forward for future research directions and applications for hospitality decision-makers.

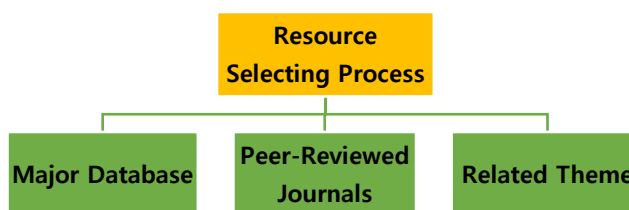


Figure 2: Key Steps for Selecting Final Relevant Resources

4. Findings

4.1. Changing Consumer Preferences

FDAs have been one of the significant transformative factors in consumers' preferences during the COVID-19 era in the hospitality industry. According to the research of Kumar and Shah (2021), the use of the FDA has seen a shift owing to its convenience and expanded food options. In addition, Tandon et al. (2021) pinpointed the role of FDAs in offering an international culinary experience without physically visiting restaurants. In this regard, Meena and Kumar (2022) emphasized the most critical health and safety issues and promoted chains like contactless delivery and hygiene rules. The booming business of food delivery at home companies and changing consumer tastes prove the FDA's growing circuit in the hotel industry, thus demonstrating their ability and power to adapt to changing trends.

Recent surveys reveal that health concerns are the foremost buyer motivators for online purchases and contactless delivery (Hong et al., 2021). Many customers trust the virtual shops rather than the physical eateries, where keeping distance is often impossible. The survey undertaken during the pandemic emphasized how menu diversity and customization were imperative in accommodating consumer expectations and promoting loyalty (Šostar & Ristanović, 2023). This demonstrates that digital solutions are becoming a vital brand priority as consumer preferences change. Hence, the hospitality industry must build an effective digital strategy that is agile and adjusts to novel customer behavior patterns to stay profitable and in demand by the market.

4.2. Operational Adaptations By Hospitality Businesses

The FDA's influx has impeded major hotel operators from putting their operational strategies to trial to match customers' evolving preferences and market dynamics. Hotels and restaurants are introducing new kitchen processes, streamlining delivery logistics, and expanding their presence in the digital part of delivery to keep up with the digital delivery market (Li et al., 2020). FDA collaborations are critical, promoting access to a more extensive customer base and thus ensuring revenue optimization (Daradkeh et al., 2023). Moreover, investments in technology and infrastructure are vital factors in the increased food delivery trend (Jiang & Stylos, 2021). These adaptive measures illustrate the flexible nature of the industry and its ability to adapt to clients' various needs over time.

In reaction to the fast-changing landscape of the delivery food sector, recent research shows that making strategic investments and employing agile management

practices are the most impactful for businesses to survive and remain competitive. Recent studies confirm that the right mix of digital media infrastructure and operational flexibility can be crucial to keeping pace with the changing trends in food delivery (Meena & Kumar, 2022). Besides, case studies of hospitality businesses also accentuate the importance of management agility and a manager's swift response to navigate the complexities of the e-delivery landscape (Troisi & Visvizi, 2022). This evidence shows the critical schemes and tactics businesses must emphasize to make it in the intense and ever-changing food delivery industry.

4.3. Financial Impacts on Hospitality Businesses

Even though FDs bring financial possibilities, they also add to the costs that companies in the hospitality sector have to pay, primarily because of the commission fees and the profit margin. The collaboration between FDAs is often associated with high commission fees, ranging between 15% to 30% per order, significantly affecting the advertiser's profits (World Economic Forum, 2022). Additionally, the cut-throat food delivery market and frequent discount promotions decrease profitability for companies (Kaur et al., 2020). Likewise, expenditures in packaging supplies, delivery workforce, and tech infrastructure are operational expenses for food delivery services (Lord et al., 2023). These financial problems manifest the complexity that businesses operating in the food delivery industry deal with.

The effects of FDAs, varying from the repartition of revenue sources to financial challenges and regulations, impact the hotel businesses. FDAs, however, not only help in revenue diversification for hospitality businesses but also contribute to costs and pressures as they seem to be high and competitive, respectively (Wieczorek-Kosmala, 2021). Restaurant owners' surveys show that maintenance of current commission schemes and legislative actions to uphold fair business practices within the food delivery ecosystem is much needed (Sardar et al., 2022). These results emphasize how the financial and regulatory difficulties arising from the intermediation create challenges to the whole accessibility of the market and the worthiness of the ecosystem in terms of food delivery.

4.4. Regulatory Challenges And Policy Responses

Fast-growing FDAs have posed regulatory challenges for governments and decision-makers regarding consumer interests and fair market competition. It can be handled only by taking proactive, necessitated measures. The high volume of food delivery apps has stimulated security, labor rights, and monopoly debates, with some people calling for control and interventions at a regulatory level (Trmcic et al., 2021). Governments worldwide struggle to balance innovation and

consumer protection; some jurisdictions have introduced regulations limiting fees and employment conditions, among others (Agrawal & Bütikofer, 2022). Furthermore, policymakers are examining implementations for the sake of transparency, accountability, and sustainability in the sphere of the food delivery system (Haji & Himpel, 2024). This requires an active joint work of businesses and policymakers who will take on the agenda of the regulatory challenges considered from the ethical and long-term development points of view.

The regulations of FDAs in different countries substantially differ regarding the countries' unique factors, such as politics, economy, and culture. Comparisons of regulatory systems implemented in various countries indicate that some countries apply different approaches to addressing FDA difficulties. This diversity is because of the existing political, economic, and cultural contexts (Yoo et al., 2020). A review of case studies of regulatory rules displays the necessity of collaborating with stakeholders and putting forward well-designed policies that enable industry growth while taking care of consumer welfare (Alderwick et al., 2021). Given this, cooperation between stakeholders and action on evidence-based policies are two core components for validating and implementing policies and regulations that work well for the industry, are consumer-protective, and can support markets' performance.

Table 2: Impacts of Food Delivery Apps on Urban Hotels after the Pandemic

Main Impacts	Evidence From Literature
1. Changing Consumer Preferences	Many customers trust the virtual shops rather than the physical eateries, where keeping distance is often impossible. The survey undertaken during the pandemic emphasized how menu diversity and customization were imperative.
2. Operational Adaptations By Hospitality Businesses	In reaction to the fast-changing landscape of the delivery food sector, recent research shows that making strategic investments and employing agile management practices are the most impactful for businesses to survive and remain competitive.
3. Financial Impacts On Hospitality Businesses	The cut-throat food delivery market and frequent discount promotions decrease profitability for companies. Likewise, expenditures in packaging supplies, delivery workforce, and tech infrastructure are operational expenses for food delivery services.

4. Branding and Market Positioning	Fast-growing FDAs have posed regulatory challenges for governments and decision-makers regarding consumer interests and fair market competition.
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5. Discussions

In the environment of urban hotels that is constantly changing, the findings from the study can apply to managers to meet the needs of their guests. The emergence of online platforms, individual message communication, and the requirements of the FDA manifest the necessity of digitizing the mode of delivery (Kumar & Shah, 2021). This includes, among others, investing in in-house distribution channels and paying strict attention to the varieties of foods that meet the tastes of different people (Tandon et al., 2021). Addressing the challenge of probable safety and health in the food system by just implementing effective operations and contactless delivery will give rise to the faith and trust of the consumers in the food system (Meena & Kumar, 2022). The hotels endeavoring to preserve competitiveness in urban areas should concentrate on digitalization, enhanced services, and keeping customers in good health.

Besides, operational adjustments examined in this paper emphasize the crucial role of flexibility and innovativeness during turbulent market conditions. Hotels in urban areas are better off investing in leaner kitchen operations, better logistics, and a more visible online presence to stay well ahead of their competitors (Li et al., 2020). Secondly, investments in technology and infrastructure are essential since most food deliveries are carried out using these (Jiang & Stylos, 2021). By adopting these operational adjustments, hotels may reach high efficiency and client satisfaction standards and increase revenue via digital mapping (Daradkeh et al., 2023). As a result, future managers will have to focus on agility in operations, innovation, and technology integration to keep up with changing consumer trends and market conditions.

In addition, the research results emphasize the necessity for urban hotels to approach the issue of financial difficulties with a visionary and principled strategy. The analysis of the consequences of collaborating with FDAs gets priority, given that they translate into commission fees, profit margins, and operational expenditures (World Economic Forum, 2022). For example, honing cost-cutting methods and negotiating beneficial contracts may be associated with less risky profitability (Kaur et al., 2020). Also, cooperation and advocacy for fair regulatory practices would address all systemic problems in food delivery systems (Sardar et al., 2022). Hence, future managers should

adopt a strategic financial strategy focusing on revenue growth, cost reduction, and fairness in business practices.

The study highlights the importance of data interpretation and the need to acknowledge a few limitations. First of all, it should be noted that the study is focused just within a period and place, which may limit the generalization of its outcomes. Further research could be conducted longitudinally, focusing on cross-cultural variations to provide more straightforward knowledge of the effects of FDAs on urban hotels. Secondly, access to secondary data sources might introduce biases or cause the overlooking of new trends that the existing literature has not captured. Blending the qualitative interviews/surveys and the quantitative analysis could yield a deeper immersion into the stakeholders' standpoints and experiences in the food delivery industry (Trmcic et al., 2021). Hence, further studies need to be carried out in this sector from fresh perspectives that differ from the current scope.

Lastly, Future research hospitality businesses are intricate, and people's behavior is dynamic, making it more difficult to predict the consequences of an FDA on city hotels. could undertake experiments that include various, more intricate research designs, like quasi-experiments, which involve an experimental study. This would help to know the root cause of consumer choices and business running (Yoo et al., 2020). Besides this, some practices that may help understand the heterogeneity of the use of FDAs in specific market segments may include investigating background factors like social status, cultural customs, and technological infrastructure (Alderwick et al., 2021). Primarily, follow-up research is needed to explore the full scope of the issues at stake, address methodological gaps, and understand the effect of FDAs on urban hotels within various social and economic settings.

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