



BRAND ADDICTION IN THE CONTEXT OF COVID-19: A FOCUS ON FOOD DELIVERY SERVICES

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Abstract

The paper aims to explore, on the one hand, the impact of fear of COVID-19 and perceived risk of eating out during COVID-19 on customers' attitude toward using online food delivery services (OFDS), and on the other, the influence of this attitude on the formation of positive feelings (brand love) up to addictive ones (brand addiction; continuance intention after COVID-19) toward OFDS brands. To reach these objectives, a web-based self-completion survey and a subsequent structural equation modelling have been employed. Results reveal that fear of COVID-19 positively influences the perceived risk of eating out, which in turn shows a positive impact on attitude toward using OFDS brands, thus triggering a virtuous process leading to the formation of consumers' positive and addictive feelings towards OFDS brands. Managerially, the study provides a practical understanding concerning the possible strategies restaurants can adopt in order to offer effective OFDS to their customers.

Keywords

fear of COVID-19; perceived risk of eating out; attitude toward using online food delivery services; brand addiction; brand love; continuance intention after COVID-19

1. Introduction

The COVID-19 pandemic has brought with it several challenges for different economic sectors. Among these, the hospitality and catering industries have faced tough times (Belarmino et al., 2021). In particular, by focusing on the catering sector, in the last year, restaurants had to close for months due to the different lockdowns (Dsouza and Sharma, 2021). In this context, online food delivery services have filled this gap, thus becoming the only bridge between restaurants and their customers (Cai and Leung, 2020). Notably, online food delivery services (OFDS) connect consumers with restaurants and allow food to be delivered (Belarmino et al., 2021). OFDS can be defined as “any food delivery transaction

with monetary value that is done through mobile handheld devices, such as smartphones or personal digital assistants” (Prasetyo et al., 2021, p. 1). If before the COVID-19 pandemic, these services were optional for the European restaurants, the necessary limitations imposed by the different COVID-19 decrees forced the catering industries to rely heavily on them to survive. In 2020, in Europe, the interest in OFDS grew by 140%, with Italy achieving one of the best performances, equal to +180%. Only in the third quarter of 2020, +34% of Europeans ordered take-away food through online services. Notably, this percentage turned out to be different from country to country: the highest value has been detected in the UK (+46%), followed by Italy (+35%). Conversely, France was last in the ranking (+27%) (Reply, 2021)¹.

These data allow to confirm how the COVID-19 pandemic has profoundly changed consumers’ habits and behaviors, especially for what concerns their food consumption patterns. More in detail, consumers, forced to eat at home due to the closure of restaurants, have increasingly begun to use food delivery services. This attitude, combined with the states of fear/anxiety linked to the perceived risk of eating out, has led and is leading more and more people to choose these services even in the stages of COVID-19 restrictions’ reduction. This means that the online food sector will be not only a consequence of the pandemic crisis but also a trend for years to come (Reply, 2021).

Starting from these assumptions, the present study aims to explore the influence of fear of COVID-19 and perceived risk of eating out during the pandemic on customers’ attitude toward using OFDS brands. Secondly, the paper seeks to test if fear of COVID-19 and the attitude toward using OFDS can lead to positive feelings toward OFDS brands (i.e., brand love) up to addictive ones (i.e., brand addiction and continuance intention after COVID-19).

By doing so, the paper provides important theoretical and managerial contributions. At the theoretical level, the study represents the first work focused on the brand addiction and brand love topics in the OFDS context. Secondly, it tries to enrich the paucity of research on OFDS in the COVID-19 context (Belarmino et al., 2021), especially by investigating the effect of the fear of COVID-19 on the OFDS adoption, thus deepening the analysis of the role of fear of COVID-19 on the consumers’ food consumption habits (Gavilan et al., 2021).

Managerially, by analyzing the catering sector, which represents one of the sectors most affected by the pandemic, the present work attempts to identify how restaurants can provide value to their customers through OFDS.

The remainder of the paper is organized as follows: Section 2 provides a review of the literature along with the hypotheses development. Section 3 describes the methodology, while

¹<https://www.reply.com/it/content/una-nuova-spinta-verso-la-digitalizzazione-del-settore-fandb-food-and-beverage>

Sections 4 presents and analyzes the empirical results. Finally, Section 5 concludes the study by discussing theoretical and managerial implications, limitations, and directions for future research.

2. Hypotheses development

2.1 Fear of COVID-19

Worldwide, the COVID-19 pandemic has brought with it several consequences, most of them leading people to feel emotions of fears, worries, and anxiety (Jian et al., 2020). Notably, fear of COVID-19 has been defined as “a negative emotional state that captures the anxiety and depression experienced due to an awareness of the possible consequences of the COVID-19 pandemic, such as being infected with the coronavirus” (Jian et al., 2020, p. 3).

2.2 Perceived risk of eating out during COVID-19

Along with fear of COVID-19, another key factor influencing individuals’ habits and future intentions is their perceived risk (Rather, 2021). In particular, literature (Jenkins et al., 2021; Yağcı et al., 2021) has mainly analyzed the individuals’ perceived risk of travelling during COVID-19. Generally, it refers to “whether a potential traveler feels comfortable and safe during a trip” (Gupta et al., 2021, p. 5). Since travelers, who feel a sense of risk, are normally less inclined to travel, the extant research identifies a negative impact of perceived risk of traveling during COVID-19 on individuals’ attitude to travel (Gupta et al., 2021; Rather, 2021), thus confirming previous studies (Cahyanto et al., 2016; Pine and McKercher, 2004), focused on health and environmental crises such as the tsunami, 9/11 incidence, SARS, and Ebola. In particular, these researches found how the perceived safety and security risks lead travelers to become anxious and little inclined to travel. Similarly, in the last year, the majority of travelers have decided to postpone or cancel their travel plans for fear of contracting the COVID-19 virus.

Given that the risk of contracting the virus during non-essential travels can also be extended to meals consumed outside the home for reasons that are not strictly necessary (i.e., not related to work or health reasons), in the present study, the attention is focused on the perceived risk of eating out during COVID-19.

2.3 Attitude toward using OFDS brands

Overall, attitude can be defined as the way in which individuals view/evaluate something or someone, a predisposition or a tendency to respond towards a certain idea, object, product, service, person, or situation (Vargas-Sánchez et al., 2015). In the current research, attitude refers to the individuals’ predisposition toward the adoption of the OFDS brands in the COVID-19 context.

2.4 Brand love

One of the most adopted definitions of brand love is that of Carroll and Ahuvia (2006, p. 81), who define it as “the degree of passionate emotional attachment a satisfied consumer has for a particular trade name.” More recently, Batra and colleagues (2012) conceptualize brand love as the positive attitude of consumers toward a specific brand. In particular, consumers usually begin to experience a feeling of love toward a brand when they spend a lot of time in adopting and thinking about that brand (Batra et al., 2012).

2.5 Brand addiction

Brand addiction can be conceptualized as one of the strongest relations between brands and consumers (Cui et al., 2018). However, within the literature, this topic is a very recent phenomenon, and studies are until now rare (Mrad and Cui, 2017; Mrad, 2018). Despite this paucity of researches, some authors have attempted to systematically define brand addiction. In particular, Mrad and Cui (2017, p. 1945) conceptualize it as “an individual consumer’s psychological state (genus) that pertains to a self-brand relationship manifested in daily life and involving positive affectivity and gratification with a particular brand and constant urges for possessing the brand’s products/services”. From this perspective, brand addiction can be effectively considered as a distinctive feeling with respect to other emotions such as brand attachment, brand love, or brand loyalty.

2.6 Continuance intention after COVID-19

Continuance intention can be defined as the individuals’ intention to continue using a brand, product, or service after its initial acceptance (Basak and Calisir, 2015).

In the present study, continuance intention concerns the individuals’ intention to continue to use OFDS after the COVID-19 pandemic.

2.7 Fear of COVID-19, perceived risk of eating out during COVID-19, brand love, and brand addiction

By focusing on the impact of fear of COVID-19 on the adoption of OFDS, literature underlines the necessity of deepening the analysis of the role of fear of COVID-19 on the consumers’ food consumption habits, behaviors, and decision-process (Gavilan et al., 2021). Notably, the lockdown measures, accompanied by health and economic crisis, have provoked in people feelings of anxiety, fear, and uncertainty. For their part, these sentiments have strongly influenced individuals’ social life (Ahmed et al., 2020). In particular, by becoming more and more worried about the increased risks of infection during dinners out, they began to gradually reduce possible occasions to go out.

Based on the above discussion, it could be hypothesized that fear of COVID-19 can have a positive impact on the perceived risk of eating out during COVID-19. Therefore, the first hypothesis has been postulated:

H1. Fear of COVID-19 has a positive impact on the perceived risk of eating out during COVID-19.

At the same time, fear of COVID-19 has also led people to adopt new habits which could remain afterward, such as the preference for more intimate groups of friends, more home entertainment, and the increasing adoption of OFDS, especially used in order to “shift consumption to safer, more controlled environments, such as the home” (Gavilan et al., 2020, p. 2). In this way, OFDS’ brands have become during the COVID-19 pandemic, more and more known and used by people as the main alternative to dining out (Belarmino et al., 2021; Al Amin et al., 2020; Chenarides et al., 2020). Overall, starting from this assumption and from the

fact that people (i) naturally feel closer and more connected to a brand when they constantly use it throughout their lives (Elhajjar et al., 2021); (ii) usually start to feel a sentiment of love (Batra et al., 2012) and addiction (Mrad, 2018) toward a brand when they spend time in consuming and thinking about that brand, it could be assumed that fear of COVID-19 has a positive impact on the formation of love and addiction toward OFDS brands. For this reason, the following hypotheses have been formulated:

H2. Fear of COVID-19 has a positive impact on OFDS' brand love.

H3. Fear of COVID-19 has a positive impact on OFDS' brand addiction.

2.8 Perceived risk of eating out during COVID-19 and attitude toward using OFDS brands

The inexorable spreading of the COVID-19 pandemic has led people to be more and more anxious and fearful toward human contacts by also affecting their social and travel life (Ahmed et al., 2020). Against this background, different studies have focused their attention on the perceived risk of travelling during the pandemic crisis (Jenkins et al., 2021; Yağcı et al., 2021) by also analyzing its role on the formation of individuals' closed attitudes towards avoidable travels. In particular, Gupta and colleagues (2021) and Rather (2021) hypothesize that the higher the perceived risk of traveling during COVID-19, the more negative the individuals' attitude to travel. Results corroborate this hypothesis.

Starting from this finding, in this study, we hypothesize an equivalent relationship between the perceived risk of eating out during COVID-19 and the attitude toward using OFDS brands. Notably, the perceived risk of infection deriving from non-essential displacements has brought not only to the formation of closed attitudes toward avoidable travels, as stated above, but also to the gradual reduction of possible occasions to go out. Starting from this assumption and from the fact that OFDS can offer individuals safer and more controlled environments, such as the home (Gavilan et al., 2020), it could be assumed a positive impact of perceived risk of eating out on the attitude toward using OFDS brands. Thus:

H4. Perceived risk of eating out during COVID-19 has a positive impact on attitude toward using OFDS brands.

2.9 Attitude toward using OFDS brands, brand love, and continuance intention after COVID-19

In a context where restaurants and bars have not been able, for several months, to open their doors to their customers due to COVID-19 restrictions, the OFDS managed to fill this gap, thus becoming the only connection between these firms and their customers (Kerigan, 2020). From the consumers' perspective, this forced closure of restaurants and bars has led them to eat at home. Against this background, the OFDS' use has grown enormously (Reply, 2021). In this study, we hypothesize that the widespread attitude toward using OFDS brands can lead to positive feelings toward them (i.e., brand love) up to addictive ones (i.e., brand addiction, continuance intention after COVID-19).

For what concerns the connection between attitude and brand love, research has analyzed this relationship in contexts different with respect to the OFDS one. Notably, Kim and Kim (2018) confirm, in their study, how brand love towards advertisements is significantly affected by consumers' positive attitude toward them. Subsequently, Sama and Trivedi (2019) hypothesize and corroborate a significant impact of the attitude toward certified cosmetic products on the formation of consumers' love feelings toward them. Similarly, Han and

colleagues (2019) detect a positive influence of the attitude toward low-cost carriers' brands on brand love.

By focusing on the online shopping, Navaneethakrishnan¹ and Sathish (2020) detect a significant role of the consumers' attitude toward using the brand Amazon in creating brand love. Moreover, always in the same year, Trivedi and Kishore (2020) identify a significant effect of the attitude towards the electric car brand on brand love. In their study of 2021, Kumar and colleagues and Sreen and colleagues confirm a significant impact of the consumers' attitude toward using local and natural food on brand love.

Starting from these previous results and from the fact that several authors (Hegner et al., 2017; Sarkar, 2014; Batra et al., 2012) have underlined that attitude can be a significant antecedent to brand love, in this study, this connection can plausibly be extended to the OFDS' brands context. Therefore:

H5. Attitude toward using OFDS brands has a positive impact on brand love.

With regard to attitude and continuance intention after COVID-19, different studies have analyzed this relationship, even if the majority of them have focused their attention on other contexts with respect to the OFDS one. In particular, Birkmeyer and colleagues (2021) corroborate a significant influence of the consumers' positive attitude toward using mobile health applications on their continuance intention to use them after COVID-19. In his study, Nikou analyzed the key role assumed by the web-based videoconferencing during the COVID-19 pandemic. Notably, the author investigates the adoption of this tool for teaching in the post-COVID-19 landscape. Subsequently, Yuen and colleagues (2021) and Pan and colleagues (2021) underline a positive effect of the consumers' attitude toward using cruise services on their intention to continue to adopt them after COVID-19. Finally, Mo and colleagues (2021) and Singh and colleagues (2020) identify a positive effect of the attitude toward using platforms for online learning on the continuance intention to use them.

By specifically focusing on the food delivery services, Al Amin and colleagues (2021) detect a significant influence of customers' positive attitude toward mobile food delivery applications on the continuance intention of using them. Similarly, Troise and colleagues (2021) and Hwang and colleagues (2021) identify a positive influence of the consumers' attitude toward using online delivery services on their intention to continue to adopt them.

Starting from these previous results, in the present study, a positive impact of the consumers' attitude toward using OFDS brands on their continuance intention to adopt them after COVID-19 has been postulated. Thus:

H6. Attitude toward using OFDS brands has a positive impact on continuance intention after COVID-19.

2.10 Brand love, brand addiction, and continuance intention after COVID-19

Research focused on the analysis and conceptualization of brand love identifies different outcomes of this topic. Among them, some scholars corroborate how brand addiction (e.g., Terason et al., 2019; Mrad and Cui, 2017) and intention to repurchase (e.g., Han et al., 2019; Vlachos and Vrechopoulos, 2012) are consequences of brand love.

Starting from these previous studies and from the fact that, to the best of the authors' knowledge, no studies have analyzed, until now, the formation of customers' love feelings towards OFDS brands in the current context of COVID-19, we hypothesize that, in the OFDS sector, brand love has a positive impact on brand addiction and costumers' continuance intention after COVID-19. For this reason, the following hypotheses have been proposed:

H7. Brand love toward OFDS has a positive impact on brand addiction.

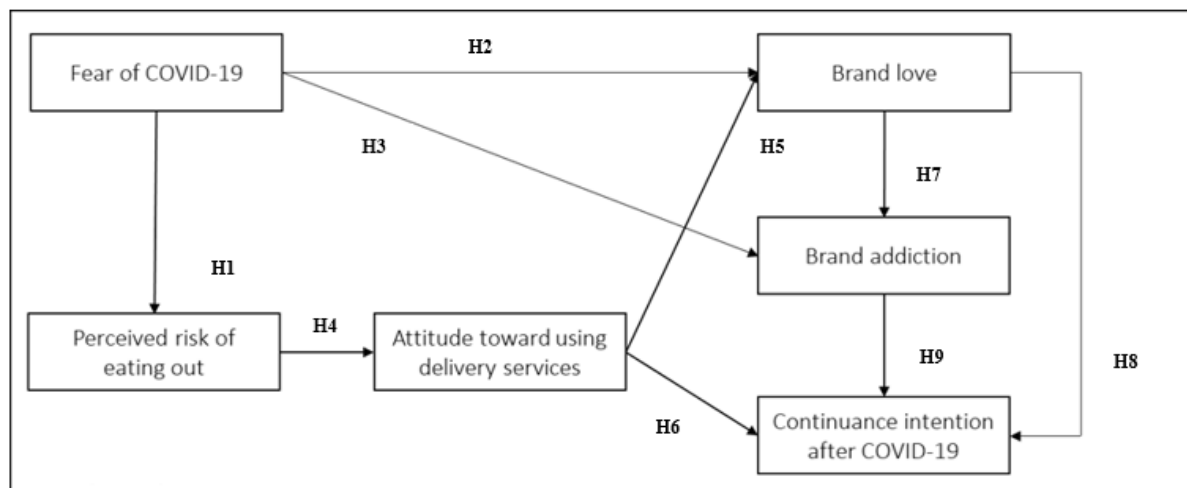
H8. Brand love toward OFDS has a positive impact on continuance intention after COVID-19.

Similarly, for what concerns brand addiction and continuance intention after COVID-19, no studies have investigated this relationship. Furthermore, no researches, to the best of the authors' knowledge, have focused their attention on the analysis of the brand addiction topic in the OFDS context. Starting from these assumptions, and from the fact that Meijani and colleagues (2021) identify, in their study, that brand addiction has a positive effect on customers' repurchase intention, we assume that the customers' addiction toward OFDS brands has a positive impact on their intention to continue to use them after COVID-19. Thus:

H9. Brand addiction toward OFDS has a positive impact on continuance intention after COVID-19.

Figure 1 depicts the overall model under investigation, with the research hypotheses.

Figure 1. Conceptual model



3. Methodology

The study uses cross-sectional primary data. An online non-random sampling approach with Italian consumers was applied. Translation-back-translation method was employed to carry out the survey in Italian language. After eliminating incomplete responses and discarding respondents with a uniform response style (Völckner et al., 2010), we ended up with 398 valid responses. The sample constituted of 40% male respondents and 60% female respondents with 70% being in the age group of 18 - 23 years. As our sample is not representative of the Italian population, we include gender, age, and education as covariates, but no significant effects or differences were found. With a total of 398 respondents, the sample is above the rule of 200 and the sample to item ratio is 11.7, which is higher than the acceptable ratio of 5:1 (Gorsuch, 1983). Thus, an adequate sample size is achieved. Kaiser-Meyer-Olkin (KMO) as well as Bartlett's Test of Sphericity to measure sampling adequacy are calculated. KMO is .929 (> than

.5) and Bartlett's Test of Sphericity is significant at .000 (below $p < .05$), therefore, both values are over the threshold and the data is suitable for factor analysis.

For the operationalization of the constructs, we employed existing and empirically validated scales. Survey respondents were asked to indicate their level of agreement for each of the items using a seven-point Likert scale, anchored by totally disagree (1) to totally agree (7). Appendix contains the complete list of the items, Cronbach's alpha for each scale, and the source adopted for each construct.

4. Results

4.1. Validity and Reliability Tests

Several analyses were conducted to test our model. Exploratory factor analysis, confirmatory factor analysis, and structural equation modelling are used to address the hypotheses. Employing principal factor analysis showed that all items loaded on the proposed constructs. Overall, the six factors explain 67.5% cumulative variance. None of the 34 items had significant cross-loadings ($> .50$). All scales are reliable with Cronbach's alpha values higher than .8 (see Appendix).

The constructs' convergent and discriminant validity was assessed through a confirmatory factor analysis. Average variance extracted (AVE) and composite reliability (CR) form convergent validity. To obtain convergent and discriminant validity, the AVE should be $> .40$ (Floyd & Widaman, 1995) and the CR $> .60$ (Bagozzi & Yi, 1988). AVE values are between .51 (brand addiction) and .83 (perceived risk) and CR values range between .88 (fear of COVID-19) and .94 (attitude & perceived risk). Thus, all AVE and CR values are acceptable.

Discriminant validity is established by comparing AVE values need with the squared inter-construct correlation estimates (SIC). Details for means and standard deviations of the constructs, as well as AVE, CR, and SIC values, are displayed in Table 1.

Table 1. Reliability and validity tests

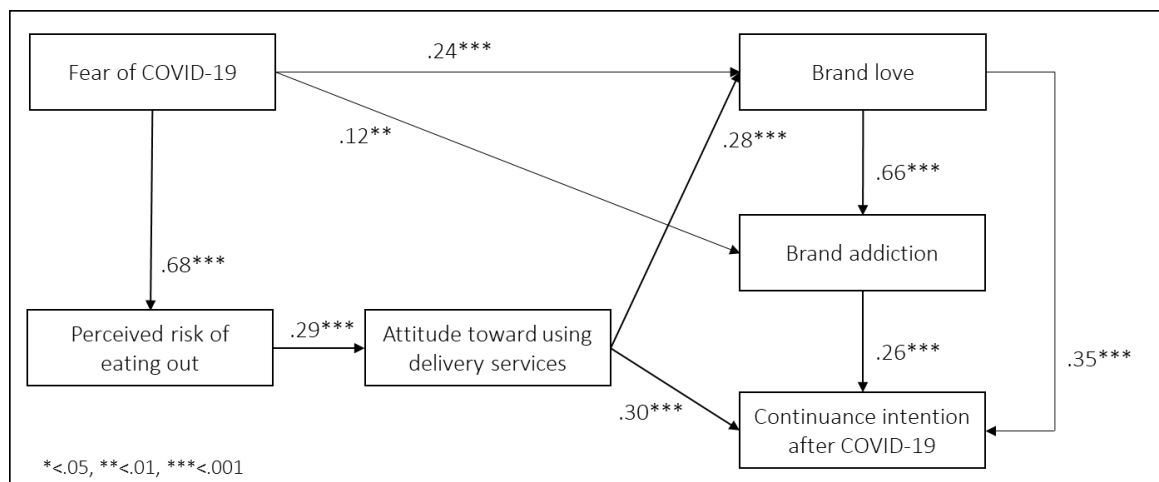
Construct	Mean (SD)	CR ($> .60$)	AVE ($> .40$)	SIC					
				1	2	3	4	5	6
1. Fear of COVID-19	3.71 (1.83)	.88	.66	1					
2. Perceived risk	3.64 (1.84)	.94	.83	.46	1				
3. Attitude	5.98 (1.21)	.94	.78	.05	.08	1			
4. Brand love	3.82 (1.60)	.92	.64	.09	.07	.11	1		
5. Brand addiction	2.73 (1.56)	.91	.51	.10	.11	.03	.47	1	
6. Continuance intention	4.37 (1.58)	.89	.74	.05	.06	.23	.43	.30	1

4.2. Hypotheses Testing

Structural equation modelling (SEM) was employed using SPSS AMOS 26 to test our hypotheses. The findings show an acceptable model fit with $\chi^2=1501.24$; $df=514$; $p=.00$; $\chi^2/df=2.92$; $IFI=.92$, $TLI=.91$, and $CFI=.92$; $RMSEA=.07$. Figure 2 gives an overview of the results of our model testing.

Significant effects are found for the following relationships. Fear of COVID-19 has a positive effect on perceived risk of eating out during COVID-19 ($\beta=.69$; $p<.001$), brand love ($\beta=.24$; $p<.001$), and brand addiction ($\beta=.12$; $p=.005$), thus confirming H1, H2, and H3. Perceived risk of eating out during COVID-19 has a positive effect on attitude towards using OFDS brands ($\beta=.29$; $p<.001$), while attitude towards using OFDS brands has a positive effect on brand love ($\beta=.28$; $p<.001$) and continuance intention after COVID-19 ($\beta=.30$; $p<.001$), thus supporting H4, H5, and H6. Brand love positively influences brand addiction ($\beta=.66$; $p<.001$) and continuance intention after COVID-19 ($\beta=.35$; $p<.001$), thus corroborating H7 and H8. Finally, also H9 has been accepted since brand addiction positively influences continuance intention after COVID-19 ($\beta=.26$; $p<.001$).

Figure 2. Summary of the results



In order to test possible mediating effects, we followed the recommended procedure by Hayes et al. (2017). We modelled the proposed mediations in a structural equation model (Gaskin et al., 2020). Perceived risk of eating out mediates the effect between fear of COVID-19 and attitude towards using OFDS brands ($b=.14$, BCa CI [.10; .20]). Brand love mediates the relationship between fear of COVID-19 and brand addiction ($b=.11$, BCa CI [.07; .15]) and fear of COVID-19 and continuance intention after COVID-19 ($b=.08$, BCa CI [.05; .12]). The relationship between perceived risk and brand love is mediated by attitude towards using OFDS brands ($b=.07$, BCa CI [.04; .10]). Attitude toward using OFDS brands additionally mediates the relationship between perceived risk of eating out during COVID-19 and continuance intention after COVID-19 ($b=.07$, BCa CI [.05; .10]). Brand love mediates the effect of attitude toward using OFDS brands on brand addiction ($b=.17$, BCa CI [.11; .23]) and continuance intention after COVID-19 ($b=.13$, BCa CI [.08; .19]). Finally, brand addiction mediates the

relationship between brand love and continuance intention after COVID-19 ($b=.18$, BCa CI [.11; .27]).

5. Implications, limitations, and future research

5.1 Theoretical implications

Theoretically, the study provides different contributions to the extant literature. Firstly, it enriches the paucity of studies focused on the role of OFDS in the COVID-19 context (Belarmino et al., 2021) by specifically examining and deepening the effect of the fear of COVID-19 on the adoption of the OFDS (Gavilan et al., 2021). Secondly, the work set out to corroborate if fear of COVID-19, perceived risk of eating out during COVID-19, and the attitude toward using OFDS brands can lead to positive feelings toward them (i.e., brand love) up to addictive ones (i.e., brand addiction and continuance intention after COVID-19). Thirdly, the paper represents the first contribution analyzing the brand love and brand addiction topics in the OFDS context.

About results, a significant impact of fear of COVID-19 on the perceived risk of eating out has been identified (H1), thus corroborating how feelings of anxiety and fear, tied to the uncertainty of the COVID-19 context, have led people to reduce possible occasions to go out during the pandemic crisis (Ahmed et al., 2020).

For what concerns the impact of fear of COVID-19 on brand love and brand addiction (H2-H3), a significant effect has been corroborated on both of them. These results allow to confirm how fear of COVID-19, by leading people to adopt new habits (including the increasing adoption of OFDS), had a positive impact on the people's formation of love and addiction toward OFDS brands. More in detail, fear of COVID-19 allowed individuals to spend more time with these service brands, and this condition represents a fundamental premise for the formation of positive and addictive feelings towards a brand (Elhajjar et al., 2021; Mrad, 2018; Batra et al., 2012; Park et al., 2010).

Moreover, results highlight a positive impact of perceived risk of eating out during COVID-19 on the attitude toward using OFDS brands (H4), thus confirming previous studies which have analyzed an equivalent relationship related to the role of the perceived risk of travelling during the pandemic crisis on the formation of people's closed attitudes toward avoidable travels. Notably, this finding allows corroborating how the perceived risk of infection deriving from non-essential displacements has brought not only to the development of closed attitudes toward avoidable travels (Gupta et al., 2021; Rather, 2021) but also to the gradual decrease of possible occasions to go out by consequently leading to the increasing adoption of OFDS brands (Gavilan et al., 2020).

With regards to the connection between attitude toward using OFDS brands and brand love (H5), results detect the positive impact of attitude on brand love, thus corroborating previous studies (Kumar et al., 2021; Sreen et al., 2021; Navaneethakrishnan I and Sathish, 2020; Trivedi and Kishore, 2020; Han et al., 2019; Sama and Trivedi, 2019; Kim and Kim, 2018) that analyzed this relationship in contexts different with respect to the OFDS one. This allows to confirm how the attitude toward the adoption of the OFDS brands has a positive influence on the formation of feelings of love toward them.

By focusing on H6, related to the potential positive impact of attitude toward using OFDS brands on the continuance intention after COVID-19, findings support it. In this way, the present study not only confirms previous researches examining this relationship in other sectors (Birkmeyer et al., 2021; Mo et al., 2021; Nikou, 2021; Pan et al., 2021; Yuen et al., 2021; Singh

et al., 2020) but also enriches the literature specifically focused on the food delivery services context (Al Amin et al., 2021; Troise et al., 2021; Hwang et al., 2021).

Concerning the positive impact of brand love on brand addiction (H7) and continuance intention after COVID-19 (H8), results confirm both of them in the OFDS context. This allows to corroborate previous researches which highlighted the key role of brand love as antecedent of brand addiction (Terason et al., 2019; Mrad and Cui, 2017) and intention to repurchase (Han et al., 2019; Vlachos and Vrechopoulos, 2012). Finally, H9, related to the connection between brand addiction and continuance intention after COVID-19, has been confirmed. Notably, the last hypotheses (H7-H9) permit to enrich the analysis related to the formation of customers' love and addiction feelings toward OFDS brands since, to the best of the authors' knowledge, this is the first study specifically investigating brand love and brand addiction topics in the OFDS context.

Overall, the confirmation of all the proposed hypotheses also allows corroborating how fear of COVID-19, by leading to the perceived risk of eating out and the attitude toward using OFDS brands, can trigger a virtuous process leading to the formation of consumers' positive and addictive feelings towards OFDS brands.

With respect to the mediation effects, the present study provides an additional element of novelty by examining the mediating role of perceived risk of eating out during COVID-19, attitude toward using OFDS brands, brand love, and brand addiction.

5.2 Managerial implications

The study analyzes a very interesting sector since the catering industry represents one of the businesses most affected by the pandemic. In particular, the work underlines the key role of OFDS in the current and future context given that the adoption of these service brands during the COVID-19 has brought and will lead people to nurture feelings of love and addiction towards them and consequently to use them even after the pandemic crisis will cease to exist. Starting from these results, the study provides a practical understanding concerning the possible strategies restaurants can adopt in order to strengthen their customers' attitude toward their brands in particular by offering effective OFDS.

Firstly, restaurants can decide whether to opt for third-party online delivery platforms (ODPs) or for own online delivery services. The ODPs are "usually managed by independent companies that take orders from users, communicate with restaurants and carry out the food delivery activities using gig workers" (Troise et al., 2021, p. 665). Notably, these platforms represent an interesting option for restaurants to increase their profits (Troise et al., 2021). Conversely, restaurants can also opt for their own OFDS, especially if they are characterized by robust logistics (Chenarides et al., 2021). In this specific case, it is fundamental to offer customers high-performing services for two main reasons: the elevated competition characterizing this sector and the extreme importance of ensuring an excellent service's experience of use since only in this way customers will have a positive attitude toward it. As confirmed by results, this positive attitude, in turn, can lead customers to feel emotions of love and addiction toward the service brand, thus continuing to adopt it also after the COVID-19. In order to strength the customers' positive attitude toward using the restaurant's online delivery service, managers should consider several elements related to the designing and marketing of it. Notably, for what concerns the design features, it will be fundamental to provide: (i) an ease-of-access platform in order to offer a fast and smoothly service; (ii) digital/credit card payment; (iii) complete information sheets concerning food/nutrition details (e.g., ingredients, calories, allergens) ; (iv) restaurants' contacts; (v) section dedicated to customers' reviews/ratings; (vi) section dedicated to COVID-19 safety precautions (e.g., guidelines concerning the food preparation, details concerning the safety of the delivery process, eventual certifications;

hygiene ratings); (vii) options of food personalization (e.g., possibility to add/remove ingredients).

With regard to the marketing strategies, managers should pay particular attention on: (i) promotional/financial incentives (e.g., online coupons, price discounts, quantity discounts, points, loyalty programs); (ii) targeted promotional campaigns aimed at creating specific marketing messages for the different buyer personas (e.g., messages focused on the utilitarian, hedonistic, or protection from COVID-19 benefits deriving from the adoption of the online delivery service); (iii) adoption of the social media channels in order to promote the service to the potential users.

Managerially, the implementation of all these strategies requires the presence and the training of employees with specific skills and in particular: (i) app skills, concerning the creation, management, and technical support of the online delivery service; (ii) marketing and digital marketing skills, related to the management of the marketing policies (e.g., creation of the promotional/communicational policies, management of the social media channels, process of monitoring/interaction with the users' reviews); (iii) delivery skills (e.g., the delivery employees are called to pay particular attention on the delivery process precision, speed, and safety especially for what concerns all the COVID-19 precautions).

Overall, the offer of an effective OFDS will become ever more essential since it represents “a lifeline for restaurants' survival” (Cai and Leung, 2020, p. 1) as well as “the new normal for restaurants and diners in the foreseeable future” (Cai and Leung, 2020, p. 1).

5.3 Limitations and future research

The study is not free from limitations. Firstly, the data have been collected from Italian customers during the COVID-19 period. This does not permit to generalize the results to other countries. For this reason, it could be interesting, in future research, to analyze other geographical contexts in order to identify similarities or differences with respect to the results emerged in this paper.

Secondly, the work focuses its attention on the OFDS in general. Therefore, future studies could analyze and compare different apps (e.g., third-party online delivery platforms VS restaurants' own delivery services). Thirdly, the study investigates customers' continuance intention after COVID-19 instead of effective behaviors. Future research could insert in the model additional measures such as buying behavior. Finally, since the study has been realized in a specific time period (COVID-19 context), it could be worthwhile, in the future, to realize a longitudinal analysis in order to investigate customers' perceptions in different moments (e.g., during VS after COVID-19).

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APPENDIX. Construct Operationalization

Constructs	Cronbach <i>a</i>	Main sources
Fear of COVID-19 I am afraid of the coronavirus. It makes me uncomfortable to think about the coronavirus. I am afraid of losing my life because of the coronavirus. When watching news and stories about the coronavirus on social media, I become nervous or anxious.	.877	<i>Jian et al., 2020</i>
Perceived risk of eating out during COVID-19 In the current situation, I prefer to avoid eating out. I feel more averse to eating out due to the risk from the Covid-19 epidemic. In the current situation, I prefer to shorten the duration of my potential trips outside the home.	.937	<i>Adaption from Rather (2021)</i>
Attitude toward using OFDS brands Using OFDS brands is useful during the current situation. It is valuable to use OFDS brands during the current situation. Using OFDS brands is beneficial during the current situation. Using OFDS brands is attractive during the current situation.	.933	<i>Adaption from Rather (2021)</i>
Brand love This is a wonderful brand. This brand makes me feel good. This brand is totally awesome. I have neutral feelings about this brand. (-) This brand makes me very happy. I love this brand. I have no particular feelings about this brand. (-) This brand is a pure delight. I am passionate about this brand. I am very attached to this brand.	.932	<i>Carroll and Ahuvia, 2006</i>
Brand addiction I try very hard to get everything from my favourite brand. I often fail to control myself from purchasing products of my favourite brand. I often find myself thinking about my favourite brand. I tend to give up some life activities and duties such as the occupational, academic and familial in order to fulfill some activities related to my favourite brand. I tend to allocate certain portion of my monthly income to buy the products of my favourite brand. I usually remember tenderly the previous experience with my favourite brand. I experience a state of impatience immediately before I can get hold of the products of my favourite brand. I follow my favourite brand's news all the time. I usually plan when the next purchase of my favourite brand will be. I would invest my money in some way to my favorite brand in order to support it.	.907	<i>Mrad and Cui, 2020</i>
Continuance intention after COVID-19 I will use brand X on a regular basis in the future (after COVID-19) I will frequently use brand X in the future (after COVID-19) I strongly recommend that others use brand X	.893	<i>Adaption from Li and Fang (2019)</i>