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Innovation in online food delivery: Learnings from COVID-19

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ABSTRACT

The COVID-19 pandemic has forced some restaurants to shift their business models to innovative approaches in Online Food Delivery (OFD) services. This paper seeks to study the impact of innovations on OFD –new product/services– that aim to enhance the experiential value when ordering food online. Moreover, this paper analyses the willingness to order food delivery online during the COVID-19 pandemic. An experimental design survey was therefore used. The participants assessed one out of four OFD innovation options, its experiential value, and their own willingness to order it. Participants' fear of COVID-19 was measured and used as a moderator variable. A conditional process analysis was used to reveal that innovation in the OFD business can increase the experiential value for the consumer, but this effect should be examined in light of customers' fear of COVID-19. Managerial implications and future research lines are suggested.

1. Introduction

Some restaurants are altering their business models by implementing rapid innovation in order to confront the changes and challenges of the coronavirus pandemic and to match the demands of this unprecedented scenario. Among the wide range of types of innovation (Damanpour 1996), restaurants are changing their OFD offerings by improving product presentations and by providing new services and/or products.

The OFD business has emerged as a relevant channel to reach customers and provide them with higher quality services in these times (Alalwan, 2020) and is playing a major role in sustaining business. The main advantage of this type of service is that, besides simplifying the ordering process for both the consumer and the restaurant (Chavan et al., 2015) in times of social distancing, it offers restaurants alternative income, retains customers, and enhances customer experience by providing new delivery channels.

OFD has now become more than just a utilitarian alternative when it comes to food consumption. Restaurants are innovating to offer experiential OFD options. However, little is known about this challenge and the role that fear of COVID-19 contagion plays in the decision-process so as to properly understand consumer behaviour.

This paper aims to study the impact of OFD innovation on new products and services, which aim to enhance the experiential value of

OFD and the consumers' willingness to order during the COVID-19 pandemic. Based on the level of meal preparation (Costa et al., 2007) and according to the trends observed in the OFD business (Keeble et al., 2020), three options of innovation in OFD were suggested by a panel of hospitality experts. Each meal option innovates in the product/service to address the challenges posed by the coronavirus pandemic by increasing consumers' experiential value. This issue is addressed in a survey experiment with four experimental delivery conditions.

This paper is divided into four parts. First, a literature review of the current state of OFD, the experiential value of OFD and the influence of COVID-19 on consumer behaviour, are explored, leading to the formulation of the hypotheses. Second, the methodology to verify the hypotheses is described. The results obtained are then presented. The paper ends with a discussion of the results, the theoretical and professional implications, the limitations of the study, and future research prospects in the field are provided.

2. Literature review of online food delivery in the COVID-19 era

In the sector today, OFD practices include a wider range of products and services: from ready-to-eat meals to raw ingredients that the consumer receives along with the recipe to cook the meal at home (Forbes, 2020).

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Literature in OFD has focused on the study of attitudes and perceptions (Jang et al., 2011; Kang and Namkung, 2019; Kimes, 2011), and the consumer experience, satisfaction, and loyalty generated when the offering exceeds the customer's expectation (Suhartanto et al., 2019; Yeo et al., 2017).

OFD services offer advantages to both the business owners and their customers (See-Kwong et al., 2017). OFD services grant consumers easy and effective access to food from a wide range of restaurants at different times and various locations (Chai and Yat, 2019; Gupta and Paul, 2016; Yeo et al., 2017). Moreover, it provides customers with more comprehensive, up-to-date, and accurate information regarding restaurants, menu options, customers' prior experiences through online reviews and online rating, or even monitors their orders and the progress of those orders (Alalwan, 2020). The availability of online delivery service technology enables the restaurant industry to improve order accuracy, increase productivity, enhance customer relationship (Kimes, 2011), and expand their market (See-Kwong et al., 2017; Yeo et al., 2017). Thus, the ubiquitous use of the internet and mobile phones has triggered a flourishing OFD business, which is still on the rise (Cho et al., 2019; Jang et al., 2011; Kang and Namkung, 2019). Nevertheless, some authors have warned about disadvantages of OFD such as increased expense, share sales revenue with delivery providers or packaging delivery defect (Chai and Yat, 2019).

2.1. Experiential value in the context of OFD

Holbrook and Hirschman (1982) stressed that consumption has an experiential dimension. Consumers are looking for sensory stimulation; they want to have fun and a memorable experience. Experiential value refers to the aesthetic and experience-based enjoyment that results from the entire purchase decision-process, from need recognition, shopping, consumption, to post-purchase behaviour (Mort and Rose, 2004). The experiential value does not replace the traditional utilitarian perspective. Rather, it works as an extension of the latter.

Prior research on OFD has shown that the enjoyment of the process of buying standard online food provides emotional arousal and experiential value (Suhartanto et al., 2019; Yeo et al., 2017). Thus, experiential value results from the process and not from the act of consumption. Nevertheless, in light of the COVID-19 pandemic, consumers are considering OFD from a new perspective. Apart from the utilitarian criteria of comfort, ease, and convenience, which remain important, consumers are seeking the experience that they are afraid to enjoy in a restaurant. Innovation should be aimed at deepening the experiential value of OFD in order to fulfil these new restaurant consumers' needs.

During the COVID-19 pandemic, OFD consumers who were already a fan of experiences are being seduced by premium offers. They expect sensory stimulation and are looking for emotional arousal (Nielsen, 2020). Shifting restaurant consumption to OFD in the home environment needs, now more than ever before, to be a memorable experience.

Innovation to raise the experiential value in the context of OFD can focus on emotions, such as the surprise triggered by the sophisticated packaging of a quality meal and its unboxing; the pleasure elicited by the immersive experience of recreating a restaurant at the host's house, or the praise levied on the host by guests for a delicious meal, resulting in the feeling of pride over a meal that is effortlessly prepared with the delivery of and the recipe for cooking the ingredients.

Thus, when OFD provides a seamless culinary experience, customers are more willing to order online delivery food. Accordingly, the following mediation hypothesis is proposed:

H1. The impact of innovation on the willingness to order online delivery food is mediated by the perceived experiential value.

2.2. Fear of COVID-19 and OFD

Lockdown measures, prompted by health crises and the associated

economic damage, can provoke a sense of collective hysteria, fear, anxiety, and uncertainty and reduce social contact among consumers (Ahmed et al., 2020).

While the COVID-19 pandemic ensues, the future is uncertain and concerns over what will happen next are plaguing everyone. New habits learnt during lockdown will remain afterwards. These include a preference for isolation, the choice to have a smaller, more intimate circle of friends, greater awareness of the presence of germs in public areas, and more home entertainment. However, consumers are also looking forward to regaining certain rewarding aspects of their lives. At this time, consumers miss socialization and contact with friends and family that usually takes place over food. For instance, consumers in Spain stand out for their intense contact with friends and family (76%) and for their desire to regain physical contact (51%) (Mindshare, 2020).

Meeting peers around a table of food goes beyond the mere act of satiating one's appetite and acquires a socializing dimension. Eating is an experience that transcends food. We eat to enjoy the company, strengthen our social bonds and obtain gratification by sharing moments and experiences with others. Convivial is used to describe this (Phull et al., 2015). Going to a restaurant makes for an exciting experience (Dixit, 2020), filled with pleasure, and which provides a sense of personal well-being. This is especially visible in cultures such as the Mediterranean one (Poole and Blades, 2013).

Despite the fact that restaurants have become the core of social life (Gustafsson et al., 2006), customers have begun to experience mixed feelings in that regard as the COVID-19 pandemic continues. 67% of consumers feel that they would be more likely to meet at home or virtually rather than at a bar, and 65% say they are more likely to order food online from a restaurant than to dine there (WWD Business News, 2020).

The fear of COVID-19 may influence the way consumers enjoy restaurants (Zwanka and Buff, 2020), as they are more concerned about safety in terms of health and hygiene and awareness of which ingredients are used in dishes, where they come from, how they are prepared, and who prepares them. The OFD service is therefore used to shift consumption to safer, more controlled environments, such as the home (Rabobank, 2020). Thus, based on previous research, we have formulated the following moderation hypothesis:

H2. During the COVID-19 pandemic, the fear of COVID-19 moderates the willingness to order online delivery food.

Fig. 1 represents the research model proposed.

3. Methodology

Based on the level of meal preparation (Costa et al., 2007) and according to the trends observed in the OFD sector (Keeble et al., 2020), a panel of experts in hospitality, restaurants and OFD — four restaurant owners, four academics, and three consultants — suggested three innovative OFD options that could increase consumers' experiential value. First, a sophisticated box with a gourmet menu featuring high-quality ingredients based on the Spanish Coquetto from Coquetto bar

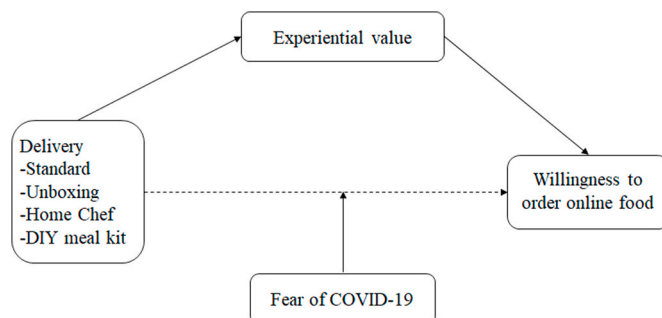


Fig. 1. Research model.

(coquettobar.com/delivery.php) would be used. The delivery box would include a letter alongside the instructions to end-cook the recipe. Every item of food would be carefully packed and, thus, the client would enjoy the surprise of unboxing a luxury experience. We will refer to this option as unboxing. The second was catering for small dinners at home, staffed by a chef with the British Dineindulge (www.dineindulge.co.uk/), a go-to destination concept. This would provide an immersive experience at home. We will refer to this option as home chef. The third innovative proposal was inspired by the Mexican restaurant Bello Puerto that delivers the ingredients sealed and refrigerated, along with instructions from the chef (www.bellopuertoencasa.com/). This option comprised a meal box with fresh, high-quality ingredients, delivered with the recipe to prepare a dinner for the number of guests. The host would feel pride in providing them an excellent dinner in a controlled setting. We will refer to this option as a DIY meal kit. In addition, we selected a standard delivery option as the control condition consisting of an Asian meal with no innovation in either the food or the service. We conducted a between-subjects design survey to compare each of the three innovative delivery options (unboxing, home chef, and DIY meal kit) with a standard delivery option to test the influence of innovation in OFD on experiential value at the consumption stage and its further effect on the willingness to order online delivery food during the COVID-19 pandemic.

3.2. Questionnaire design and data collection

The questionnaire had three sections: contextualization, scales to rate the stimulus and the general data of participants.

Participants were initially informed that the study was to research OFD during the COVID-19 pandemic. The participants were asked to read a brief description to set the study in context: they were supposedly hosting a dinner party at home with friends after the COVID-19 lockdown. After thinking about what their friends would like to eat and searching the Internet, they would receive the food they had ordered (stimulus) at home at the appointed time. See [Appendix I](#).

A professional photographer designed the layout of the pictures depicting the four stimuli to help the participants understand the delivery option they were supposed to enjoy. This helped us to provide very realistic pictures, presenting the food delivery option and with a brief description of the offering.

Participants were allowed to view the picture for as long as they wanted. Each participant had to then answer several questions about the innovativeness of the delivery option, the utilitarian and experiential value they perceived in the delivery option, and their willingness to order this online delivery food. Finally, participants answered questions related to their fear of COVID-19, psycho-sociodemographic data and past behaviour.

The questionnaire was examined by a panel of experts to ensure content validity. It was further tested in a group of 20 target participants to verify the clarity of the questions and gain feedback on the length of the questionnaire.

Data collection took place from May 25th to June 3rd. Filling in the questionnaire required between 5 and 8 min. The task was self-paced.

3.3. Measurement scales

The measurement scales were selected and adapted after a thorough review of the literature. The independent variable comprised the four online delivery service options described (standard delivery, unboxing, home chef, and DIY meal kit). The mediator variable was the experiential value of the delivery option, measured using 4-items adapted from [Otto and Ritchie \(1996\)](#). Fear of COVID-19 was included in the model as a moderator variable, measured using 4-items adapted from [Ahorsu et al. \(2020\)](#). The dependent variable was the willingness to order the specific online delivery food showed when inviting friends over for dinner, measured using 3-items adapted from [Han et al. \(2019\)](#). Finally,

two variables were included to check the manipulation of the independent variable. The first was the perceived innovation of the delivery food showed, measured using 2-items adapted from [Zhao et al. \(2009\)](#), and the second was the utilitarian value of the delivery option, measured using 3-items adapted from [Ryu et al. \(2010\)](#). All responses were measured using a 5-point Likert scale, ranging from “strongly disagree = 1” to “strongly agree = 5”. All scales displayed acceptable reliability levels ([Nunnally, 1978](#)) (See [Table 1](#)).

3.4. Sample

The participants in the experiment were a convenience sample recruited from social media sites ([Mullinix et al., 2015](#)) of Spanish subjects (N = 207), aged between 18 and 70 (mean age: 48 years old). Participants were randomly assigned to one of the four experimental conditions (standard delivery, unboxing, home chef, and DIY meal kit). Cell sizes ranged from 50 to 54. The study was conducted through a web survey ([Schonlau et al., 2002](#)) (See [Table 2](#)).

The participants were looking forward to meeting their friends and relatives, since lockdown had been a sad and lonely experience for everyone. Spanish customers love visiting restaurants (8.3 over 10) and prefer them over OFD (5.5 over 10). Moreover, their willingness to spend money when going to a restaurant is greater than when ordering online food.

4. Data analysis and results

The 16 items of the scales were subjected to a principal component analysis (PCA). The KMO value was 0.853, and Bartlett's Test of Sphericity was significant ($p < .000$). The number of extracted factors with eigenvalues equal to or greater than one was five. All the items were assessed on the appropriate factor, with factor loadings higher than 0.6. Reliability was measured with Cronbach's alpha = .851 ([Nunnally,](#)

Table 1
Variables, items, and scales used.

Variable	Items	Adapted from
Experiential value (Mediator variable)	<i>When I imagine myself inviting my friends to such a dinner, I feel that: I will be doing something I really like to do</i> <i>I will be doing something memorable</i> <i>I will be having fun</i> <i>I will be later sharing my experience with others on my social media</i>	Otto and Ritchie (1996)
Willingness to order online delivery food (Dependent variable)	<i>When I think of inviting my friends for dinner at home: I sometimes plan to order online delivery food.</i> <i>I am willing to order online delivery food.</i> <i>I am sure I will order online delivery food</i>	Han et al. (2019)
Fear of COVID-19 (Moderator variable)	<i>I'm very afraid of COVID-19</i> <i>It makes me uncomfortable thinking about COVID-19</i> <i>When I see the news and stories about COVID-19, I get stressed out I can't get to sleep at night thinking I might get COVID-19</i>	Ahorsu et al. (2020)
Perceived innovation	<i>I think that this online delivery service is:</i> <i>New</i> <i>Innovative</i>	Zhao et al. (2009)
Utilitarian value	<i>I think that this online delivery service will be</i> <i>Easy to serve</i> <i>Practical</i> <i>Convenient</i>	Ryu et al. (2010)

Table 2
Sample profile.

Gender	Male	40.6	
	Female	59.4	
Age	<26 (Gen Z)	26.1	
	27–40 (Millennials)	15.9	
	41–56 (Gen X)	37.2	
	57–70 (Boomer)	20.8	
		100%	
Eagerness to meet friends/relatives	I'm looking forward to seeing my friends/relatives	4.58 (SD 0.78)	
How much do I like?	Going to a restaurant (1–10)	8.3 (SD 1.8)	
	Delivery food (1–10)	5.5 (SD 2.6)	
How often do you visit restaurants?	Once a week and more often	42.20%	
How often do you order delivery food?	Once every two weeks and more often	15.10%	
How much do you usually spend?	In a restaurant	Between 20 and 50€/person	61%
	In food delivery	<20€/person	66.70%

1978). The scales were summed and averaged to form several indices according to their dimensions (EXPERIENTIAL_V, W_ORDER, F_COVID, INNOVATION, and UTILITARIAN_V).

4.1. Manipulation check

Prior to the analysis, a manipulation check of the independent variable was conducted in order to prove that the alleged innovation of the delivery options was perceived in that way. Additionally, we tested that the innovation of the delivery options added experiential value while preserving the utilitarian value. Finally, we tested that there were no significant differences between groups based on their level of fear of COVID-19.

A multivariate general linear model (GLM) was run on INNOVATION, UTILITARIAN_V, and F_COVID in order to check the manipulations of the independent variable. The participants exposed to any of the innovative delivery options rated its perceived innovation significantly higher ($M_{unboxing} = 3.74, SD = 0.85; M_{home\ chef} = 3.85, SD = 1.11; M_{DIY\ meal\ kit} = 3.57, SD = 1.04$) compared to those exposed to the standard delivery option ($M = 2.95, SD = 1.02$) ($F(3,203) = 8.008, p < .000$). We used Sidak's test for pairwise comparison. The perceived innovation of standard delivery was significantly different from every innovative delivery option used in the experiment: unboxing ($p < .00$), home chef ($p < .000$), and DIY meal kit ($p < .05$). However, there were no significant differences among the innovative delivery options ($p > .05$ in all conditions).

The utilitarian value of each experimental condition ($M_{unboxing} = 3.97, SD = 0.79; M_{home\ chef} = 3.73, SD = 0.94; M_{DIY\ meal\ kit} = 3.53, SD = 1.03; M_{standard} = 4.04, SD = 0.78, F(3,203) = 3.458, p < 0.05$) revealed significant main effect of the utilitarian value. However, Sidak's test for pairwise comparison showed that the difference to be only significant between the DIY meal kit and standard delivery ($p < .05$). This could be explained by the fact that the need for cooking requires an extra amount of effort.

Regarding fear of COVID-19, there was no significant difference among the groups ($F(3,203) = 1.392, p > .05$). Fig. 2 provides a summary of this initial result.

4.2. Conditional process analysis

We tested H1 and H2 using SPSS version 22.0 with Model 5 in the PROCESS v3 macro (Hayes, 2018). The mediation analysis was based on 5000 bootstrap samples, with a 95% confidence interval (CI).

The independent variable was the online delivery option. This

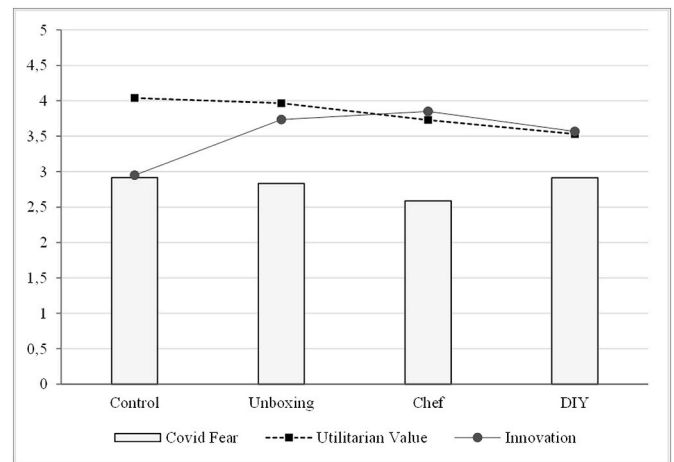


Fig. 2. Means of the variables to check experimental conditions.

variable was multicategorical and coded whether the option in OFD was (1) the control condition (standard delivery), (2) the unboxing condition, (3) the home chef condition, or (4) the DIY meal kit condition. We used an *indicator coding* system to dummy code the independent variable; therefore, the control condition acts as the baseline group. Three dummy variables were constructed to code the experimental condition (X). D1 captured the effect of condition 2 vs condition 1. D2 captured the effect of condition 3 vs condition 1, and D3 captured the effect of condition 4 vs condition 1. Experiential value was used as a mediator variable; the willingness to order food online was the dependent variable, and fear of Covid-19 was the moderator variable.

Mediation analysis

H1 proposed a mediation effect of the customers' perceived experiential value in the relationship between the different options of delivery and the willingness to order online delivery food when inviting friends over for dinner.

The results showed that the independent variable—the delivery options—had a significant relative positive effect on the perceived experiential values ($a_1, a_2, \text{ and } a_3; p < .05$). The individuals assigned to the more innovative delivery conditions showed higher perceived experiential values than those assigned to a standard delivery offer, with the DIY option (4) being the option that exerted a stronger influence. See Table 3.

The perceived experiential value, in turn, had a significant positive effect on the willingness to order online food when inviting friends over for dinner ($b = 0.531, p < .000$). This result suggests that when perceived experiential value increases, consumers tend to show a higher willingness to order food to have dinner at home when inviting friends over.

The relative direct effect between the independent variable and the

Table 3
Coefficients for the mediation model.

Antecedent	M (Experiential value)			Y (Willingness to order food)				
	Coeff	SE	P	Relative direct effect				
				Coeff	SE	p		
D1	a_1	.551	.174	.002	c'1	.286	.18	.128
D2	a_2	.727	.172	.000	c'2	.281	.18	.136
D3	a_3	1.001	.174	.000	c'3	.291	.19	.140
M (Experiential value)	–	–	–	b	.531	.07	.000	
Constant	i_M	2.875	.13	.000	i_Y	1.30	.24	.000
	R^2	.151		R^2	.520			
	$F(3,203)$	12.02, $p = .000$			$F(4,202)$	18.81, $p = .000$		

willingness to order online food, not attributable to the perceived experiential values, was also significant.

Finally, the relative indirect effects of the catering service option on the willingness to order food via the mediator were also significant. See Table 4.

When taken together, the mediation model indicates that the effect of all different delivery services options on the willingness to order food is mediated by the perceived experiential value. Based on these results, H1 is supported.

Moderation analysis

In H2, we predicted that the fear of COVID-19 moderates the influence of the different delivery options on the intention of ordering online food when inviting friends over for dinner.

Prior to conducting the moderation analysis, the moderator variable was mean-centred. Table 5 shows the coefficient of the relative conditional effects, standard errors, p-values, and other model summary information referring to the moderation effect.

D1, D2, D3, and W represent the relative conditional direct effects of the delivery options on the intention to order food.

The results depicted in Table 4 show that not all delivery options behave similarly in terms of intention to order food online, depending on the participants' fear of COVID-19.

Unboxing vs. standard delivery option: Customers offered the unboxing option as compared to those who were offered the standard delivery option (D1) were more willing to order food online from a catering service. Yet, this effect was marginally significant ($p = .050$). However, as consumers reported more fear of COVID-19, the willingness to order the unboxing option increased significantly ($p = .004$) compared to the standard delivery option. This result suggests that the direct effect of being offered the unboxing delivery option vs. the standard one is dependent on the fear of COVID-19. See Fig. 3.

Home chef vs. standard delivery option: When comparing the delivery options of home chef vs. the standard delivery option (D2), we found that there was a significant difference in the willingness to order food online when consumers' fear of COVID-19 is low ($p = .228$).

However, when comparing the willingness to order between the home chef condition and the standard delivery condition among customers with high fear of COVID-19, the difference was not significant ($p = .004$). Therefore, the moderating effect of the fear of COVID-19 in this situation exerts the opposite influence to that of the unboxing option. See Fig. 4.

DIY home kit: Interestingly, customers were more willing to order a DIY meal kit than a standard delivery condition; however, the fear of COVID-19 did not exert a moderation effect in this condition.

Furthermore, when comparing the delivery options of DIY meal kit vs. the standard delivery option (D3), results showed that the fear of COVID-19 did not exert a moderating effect. See Fig. 5.

Based on the results, H2 was partially supported. Fear of COVID-19 exerted a moderation influence on consumers' willingness to order innovative online delivery food.

5. Discussion, implications, and limitations

The COVID-19 pandemic has adversely impacted the restaurant industry and the industry is pivoting to stay afloat during this pandemic.

This research examined the effect of innovation in OFD aimed at

Table 4
Coefficients of the relative indirect effects of the mediation model.

—	Relative indirect effects			
	Coeff.	SE	LLCI	ULCI
D1	.293	.103	.1028	.5019
D2	.386	.117	.1819	.6373
D3	.536	.117	.3244	.7852

Table 5
Model coefficients for the relative moderation analysis.

		Coeff	SE	p
D1	c'1	.3501	.1827	.050
D2	c'2	.2258	.1867	.228
D3	c'3	.3580	.1943	.067
W (Fear of COVID-19)	c'4	-.1608	.1445	.268
D1 x W	c'5	.5633	.1449	.004
D2 x W	c'6	-.4018	.1944	.032
D3 x W	c'7	.1078	.1861	.591
Constant		1,1768	2451	.000
		R ² = .390		
		F (8,198) = 15.836, p = .000		

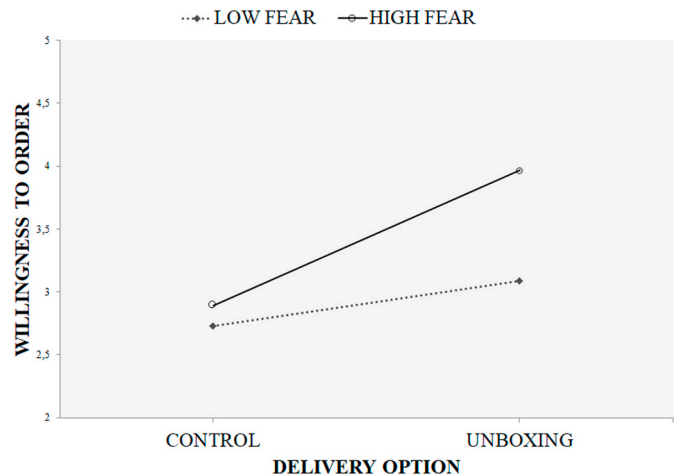


Fig. 3. Relative conditional effect of D1 (unboxing vs. control) × Fear of COVID-19 on the willingness to order.

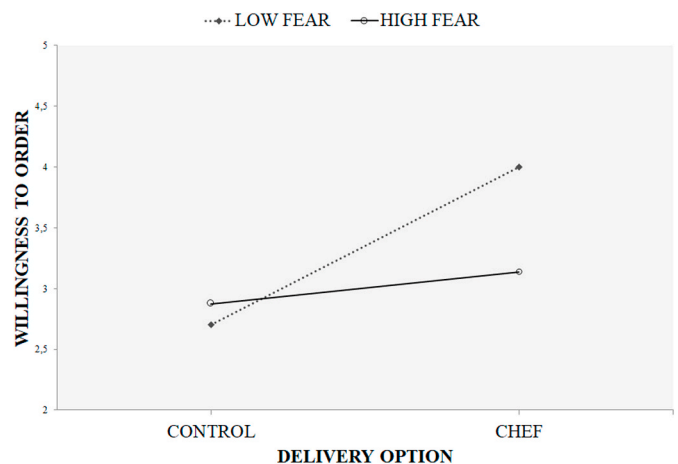


Fig. 4. Relative conditional effect of D2 (home chef vs. control) × Fear of COVID-19 on the willingness to order.

increasing the perceived experiential value on the willingness to order innovative online delivery food, together with as the moderating role that fear of COVID-19 can play on the willingness to order these innovative options. The results show that OFD is a broad category that is not restricted to the convenience segment of ready-to-eat food. Innovation in OFD can increase the experiential value evolving toward a ready-to-enjoy concept, thereby influencing consumers' purchasing decisions. The impact of COVID-19 on society influences users' willingness to order.

The findings of this study show that while innovation may increase

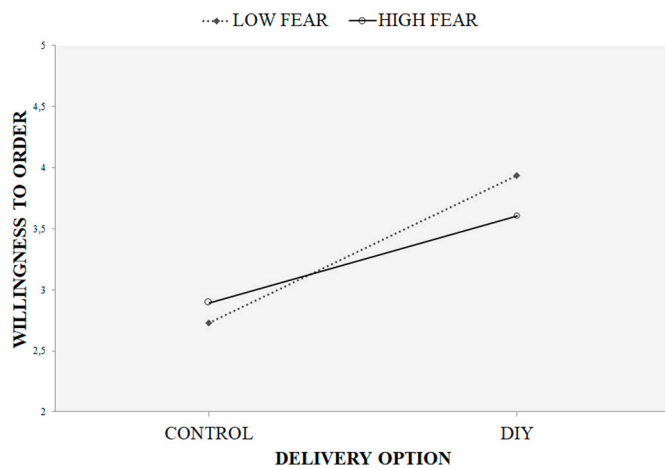


Fig. 5. Relative conditional effect of D3 (DIY meal kit vs. control) \times Fear of COVID-19 on the willingness to order.

the experiential value of a delivery option, the fear of COVID-19 will still influence consumers' decision in various ways. Fear can be seen to favour choice in the case of the unboxing option. Although consumers may prefer to dine with friends in a restaurant rather than at home, such an attractive option becomes even more attractive when fear of COVID-19 increases.

In contrast, the influence of fear is reversed in the case of home chef, which has a high experiential value. The results suggest that the fear of contagion may extend to the fear of allowing strangers into one's home (despite following rigorous safety, cleaning, and sanitation protocols). Thus, in this situation, fear discourages the intention to order.

The DIY meal kit condition is the only option for which the experiential value increases with respect to the standard delivery, but the utility value decreases. The increase in the experiential value favours the decision to buy, but the fear of the COVID-19 does not exert a significant influence with respect to this option. It seems that other factors, which are perhaps related to the perception of the utilitarian value, would provide a deeper explanation of the intention to opt for this option.

This research has several academic implications. First, this study helps to demonstrate how innovation brings experiential value to OFD. Furthermore, it sheds some light and broadens knowledge on COVID-19 when it comes to consumer decisions. Thus, it shows that the level of fear experienced by consumers significantly affects their decisions. Consumer behaviour, which is always dynamic, can be even more so, depending on the severity perceived at different times of the pandemic. COVID-19, in a way, forces us to learn from the consumer, as something that could be very attractive under normal conditions (outside the COVID-19 pandemic) ceases to be so in times of COVID-19 due to fear. In the medium and long term, these results could help understand consumer behaviour in the face of an upsurge in the disease, which would consequently raise the level of fear of COVID-19.

Moreover, there are several practical implications from this research. Perceived innovativeness has a profound effect on the profitability of a company (Hwang et al., 2019). This experiment shows that participants' perceived innovation in every option of OFD tested. This could help restaurants to understand how consumers perceive innovativeness from their products/services.

Innovation has so far been directed at the moment of purchase and was essentially technological. However, the findings of this study have shown that innovation in consumption experience is worth paying attention to as well.

It is important to be aware that today's consumer is a fan of an experience demanding enjoyment as well as emotional stimulation (Nielsen, 2020). However, for the experience to be a real factor influencing decision-making, it must also ensure the complete safety of the

customer, who is very sensitive to the fear of contagion. Many of the changes we have incorporated in our personal interactions to avoid contagion (preference for isolation, choice to maintain a smaller, more intimate circle of friends, greater awareness of the presence of germs in public areas, more home entertainment) are likely to remain long after the pandemic ends (Veeck and Xie, 2020).

Regarding limitations, data collection is based on a convenience sample. There is a common concern that the features of a given convenience sample may diverge from a representative population sample. However, Mullinix et al. (2015) provided evidences that convenience samples can produce treatment effect estimates similar to population-based samples in terms of direction and significance.

Future researchers could examine the effect of these types of innovations in different countries and also in the post-COVID-19 era. COVID-19 is pushing the food and the restaurant industry to anticipate customer concerns, needs and fears, to pivot, to redesign, and to innovate. Once the pandemic has ended, the new habit of working from home may create new opportunities, such as OFD breakfasts, to be investigated.

Innovation will have to respond to the growing demand for OFD. Research is needed to create products that travel well and to develop packaging that preserve food quality.

Cooking at home has increased as a result of the pandemic and consumers are likely to continue doing so post-pandemic. Therefore, DIY meal kits could be a future meal trend to be researched.

6. Conclusion

This paper highlights the importance of exploiting the possibilities offered by rapid innovation that seeks to make the consumption of OFD more experiential. For restaurants, and restaurateurs, modifying, updating, pivoting, and innovating their operations in an attempt to meet the current needs of a changing customer and adapting customer experience in the time of COVID-19 and the future will be crucial.

Implications for gastronomy

First, this study helps to demonstrate how innovation brings experiential value to OFD. While OFD has traditionally been a utilitarian alternative to solve the need for effortless eating, evidence is provided that experiential value is possible by innovating in both product and service. The experiment conducted shows that participants perceive innovation in all OFD options tested. This could help restaurants to understand how consumers perceive innovation in their products/services. Secondly, increasing the experiential value of OFD means broadening and extending the offer beyond popular Italian, American and Chinese dishes. This, in turn, implies the need to develop packaging that travels well and preserves the quality of the food. Covid-19 has a strong impact on consumption habits. Here we show the moderating role of fear in consumer choice. However, in the aftermath of the pandemic, consumption of food at home has increased and consumers are likely to continue to do so after the pandemic. Therefore, DIY meal kits could be a future food trend to investigate.

Author statement

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Declaration of competing interest

The authors declare that they have no known competing financial

interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix I. Visual stimulus used in the questionnaire



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