International Journal of Hospitality Management xxx (xxxx) 103299

Contents lists available at ScienceDirect

International Journal of Hospitality Management

journal homepage: www.elsevier.com/locate/ijhm

Investigating the emergence of third-party online food delivery in the U.S. restaurant industry: A grounded theory approach

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ARTICLE INFO

Keywords:
Online food delivery
Motivations
Outcomes
Grounded theory
Restaurant
Qualitative approach

ABSTRACT

This qualitative study explores the emergence of Third-Party Online Food Delivery (TPOFD) in the US restaurant industry. The study used grounded theory to obtain insight into the perspective of restaurant operators regarding TPOFD adoption through interviews with seventeen restaurant managers and owners who use and do not use TPOFD in their businesses. The results identified several emergent themes relating to motivations, experienced outcomes, and future strategies for adopting TPOFD. These findings were used to propose a conceptual model that describes the adoption of TPOFD in the restaurant industry. The data shows that while the tremendous consumer demand for TPOFD is a motivation factor to adopt TPOFD, many restaurants are deterred by various adverse outcomes, most notably, the high commission and service fees paid to TPOFD aggregators. The theoretical and practical implications are discussed in detail.

1. Introduction

The foodservice industry has experienced enormous growth in the use of food delivery in recent years. More specifically, digitally-enabled food delivery has emerged as a profoundly disruptive force for the industry (Muller, 2018). Increased consumer demand for convenience and variety combined with the rapid pace of technological advancements appear to be the driving factors of this phenomenon (Hirschberg et al., 2016). Foot traffic at traditional dine-in establishments has dwindled as customers opt for online delivery, resulting in an altering of the restaurant value chain (Huang et al., 2019). In particular, the emergence of third-party online food delivery (TPOFD) presents traditional brick and mortar foodservice operators with countless opportunities and challenges. Opportunities that have been touted range from lower financial and logistical barriers to marketplace entrance, access to new and more extensive geographical markets, and increased sales volumes (Maras, 2019; See-Kwong et al., 2017). However, the large commission and service fees paid to TPOFD aggregators by restaurants, ranging from 5 % to 40 % on each delivery order, are diminishing already narrow profit margins (Durbin, 2019). Other challenges include operational issues and a lack of consistency of food and service quality (Maras, 2019). For consumers, the convenience of 'dining-out' at home can come at a premium expense through delivery charges and higher-priced menus. Therefore, the decision to offer food delivery services provides foodservice operators with a genuine enigma, whether to use in-house delivery or to adopt TPOFD.

While there is an ever-growing number of industry publications highlighting the disruptive nature of TPOFD on the foodservice industry from a consumer perspective (e.g. Byrd et al., 2021; Cha and Seo, 2020; Kimes, 2019; Pillai et al., 2022), there is still a paucity of empirical research from a restaurant management perspective. The few studies that have been published were conducted in Asia (See-Kwong et al., 2017; Yang et al., 2021). Considering this gap, future studies were directed to focus on issues concerning sellers, employees, and delivery personnel engaged in food delivery apps (Ray et al., 2019; Tyagi and Bolia, 2021). This study responds to this call by exploring how the emergence of TPOFD has impacted the restaurant value chain from the perspective of foodservice operators in the western world. Specifically, the research objectives are: (1) to investigate the motivations of adoption of TPOFD by foodservice operators, and (2) to explore the outcomes on the foodservice industry of TPOFD adoption. Grounded theory was employed as an inductive data-driven approach to gain a

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https://doi.org/10.1016/j.ijhm.2022.103299
Received 1 August 2021; Received in revised form 24 June 2022; Accepted 29 July 2022
0278-4319/

greater understanding of the motives, processes, and outcomes associated with TPOFD, identify concepts, and ultimately build a theory (Corbin and Strauss, 2008; Charmaz, 2006).

There are a number of valuable practical and theoretical implications from the findings of this study. First, this provides considerable evidence of the motives for adoption of TPOFD by restaurants. Moreover, this study contributes to the literature by categorizing these motives. Second, this study details and analyzes the outcomes (positive and negative impacts) of TPOFD adoption for restaurants and the industry as a whole. This provides a comprehensive understanding of the outcomes that restaurants adopting TPOFD may experience. Furthermore, the qualitative findings may provide empirical evidence for scale development for future research. From a practical standpoint, the findings will support foodservice operators in the decision-making process for selecting the most suitable food delivery model. In addition, the findings will help TPOFD aggregators to understand what restaurant operators seek from them to foster a sustainable and prosperous relationship moving forward.

2. Literature review

2.1. Third-party online food delivery aggregator service models

The increased popularity, convenience, and seamless access to online food delivery services (OFDs) via mobile devices has altered the lifestyle of both consumers and service providers (Sjahroeddin, 2018). A recent report by the New Product Development (NPD) Group found that online restaurant delivery orders have grown at a rate of 23 % since 2013 (New Development Project, 2019), exceeding $26 billion in revenue in the US (Statista, 2020) and $87 billion globally by 2025 (Frost and Sullivan, 2019). This has pushed restaurants into a race to either provide their own delivery services or contract their delivery services with TPOFD aggregators. Particularly, the emergence of TPOFD aggregators has expedited OFD demand by providing delivery logistical services for restaurants in the form of a network of independently contracted drivers and consumer-facing technology (online platforms) (Sun, 2019). In the US, the leading TPOFD aggregators that continue to dominate the restaurant food delivery market are UberEats, Grubhub and DoorDash (Berthiaume, 2020).

In the triadic relationship between TPOFD aggregators, restaurants, and independent delivery drivers, customers can search for restaurants through an online platform to select from available menu items and share the address for the food to be delivered (Pigatto et al., 2017); meanwhile, the independently contracted drivers make food deliveries using their own private vehicles. While small-to-medium restaurant operators may benefit from the competitive advantage of TPOFD aggregator users' frequent meal purchases and the reduced complexity of delivery operations, restaurant operators risk several disadvantages. These include loss of control over food quality, loss of ability to capture consumer data, high cost of service, new pressure from aggregators to provide variety on menu, and struggle to keep up with the pace of change (BCG, 2017). Furthermore, there are often quality and consistency issues to address between the restaurant operator, TPOFD aggregator, and driver regarding food condition, poor value and consumer wait time for delivery (See-Kwong et al., 2017; Yang et al., 2021). Therefore, restaurant operators must carefully monitor their relationships with these entities to ensure they are adding value to their restaurant operation.

To date, there are two primary models of TPOFD aggregators: delivery runner model and partner model (BCG, 2017). Under the delivery runner model, consumers place orders through the TPOFD aggregator platform, which in turn dispatch the food order to an independently contracted driver (a runner) in the field, the driver then places the order at the appropriate restaurant, picks it up, and delivers it to the customer. Alternatively, the partner delivery model is linked to either a designated computer tablet or to the restaurants' point-of-sale (POS) system for reasonably seamless order transfers. For example, some TPOFD aggregators such as GrubHub partner with restaurant companies by connecting their technology system with the restaurant's POS system so that when consumers order from their website, the order is also visible in the restaurant's POS system. While both models generate revenue for TPOFD aggregators through delivery fees applied to consumers, and high commission fees applied to restaurants (PYMNTS, 2019), there is a shortage of empirical research on restaurant adoption of TPOFD in the hospitality literature (Khan, 2020; Tyagi and Bolia, 2021). Particularly, how the emergence of TPOFD aggregators have impacted the US restaurant value chain from a restaurant operator perspective has not yet been explored.

2.2. Three research streams of online food delivery

A review of literature has yielded predominantly three streams of research on OFDs. The first explores consumer demand or evaluation of OFD apps in non-US territories (e.g., India, China, Indonesia), finding external (e.g., convenience, design, food choice variety) and internal (perceived value, trustworthiness, self-efficacy, risk propensity) attributes that significantly influence reuse intention (Cai and Leung, 2020; Cho et al., 2019; Correa et al., 2019; Roh and Park, 2019; Ray and Bala, 2021). Other studies find consumers are also influenced by the performance expectancy of the TPOFD platform (Gunden et al., 2020) or credibility of the source disseminating the information (Kang and Namkung, 2019).

The second stream of research builds on the previous by critiquing customers' consumption experiences that drive loyalty to TPOFD usage. These studies explore factors such as food quality (Belarmino et al., 2021; Suhartanto et al., 2019), OFD-SERV scale that promotes customer satisfaction (Cheng et al., 2021), employee mannerisms, food packaging (Elvandari et al., 2018), and post-purchase hedonics (Yeo at al, 2017) that promote the use of OFD.

The third line of study explores factors influencing restaurants' competitiveness in OFD markets (He et al., 2019), including the technical requirements or logistic strategies for operation (e.g., the level of skill-related training of delivery staff, periodic evaluations of service performance) (Elvandari et al., 2018) and safety issues that extend beyond food and hygiene to the delivery staff incidentals (Maimaiti et al., 2018). These studies also highlight customers' service-quality satisfaction levels and expected behavior changes due to OFD adoption that may boost competitiveness and profitability.

Collectively, the literature is saturated with studies exploring various OFD issues from a consumer perspective to identify consumer perception, loyalty, intention to use and satisfaction with OFDs. From these reviews, it is evident that a management perspective has been overlooked in literature, herein lies the contribution of the present study. The researchers came across only a few studies that went beyond the customers' perspective to interview food and beverage managers on their reasons to provide or not provide OFD. In one study, 12 food and beverage owners in Malaysia were interviewed about their reasons for engaging with OFDs and the obstacles experienced (See-Kwong et al., 2017). The findings suggest that some owners outsourced OFD due to perceptions of increased revenue and exposure, wider customer reach, convenience, and location, yet others do not use OFD due to factors related to food cost, control, customer affordability and location (See-Kwong et al., 2017). The interviewees went on to state that although they frequently experienced issues relating to late delivery, they believe their sole responsibility was to get the food ready for delivery (See-Kwong et al., 2017). These responses suggest that owners would not take responsibility if the food is delivered cold or late, which threatens the overall service experience and food quality. When restaurant managers take such a perspective, they further reduce opportunities for success when working with TPOFDs altogether. Considering the limitation

of this previous study, the current research included interview questions that would require restaurant operators to propose future strategies for working with TPOFD aggregators (see RQ4). A response to this question would account for gaps in literature pertaining to synchronized responsibility between the three parties (restaurant operator/owner, delivery driver, TPOFD aggregator).

In another study, a mixed methods approach was used to identify key factors that emerge in OFD dining experiences from a consumer perspective (Yang et al., 2021). The authors expanded their methodology to interview 16 food and beverage professionals from different five-star luxury hotels in China on their reasons to provide or not provide OFDs. The findings suggested that food and beverage professionals provided OFDs for economic, trend-oriented and customer-oriented reasons, and opposed OFDs due to concerns about the hotel restaurant's brand, economic strains (extra fees) and collaboration issues (Yang et al., 2021). Although this study provided further insight into OFD usage from a management perspective, the context of the study was limited to luxury hotel restaurants in China. Furthermore, the use any form of OFD in the study was a centralized decision of the hotel group of which the food and beverage managers had no input (Yang et al., 2021). These limitations further guided the development of RQ1 and RQ2 as well as the current study's research methods to include management responses from a variety of standalone restaurants where managers make hands-on decisions, not only in daily restaurant operations, but also concerning TPOFD usage.

The final study reviewed applied a simulated approach to OFD contracts and restaurant revenue-sharing models (Feldman et al., 2019). The study highlighted the implicit competition between these models and the baseline flaw in this type of partnership to propose a "no-contract" relation for restaurants to be successful. The findings suggested that if the contract of "simple revenue sharing" is promoted between the two platforms (restaurant and OFDs), it will be disadvantageous to restaurant managers. This is because the price points for dine-in revenues will be too low compared to the higher price points, if the same OFD user dined at the restaurant and the restaurant did not have to pay OFDs a commission. The authors proposed the use of commission caps as an ideal solution to the structural problems between the two platforms or negotiating an alternative contract where both partners can experience joint benefits. This finding informed the development of RQ3 that would explore foodservice operators' broad perception of the emergence of TPOFD.

While these studies have furthered our understanding of the motives influencing restaurant operators in the eastern world to adopt or not adopt OFDs, there were several limitations to these studies that require further investigation. For example, See-Kwong et al. (2017) study suggested a more abstract idea on the motivating factors of restaurant business owners without providing details on the type of establishment or theoretical basis for adoption. Furthermore, of the twelve respondents interviewed, only seven used TPOFD, thereby reducing the validity of participant responses applicable to the present research context. The authors focused solely on the reasons for providing OFDs and the obstacles experienced, without delving into detailed implications for the restaurant industry. Likewise, Yang et al. (2021) study focused on the luxury dining sector and did not clarify OFDs the hotel restaurants provide (i.e., in-house delivery or TPOFD). The study also failed to explore the implications for standalone restaurants that are more vulnerable to loss of revenue due to their inability to fulfil restaurant service attributes. Furthermore, the food and beverage managers had no control over the OFD adoption decision. Additionally, although Feldman et al. (2019) study provided some invaluable insights on how restaurants can benefit from their relationship with OFDs, the authors' findings were proposed based on simulation models without the input from actual restaurant managers who have experience using various OFDs.

Compared to the existing literature, the current study went beyond simply discovering the reason to use or not use OFDs to providing a detailed visualization of TPOFD adoption for western restaurant operators. In the current study, managers from several standalone restaurants as well as chain operations were interviewed (e.g., quick service, casual, upscale) through grounded theory approach. Restaurant operators' holistic decision-making process were uncovered and explored to capture their motivations to use or not use TPOFD, the perceived impact of the emergence of TPOFD aggregators on the restaurant industry, as well as future operational strategies restaurant should consider moving forward to regulate TPOFD aggregator—restaurant relationship. Taking a holistic approach from a restaurant operator's perspective is critical for three reasons. First, an empirical procedure outlining the visualization of TPOFD adoption can provide a blueprint for restaurant operators globally to weigh the pros and cons of using TPOFD. Second, considering the disruptive nature of TPOFD aggregators, restaurant operators will be better equipped with negotiation strategies that can be leveraged to support the sustainable performance of their business to survive the changes of TPOFD aggregator entry into the restaurant market space. Finally, TPOFD aggregators will be aware of factors that promote a symbiotic relationship with restaurants to build on agreeable terms that will expand their market penetration.

3. Methodology

Given the lack of literature and the exploratory nature of the research at hand, the phenomena of TPOFD adoption in the restaurant industry was explored through a grounded theory approach, allowing the data to drive conclusions, as opposed to adopting an existing theory a priori (Foley and Timonen, 2015). This inductive process is often used in new hospitality research (Mehmetoglu and Altinay, 2006; Zhang, Bufquin and Lu, 2019). Creswell (1998) described grounded theory as a strategy appropriate in the exploration of a phenomena where the aim is to generate and conceptualize a theory or abstract analytical scheme. This approach involves 5 key steps, which were followed in this study; (1) gathering information (interviews, observations), (2) asking open-ended questions of participants, (3) analyzing the data to form themes or categories, (4) looking for broad patterns, generalizations, or theories from the themes or categories, and (5) posing generalizations or theories from past experiences and literature (Creswell, 2009).

Because of the prevalent use of TPOFD by U.S. restaurant operators and consumers, and the lack of academic research on the topic, the purpose of this exploratory study was to investigate how the emergence of TPOFD aggregators affects the restaurant value chain. Specifically, four research questions were developed to capture the lived experiences of restaurant business owners and operators who utilize or have considered utilizing TPOFD:

1. What are the motivations for foodservice operators to use TPOFD?
2. What are the outcomes of TPOFD on foodservice operations?
3. What are foodservice operators' perceptions of the emergence of TPOFD aggregators?
4. What are the proposed future strategies for working with TPOFD aggregators?

3.1. Data collection

To address these questions, a series of in-depth, semi-structured interviews were conducted with owners and managers of foodservice establishments in the US. The data was collected from October 2019 to January 2020.

The interview protocol was developed through a preliminary review of relevant and prominent industry literature on the topic of TPOFD. The interview topics included questions regarding motivations, outcomes and challenges of using or not using TPOFD, financial, operational, and service quality implications, and the opinion towards the emergence of TPOFD aggregators. In total, seventeen restaurant own-

ers/operators representing four major classifications of restaurants participated in the study (see Table 1). The participants represented foodservice operations of various sizes from single-unit businesses to national multiunit operations and franchises. In total, eleven of the participants used TPOFD, while six did not use TPOFD, of the 6 TPOFD non-users, one participant used in-house food delivery. The interview protocol was pilot tested with three managers from casual restaurants to identify modifications that may have been needed to ensure all research questions were answered thoroughly as well as to identify questions that may elicit the same or similar answers. This helped the protocol be as thorough but parsimonious as possible. Following the pilot test, minor adjustments to the order of questions in the interview protocol were made and the remaining fourteen participants were interviewed. No significant changes were made to the initial interview protocol, therefore, the data from the pilot test was included in the analysis of the main data. Between each interview the data was analyzed and triangulated to determine if and when data saturation had been achieved, since this would indicate the data collection was complete.

Interviewees were industry contacts and acquaintances of the researchers and were recruited via email and telephone (convenience sample). If the contact agreed to participate, they were provided with an informed consent form and IRB documentation, as well as a description of the process. Interviews were conducted at the discretion of the participant either in-person, via phone, or via video conferencing service. Each interview was conducted by one member of the research team, and lasted between 45 and 90 min. The audio for each interview was recorded for later verbatim transcription and analysis.

3.2. Data analysis

NVivo qualitative data analysis software was used to create a verbatim transcription of the interview, which was then manually checked by research team member against the audio recording for accuracy. Data analysis was conducted following established coding procedures for grounded theory research, consisting of three distinct stages: open coding, axial coding, and selective coding (Corbin and Strauss, 2008). Prior to coding, each researcher first independently read the raw data to obtain a broad understanding. Open coding then followed; this involved breaking down the raw data into discrete segments, labeling it with codes that described the meaning and content, and fitting the codes into tentative conceptual categories. Next, the researchers conducted axial coding, which involved comparing, linking together, and reducing the codes and categories to establish tentative relationships between emerging categories. The final coding phase, selective coding, involved integrating the different codes and categories into a cohesive and overarching theory to describe the central phenomenon, TPOFD. Each researcher wrote reflexive and theoretical memos throughout each stage of the analysis, as is standard with grounded theory research (Foley and Timonen, 2015). The finalization of the codes, categories, and themes achieved through triangulation and was reached once all the researchers agreed in entirety (Creswell, 2009). Regarding triangulation, specifically, investigator and data source triangulation types were employed in this research (Carter et al., 2014). Carter et al. (2014) describe investigator triangulation as the inclusion and involvement of multiple investigators in the research. This allows for multiple perspectives concerning the data collected as well as the conclusions, providing a greater breadth of interpretation to the phenomena (Denzin, 1978). Data source triangulation involves collecting data on the same research question from multiple sources (Carter et al., 2014). The use of the individual in-depth interview (what was employed here) is considered one of the foremost methods in that each of the participants is a unique data source, thus allowing for a richness in the data that buoys triangulation (Carter et al., 2014; Fontana and Frey, 2000; Russell et al., 2005). Following these procedures helped to ensure the credibility, dependability, confirmability, and transferability, as defined by Lincoln and Guba (1985).

Table 1
Details of study participants based on restaurant classification.

Restaurant Information	TPOFD user	TPOFD non-user
	Number of Participants	
Seat Capacity		
< 50	2	0
51 – 100	2	2
101 – 150	2	3
151 – 200	5	1
Average Daily Covers		
101 – 200	2	3
201 – 300	6	2
301 – 400	2	1
> 400	1	0
Industry Segment		
Quick Service Restaurant	3	0
Fast Casual	3	2
Casual	3	1
Casual Fine	2	3
Cuisine		
Barbecue	1	1
Contemporary American	0	3
Asian	0	1
Fusion	2	1
Italian	2	0
Mexican	2	0
Asian	1	0
Fried Food	1	0
Latin American	1	0
Salad	1	0

Note: TPOFD: Third-Party Online Food Delivery

4. Results

This study illuminated insights from foodservice operators about the emergence of TPOFD aggregators, their motivations, and the outcomes of using TPOFD. Thematic analysis of this data resulted in numerous emergent coded themes: (1) *Motivational Factors*, (2) *Operational Adjustments due to TPOFD, (3) Positive Impacts*, (4) *Negative Impacts*, and (5) *Future Operational Strategies*. Each of these parent themes has their own set of subthemes (detailed in Table 2). Some of the themes and sub-

Table 2
Coded themes and subthemes for research questions.

Themes	Sub-Themes	Research Question Addressed
External Motivational Factors	Millennial and Gen Z as the Primary Customer	RQ 1.
	High Demand from Customer	
	Perception of the Impact of TPOFD Aggregators on the Industry	
	Removal of Entrance Barriers – Lack of Initial Costs	
Operational Adjustments	Changes to Operational Budgets	RQ 2., RQ 3.
	Operational Layout and Process Adjustments	
	Menu Adjustments	
Positive Impacts	Business Growth	RQ 2., RQ 3.
	Increase in Revenue	
Negative Impacts	Service Quality Issues	RQ 2., RQ 3.
	IT Challenges	
	Issues with Service Recovery	
	TPOFD Impacting In-house Operations	
	Negative Financial Consequences	
Future Operational Strategies	Managing TPOFD Partnerships	RQ 3., RQ 4.
	Take Back TPOFD Customers[a]	
	Optimize In-House Operations[b]	

[a] indicates that this subtheme applies to TPOFD users only
[b] Indicates that this subtheme applies to TPOFD non-users only

themes and their potential relationships to each other strongly speak to traditional theories of organizational motivation, where internal and external forces initiate organizational behavior and decision making and determine its form, direction, intensity, and duration (Rahim et al., 2007). Several outcomes of TPOFD adoption emerged from the findings; these outcomes were changes that occurred due to the adoption of the innovation itself (Rogers, 2003). These themes, subthemes, and relationships will all be discussed in greater detail in the ensuing section.

4.1. External motivational factors

In the context of TPOFD in the restaurant industry, several, mainly external market forces, were apparent and drove the decision of foodservice operators to adopt TPOFD for their businesses. Similarly, these same motives were identified in non-users of TPOFD participants. However, for non-users, these external motivations were overshadowed by their perceptions of TPOFD aggregators on the industry, becoming barriers to entrance, outweighing the motivations, thus resulting in a decision not to adopt.

It was observed that *high demand from consumers* and the dominance of the *Millennial and Gen Z generations as the primary customer* were the two significant sub-themes. *"I think the delivery customer would trend a little bit younger than probably our dine-in guest. I think that we're finding that there's really a market for people that don't mind food being delivered to their home and they don't mind paying the fee in order to get it."* Extending the study by Suhartanto et al. (2019), foodservice operators noted that their TPOFD consumer demographics were predominantly Millennials or younger (Gen Z), had higher disposable income, and most importantly, were willing to pay more to use TPOFD. In fact, Millennials, the largest living generation in the U.S. in 2019 at 72.1 million (Statista, 2021), are considered to be the leading arbiters of food culture and trends and are the first generation whose lives are extensively integrated with technology and therefore have significant purchasing power, especially when combined with technology (Saulo, 2016). Moreover, this study revealed that consumers heavily demand TPOFD due to its convenience and the variety of food offerings, resulting in almost insurmountable momentum for restaurants to adopt TPOFD. This supports the findings of Yeo at al. (2017), who found that convenience motivation was positively correlated with the intent to use OFD.

The *perception of the impact of TPOFD aggregators on the industry* from restaurant operators was a significant motivational subtheme that emerged from the data. There was a high level of perceived certainty of customer demand (the extent to which changes can confidently be predicted) (Downs and Mohr, 1976) and consumer expectation surrounding OFD. As such, participants were concerned with meeting the intensive customer demand for technology, on-demand food delivery, and variety and choice of food. Participants considered fulfilling these needs as imperative to increasing competitiveness and remaining relevant to their customer base. These factors represent social pressure on the restaurants to adopt the technology (Le et al., 2006) and emphasizes how TPOFD has become an integral part of the modern restaurant value chain in the US. *"If you don't have a third-party delivery system, you're truly shooting yourself in the foot so to speak on a big part of sales. So, it's kind of something we're all kind of forced to be using now."*

Another subtheme was *removing the entry barriers* into the restaurant online delivery market, more specially, the *lack of initial costs* associated with delivery. TPOFD allowed smaller restaurants with limited resources to access the delivery market by providing them with the necessary resources without the added expense of hiring drivers or purchasing equipment. *"TPOFD allowed us to go outside those four walls and not build the infrastructure." "Our operation is so small. We can't afford to hire and pay our own drivers. If you have 20 orders that come in an hour, one driver can't deliver all twenty, but you can have a delivery service [TPODF] that can do 20 deliveries for you in an hour. With the cost of an employee and insurance and everything it's easier just to have them."*

For TPOFD users, these motivational factors outweighed any hesitancy they felt towards integrating TPOFD as a normative feature of their business model. However, for non-users of TPOFD, their concerns primarily revolved around the negative impact of TPOFD on operational efficiency: *service quality issues, IT challenges,* and *the impact on in-house operations.* While non-users of TPOFD shared many of the same motivational factors as TPOFD users, many stated the potential negative impacts outweighed the driving factors.

4.2. Operational adjustments due to TPOFD

As with the adoption of any new technologies, operational processes, or business models, there is a period of trial and error by which organizations obtain the required experience and information through the utilization of the new technology to build capabilities and strategic competencies (Grewal and Tansuhaj, 2001). In the case of restaurant TPOFD, it became evident that significant operational adjustments were required for TPOFD users. Three major adjustments emerged from the data: *changes to operational budgets, operational layout and process adjustments,* and *menu adjustments.*

The first adjustment to emerge from the data was *changes to operational budgets*. The most frequently cited operational budget adjustment related to the need for additional staff and supplies (technology and delivery packaging) to meet the increase in sales generated through TPOFD. "*We have added more labor cost, to-go staffing, as well as the packaging costs. Both of those have been adjusted to make up for the increase in sales.*" *"We have a designated area that makes all to go or third-party delivery services. We now have extra staffing in a designated area to make these orders."* Some participants noted that the lack of predictability in TPOFD sales trends made it challenging to predict and schedule adequate staffing numbers. To compensate for this lack of predictability surrounding TPOFD sales, they were forced to budget for additional staff at all times. "*Sometimes it just comes in waves; there's no rhyme or reason to it. So, it makes it difficult because I'm not just going to schedule an extra person because I think we're going to get 20 third-party orders. So, what that'll do, of course third-party orders are going to be like anything, it's going to come at lunch and it's going to come at dinner. Some in the middle of the afternoon, so it does make it difficult, you might get five or six third-party orders in a span of ten minutes and also with a lot of in-house customers. You're trying to bob and weave those into the mix over there."*

From an operational process perspective, several *operational layout and processes* adjustments emerged, particularly the food production workflow from processing customer orders, cooking of food, and service to consumers and TPOFD drivers. In some instances, operators noted that they made changes to the configuration and layout of their physical location to optimize operations to accommodate TPOFD sales. The intent of these process adjustments was to account for the difference in operational requirements related to the TPOFD model of operations and ensure the addition of TPOFD as a service did not impact in-house guests dining experiences. "*It's definitely changed the game. Everything from storage to organization of the kitchen has changed. Obviously our foundation hasn't changed, but we've had to take in more materials, just to lay out, make sure that it makes sense, we're try to minimize the amount of steps that someone has to do when they're dealing with this order. Some of our restaurants have takeout or delivery areas, but other times we've had to kind of create new areas, whether it's utilizing a portion of the bar, utilizing a spot in the kitchen, and then that communication piece of using radios is to say such and such's order is here, please bring it out."*

The final emergent category of adjustments relates to *menu adjustments*. Firstly, operators had to limit their TPOFD menus compared to their traditional in-house menus by determining menu offerings that retain the desired quality during transit. "*…it's [the menu] a modified menu, limited. You've got the items that are going to do well when they travel.*" *"It's [the menu] restricted, we don't offer things that wouldn't travel well, we don't sell dumplings with TPDA, they do not travel well, they will*

stick together." In some instances, they also changed their pricing strategies for TPOFD customers, increasing prices to account for a portion of the TPOFD commission. "*…we usually will raise prices a little bit for those just to offset the huge commission that we're being charged.*" Neither size nor type of operation seemed to play a role in these menu changes. Regardless, operators seemed to understand that they had to make accommodations to their menus in order to be successful in this arena.

4.3. Positive impacts

Overall, most of the positive impacts associated with TPOFD were economic and centered on financial gains: *business growth* (increase market size, marketing, and access to new markets), *revenue, and profitability*. Advancement and growth are well-known motivational factors for organizations (Haque et al., 2014), this was very evident in both TPOFD users and non-users. The findings suggest that adding new customers to the existing customer base and accessing existing customers via an additional channel may be the primary drivers behind this *business growth*. *"To capitalize on that portion of sales, people that wouldn't have normally come in we're now able to make a sale through this app." "We're reaching that convenience of somebody that wants to eat us and doesn't want to come to downtown to eat."* In addition, the almost effortless brand exposure related to using TPOFD made it a valuable marketing tool for the participants. "*I would say it [TPOFD] is positively impacting marketing; it's creating organic brand awareness." "We're on a marketplace where everybody is and everybody shops. So, you're available. People are coming and searching for what they want to eat. It's exposure, marketing. I mean, it helps you build sales for sure. You know, there's no denying that."*

Other economic factors emerged from that data related to revenue and profitability benefits, namely, incremental sales, and higher average checks compared to in-house sales. *"It's [TPOFD sales] close to 5–10 % of our sales that we're adding on because of our third-party delivery, whereas if we didn't have that, we wouldn't be able to capture that market."*

This theme underscores the advantages that TPOFD offers to restaurants as an effective motivational factor for their adoption. In the scenario of TPOFD, this innovation supersedes no food delivery for some participants and in-house delivery for others. The higher the perceived relative advantage of an innovation, the greater the likelihood of adoption and the more rapid its adoption rate is likely to be (Jeon et al., 2006; Lin et al., 2007). Similarly, Le et al. (2006) found that economic factors including cost savings, an increase in sales volumes, and an increase in the firms' reputations were compelling motivations to adopt service innovation practices.

4.4. Negative impacts

The participants discussed negative consequences due to TPOFD adoption producing several emergent subthemes. While all TPOFD users did share negative impacts, the non-users of TPOFD shared the same negative impacts in the context of demotivational factors for adoption. The contextual premise of these subthemes varies from negatively impacting business-to-business operations, business-to-customer operations, and finally to financial.

Service Quality Issues is a predominant subtheme related to the quality of service that the restaurant operators received from the TPOFD aggregators. Many of the reported service quality issues related to the drivers themselves or issues related to the food – the quality of the food diminishing or being tampered with during transport. These findings support those of Chang et al. (2014) and Suhartanto et al. (2019), who both reported that food quality affects consumers buying intent and loyalty when it comes to OFD. It was apparent that loss of product control was a leading service quality-related issue. This was primarily a consequence of the final food product being transferred to the independently contracted TPOFD drivers for delivery to consumers. Due to the triadic business model of TPOFD, these delivery drivers, not being employees of the restaurants, most likely do not understand or adhere to the core business values of any given restaurant and, at times, can display varying degrees of a lack of professionalism. *"So, we essentially have someone working for us or with us and they're translating our service with the guest, but we don't train them, we don't run them, we don't pay these individuals ourselves, so they don't have the same level of service we do, so their experience could be tainted by the experience with the third-party delivery driver."*

Information technological (IT) challenges were other issues commonly described by participants. In electronic markets, IT capability plays a vital role in building sustainable competitive advantages and efficiency for adopting new technologies (Auer and Reponen, 1997; Grewal et al., 2001). The apparent lack of full integration of TPOFD software with restaurant POS systems, inaccuracies, a lack of flexibility with online menus, and a lack of in-depth customer data provided by the TPOFD aggregators were the predominant IT issues. "*If you want a salad with a different type of cheese than the normal, we want to offer that. We've found many of the menu hierarchies, the menu architecture, of these third-parties is quite simple, and that it's a little difficult for them to recreate the flexibility to customize, so that's a tradeoff.*"

A related subtheme was *service recovery issues*, particularly the additional layer of logistical challenges surrounding amending customer order errors. Further, many participants expressed concern regarding the liability surrounding service quality issues with TPOFD and the negative impact on their business's reputation. These service recovery/failure issues appeared to be a major concern for both users and non-users of TPOFD, who rely on restaurant loyalty and repeat patronage from consumers. *"A lot of times, the guests will call the TPOFD aggregator, and if they call us we would, we would rectify it on our own. Sometimes the fault is with the TPOFD aggregator, but we are still the one's kind of responsible for making it right. We'll take responsibility for what happened and offer the guests whatever we can to make them happy."*.

TPOFD adoption also appeared to *impact in-house operations*; the increased volume of TPOFD orders resulted in an adjustment to in-house operations. Furthermore, the convenient and on-demand nature of TPOFD sales also appeared to have resulted in a lack of ability to accurately forecast periods of increased sales volumes. As a result, in-house operations and the quality of the experience for in-house diners can be negatively impacted due to understaffing due to sudden and unpredictable increases in sales. *"I think some of our biggest challenges from our operator standpoint is making sure that we balance both experiences [TPOFD and in-house operations] because you cannot forget about the guest in the restaurant. You don't want to mess up a person dining-in experience, to focus on a third-party delivery."* Furthermore, while TPOFD can help restaurants capture new markets, it can be at the detriment of in-house sales by discouraging customers from visiting the physical location. "*It [TPOFD] cannibalized a lot of our business, it took a lot of our business away."*

Participants noted several *negative financial consequences* of TPOFD adoption. In particular, the high commission rates and service fees paid to TPOFD aggregators negatively impact profit margins. This study found that commission rates and fees associated with TPOFD use ranged from 15 % to 35 % of each sale through the TPOFD across all users. In addition, many non-users of TPOFD touted the high commission rates and service fees as major demotivational factors for adopting TPOFD. *"The commissions are ridiculous. It's thievery, to be honest." "It's just the way of doing business with these individuals, these new third-party deliveries, so they're kind of offering a service that's beneficial to us and in turn for that we lose more of the bottom-line number, more of the profitability behind each sale."*

4.5. Future operational strategies

The final theme to emerge from the data reflected the participant's *future operational strategies* as a direct response to the emergence of TPOFD. Participants who used TPOFD had formulated future plans revolving around TPOFD usage due to their experience of TPOFD; on the other hand, participants that were not TPOFD users formulated their future operational strategies based on the observations and knowledge of other restaurant businesses experiences of using TPOFD. Naturally, this theme was one where differences in subthemes between TPOFD users and non-users existed. The subthemes distilled from the data were: *managing TPOFD partnerships, take back TPOFD customers (TPOFD users only), and optimizing in-house operations (non-users TPOFD only)*.

The most prevalent subtheme was the desire to *manage TPOFD partnerships*. For TPOFD users, it appeared that they desired to develop a working partnership with TPOFD aggregators that would be mutually beneficial, whereas, for TPOFD non-users, there was a lack of willingness to adopt TPOFD until significant improvements were made in the partnerships between TPOFD aggregators and restaurant operators. An area of contention regarding this partnership related to the quality of the service being provided by TPOFD aggregators, namely, the safety, security, and quality of the restaurant's food product during delivery. Especially in a litigious society, this breakdown in service by the business intermediary proved to be a cause for great concern for participants. *"I want more professionalism from their drivers, and I want a fairer commission or I want value out of the commission." "We adopted a new program where we have to staple the bag as we noticed the items have been missing even when they're double and triple checked by leaders and team members here. They're missing drinks, they're missing cookies, you know, we might feel some of the bowls have been tampered with. So, we adopted a new progress process now where we staple bags and tape them shut."*

Another central area of contention concerns the sustainability of the current commission rates and service fee model (as discussed in Section 4.3). Many operators stated that the incremental revenue generated by the TPOFD sales was outweighed by the fees or the adaptations in operations needed to generate those sales. Therefore, it behooves the TPOFD aggregators to find a more sustainable revenue model so that the slim margins on which restaurants operate do not disappear and force them to retreat from TPOFD. *" Right now, charging 30 plus percent of a final bill to the restaurant is just unbelievable, realistically it's not sustainable." "Of course, you always want smaller fees, you know, make it a business model in the market better." "I want value out of the commission. So, if you're going to charge me 27 %, make marketing materials with my logos on them, not yours. Give me promotions that you sponsor. Five dollars off every order, but take that out of your pocket because you're collecting 27 % from me."*

This led to another reactive future strategy mentioned by a number of the participants: to *take back their customers from TPOFD*. The primary strategy to do so appeared to make a concerted effort to detract customers from using TPOFD and utilize their in-house delivery systems. *"Call us directly, the delivery fees less, the food will come faster, and if you ever have any issues, you call us directly, and we can fix it."*

Lastly, a significant future operational strategy for non-users of TPOFD was the *optimization of in-house operations* before committing to adopt TPOFD. While most electronic markets are known to improve transactional efficiencies (Rindfleisch and Heide, 1997), it appeared that TPOFD can have the opposite impact as customer demand through TPOFD can outpace the production capacity of a restaurant kitchen, thereby reducing the efficiency of serving in-house customers. As such, restaurateurs are required to optimize and reengineer their operations and process to ensure that the adoption of TPOFD has a limited impact on in-house operations. "*The first tenant is to get your four walls right.*" "*When you get seven hundred people come through here, the cooks can't cook that fast. They just they got to build up to that service."*

5. Discussion and Implications

The primary purpose of this study was to explore the motivations of adoption and the positive and negative impacts of TPOFD by foodservice operators. Combining the results of the current study with limited existing literature and research on restaurant TPOFD and OFD led to developing a visual model of TPOFD adoption amongst restaurateur participants (Fig. 1). The results were categorized into themes, which forms the basis of this model. For users of TPOFD, this model depicts the motivational factors for adoption, the experienced outcomes of using TPOFD, and the strategies that they plan to implement. For non-users of TPOFD, the model depicts identical motives and potential positive impacts; however, the negative impacts outweigh these motives, thereby creating entrance barriers for the adoption of TPOFD. As a result, it can be seen that non-users of TPOFD remain in a passive state, observing how TPOFD impacts the operations of restaurants that outsource their delivery services and impact the restaurant industry as a whole before testing the waters themselves.

** indicates that this subtheme applies to TPOFD users only.*

*** Indicates that this subtheme applies to TPOFD non-users only.*

For both TPOFD users and non-users, their future operational strategies force them to reassess their motives for outsourcing their OFD to third parties. The model illustrates the iterative nature of the decision to initiate and continue relationships with TPOFD aggregators. While it is clear that there is overwhelming demand from consumers for OFD, and many restaurateurs seek to meet these demands and grow their businesses through utilizing TPOFD, they still face a significant challenge of maintaining the desired level of quality of product and service while at the same time remaining profitable. Several practical and theoretical implications arise from this study, which will be discussed in-depth in the following sections.

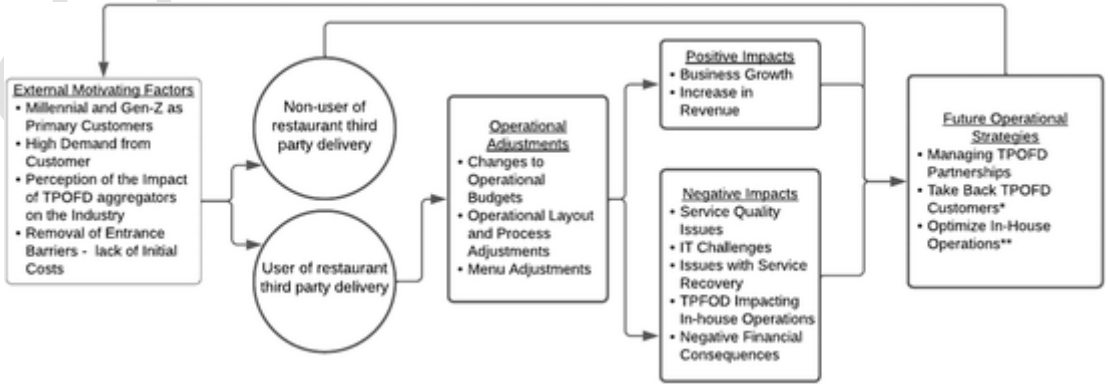

Fig. 1. Visualization of the TPOFD adoption motivations, operational changes, impacts, and future strategies for restaurateurs.

5.1. Theoretical implications

In terms of theoretical contributions and implications, this study addresses the call for a body of research on OFD, particularly evaluating the extended partnership between TPOFD aggregators and the restaurants they service (Tyagi and Bolia, 2021). Scholars have predominantly focused on topics ranging from consumer demand to evaluation of TPOFD apps in non-US territories (Cho et al., 2019); customers' consumption experiences that drive loyalty to TPOFD usage (Suhartanto et al., 2019), or general factors influencing restaurants' competitiveness in OFD markets (He et al., 2019). Most studies published so far have proposed a variety of quantitative frameworks to explain customers' attitudes, cognition, and behavior intention towards OFDs. Notwithstanding the significant theoretical contributions of previous research, the literature review draws attention to the lack of theoretical applications from a service management perspective.

To fill these gaps, the current study applied a grounded theory approach that uncovered a detailed visualization of TPOFD adoption for western restaurants and several restaurant types, while presenting opportunities for future research to build on for scale development purposes. With this framework, we depict restaurant operators' holistic decision-making process to capture their motivations to use or not use TPOFD that further informs the type of operational changes, the perceived impact of TPOFD on the restaurant value chain and the future operational strategies restaurant operators should consider moving forward to regulate the TPOFD aggregator—restaurant relationship. The study proposes operational strategies that restaurateurs seeking to initiate or renew TPOFD outsourcing partnerships may consider to prevent the overrun of the carry-out restaurant market by OFD within a decade as predicted by Muller (2018).

Consistent with previous studies, the current study shows that consumer demand and customer demographic are leading motivational factors to use TPOFD services (See-Kwong et al., 2017). Going beyond the literature, the current study uncovered additional motivating factors such as the modern restaurant value chain, removal of entrance barriers and perceptions of TPOFD on industry. These factors emerged as a result of the social pressure on restaurants to keep up with the growing consumer demand for TPOFD (Le et al., 2006). Contrary to See-Kwong et al. (2017) finding that customer affordability was a major deciding factor for not adopting TPOFD, the current study found that TPOFD customers in the U.S. are more willing to pay the added expense of using TPOFD, and in fact, expect TPOFD to be a feature of most restaurants in the US.

This study also revealed that while the decision to use TPOFD lead to various operational changes, and the complexity of the restaurant-TPOFD aggregator relationship may have dual positive/negative impacts. In an interesting parallel, the perceptions of the impacts of TPOFDs on the industry closely mirror the negative impacts that TPOFD users experienced. Also, the same motivating factors that influenced restaurant operators to become users of TPOFD also influenced non-users of TPOFD. These findings support Rogers (2003) diffusion of innovation theory that innovation adoption processes differ based on several factors, including influences from the external environment, organization scale (i.e., the size of the restaurant operation), and the restaurant owner's general attitudes toward the innovation. Similarly, restaurant owners may filter TPOFD impacts through the lens of social exchange theory, which states that a relationship will continue if rewards are higher than the cost (Homans, 1958). Accordingly, restaurateurs may continue using TPOFD if they rationalize or have a positive experience from such partnership, primarily in incremental revenue that is greater than the marginal cost or negative impacts of contracting OFD.

5.2. Practical implications

Due to consumer expectation and demands, particularly from Millennials and Gen Z, restaurateurs feel compelled to enter the TPOFD marketplace to remain relevant. However, as with any innovation, there have been and continue to be growing pains. Many organizations have found a less than expected return on investment regarding TPOFD. This study has also highlighted the benefits that restaurants may experience and opportunities the TPOFD marketplace offers. Both the negative and positive impacts of TPOFD adoption should be considered by restaurant management during the adoption decision-making process.

One of the first considerations is the impact of TPOFD on in-house operations. New restaurants or currently struggling restaurants should be wary of the added challenge of providing high quality food and service to both in-house and TPOFD customers. It would be wise to ensure that all in-house operations are performing at optimal levels before adding TPOFD. Next, TPOFD menu offerings should be considered, with food quality and condition upon delivery to a customer being a central factor. Finally, restaurant operators should be very savvy in exploring TPOFD aggregators as some provide more comprehensive equipment and IT support, removing that barrier, as well as overall quality of service provided.

Once the decision to contract with a TPOFD aggregator has been made, several operational recommendations emerged. Menus and workflows must be adjusted to account for additional costs, travel time, and new processes for moving orders from guests to the kitchen and, in turn, the finished product from the kitchen to the guest within the TPOFD model. Managers should be vigilant in ensuring their staffing levels are appropriate for the influx in business. If the additional generated business hinders proper execution for in-house guests and/or TPOFD guests, it can result in dissatisfied customers due to a decline in service quality. This can lead to the operation not realizing any financial benefit of TPOFD due to a loss of repeat patronage or a negative reputation. Furthermore, managers should attempt to leverage the marketing capabilities of the chosen TPOFD aggregator, making themselves as visible as possible within that digital food court, thus maximizing their return on investment as represented by the ongoing commissions and fees operators pay to TPOFD aggregators.

Operators need to be mindful and prepared with a plan to handle service quality issues, both with the customer as well as the TPOFD aggregators. Restaurants will need to ensure they are continually monitoring customer satisfaction and immediately bring any issues to the attention of the TPOFD aggregator. A plan needs to be in place for resolution of these issues, including a periodic review of the plan to ensure it is accurate and reflects the actual issues and practices occurring on the ground.

Finally, the restaurateurs involved in this study had a variety of pointed observations for the TPOFD aggregators. The overwhelming consensus was that the pricing model currently in place from many of the TPOFD aggregators is perceived as predatory. The recommendation is for TPOFD aggregators to consider restaurant operators as true partners, taking a more long-term outlook. TPOFD aggregators should help to mitigate many of the challenges and issues restaurateurs experience relating to TPOFD. Doing so may ensure a more stable and sustainable business environment for the restaurants they serve, and therefore, foster mutually beneficial long-term relationships.

6. Conclusions, limitations, and future research

The current study was undertaken in the context of the rise in popularity and usage of third-party online food delivery in the restaurant industry in the United States. Through a qualitative approach and review of relevant literature on the topic, a conceptual model was developed that describes the motivations influencing the adoption of TPOFD, outcomes of TPOFD use, and future strategies for both restaurant operators

that use and do not use TPOFD. In doing so, the findings present restaurant operators with a clear overview of the considerations and pros and cons of contracting their OFD to third-party aggregators. Restaurant operators are driven to use TPOFD because of the modern value chain it brings to restaurants and the high demand from customers. Business growth proved to be central to the positive outcomes of contracting out OFD to third-party aggregators. Nevertheless, foodservice operators also experienced adverse outcomes of using these services, mainly related to service quality and exorbitant fees paid to TPOFD aggregators. Moreover, the key findings from this study present TPOFD aggregators with valuable insight into their own customer's experiences and mindsets, and therefore an opportunity to reflect on their business model and practices to create a mutually sustainable business environment. The results suggest that the adverse outcomes for certain restaurant operators are demotivational factors and serve as barriers to adopting TPOFD. For many current users of TPOFD, these adverse outcomes force them to rethink their decisions and strategies moving forward.

Notwithstanding the significant findings of this study, there are several limitations that may stimulate future research. First, although a qualitative method was intentionally adopted to provide insight into the TPOFD phenomena, only a convenience sample of restaurant operators were interviewed, thus, the findings should not be generalized. The following are suggestions for future studies where authors can use this research as a foundation upon which to build more generalizable findings and implications.

First, future studies can build on the existing qualitative framework by interviewing restaurant operators that use in-house delivery to make comparisons with restaurant operators that use TPOFD to identify complementing or contrasting motivations. Second, a quantitative and/or mixed methods approach should be undertaken to examine the differences that may be present within the industry. For example, to investigate if TPOFD adoption motivations, operational changes, and outcomes differ for restaurants operating (1) in different geographic locations, (2) in different industry segments (QSR, fast casual, casual, or family dining), (3) in different business models (franchise, chain, or single unit model), (4) in differing number of TPOFD aggregators used by restaurants, and (5) in different meal parts. Comparing and assessing the motivations and outcomes of TPOFD for the different segments of the restaurant industry and TPOFD offerings in different geographical locations may reveal more about the suitability of TPOFD for different segments of the market and business models.

In addition, based on the findings of this research, scales should be developed, tested, and implemented allowing for researchers to determine the relative impact of each of the positive and negative motivators on a restaurant organization's intent to adopt TPOFD. This would provide further insight into the relative importance of each factor, aiding TPOFD providers with their services and marketing materials. Following this line of reasoning, scenario-based experimental design studies could be implemented where each scenario describes different levels of each of the motivators and de-motivators, again providing more evidence and specificity of the level of importance of each factor.

Again, taking into consideration the findings of the current study, an importance performance endeavor could be undertaken. This would provide more in-depth insight into what is most important to restauranteurs with regards to the services provided by TPOFDs as well as how those same companies are performing. This could help to foster changes in the service provision of the TPOFDs to encourage more adoption by restauranteurs as the TPOFDs make changes important to their restaurant clients.

Finally, it should be noted that all data was collected prior to any discussion or impact of the COVID–19 pandemic on the foodservice industry in the US. The COVID-19 pandemic has further increased the relevance of exploring the impact of TPOFD, since many restaurants compensated for a decrease in dine-in sales as result of the pandemic, by reaching a growing number of consumers' who frequent TPOFD platforms (Durbin, 2021). The investigation into what factors drive restaurant operators to navigate the complex relationship between customers and TPOFD aggregators is still in its infancy. The issue of COVID-19 not only makes the current research important as a baseline data point from a longitudinal standpoint, but it makes the need for additional mixed-method studies even more timely and urgent.

Uncited reference

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Data Availability

Data will be made available on request.

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