The current issue and full text archive of this journal is available on Emerald Insight at:
https://www.emerald.com/insight/0007-070X.htm

BFJ
125,13

16

Received 20 April 2022
Revised 11 October 2022
23 November 2022
Accepted 23 November 2022

Social media, brand communication and customer engagement in Michelin-starred restaurants during a time of crisis

Silvia Fissi and Elena Gori
Department of Business and Economics, Università degli Studi di Firenze, Florence, Italy
Valentina Marchi
Institute of Bioeconomy, National Research Council, Pisa, Italy and Department of Economics and Management, University of Pisa, Pisa, Italy, and
Alberto Romolini
Faculty of Economics, Università Telematica Internazionale UNINETTUNO, Rome, Italy

Abstract

Purpose – The purpose of this study is to analyse the brand communication on social media (SM) made by two- and three-starred restaurants and the customer reaction in terms of engagement effects during a crisis. The research highlights the connections between brand communication and engagement dynamics on Instagram by looking for differences in the strategies of two and three-starred restaurants and by highlighting the changes in the background engagement drivers.

Design/methodology/approach – Using data collected from 5,666 Instagram posts by 34 Italian Michelin-starred restaurants, the authors analysed the crisis-driven changes in online communication and customer engagement comparing three phases of the COVID-19 pandemic by applying a linear regression model with fixed effects.

Findings – Michelin-starred restaurants changed their strategies of brand communication to overcome the effects of the crisis. The findings highlight the importance of SM as a tool to stay in touch with consumers and the pivotal role of customers in engagement, especially during a pandemic.

Originality/value – To the best of the authors' knowledge, this is among the first studies to investigate the changes in brand communication and the effects on customer engagement during a pandemic, with a focus on Instagram. It contributes to understanding the role of platform and the main drivers of engagement on Instagram, as well as suggesting how managers can improve brand value using SM.

Keywords Brand communication, Michelin-starred restaurants, Customer engagement, Instagram, Social media

Paper type Research paper

1. Introduction

During the COVID-19 health emergency, restaurants, hotels and bars were presented as dangerous venues because they are more likely to encourage the spread of contagion

© Silvia Fissi, Elena Gori, Valentina Marchi and Alberto Romolini. Published by Emerald Publishing Limited. This article is published under the Creative Commons Attribution (CC BY 4.0) licence. Anyone may reproduce, distribute, translate and create derivative works of this article (for both commercial and non-commercial purposes), subject to full attribution to the original publication and authors. The full terms of this licence maybe seen at http://creativecommons.org/licences/by/4.0/legalcode.

British Food Journal
Vol. 125 No. 13, 2023
pp. 16-33
Emerald Publishing Limited
0007-070X
DOI 10.1108/BFJ-04-2022-0363

(Gkoumas, 2022). The forced closure of these businesses produced a major crisis in the hospitality sector and compromised the restaurant industry (Gössling *et al.*, 2021). At the same time, during the lockdown – and considering the rules of physical distancing – people spent more time online (Nabity-Grover *et al.*, 2020).

Social media (SM) provides an excellent means of engaging customers at a very low cost (Manetti and Bellucci, 2016). Murtarelli *et al.* (2022) note that, in the food sector, image-based SM (such as Instagram) is increasingly used because it can stimulate emotional reactions and engagement. Several scholars have studied the use of SM in the restaurant sector (e.g. Kang *et al.*, 2015; Lepkowska-White, 2017; de Lima *et al.*, 2019; Gruss *et al.*, 2020), but they have not verified this from a business (Tajvidi and Tajvidi, 2021) or engagement perspective during a health – and consequently economic – emergency.

At the same time, some authors have stressed the importance of engagement in increasing the business value of starred restaurants (Kiatkawsin and Han, 2019; Daries *et al.*, 2021). However, Okumus (2020) notes the necessity of further investigation of the use of SM in the food sector, with particular reference to food photography. There is also a need to deeply investigate the different dimensions of consumer engagement linked to brand communication (Pachucki *et al.*, 2022; Itani and Hollebeek, 2021). In particular, it would be interesting to analyse the psychological, social and emotional aspects of engagement and what variables increase engagement among consumers (Barger *et al.*, 2016). Engagement increases brand value, and this could be a point of leverage to overcome the effects of forced closure. Restaurants were unable to work during the pandemic and, consequently, their cash flows have been drastically interrupted; indeed, they registered a decrease in value of 50% compared to 2019 (Guida Michelin Italia, 2021). In this context, it is necessary to leverage the business value to mitigate the loss of cash flow by using an effective mix of communication. However, to the best of our knowledge, few studies have examined the communication mix of restaurants in the COVID-19 era.

The present study tries to fill this gap by analysing – in time of crisis – the brand communication on SM made by two- and three-starred restaurants and the customer reaction in terms of engagement effects. In this sense, it is useful to deeply investigate the link between the presence of any change in restaurants' communication on SM and its effects on customer answers in terms of engagement. Consequently, the study seeks the answer to the following questions:

Q1. Do starred restaurants change their brand communication on SM during a pandemic?

Q2. Do customers modify their engagement according to different communication strategies?

This research contributes to the literature on the role of brand communication with SM to increase customer engagement. From a theoretical point of view, the paper contributes to the knowledge about the pivotal role of customers in co-creating brand value by sharing their psychological state on SM platforms. The more customer engagement is, the higher the positive effects on brand value are. In this sense, this paper identifies the more valuable drivers that positively affect customer engagement. On a practical level, measuring customer engagement based on the posted messages helps starred restaurants determine the more effective communication mix for increasing brand value. Moreover, the paper suggests that a change in SM communication strategy is required to improve customer engagement.

2. Theoretical framework

Engagement is a multidimensional concept that varies according to who, what, when and where – that is, the examined subject, the sector and the tool for engaging – and consequently

its measurement depends on these different drivers and on the existence of a relationship between the engagement object (the brand) and the engagement subject (the customer) (Hollebeek and Chen, 2014; Ferreira *et al.*, 2020). In detail, engagement dimensions are linked to the process of relational exchange (Oliveira and Fernandes, 2022). Despite the presence of many conceptualizations and approaches for consumer engagement, some issues are common in the literature: multidimensionality, interaction (Bilro and Correia Loureiro, 2020) and brand experience (Khan *et al.*, 2019).

This research focuses on the SM tool and the framework is used to analyse the reaction of consumers in terms of engagement to a company's brand communication (Barger *et al.*, 2016). Companies should encourage consumer engagement by creating brand experiences on SM and paying attention to actively involving customers in a real two-way communication process. The framework also underlines that SM metrics enable businesses to measure customer engagement and, consequently, to evaluate the impact of the brand communication strategy. According to Dolan *et al.* (2019), customers can actively contribute to the engagement on SM with their likes on the content published by a brand. Some scholars referred to this type of engagement based on the number of likes on SM as "e-engagement" (Brandão *et al.*, 2019; Lepore *et al.*, 2022) and it can be evaluated through different interactions between customers and brand communication on SM.

To evaluate customer brand engagement on SM, we follow Su *et al.* (2015), who measure customer engagement according to popularity and commitment: the first can be evaluated by the number of "likes" and is linked to company awareness; the second is the active involvement of customers on social networks and is evaluated by counting the comments added by users to a post. Mariani *et al.* (2016) confirm that the participation of customers in spreading comments and likes is a critical indicator of the level of engagement, and the higher the number of interactions, the stronger the engagement. Smock *et al.* (2011) point out that even if SM tools used to respond have changed over the years, the "like" functionality has remained constant on the Instagram and Facebook platforms. In the literature, the "like" is now described as a *paralinguistic digital affordance* because it "facilitates communication and interaction without specific language associated with their messages" (Hayes *et al.*, 2016, p. 5). Previous research on the differences in levels of engagement between likes and comments has shown that like button use is more common than commenting (Summer *et al.*, 2018). Scholars have shown that the mining behind this cue can be complex and rich, even if it is activated by a single click (Hayes *et al.*, 2016). The "like" is more focused on sharing experiences, and it facilitates connections between people by initiating two-way communication (Gerlitz and Helmond, 2013). Several studies have shown how the number of likes per post can be used to measure engagement (Reilly and Hynan, 2014; Sabate *et al.*, 2014; Su *et al.*, 2015; Camarero *et al.*, 2018; Romolini *et al.*, 2020). In short, we focus on the different issues that affect engagement: brand communication and the consumer reaction in terms of "likes" as a consequence of the pandemic crisis to highlight the different effects of their different ways of interacting.

3. Consumer engagement, brand value communication and social media

Assiouras *et al.* (2015) underline the connection between brand value and consumer engagement, and Risitano *et al.* (2017) have shown that the use of strategies to increase brand value plays an important role in engaging customers.

There are also many studies about brand effects and customer engagement in times of crisis. This research stream has its roots in Zeithaml *et al.*'s (1993) study about the three different "situational factors" influencing consumers' behaviour in purchasing services. According to Vera-Martínez *et al.* (2022), the Covid-19 pandemic can be considered an extreme situational factor due to the confinement of customers.

Hollebeek *et al.* (2021) analyse the customer engagement reaction in essential and non-essential services and show that in non-essential services during the lockdown, customers are more active on SM than ever. Baran (2021) analyses the different consumers' retail preferences during the pandemic by showing a radical change in purchasing behaviours, but only considers the customer point of view without considering changes in the communication strategies of brands.

According to Miranda *et al.* (2015), the restaurant area is one of the most influenced and influential sectors in SM. If we focus on the SM tool and on the restaurant sector, consumer engagement, in a broad sense, is the multidimensional relationship between a brand and its customers (Martínek, 2021). Previous studies have indicated that interactions between restaurants and customers are more intense on SM than on websites, especially during the pandemic (Azer *et al.*, 2021). Recently, businesses have used SM to develop relationships with customers and encourage "real" engagement. According to Brodie *et al.* (2013), customer engagement is "a psychological state that occurs by virtue of interactive, co-creative customer experiences with a focal agent/object [. . .] in focal service relationships" (p. 260). It is decisive because it allows a stronger bond to be created between companies and their customers (Harrigan *et al.*, 2017).

The use of emotional and philanthropic content increases engagement, and this effect has been confirmed by recent research about engagement during the COVID-19 pandemic (Lee *et al.*, 2018; Galati *et al.*, 2019; Kordzadeh and Young, 2022). During the lockdown, Batat (2021) highlighted the philanthropic use of SM by starred restaurants; they used hashtags focused on positive messages. While the study examined chefs' practices, it did not consider the background affecting consumer engagement during the pandemic emergency and the business aspect linked to the necessity to keep in contact with current and potential clients using SM (Tajvidi and Tajvidi, 2021) and to rethink social relationships (Madeira *et al.*, 2021).

According to previous studies focused on crisis, companies have to increase their communication using SM to overcome related negative effects (Donthu and Gustafsson, 2020; Hollebeek *et al.*, 2021). Kim *et al.* (2016) had previously stressed the significance of engaging consumers who want to keep in touch with restaurants through SM and developing relationships and blog communities. Consequently, it is important to monitor SM to analyse customer behaviour (Coombs and Holladay, 2012).

According to San-Jose *et al.* (2017), customers of starred restaurants take for granted the excellence of the food: they are looking for a unique experience. Kang *et al.* (2015) pointed out that brand trust is positively influenced by a brand commitment on SM platforms. Engagement on SM enables restaurants to increase their sales (Namin, 2017). The use of SM to interact with customers helps to develop a positive perceived image and build loyalty; this is particularly the case in the luxury restaurant sector (Bao *et al.*, 2011). Moreover, previous studies offer evidence that consumers are more inclined to share content related to well-known brands (Huang *et al.*, 2013; Barger *et al.*, 2016). Kiatkawsin and Han (2019) and Balabanis and Stathopoulou (2021) found that the higher the gastronomic commitment, the greater the customers' willingness to pay. However, customer perceptions are not "isolated pockets" because, in general, customers like to share their experiences with the broader community (Habibi *et al.*, 2014). Instagram allows opened-ended communication with customers and, as it is focused on images, leaves room for imagination and enhances the creation of joint interests whereby restaurants and clients can influence each other (Tuomi *et al.*, 2021).

Therefore, the following hypotheses are proposed:

H1. During an extreme situational factor (as a pandemic event), brand communication on SM changes.

H2. The presence of an extreme situational factor (as a pandemic event) tends to increase customer engagement.

To test the hypotheses, SM posts published by Michelin-starred restaurants are analysed in three stages: before the COVID-19 pandemic, during the lockdown and during the phase after the first lockdown. Data derived by social media (i.e. weekend posts, page likes, word and hashtags count) were included to control the potential influences of other variables.

4. Method

4.1 Study context and data collection

The present study analysed the communications published on Instagram by Michelin-starred restaurants. Instagram is a leading SM platform, along with Facebook, Twitter and Snapchat (Alhabash and Ma, 2017; We are Social, 2021). It reached one billion monthly active users in June 2018, compared with 800 million in September 2017 (Statista, 2021). Despite Instagram's growing popularity, most research on SM has focused on Facebook (Hellemans *et al.*, 2020). To investigate starred restaurants' communication on Instagram, this study focused on two and three Michelin-starred restaurants in Italy. A total of 46 restaurants were identified (76.1% had two stars and 23.9% had three stars), but the study included only restaurants with an active profile during the entire period of analysis. The list of the 34 Michelin-starred restaurants active on SM is included in Appendix.

To accomplish the goal of exploring communication and customer engagement during COVID-19 compared to the previous year, this research identified three time periods, based on the main Prime Ministerial Decrees (DPCM) approved in Italy, on which to focus the analysis: (1) labelled "Pre-COVID", includes the year before the beginning of the pandemic, from 1 March 2019 to 10 March 2020; (2) labelled "Lockdown", includes the Italian quarantine from 11 March 2020 to 17 May 2020, as defined by the DPCM 11 March 2020, which declared the suspension of restaurant services and permitted home delivery only; and (3) labelled "Post-lockdown", from 18 May to 30 September 2020, as defined by the DPCM 17 May 2020, which stated that restaurants could be opened if they complied with health and hygiene regulations.

Content published on Instagram by Michelin-starred restaurants was collected in October 2020 using Octoparse software (https://www.octoparse.com), which is a web scraping tool that navigates through each restaurant's public profile and extracts data without needing user interaction. This automatic technique retrieved the following data for each restaurant post published: content (text), the number of likes, the posting date, the posting times and the URL.

4.2 Data analysis

Posts published on Instagram were analysed using *R*, a statistical open-source software which allows replicability, to provide descriptive statistics and adopt a linear regression model. Data were extracted and a regression model was built to allow the examination of the relationship between the number of likes for each post, defined as engagement (dependent variable), and the three periods under analysis (independent variables). Control variables were included in the model to check if the characteristics related to restaurants (e.g. the number of stars), posts published (e.g. the day of posting or the length of the post) and restaurant profiles on Instagram (e.g. the total number of followers) influenced the outcomes. To capture possible omitted variables associated with the specific characteristics of each restaurant, a linear regression model with fixed effects was created (Ye *et al.*, 2011). The model was specified with $n-1$ dummy variables representing the restaurants. It was hypothesized that omitted variables would correlate with the dependent variable (engagement), which would remain constant over time but would vary from one restaurant to another. In the

regression model used in this study the *Like* measure of post *i* in restaurants *j* is modelled as follows:

$$\log(\text{Like})_{ij} = \beta_0 + \beta_1 Lockdown_{ij} + \beta_2 Postlockdown_{ij} + ControlVariable + ResturantFixedEffects + u_{ij}$$

with

$$ControlVariable = \sum_{k=1}^{k} a_k X_k,\ k = number\ of\ control\ variables$$

$$RestaurantFixedEffects = \sum_{j=1}^{J} Y_j D_j,\ J = number\ of\ restaurants$$

where *Dj* are dummies variable.

The variables included in the model are explained in detail below and summarized in Table 1.

The *number of stars*, assigned to each restaurant by a Michelin inspector, was used to help capture whether communication strategies differed between two- and three-star establishments.

To build a sizeable number of followers, restaurants need to create compelling content at the right time; otherwise, most users will never see it. For this reason, the study controlled for the *day of posting* (weekends and weekdays) and the *time of the day* to examine the relationship between the time of posting and any subsequent interaction. In the literature, different time slots appear to be related to the time zone of the respective country. The present study adopted the cut-off time proposed by Mariani *et al.* (2016) in their study of Italian

Variable	Mean	SD	Typology	Note
Like	537.4	674.5	Log	Logarithm of the total number of likes for each post
Lockdown	–	–	Dummy	Period from March 11, 2020 to May 17, 2020
Post-lockdown	–	–	Dummy	Period from May 18, 2020 to September 30, 2020
Stars	–	–	Dummy	Michelin stars conferred to each restaurant. Restaurants with two- and three-stars are considered in the model
Weekend	–	–	Dummy	The day of posting. The weekend days considered Saturday and Sunday
Morning	–	–	Dummy	Time slot from 6 to 12 a.m.
Afternoon	–	–	Dummy	Time slot from 12 to 6 p.m.
Evening	–	–	Dummy	Time slot from 6 to 12 p.m.
Page likes	58172.2	86627.8	Log	Logarithm of the total number of followers of each restaurant account
Words count	39.6	42.7	Log	Logarithm of the total number of words in each post
Total posts	1083.9	942.1	Log	Logarithm of the total number of posts published by each restaurant from the activation of their profile
Hashtag count	9.7	8.5	Numeric	Total number of hashtags included in each post
Mention	0.8	1.6	Dummy	Total number of mentions included in each post

Table 1. Variables included in the model

destination management organizations on Facebook. The four time slots were: morning (6 a.m.–12 p.m.); afternoon (12–6 p.m.); evening (6 p.m.–12 a.m.); and night-time (12–6 a.m.).

Word count, hashtags (#) and mentions (@) were included as control variables to help isolate the characteristics of the posts and capture the nuances of the restaurants' communication strategies. *Word count* was included, because the total number of words and characters contained in each post has been shown to have a different impact on users (Gruss *et al.*, 2020). *Hashtags* are recognized as one of the most important types of metadata used to reach a greater number of users and thus increasing the chance of identifying people with similar interests. This variable allowed us to control the effect of hashtags on engagement. Meanwhile, *mentions* make it possible to include other accounts, reach a wider audience and measure whether the mention increases engagement with the post. In line with previous research (Mariani *et al.*, 2016; Gruss *et al.*, 2020), variables related to restaurant profiles helped to verify whether engagement increased in relation to the total number of posts published and to measure the index of engagement (Arora *et al.*, 2019) with the page likes variable.

The content of posts published by starred restaurants was also examined to determine if the communication mode changed during the pandemic crisis. To detect this aspect, text mining techniques and emotional analysis of the posts published on Instagram by restaurants were adopted. Content and emotional analysis were performed using the R package called "Quanteda" for managing and analysing text (Benoit *et al.*, 2018) and adopted the NRC Word-Emotion Association Lexicon, or EmoLex, which consists of word lists associated with two categories: sentiments (positive and negative) and emotions (anger, anticipation, disgust, fear, joy, sadness, surprise and trust) (Mohammad and Turney, 2013). To research the use of affective appeal in restaurant posts, the study included more than 3,000 words related to the positive sentiments and emotions associated with surprise, trust and joy.

5. Results and discussion

This study included only posts with an active profile during the entire period under review to compare restaurants. The total sample is composed of 5,866 posts from 34 restaurants: 9 three-star (26.5%) and 25 two-star (73.5%). The average number of posts published per week during the lockdown (1 post for two-star and 2.3 for three-star restaurants) was lower than in the previous and following periods – that is, during the pre-COVID period (1.8 posts for two-star and 3 for three-star restaurants) and post-lockdown (2 posts for two-star and 3.1 for three-star restaurants). A slight increase in weekly posts was observed in the post-lockdown period, which may have reflected the growing importance of direct communication (through SM) between restaurants and the customers. These findings are coherent with those of Donthu and Gustafsson (2020) about the fundamental role of SM during times of crisis. Despite the forced closure, restaurants have continued to communicate during the lockdown, even though with less intensity, compared to the previous year (−54.5% for two-star and −17.8% for three-star). While, in the post-lockdown, the importance of socializing through social networks is stressed with an increase in communication (about +6%). It is interesting to point out that 70% of starred restaurants in Italy re-opened in mid-June and 90% in August (Michelin Guide, 2020).

A statistical regression model was estimated to explore the relationship between posts published by restaurants during the period under analysis and customer engagement measured by *likes* (Table 2). The study ran four progressive models with different variables included to show how fixed effects and control variables affected the model.

The results show that restaurants increased the number of words in their posts from the beginning of the pandemic by 41% ($p < 0.05$, confidence level 95%). Text mining techniques allowed us to capture differences in the use of words, which underlined the sudden change in

	Mod1	Mod2	Mod3	Mod4
Lockdown	0.2481*** (0.0479)	0.1590*** (0.0243)	0.2245*** (0.0306)	0.1887*** (0.0242)
Post-lockdown	0.0795** (0.0300)	0.1885*** (0.0159)	0.1694*** (0.0196)	0.2160*** (0.0161)
3 stars			0.7587*** (0.0197)	−0.0414 (0.0505)
Weekend posts			0.0674*** (0.0190)	0.0584*** (0.0150)
Morning posts			−0.5433*** (0.0498)	−0.0960* (0.0405)
Afternoon posts			−0.4739*** (0.0501)	−0.0651 (0.04138)
Evening posts			−0.5283*** (0.0545)	−0.0914* (0.0451)
Page likes			0.4931*** (0.0095)	0.5585*** (0.0284)
Total posts			−0.3887*** (0.0105)	0.1355*** (0.0415)
Words count			−0.0332** (0.0094)	−0.0835*** (0.0082)
Hashtags count			−0.0097*** (0.0011)	−0.0026* (0.0011)
Contains mention			0.0498** (0.0169)	0.0403** (0.0151)
Restaurants Effect	No	Yes	No	Yes
Obs	5.717	5.717	5.717	5.717
Multiple *R*-squared	0.0523	99.33	60.36	99.34
Adjusted *R*-squared	0.0488	99.32	60.27	99.34

Note(s): Signif. codes: 0 "***" 0.001 "**" 0.01 "*" 0.05 "." 0.1 " " 1; Mod1: Lockdown and post-lockdown are the independent variables included in the model; Mod2: Lockdown and post-lockdown are the independent variables included in the model with the restaurants effect; Mod3: Lockdown and post-lockdown are the independent variables included in the model with the other variables identified; Mod4: Lockdown and post-lockdown are the independent variables included in the model with other variables identified and restaurants effect

Table 2.
Results of regression model analysis with Like as dependent variable

the method of communication and interaction with consumers through the use of more emotional language, as highlighted in a previous study (Donthu and Gustafsson, 2020). Despite the reduction in weekly posts during the lockdown, the restaurants tried to stay in touch with their followers by communicating in novel ways. They focused on telling users what they were doing during the lockdown (e.g. "We reorder ideas"; "COMING SOON: A new tasting menu"), bringing customers into their restaurants and showing them around, presenting the staff and even the surrounding locales (e.g. "We look forward to again meandering through Rome's side streets and ending up at a never before noticed wine bar"). In other cases, restaurateurs kept their profiles active by making videos in their home kitchens, such as chef Massimo Bottura's Instagram web series "Kitchen Quarantine". Restaurants placed a different focus on creating content, focusing their posts no longer just on their own products and creations. This finding is in line with recent studies (Azer *et al.*, 2021) which emphasize the importance of paying more attention to customers in online communication in times of crisis. Finally, the results show a difference in the language adopted by restaurants in the posts published after the outbreak of the pandemic; 15% contained emotional words before the pandemic, but there was a 10% increase thereafter ($p < 0.05$, 95% confidence level), namely in the use of *journey* (joy), *classic* (joy), *surprise* (surprise), *feeling* (trust) and *respect* (trust). These results support hypothesis H1, as restaurants changed their brand communication to avoid the economic and emotional negative effects of the forced closure.

The regression model reveals a positive effect on engagement in posts published during and after the outbreak of the pandemic (Figure 1). The number of likes for each post increased more during the post-lockdown period, which may have been a direct consequence of using emotional language to engage customers and spread positive feelings. These results stressed the efforts of restaurateurs to redefine communication and strategy priorities consistent with the period.

The model suggests that engagement with posts published during lockdown by Michelin-starred restaurants increased by 20.77%. This increase continued to be observable after the crisis period, in the so-called new normal phase and even tended to increase further compared

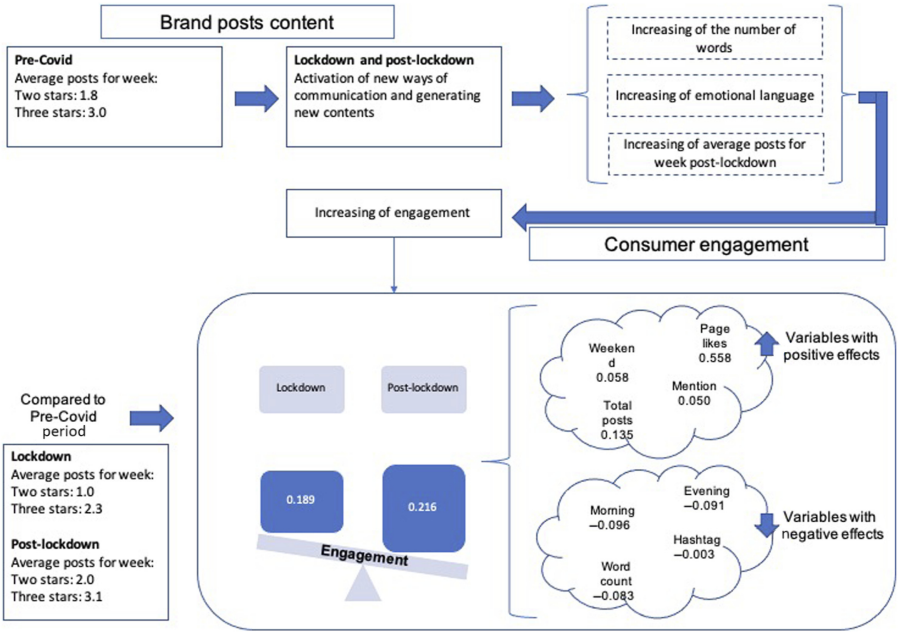

Figure 1.
The positive and the negative variables influencing engagement

to the lockdown (24.11%). These results remained valid even after taking into consideration the control variables and fixed effects introduced, thus confirming hypothesis H2.

Looking at the control variables, some significant relationships of interest emerge, for example, starred restaurants increased their engagement and period of publication through posts published over the weekend by around 6% compared with midweek days. The days with the highest number of posts published by the restaurants were Thursday (16.43%) and Tuesday (16.23%); Saturday (12.83%) and Sunday (11.27%) saw the lowest percentage. This might reflect the fact that Italian restaurant work is weighted towards the weekends, so it was less likely that restaurants would be publishing on Instagram. Furthermore, posts that appeared during the mornings and evenings had a negative impact on engagement ($p < 0.05$) compared with those posted at night. Of total posts, 45.3% were published during the morning (6 a.m.–12 p.m.), followed by 40.6% in the afternoon (12–6 p.m.). Evenings (6 p.m.–12 a.m.) and night-time (12–6 a.m.) posts had lower percentages (11.3 and 2.8%, respectively). This finding contrasted with a previous study in which posts that appeared at night (10 p.m.–5 a.m.) had lower engagement than those posted in the morning (Gruss *et al.*, 2020). In Mariani *et al.*'s (2016) study, content posted in the evening had a positive effect on engagement.

In accordance with the results of the model, the number of likes decreased as the number of words in the posts increased. The analysis of the length of posts showed that the mean for words was 40, while the maximum number of words was 369 (50% of posts included between 17 and 46 words). These results were similar to those found in a previous study and indicated the importance of taking into account the modalities of platform content (Waterloo *et al.*, 2018) and the target audience. For example, Mariani *et al.* (2016) revealed a positive link between moderately long posts and engagement; however, they emphasized the need to recognize that users probably search for and prefer narrative content and rich information relating to their potential holiday destination. Gruss *et al.* (2020) argued that shorter posts might have been

skipped over by users, which explains why the engagement of restaurants on Facebook was lower.

The model suggested that a post with one to five hashtags negatively impacted engagement ($p < 0.05$). The effect began to be positive in the case of posts with more than five, while at the same time, there was a slight decrease in likes. The study was not able to establish the ideal number of hashtags, as the data were not statistically significant. The average number of hashtags included in posts published by Michelin-starred restaurants in the analysis was 9.7, while 11.6% of posts did not include any. Finally, mentions in posts had a positive impact on restaurant engagement. The mean for posts that contained "@" (42%) was two. Many of the posts contained one to three mentions (86%), but messages with just one mention were the most frequent (60%).

Finally, the results also revealed that even if the restaurants reacted to overcome the closure, the timing and intensity of their posts were inadequate, as they posted on Tuesday and Thursday while customers shared their comments and intensified engagement during their spare time. Moreover, the results showed a misalignment in timing during the day, as restaurants mainly posted in the morning while social followers were more active during the evening and night-time periods. This difference is more critical if we consider that evening posts negatively affected engagement compared to those posted during the night, which generated an opposite and positive effect. The mismatch in synchronizing communication and interaction is a very critical issue that may undermine the benefits of higher engagement during the time of crisis.

6. Conclusions

6.1 Theoretical implications

The findings of this research extend the theoretical implications concerning the role of customer engagement in a business crisis, and they add evidence to the emerging literature about communication mix strategies by showing that the backgrounds affecting engagement mostly depend not on the company brand activity – the starred level – but rather than on customer activity as the timespan and the emotional issues increased the sensibility of customers and their willingness to communicate on SM (Figure 1).

Moreover, this study contributes to knowledge of the impact of COVID-19 on the food and restaurant industry. In detail, the researchers analysed the different levels of engagement response from customers according to the communication mix provided by the restaurants on SM. The results show that the increasing engagement was linked not only to a positive consumption experience (Risitano *et al.*, 2017; Khan *et al.*, 2019) but also to a positive virtual experience on SM, especially during the forced closure.

The data confirmed that there was a positive correlation between brand communication and engagement (Daries *et al.*, 2021) and differences relating to the impact of posts and content length on Instagram and other SM sites. Compared with users of other SM sites (as evidenced in previous studies), Instagram followers were more focused on images and preferred shorter posts with a limited number of hashtags and mentions. If starred restaurants want to improve customer engagement, they have to be in tune with the time by adapting to customers' behaviours. Customers' activity was very high during the lockdown period, even if the restaurants communicated less. In other words, the crisis stimulated customer engagement, and this effect is linked to the reaction of customers that have more time to spend online (Hollebeek *et al.*, 2021). Moreover, the increase in engagement was also driven by the companies that increased the number of words used to communicate and put greater emphasis on videos and images relating to the restaurants, staff and kitchen (Murtarelli *et al.*, 2022). Our results confirm the need to rethink the social relationship between business and customer (Madeira *et al.*, 2021) and the positive effects of using emotional and philanthropic content (Lee *et al.*, 2018).

6.2 Practical implications

Previous research on SM communication and engagement during COVID-19 has highlighted the need for a communication change with a more detailed strategy (Itani and Hollebeek, 2021; Pachucki *et al.*, 2022). From a practical perspective, the present study enhances these findings by showing how a change in communication content can increase consumers' interactions. The findings show that crises require communication more focused on telling about the restaurant all-round. During the COVID-19 period, some Michelin-starred restaurants focused on promoting aspects of the restaurant that were not communicated in the pre-COVID period. Engagement contributed to increasing the brand value, and this is an important result mostly in times of economic crisis when the level of revenue decreases. The results can also help practitioners to develop more valuable strategies to engage customers on SM during the time of crisis, by discovering the more valuable drivers that positively and negatively affect customer engagement and, consequently, that can maintain brand value.

The findings also confirm that SM should be monitored if customer behaviours are to be understood (Azer *et al.*, 2021). This research, however, delves into more operational aspects which are needed to design an effective communication strategy (e.g. the best days, the best time slot, the use of hashtags, mentions or the influence of the length of the text). This will help managers to improve restaurant performance (Kim *et al.*, 2016) and guide them in implementing textual communication strategies to be adopted in times of crisis. The results support the importance of implementing a communication strategy which pays attention to different communicative aspects because even before the lockdown, there was a mismatch in the timing of communication which undermined subsequent engagement. From a practical perspective, the results suggest that restaurateurs/marketers pay more attention to synchronizing the days and times of communication.

The results show that engagement in the case of starred restaurants depends not only on the gastronomic (Balabanis and Stathopoulou, 2021) but also on the SM experience. Despite the "forced" closure, the restaurateurs have kept their relationship with customers active. They generated new online content and promoted unknown aspects and nuances of the restaurant that go beyond the dishes traditionally communicated online, thus developing a new virtual experience.

6.3 Limitations and future research

The present study investigated crisis-driven changes in the SM communication adopted by Michelin-starred restaurants during COVID-19 and suggests the need to rethink the model of brand value communication by considering new drivers that affect engagement. The findings provided recommendations to restaurateurs/marketers for the implementation of communication strategies in cases of future times of crisis. Despite this, future research should also investigate the Michelin one-star or other types of restaurants to understand whether there are differences in response to brand value communication on SM. Furthermore, it would be interesting to extend the research to starred restaurants located in other countries. These additional studies would allow a deeper understanding of the communication strategies adopted during COVID-19 and the implications of the global pandemic.

Finally, future research should investigate in greater depth the linguistic text features of SM in relation to the typology of images included in restaurant posts. Does the use of colour tones, Instagram filters or food in the images have an effect and impact on engagement? Automated image and content analysis could help us to investigate the reaction of followers to business communications in a time of crisis.

Given that customer engagement depends on different aspects related to the communication strategy adopted, the future research identified would provide more

detailed recommendations to restaurateurs/marketers on communication strategies to be implemented so as not to be caught unprepared in case of a future crisis.

References

Alhabash, S. and Ma, M. (2017), "A tale of four platforms: motivations and uses of Facebook, Twitter, Instagram, and Snapchat among college students?", *Social Media+ Society*, Vol. 3 No. 1, pp. 1-13.

Arora, A., Bansal, S., Kandpal, C., Aswani, R. and Dwivedi, Y. (2019), "Measuring social media influencer index-insights from Facebook, Twitter and Instagram", *Journal of Retailing and Consumer Services*, Vol. 49, pp. 86-101.

Assiouras, I., Liapati, G., Kouletsis, G. and Koniordos, M. (2015), "The impact of brand authenticity on brand attachment in the food industry", *British Food Journal*, Vol. 117 No. 2, pp. 538-552.

Azer, J., Blasco-Arcas, L. and Harrigan, P. (2021), "#Covid-19: forms and drivers of social media users' engagement behavior toward a global crisis", *Journal of Business Research*, Vol. 135, pp. 99-111.

Balabanis, G. and Stathopoulou, A. (2021), "The price of social status desire and public self-consciousness in luxury consumption", *Journal of Business Research*, Vol. 123, pp. 463-475.

Bao, Y., Bao, Y. and Sheng, S. (2011), "Motivating purchase of private brands: effects of store image, product signatureness, and quality variation", *Journal of Business Research*, Vol. 64 No. 2, pp. 220-226.

Baran, T. (2021), "COVID effect on retailing: a study on consumers' retailer preferences during economic recession periods: evidence from Turkey as a predominantly Muslim society", *Journal of Islamic Marketing*, Vol. 13 No. 10, pp. 2193-2207.

Barger, V., Peltier, J.W. and Schults, D.E. (2016), "Social media and consumer engagement: a review and research agenda", *Journal of Research and Interactive Marketing*, Vol. 10 No. 4, pp. 268-287.

Batat, W. (2021), "How Michelin-starred chefs are being transformed into social bricoleurs? An online qualitative study of luxury foodservice during the pandemic crisis", *Journal of Service Management*, Vol. 32 No. 1, pp. 87-99.

Benoit, K., Watanabe, K., Wang, H., Nulty, P., Obeng, A., Müller, S. and Matsuo, A. (2018), "Quanteda: an R package for the quantitative analysis of textual data", *The Journal of Open Source Software*, Vol. 3 No. 30, pp. 1-4.

Bilro, R.G. and Correia Loureiro, S.M. (2020), "A consumer engagement systematic review: synthesis and research agenda", *Spanish Journal of Marketing*, Vol. 24 No. 3, pp. 283-307.

Brandão, A., Pinho, E. and Rodrigues, P. (2019), "Antecedents and consequences of luxury brand engagement in social media", *Spanish Journal of Marketing*, Vol. 23 No. 2, pp. 163-183.

Brodie, R.J., Ilic, A., Juric, B. and Hollebeek, L. (2013), "Customer engagement in a virtual brand community: an exploratory analysis", *Journal of Business Research*, Vol. 66 No. 1, pp. 105-114.

Camarero, C., Garrido, M.-J. and San Jose, R. (2018), "What works in Facebook content versus relational communication: a study of their effectiveness in the context of museums", *International Journal of Human-Computer Interaction*, Vol. 34 No. 12, pp. 1119-1134.

Coombs, T. and Holladay, J. (2012), "Helping crisis mangers protect reputational assets: initial tests of the situational crisis communication theory", *Management Communication Quarterly*, Vol. 16, pp. 165-186.

Daries, N., Moreno-Gené, J. and Cristobal-Fransi, E. (2021), "Michelin stars shine brightly, but are the profitable?", *International Journal of Gastronomy and Food Science*, Vol. 24, 100352.

de Lima, M.M., Mainardes, E. and Cavalcanti, A.L. (2019), "Influence of social media on restaurant consumers: a case study of Crab island restaurant", *Journal of Foodservice Business Research*, Vol. 22 No. 5, pp. 413-432.

Dolan, R., Conduit, J., Frethey-Bentham, C., Fahy, J. and Goodman, S. (2019), "Social media engagement behavior: a framework for engaging customers through social media content", *European Journal of Marketing*, Vol. 53 No. 10, pp. 2213-2243.

Donthu, N. and Gustafsson, A. (2020), "Effects of Covid-19 on business research", *Journal of Business Research*, Vol. 117, pp. 284-289.

Ferreira, M., Zambaldi, F. and de Sousa Guerra, D. (2020), "Consumer engagement in social media: scale comparison analysis", *Journal of Product and Brand Management*, Vol. 29 No. 4, pp. 491-503.

Galati, A., Sakka, G., Crescimanno, M., Tulone, A. and Fiore, M. (2019), "What is the role of social media in several overtones of CSR communication? The case of the wine industry in the Southern Italian regions", *British Food Journal*, Vol. 121 No. 4, pp. 856-873.

Gerlitz, C. and Helmond, A. (2013), "The like economy: social buttons and the data-intensive web", *New Media and Society*, Vol. 15 No. 8, pp. 1348-1365.

Gkoumas, A. (2022), "Developing an indicative model for preserving restaurant viability during the COVID-19 crisis", *Tourism and Hospitality Research*, Vol. 22 No. 1, pp. 18-31.

Gössling, S., Scott, D. and Hall, C. (2021), "Pandemics, tourism and global change: a rapid assessment of COVID-19", *Journal of Sustainable Tourism*, Vol. 29 No. 1, pp. 1-20.

Gruss, R., Kim, E. and Abrahams, A. (2020), "Engaging restaurant customers on Facebook: the power belongingness appeals on social media", *Journal of Hospitality and Tourism Research*, Vol. 20 No. 10, pp. 1-28.

Guida Michelin Italia (2021), *Guida Michelin Italia*, 66 ed.

Habibi, M.R., Laroche, M. and Richard, M.-O. (2014), "Brand communities based in social media: how unique are they? Evidence from two exemplary brand communities", *International Journal of Information Management*, Vol. 34, pp. 123-132.

Harrigan, P., Evers, U., Miles, M. and Daly, T. (2017), "Customer engagement with tourism social media brands", *Tourism Management*, Vol. 59, pp. 567-609.

Hayes, R.A., Carr, C.T. and Wohn, D.Y. (2016), "One click, many meanings: interpreting paralinguistic digital affordances in social media", *Journal of Broadcasting and Electronic Media*, Vol. 60 No. 1, pp. 171-187.

Hellemans, J., Willems, K. and Brengman, M. (2020), "Daily active users of social network sites: Facebook, Twitter, and Instagram-use compared to general social network site use", in Martínez-López, F.J. and D'Alessandro, F. (Eds), *Advances in Digital Marketing and Ecommerce*, Springer, Cham, pp. 194-202.

Hollebeek, L.D. and Chen, T. (2014), "Exploring positively – versus negatively – valenced brand engagement: a conceptual model", *Journal of Product and Brand Management*, Vol. 23 No. 1, pp. 62-74.

Hollebeek, L.D., Smith, D.L.G., Kasabov, E., Hammedi, W., Warlow, A. and Clark, M.K. (2021), "Customer brand engagement during service lockdown", *Journal of Services Marketing*, Vol. 35 No. 2, pp. 201-209.

Huang, J., Su, S., Zhou, L. and Liu, X. (2013), "Attitude toward the viral ad: expanding traditional advertising models to interactive advertising", *Journal of Interactive Marketing*, Vol. 27 No. 1, pp. 36-46.

Itani, O.S. and Hollebeek, L.D. (2021), "Light at the end of the tunnel: visitors' virtual reality (versus in-person) attraction site tour-related behavioral intentions during and post-COVID-19", *Tourism Management*, Vol. 84, 104290.

Kang, J., Tang, L. and Fiore, A.M. (2015), "Restaurant brand pages on Facebook: do active member participation and monetary sales promotions matter?", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 7, pp. 1662-1684.

Khan, M.S., Kadirov, D., Bardakci, A., Iftikhar, R., Baran, T., Kantar, M. and Madak, N. (2019), "Social media analysis of anti-consumption in Turkey", *British Food Journal*, Vol. 121 No. 1, pp. 22-34.

Kiatkawsin, K. and Han, H. (2019), "What drivers customers' willingness to pay price premiums for luxury gastronomic experiences at Michelin-starred restaurants", *International Journal of Hospitality Management*, Vol. 82, pp. 209-219.

Kim, W., Li, J. and Brymer, R.A. (2016), "The impact of social media reviews on restaurant performance: the moderating role of excellence certificate", *International Journal of Hospitality Management*, Vol. 53, pp. 41-51.

Kordzadeh, N. and Young, D.K. (2022), "How social media analytics can inform content strategies", *Journal of Computer Information Systems*, Vol. 62 No. 1, pp. 128-140.

Lee, D., Hosanagar, K. and Nair, H. (2018), "Advertising content and consumer engagement on social media: evidence from Facebook", *Management Science*, Vol. 64 No. 11, pp. 5105-5131.

Lepkowska-White, E. (2017), "Exploring the challenges of incorporating social media marketing strategies in restaurant business", *Journal of Internet Commerce*, Vol. 16 No. 4, pp. 1-20.

Lepore, L., Landriani, L., Pisano, S., D'Amore, G. and Pozzoli, S. (2022), "Corporate governance in the digital age: the role of social media and board independence in CSR disclosure. Evidence from Italian listed companies", *Journal of Management and Governance*. doi: 10.1007/s10997-021-09617-2.

Madeira, A., Palrão, T. and Mendes, A.S. (2021), "The impact of pandemic crisis on the restaurant business", *Sustainability*, Vol. 13, p. 40.

Manetti, G. and Bellucci, M. (2016), "The use of social media for engaging stakeholders in sustainability reporting", *Accounting, Auditing and Accountability Journal*, Vol. 29 No. 6, pp. 985-1011.

Mariani, M.M., Di Felice, M. and Mura, M. (2016), "Facebook as a destination marketing tool: evidence from Italian regional destination management organizations", *Tourism Management*, Vol. 54, pp. 321-343.

Martínek, P.A. (2021), "Mapping methods of research on consumer engagement with brands on social media: a literature review", *Methodological Innovations*, Vol. 14 No. 1, pp. 1-23.

Michelin Guide (2020), "The MICHELIN guide creates a barometer to track the reopening of Michelin-starred restaurants around the world", available at: https://www.michelin.com/en/press-releases/the-michelin-guide-creates-a-barometer-to-track-the-reopening-of-michelin-starred-restaurants-around-the-world/ (accessed April 2021).

Miranda, F.J., Rubio, S. and Chamorro, A. (2015), "The web is a marketing tool in the Spanish foodservice industry: evaluating in the websites of Spain's top restaurants", *Journal of Foodservice Business Research*, Vol. 18, pp. 146-162.

Mohammad, S.M. and Turney, P.D. (2013), "Crowdsourcing a word–emotion association lexicon", *Computational Intelligence*, Vol. 29 No. 3, pp. 436-465.

Murtarelli, G., Romenti, S. and Valentini, C. (2022), "The impact of digital image-based features on users' emotions and online behaviours in the food industry", *British Food Journal*, Vol. 124 No. 1, pp. 31-49.

Nabity-Grover, T., Cheung, C.M.K. and Thatcher, J.B. (2020), "Inside out and outside in: how the COVID-19 pandemic affects self-disclosure on social media", *International Journal of Information Management*, Vol. 55, 102188.

Namin, A. (2017), "Revisiting customers' perception of service quality in fast food restaurants", *Journal of Retailing and Consumer Services*, Vol. 34, pp. 70-84.

Okumus, B. (2020), "Food tourism research: a perspective article", *Tourism Review*, Vol. 76 No. 1, pp. 38-42.

Oliveira, M. and Fernandes, T. (2022), "Luxury brands and social media: drivers and outcomes of consumer engagement on Instagram", *Journal of Strategic Marketing*, Vol. 30 No. 4, pp. 389-407.

Pachucki, C., Grohs, R. and Scholl-Grissemann, U. (2022), "Is nothing like before? COVID-19–evoked changes to tourism destination social media communication", *Journal of Destination Marketing and Management*, Vol. 23, 100692.

Reilly, A.H. and Hynan, K.A. (2014), "Corporate communication, sustainability, and social media: it's not easy (really) being green", *Business Horizons*, Vol. 57 No. 6, pp. 747-758.

Risitano, M., Romano, R., Sorrentino, A. and Quintano, M. (2017), "The impact of consumer-brand engagement on brand experience and behavioural intentions. An Italian empirical study", *British Food Journal*, Vol. 119 No. 8, pp. 1884-1896.

Romolini, A., Fissi, S. and Gori, E. (2020), "Visitors engagement and social media in museums: evidence from Italy", *International Journal of Digital Culture and Electronic Tourism*, Vol. 3 No. 1, pp. 36-53.

Sabate, F., Berbegal-Mirabent, J., Cañabate, A. and Lebherz, P.R. (2014), "Factors influencing popularity of branded content in Facebook fan pages", *European Management Journal*, Vol. 32 No. 6, pp. 1001-1011.

San-Jose, L., Retolaza, J.L. and Freeman, R.E. (2017), "Stakeholder engagement at Extanobe: a case study of the new story of business", in Freeman, R.E., Kujala, J. and Sachs, S. (Eds), *Stakeholder Engagement: Clinical Research*, Springer, Chaim, pp. 285-310.

Smock, A.D., Ellison, N.B., Lampe, C. and Wohn, D.Y. (2011), "Facebook as a toolkit: a uses and gratification approach to unbundling feature use", *Computer in Human Behavior*, Vol. 27, pp. 2322-2329.

Statista (2021), "Most popular social networks worldwide as October 2020, ranked by number of active users", available at: https://www.statista.com/statistics/272014/global-social-networks-ranked-by-number-of-users/ (accessed May 2021).

Su, N., Reynolds, D. and Sun, B. (2015), "How to make your Facebook posts attractive – a case of a leading budget hotel brand fan page", *International Journal of Contemporary Hospitality Management*, Vol. 27 No. 8, pp. 1772-1790.

Summer, E.M., Ruge-Jones, L. and Alcorn, D. (2018), "A functional approach to the Facebook like button: an exploratory of meaning, interpersonal functionality, and potential alternative response buttons", *New Media and Society*, Vol. 20 No. 4, pp. 1451-1469.

Tajvidi, R. and Tajvidi, M. (2021), "The growth of cyber entrepreneurship in the food industry: virtual community engagement in the COVID-19 era", *British Food Journal*, Vol. 123 No. 10, pp. 3309-3325.

Tuomi, A., Tussyadiah, I. and Ashton, M. (2021), "Covid-19 and Instagram: digital service innovation in top restaurants", in Wörndl, W., Koo, C. and Stienmetz, J.L. (Eds), *Information and Communication Technologies in Tourism 2021*, Springer, Cham, pp. 464-465.

Vera-Martínez, J., Trujillo-León, A. and Vásquez-García, F. (2022), "Domestic confinement crisis and its un-intensifying effect on service quality expectations towards e-stores: the case of the COVID-19 pandemic in Mexico", *The International Journal Review of Retail, Distribution and Consumer Research*, Vol. 32 No. 2, pp. 167-183.

Waterloo, S.F., Baumgartner, S.E., Peter, J. and Valkenburg, P.M. (2018), "Norms of online expressions of emotion: comparing Facebook, Twitter, Instagram, and WhatsApp", *New Media and Society*, Vol. 20 No. 5, pp. 1813-1831.

We are Social (2021), "Digital around the world", available at: https://datareportal.com/global-digital-overview (accessed June 2021).

Ye, Q., Law, R., Gu, B. and Chen, W. (2011), "The influence of user-generated content on traveler behavior: an empirical investigation on the effects of e-word-of-mouth to hotel online bookings", *Computers in Human Behavior*, Vol. 27 No. 2, pp. 634-639.

Zeithaml, V.A., Berry, L.L. and Parasuraman, A. (1993), "The nature and determinants of customer expectations of service", *Journal of the Academy of Marketing Science*, Vol. 21 No. 1, pp. 1-12.

Appendix

Restaurant	Stars	Instagram profile	N. of posts*	N. of followers	N. of total posts**	Notes
Enoteca Pinchiorri	3	https://www.instagram.com/enotecapinchiorri/?hl=it	89	22,899	102	
Osteria Francescana	3	https://www.instagram.com/massimobottura/?hl=it	156	1,440,678	758	
Dal Pescatore	3	https://www.instagram.com/dalpescatoresantini/	11	–	–	Not included: first post published on July 2019
Le Calandre	3	https://www.instagram.com/alajmo/	180	67,994	843	
Uliassi	3	https://www.instagram.com/maurouliassi/	209	81,173	306	
Da Vittorio	3	https://www.instagram.com/davittorioristorante/	592	144,116	1,42	
Enrico Bartolini al Mudec	3	https://www.instagram.com/chef_enricobartolini/	225	62,434	873	
Piazza Duomo	3	https://www.instagram.com/piazzaduomoalba/	173	36,873	269	
La Pergola	3	https://www.instagram.com/romecavalieri/	577	27,847	2,762	
St. Hubertus	3	https://www.instagram.com/st.hubertus_restaurant/	67	15,838	183	
Reale	3	https://www.instagram.com/ristorantereale/?hl=it	259	31,739	463	
Il Piccolo Principe	2	https://www.instagram.com/ristorantepiccoloprincipe/	220	–	–	Not included: first post published on July 2019
Arnolfo	2	https://www.instagram.com/arnolforistorante/	100	10,314	593	
San Domenico	2	https://www.instagram.com/sandomenicoimola/	152	6,777	313	
Bracali	2	https://www.instagram.com/ristorantebracali/	12	798	84	
Magnolia	2	https://www.instagram.com/magnoliacesenatico/	242	9,784	460	
Caino	2	no Instagram profile	–	–	–	–
La Peca	2	https://www.instagram.com/lapeca_ristorante/	136	9,346	933	
Casa Perbellini	2	https://www.instagram.com/casaperbellini/?hl=it	125	11,828	145	Not included: first post published on 22 March 2019
Antica Osteria Cera	2	https://www.instagram.com/antica_osteria_cera/	2	–	–	Not included: first post published on Augst 2020
Madonnina del Pescatore	2	https://www.instagram.com/madonnina_del_pescatore_	230	–	–	Not included: first post published on January 2020
Miramonti l'Altro	2	https://www.instagram.com/miramontilaltro/	155	9,290	232	
Villa Feltrinelli	2	https://www.instagram.com/villafeltrinelli/	56	19,159	213	
Glam Enrico Bartolini	2	–	–	–	–	Not included: same profile of "Enrico Bartolini al Mudec"
Vun Andrea Aprea	2	https://www.instagram.com/vun_andreaaprea/?hl=it	180	9,677	435	
Seta by Antonio Guida	2	https://www.instagram.com/mo_hotels/	470	318,86	2,661	

(*continued*)

Restaurant	Stars	Instagram profile	N. of posts*	N. of followers	N. of total posts**	Notes
Il luogo di Aimo e Nadia	2	https://www.instagram.com/illuogodiaimoenadia/?hl=it	107	17,084	137	
La Trota	2	https://www.instagram.com/latrotadal63/	10	1,543	47	
La Madernassa	2	https://www.instagram.com/lamadernassa/?hl=it	563	20,651	2,047	
Il Pagliaccio	2	https://www.instagram.com/ristoranteilpagliaccio/	166	12,209	502	
Antica Corona Imperiale	2	https://www.instagram.com/anticacoronarealeofficial/?	121	–	–	Not included: first post published on November 2019
Villa Crespi	2	https://www.instagram.com/villacrespi/	57	164,653	354	
Piccolo Lago	2	https://www.instagram.com/ristorantepiccololago/	337	5,820	399	
Agli Amici	2	https://www.instagram.com/agliamici1887/	88	3,110	139	
Terra	2	https://www.instagram.com/terrathemagicplace/	153	5,572	349	
Jasmin	2	no Instagram profile	–	–	–	–
Trenkersube	2	https://www.instagram.com/lovelyhotelcastel/?hl=de	143	9,132	399	
Gourmetstube Einhorn	2	https://www.instagram.com/romantikhotel.stafler/	104	1,288	195	
Danì maison	2	https://www.instagram.com/danimaison_ninodicostanz	16	–	–	Not included: first post published on May 2019
Taverna Estia	2	https://www.instagram.com/tavernaestia/	51	–	–	Not included: first post published on May 2020
L'olivo	2	https://www.instagram.com/lolivoanacapri/?hl=it	33	2,093	63	
Torre del Saracino	2	https://www.instagram.com/torredelsaracino/?hl=it	108	14,080	162	
Don Alfonso 1890	2	https://www.instagram.com/donalfonso1890/?hl=it	82	21,591	365	
Quattro passi	2	https://www.instagram.com/quattropassi_nerano/	116	10,861	165	
La Madia	2	https://www.instagram.com/la_madia_ristorante/	18	–	–	Not included: first post published on November 2019
Duomo	2	https://www.instagram.com/cicciosultano1/?hl=it	202	35,277	1,705	

Note(s): Data were collected in October 2020; **N. of posts:* number of posts published during the period under analysis and included in the research; ***N. of total posts:* number of total posts published by each restaurant from the activation of their profile

About the authors

Silvia Fissi is Assistant Professor at the Department of Business and Economics of Florence University. She holds a Ph.D. in Planning and Control from the Università degli Studi di Firenze and a Laurea (Master's degree) in Economics from the same university. Her research interests include public management, local authorities, tourism management, museums, corporate social responsibility and accounting history.

Elena Gori is Associate Professor of Financial Accounting. She holds a Ph.D. in Planning and Control from the Università degli Studi di Firenze. Her research interests include public management, local authorities, tourism management, museums, corporate social responsibility and accounting history. She

is Director of the Centro Interuniversitario di Studi sul Turismo (Interuniversity Centre of Tourism Studies) of the Università degli Studi di Firenze. Elena Gori is the corresponding author and can be contacted at: elena.gori@unifi.it

Valentina Marchi is Research Fellow at the BioEconomy Institute at the National Research Council, in Florence. The main research field in which she is working is related to tourism and sustainability, with the aim of measuring and monitoring the impacts on environment, social and economic aspects. She is a Ph.D. student in Business Administration and Management at the University of Pisa. Her research aims to analyse the dimension of sustainability in creating the destination image, providing a contribution to understand the role that Destination Management Organizations play in communication, as organizations responsible for destination marketing and management.

Alberto Romolini is currently Associate Professor in Business Administration at the Università Telematica Internazionale Uninettuno, Rome, Italy. He is also Vice-Dean of the Faculty of Economics at the same university. He holds a Ph.D. in Public Management. His research interests are in the field of Corporate Social Responsibility and nonfinancial reporting, public management in local authorities and health-care entities, museums, history of accounting and tourism management.

For instructions on how to order reprints of this article, please visit our website:
www.emeraldgrouppublishing.com/licensing/reprints.htm
Or contact us for further details: **permissions@emeraldinsight.com**