



# Having fun in micro-celebrity restaurants: The role of social interaction, foodstagramming, and sharing satisfaction

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## ABSTRACT

Foodstagramming has grown in popularity within foodservice contexts. While it is commonly seen as a tool for impression management and normative behavior, the influence of social interaction on foodstagramming has received limited attention. This research aims to fill this gap by examining the interplay of social interaction, tie strength with peers, and subjective well-being, through the lens of social presence theory. An explanatory sequential mixed methods design with two empirical studies was conducted. Using a survey design, the Study 1 reveals that the need for social interactions serves as a precursor to foodstagramming benefits and establishes a mediated relationship leading to subjective well-being. Study 2 employs a qualitative inquiry to provide an in-depth understanding of the impact of posting food selfies on individual subjective well-being. It further reveals that sharing food selfies not only influences personal happiness at the moment of posting but also continues to affect subjective well-being over a relatively extended period. This research enriches social presence theory by exploring the sense of presence and community created through vivid food photos and by explaining the different effects of strong and weak ties. It also contributes new insights to the hospitality literature, highlighting the interconnectedness of offline and online experiences, which collectively contribute to customers' enhanced life satisfaction in a commercial setting.

## 1. Introduction

The phenomenon “first camera, then forks” has become a ubiquitous trend that has received vast popularity in the foodservice encounter (Murphy, 2010). It describes a prevalent situation in which people take food photos and share them on social media. For example, there have been more than 400 million posts tagged with #instafood or #foodporn (Abell and Biswas, 2023). Wong et al. (2019a) refer to this consumer activity as foodstagramming to delineate people's passion for food selfies, which is reshaping their dining experience (Lin et al., 2022; Zhu et al., 2019). Photos are aide-memoire that can prolong the ephemeral moments within a confined physical setting (Lo and McKercher, 2015). Accordingly, diners can reminisce about their culinary experiences through the capture of photos, thus enhancing their gastronomic enjoyment (Wong et al., 2019a). Some studies show that the mere act of taking a picture of food increases pleasure because it enhances diners'

anticipation. Meanwhile, as previous studies show, food photos are means for impression management, and they could facilitate interactions with others (Chang, 2022; Lin et al., 2022).

Social interaction encompasses the way individuals establish connections and communicate with each other (Baron and Byrne, 2004). It plays an essential role in both the service experience and brand marketing (Heinonen et al., 2018; Kim and Choi, 2016). In the hospitality industry, social interaction can occur positively or negatively (Heinonen et al., 2018), with accompanying of friends, neighboring customers, and online audiences (Kim and Choi, 2016). Foodstagramming has become an important conduit that fosters online social interactions among customers, friends, and a virtual audience, where others can respond and exchange ideas mutually through digital engagement (i.e., like, comment, and share) (Abell and Biswas, 2023; Huang et al., 2020). For example, when customers write food blogs and share their dining experiences via photos, they actively disclose themselves to others,

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through demonstrating their social presence. As social presence theory contends, the more social proximity people feel, the more likely they are to engage in social interaction and build relationships (Short et al., 1976), leading to happiness and other benefits (Chang and Hsu, 2016).

In particular, the relationships among foodstagramming benefits, social sharing satisfaction, dining enjoyment, and subjective well-being are the primary focus of this research. Foodstagramming benefits and social sharing satisfaction respectively denote the rewards and contentment diners derive from engaging in foodstagramming activities and social interactions within virtual communities (Wong et al., 2019a). Dining fun pertains to the pleasure and entertainment derived from the dining experience, while subjective well-being refers to an individual's positive assessment of their lives (Altinay et al., 2019). Yet, despite the increasing popularity and prevalence of foodstagramming, academic research on this topic is still scant. The existing literature has mainly focused on foodstagramming's motivation (Chang, 2022), and its relationship with self-expression (Zhu et al., 2019), impression management (Lin et al., 2022), commercial behaviors (Huang et al., 2021; Shin et al., 2020), and normative conduct (Xiong et al., 2023). Surprisingly, little research has investigated the influence of social interaction on foodstagramming.

Additionally, social interaction depends on exchange parties' tie strength, which is defined as the level of a person's inclination to maintain specific social media connections with their peers (Wang et al., 2012). It can influence online communication, as strong ties indicate greater trust and willingness to share useful information than weak ones (Chen and Lin, 2020). However, whether tie strength can enhance online social interaction based on food photo sharing is an underexplored area in the tourism/hospitality field of work. This limitation thus leads to an incomplete understanding of consumers' sharing and interacting experiences.

To address the abovementioned gaps, we propose a model that synthesizes online social interaction, tie strength with peers, and subjective well-being through the lens of social presence theory (Short et al., 1976). This research rationalizes that selfie taking and sharing can help better develop online social presence and can further prompt online social interactions, which should in turn enhance foodstagramming benefits and social sharing satisfaction as well as dining fun and subjective well-being. The moderating effect of tie strength with peers is also examined. Accordingly, this inquiry works to advance the understanding of the emerging concept of foodstagramming and the effects of positive online social interaction on subjective well-being. Moreover, the research enriches social presence theory by creating a sense of presence and community through vivid food photos and explaining the different effects of strong and weak ties.

## 2. Literature review

### 2.1. Research background

Micro-celebrity restaurants are dining establishments that have gained significant popularity via cyberspace, thereby drawing a substantial number of customers (Huang et al., 2021). These establishments are also characterized by the following attributes. First, they gain recognition and popularity primarily through online dissemination and are known for their strong word-of-mouth reputation (Zhang et al., 2021). Second, these restaurants possess specific innovation capabilities such as a superlative environment, ingenious presentation, creative service, or innovative cuisine (Huang et al., 2021). Importantly, numerous businesses leverage these innovations, incorporating aesthetic appeal and social interaction activities (i.e., special events and promotions) to captivate customers. On one hand, consumers are inspired to take food selfies for personal memories or sharing in cyberspace (Zhou et al., 2023). Additionally, a recent report suggests that 74.8% of Chinese netizens have visited micro-celebrity restaurants, and 97.8% express strong interest in visiting such establishments in the

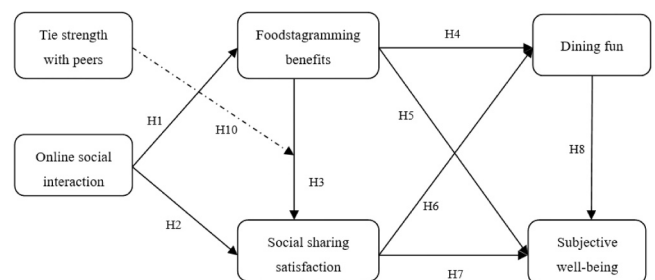
future (IiMedia Research, 2021). Therefore, it is crucial to focus more attention on consumer behavior related to foodstagramming in such outings.

While consumers' sharing their dining experience (i.e., foodstagramming) may not necessarily help to promote these venues, doing so at least may help fulfil their needs for self-presentation and social interaction (Lin et al., 2022). These sharing activities have inadvertently fostered the development of micro-celebrity culture and micro-celebrity business patterns (Huang et al., 2021). Thus, understanding the nature of food photo sharing in virtual community is certainly important to the research of foodstagramming and micro-celebrity restaurants.

### 2.2. Food selfies, foodstagramming, and theoretical framework

According to recent statistics, there are more than 3.2 billion photos shared daily, while over 400 million pictures are tagged using the hashtag #food (Lin et al., 2022). Food photography that provides visual contents from customers has become increasingly popular on social media (Xiong et al., 2023). The food selfie phenomenon refers to diners capturing photos while dining, typically featuring elements such as food, individuals interacting with food, demonstrations, and depictions of the physical environment within the dining venue (Wang et al., 2016). It vividly presents the food and the restaurant settings, which are aide-memoire for pleasant moments (Wong et al., 2019a) and arouse viewers' mental imagery (Li et al., 2023). For example, Spence et al. (2016) found that food photographs could stimulate appetite and influence customers toward gourmet decisions. Meanwhile, food photos serve as a means for diners to self-disclose their images and emotions, facilitating social interactions (Lin et al., 2022; Wong et al., 2019a). Likewise, customers often aim to present their best selves in photographs in order to attract attention from others (Pounders et al., 2016). There is no doubt that a food selfie is not merely a picture, but can be regarded as far more – a means to project the self into the virtual community (Zhu et al., 2019).

According to social presence theory (Short et al., 1976), when consumers deliver their experience on social media, they expose themselves to a virtual community, thereby creating a sense of being together with others and gaining social presence. Such a sense of presence engenders mutual awareness between photo-takers and viewers in the online environment, while facilitating more social interactions and communications (Biocca et al., 2003). Accordingly, *social interaction* is proposed in this research as an antecedent to acknowledge the importance of interactions with other actors in a virtual space. Social presence theory was first proposed to explore how the "sense of being with another" shapes individual experience in computer-mediated communication (Biocca et al., 2003, p. 1). It was introduced recently in the domains researching social commerce and social sharing behavior (Huang et al., 2020), attitude toward the brand (Zhu et al., 2019), and individual emotional valence (Wong et al., 2019b). Scholars have extended the theory to explain how individuals manage their impressions and relate



Note: - - - -> represents moderating effect; H9 is mediating effect.

Fig. 1. Conceptual model.

to others in virtual communities (Basch et al., 2020).

Against this backdrop, the research develops a proposed model (see Fig. 1). On one hand, it delineates how food photo posting enhances personal social presence and facilitates social interaction in virtual communities, leading also from online interactions to offline emotional experiences. On the other hand, the model includes tie strength with peers as a moderator to explore how the degree of relationships will restrict the online interaction effects. In the following sections, we will develop the hypotheses with justifications from the literature.

### 2.3. Online Social Interaction

Social interaction plays a crucial role in foodservice encounters, serving as a fundamental social activity for individuals and a key element in the overall dining experience (Altinay et al., 2019; Gustafsson et al., 2006; Rosenbaum, 2006). Positive interactions can make dining experiences more satisfying and enjoyable, while negative ones can have adverse effects (Altinay et al., 2019). Broadly speaking, social interaction refers to the process by which people connect with one another, involving “the exchange of information, ideas, and emotions through verbal and nonverbal communication, as well as the establishment of social norms, roles, and relationships” (Baron and Byrne, 2004, p. 372). It can be regarded as a mutually beneficial activity for all parties involved. From a restaurateur’s perspective, social interaction is a valuable mechanism for cultivating and maintaining customer relationships. By fostering positive social interactions with customers, restaurants can engender greater loyalty with stronger revisit intentions (Luo et al., 2019; Rosenbaum, 2006).

From a consumer’s perspective, delightful social interaction is a panacea. It not only positively influences the perception of service quality and satisfaction (Kim and Choi, 2016), but it also helps to relieve loneliness and provides companionship, further enhancing the perception of well-being (Rosenbaum, 2006). Consequently, both consumers and restaurateurs place great importance on social interaction. Gustafsson et al. (2006) associates such interaction with the “meeting” factor in the five-aspect meal model, focusing on service interactions among customers, employees, and peers within restaurants. However, within the context of foodstagramming, online social interaction emerges as a primary and essential form of engagement. This interaction extends beyond the physical environment, fostering connections within extensive virtual communities that include non-consumers (Zhu et al., 2019).

Advancements from the Internet and social media have accelerated the prevalence of online social interactions. Consumers pervasively take photos and share them through social media (Lin et al., 2022). Food images have become symbols of self-identity that indicate individual feelings, passions, and personalities (Huang et al., 2021). Therefore, posting food photos, or what Wong et al. (2019a) refer to as foodstagramming, in a virtual community is a process of expressing self and showing a desire to communicate with online audiences. Foodstagramming benefits refer to the values that a diner reaps from taking and sharing food selfies on social network sites. These benefits are usually manifested as self-expression, enrichment of dining experience, social connection, and virtual community engagement (Wong et al., 2019a). Although foodstagramming research is still in its infancy, some studies have demonstrated that social interactions are catalysts for the perception of such benefits (Chang, 2022). Zhu et al. (2019) show that supportive interaction on social media could satisfy consumers’ desire for expression and enhance the evaluation of the dining experience, suggesting that social interactions could change consumers’ feelings via fulfilling their needs for self-expression, social connection and engagement on social media.

As a result, we argue that online social interaction has a positive effect on the perception of foodstagramming benefits. According to social presence theory, consumers are shaping a self to foster a feeling of connection with a mass audience online by posting dining photos.

Viewers are more willing to respond to these posts when they feel more social proximity. The responses including “like,” “comment,” and “share” are common social interactions on social media, enabling information exchange and further engagement and social connections (Huang et al., 2020). Accordingly, we proposed the first hypothesis:

**Hypothesis 1.** Online social interaction positively affects foodstagramming benefits.

Customer satisfaction is a critical indicator in service excellence and organizational performance, and it has received attention from academia for decades (Oliver, 1997; Srivastava and Kaul, 2014). The most common understanding of customer satisfaction is derived from the process and outcome of service experience (Altinay et al., 2019). The process definition draws on the expectation–disconfirmation paradigm (Oliver, 1997), suggesting that customers take their expectations as the standard by which to evaluate services performed. Therefore, consumers are more satisfied when the functional appeal of a product/service exceeds their expectations (Moon et al., 2020). In contrast, satisfaction can also be defined as a state linked with both reinforcement and arousal based on advanced outcomes (Srivastava and Kaul, 2014). Regardless of these definitions, prior studies commonly center on people’s evaluation of satisfaction with a focal product/service. Yet, the service experience has been extended to the online environment via photo-sharing activity (Zhu et al., 2019). Accordingly, social sharing has been at center stage in providing users a means to continue enjoying social interaction through sharing of emotions online (Bazarova et al., 2015). Accordingly, this research defines social sharing satisfaction (or sharing satisfaction for short) as a feeling of pleasure or contentment obtained from sharing one’s experience via social media.

While satisfaction in this context refers to the evaluation of consumers’ experience with a focal product/service, prior studies have identified that interpersonal interactions in the commercial setting could enhance customer satisfaction (Rosenbaum, 2006). Wu (2007), for example, showcases a linkage between social interactions and customer satisfaction, indicating that satisfied patrons often rely on a high degree of social interactions, as Grace and O’Cass (2004) further explain. Tomazelli et al. (2017) also acknowledge that social interactions in a commercial setting could affect people’s satisfaction. Even the presence of others could indirectly influence one’s evaluation of holistic experience (Grove and Fisk, 1997). This situation can be attributed to the prevalent communications in human communities, and the prevalence of social media further improves the frequency and intensity of social discourse (Bazarova et al., 2015).

The proposed relationship can also be explained by social presence theory, which posits that communication media transmits social cues and helps build trust among individuals, which in turn could help people to attain a higher level of satisfaction (Biocca et al., 2003). Social presence intensifies the perceptions of a person’s existence in a virtual community. People establish trust and friendships with increasing information exchanges (Rosenbaum, 2006), which could further influence their satisfaction (Gunawardena and Zittle, 1997). The existing studies have shown that people who post travel photographs and reviews online are more satisfied with their experience (Lo and McKercher, 2015). They enhance self-disclosure via sharing photos (Zhu et al., 2019), while harmonious interaction and supportive feedback could reinforce the perception of pleasurable emotional experience, leading to increased satisfaction (Wong et al., 2019a, 2019b). This logic rests on social presence conveyed by a medium can help promote a sense of gratification (Richardson et al., 2017) and hence, the higher the social interaction and foodstagramming via social media, the greater the satisfaction reaped from social sharing. Accordingly, the following hypotheses were proposed:

**Hypothesis 2.** Online social interaction positively affects social sharing satisfaction.

**Hypothesis 3.** Foodstagramming benefits positively affect social

sharing satisfaction.

#### 2.4. Dining fun

Fun is a persistent human pursuit. It has become an indispensable element for both personal life and industry practice. Seeking fun and pleasure drives consumers' hedonic service experience (Tasci and Ko, 2016), while restaurants endeavor to offer customers an indulgent environment with fun-oriented designs including inimitable logos, fonts, displays, and physical settings (Huang et al., 2021; Nenkov and Scott, 2014; Rathee et al., 2022). Recently, a large number of micro-celebrity restaurants were in the spotlight by serving customers with various fun elements such as funny cuisine names, creative food delivery, exquisite surroundings, ingenious service, and exotic entertainment activities (Huang et al., 2021). In line with the above discussion, this research defines dining fun as the pleasure and entertainment derived from the dining experience, including the enjoyment of savoring delicious food, experiencing different dining environments and atmospheres, and socializing with others in the dining venues.

To better understand the drivers of fun in a dining environment, we draw on social presence theory (Short et al., 1976), which highlights the sense of being with other individuals through communication media. In this sense, benefits from sharing food selfies and gratification reaped from this process certainly could help patrons to gain pleasure and fun from the sharing and interaction process. Reis et al. (2017) provide more support for this line of argument through a comparison between shared fun and solitary fun and conclude that fun is more pronounced when others are involved. Podilchak (1991) contends that reframing activities with others is considered much more fun than the activities themselves. This is because "shared experiences of positive emotion... create not only mutual enjoyment in the moment, but also enduring alliances" (Fredrickson, 1998, p. 311). Although micro-celebrity restaurants have already offered their customers sensory pleasure and aesthetic enjoyment on-site (Park, 2004), the fun experience can be expanded along with consumers' foodstagramming behaviors given that it offers diners a stronger sense of social presence. Diners therefore can project their social presence to the virtual communities and gain sharing benefits and satisfaction through interacting with others, while positive feedback could lead to a more enjoyable experience. Therefore, we proposed the following hypotheses:

**Hypothesis 4.** Foodstagramming benefits positively affect dining fun.

**Hypothesis 5.** Sharing satisfaction positively affects dining fun.

#### 2.5. Subjective well-being

The extant literature commonly delineates well-being from the stance of positive psychology. The hedonic and eudaimonic views are the two most popular philosophies within this perspective (Smith and Diekmann, 2017). The hedonic approach emphasizes the pursuit of pleasure and the avoidance of pain, which leads to instant well-being (Knobloch et al., 2017). Different from hedonic pleasure seeking, the eudaimonic approach points to meaningful and valuable life activities that would influence personal development (Smith and Diekmann, 2017). In this research, we focus on subjective well-being that takes hedonism into center stage, since the nature of the dining experience is often associated with hedonic appeals embedded in foodservice (Baloglu et al., 2019).

Well-being has been widely acknowledged as an outcome from social media usage (Parry et al., 2022). Accordingly, increasing attention has been paid to the relationship between online social interaction and well-being (Xu et al., 2021). Zhang et al. (2020a) state that both personal interaction and environmental facilities could affect the perception of well-being. The underlying logic can be explained by social presence theory (Chang and Hsu, 2016). The theory posits that people can gain pleasure and joy by having the ability to project their presence and

experience to others via communication media (e.g., social media). Effective medium communication can assist people to manage their impressions to better develop interpersonal relationships with others through sharing photos (Wong et al., 2019b). Accordingly, supportive interactions generate close social connections and active virtual community engagement, which help reinforce one's satisfaction from photo sharing (Zhu et al., 2019). Such pleasure from foodstagramming can improve the sense of belonging and well-being as well. As with face-to-face interactions, communication in virtual communities can build friendships and satisfy socialization needs, which leads to a sense of well-being and belonging to the community (Chiu et al., 2015). Therefore, diners who are able to reap benefits from selfie sharing (i.e., foodstagramming benefits) and to gain pleasure from this activity (sharing satisfaction) should be able to improve their subjective well-being during the course of dining, at least temporarily. This discussion leads to the following hypotheses:

**Hypothesis 6.** Foodstagramming benefits positively affect subjective well-being.

**Hypothesis 7.** Sharing satisfaction positively affects subjective well-being.

The connection between social media and subjective well-being from a social presence lens also relies on an important element: hedonism (Parry et al., 2022). In fact, subjective well-being accentuates hedonic happiness that could bring people fun and pleasure (Uysal et al., 2016). Accordingly, people crave fun appeals from commercial settings in order to fulfill their needs and attain their well-being goals (Lin et al., 2021), while social eating further facilitates fulfillment of this life objective (Dunbar, 2017). The fun experience is not restricted to self-enjoyment, but also increases emotional connections with others, enhancing a sense of strong social belonging and well-being (Gram et al., 2019).

Prior research has reported that fun experience is positively related to affect and well-being (Fredrickson, 1998; Reis et al., 2017). For example, some firms attempt to increase fun elements in the workplace to help their employees take breaks from intense work and seek momentary relief (Ford et al., 2004). Karl and Peluchette (2006) further verified that such measures could significantly improve employee satisfaction and performance. The pleasure obtained from such fun engagement makes them work more actively, strengthening the perception of self-fulfillment (Berg, 2001). Such positive emotions and satisfaction of needs enhance the sense of well-being (Cloninger, 2004). Bharara et al. (2019) believed the core of well-being is having fun, especially when others are present. In line with this argument, Gram et al. (2019) showed that sharing fun stories during a journey can deepen mutual bonds and strengthens connections between people. Having fun moments can influence emotional relationships, contributing to an integrative enhancement of well-being (Altinay et al., 2019). This empirical evidence may explain why foodservice operators are seeking means to bring customers fun dining experiences Goldman (1993); while the advent of micro-celebrity restaurants take this approach to a new level with innovative service design, exotic food presentations, and breathtaking entertainments, to bring customers endless joy and elation (Huang et al., 2021). Again, social eating also facilitates diners' well-being attainment, as it is fun to dine with others (Dunbar, 2017); while social presence theory may help explain that social sharing via cyberspace could provide a sense of togetherness, which could also lead to a further sense of fun and well-being. Accordingly, we proposed:

**Hypothesis 8.** Dining fun positively affects subjective well-being.

#### 2.6. The mediating roles of foodstagramming benefits, social sharing satisfaction and dining fun

Building upon the aforementioned explanation, this research assumes that foodstagramming benefits, sharing satisfaction, and dining

fun collectively act as mediating factors in the relationships linking online social interaction to subjective well-being. According to social presence theory (Short et al., 1976), consumers' sharing of dining photos can shape their online self-image and fosters a sense of connection within the virtual community (Wong et al., 2019a), which should facilitate dining fun and ultimately their well-being. Also, social media serves as a conduit for conveying the intended expressions of foodstagrammers and facilitates the benefits of foodstagramming. Thus an individual's social presence contributes to establishing trust among foodstagrammers and viewers, enhancing individual satisfaction and fun through sharing (i.e., sharing satisfaction and dining fun) (Biocca et al., 2003). Moreover, the shared joy becomes doubled fun. Individuals derive pleasure by projecting their presence and experiences through media, and the enjoyment experienced by others reciprocally reinforces emotional connections and social belonging, contributing to subjective well-being (Gram et al., 2019; Reis et al., 2017). Hence, we proposed that:

**Hypothesis 9.** Foodstagramming benefits (a), social sharing satisfaction (b), and dining fun (c) serve as mediators in the relationships leading from online social interaction to subjective well-being.

### 2.7. The moderating role of tie strength with peers

The communication literature demonstrates that the effects of online interactions often depend on the relationships built through social media (Kozinets, 1999). Wang et al. (2012) proposed that tie strength with peers has a strong influence on social media communication with peers. They defined tie strength with peers as the degree of a person's willingness to maintain certain relationships with peers through social media (Wang et al., 2012). The connection can be weak (e.g., relationships with strangers or unfamiliar netizens) or strong (e.g., relationships with family or close friends), and the objectives may be close friends or complete strangers. Both close and casual relationships are ubiquitous in social network communications.

We proposed that the impact of foodstagramming benefits on social sharing satisfaction could be moderated by tie strength with peers (or tie strength for short). From the viewpoint of social presence theory (Short et al., 1976), tie strength with peers could intensify one's physical and emotional presence on social media to strengthen intimate interpersonal relationships (Sultan, 2021), which is expected to enhance communal rapport in virtual communities and satisfaction with interactions (Wang et al., 2012). For customers who obtained benefits from foodstagramming-mediated social interaction, active sharing with others with strong ties (e.g., sharing what you eat with a partner) could strengthen intimacy by increasing social and emotional presence and self-disclosure (Bazarova and Choi, 2014). Meanwhile, instant responses from friends can enhance posters' social sharing satisfaction on their exchanged contents. Chen and Lin (2020) found that people with strong ties valued social interaction and emotional connection, avoiding negative posting, leading to more useful knowledge transformation between actors and receivers (cf. Wang et al., 2012). It is widely recognized that familiarity (i.e., a characteristic of tie strength) can enhance the level of comfort and satisfaction in social interaction (Reis et al., 2011). Thus, tie strength with peers can facilitate the relationship between foodstagramming benefits and sharing satisfaction. The above discussion leads to the following hypothesis.

**Hypothesis 10.** Tie strength with peers moderates the relationship between foodstagramming benefits and sharing satisfaction.

## 3. Study 1: survey

### 3.1. Methods

#### 3.1.1. Sample and procedure

The study focused on consumers who dined at micro-celebrity

restaurants and hence, the population of interest was diners at such commercial outlets. To be qualified, respondents should have taken food selfies and shared them on social media. Twenty restaurants located in Guangzhou, China were selected as the research context because the city is a large metropolitan locale and an important national and international destination where a large variety of such restaurants were situated. The city is also renowned for its gourmet dining and is listed as one of the top food cities in the nation. In fact, a recent survey revealed that food and beverage expenditure in the city consistently ranked first in the country (Zhang et al., 2020b). The twenty restaurants selected for this study were based on their popularity retrieved from *Little Red Book*, which is a highly popular lifestyle social media platform that specializes in travel and gourmet blogging and recommendations.

A person-administered survey approach was employed to gather data in which an investigator collected data based on face-to-face interviews with individual respondents. In particular, two well-trained field investigators approached and invited consumers to complete the questionnaire at the exit of participating restaurants. A filter question was utilized to identify the targeted respondents, ensuring that all the respondents took photos during dining and had either shared or intended to share them on social media. Convenience sampling combined with systematic sampling was applied, where investigators invited every third diner to complete the questionnaire. If a person refused to respond to the survey, the next available respondent was selected. This sampling method enabled reaching a larger pool of responders while also increasing randomness and ensuring a representative sample. We used the back-translation approach to develop the questionnaire. It was furnished with assistance from three bilinguals. Then, it was pretested by seven master's students majoring in tourism and hospitality to optimize the Chinese wording. To refine the wording of the scale items, 66 diners were recruited for a pilot study. We also deleted one item due to the incomprehensible wording.

After removing incomplete responses and outliers, a total of 430 valid responses were retained, corresponding to a validity rate of approximately 86%. Of the respondents, 75.1% were females; 61.2% fell within the 18–25 age range; and 94.2% received up to higher education. The sample characteristics corresponded to previous research that stated that highly educated young people were more likely to share photos online (Huang et al., 2020; Lo et al., 2011).

#### 3.1.2. Measures

All instruments used in the study were adopted from the existing literature, with high scale reliability and validity. In addition, we carefully revised them according to the current research context. *Social interaction* (SI) was assessed using a three-item scale adopted from Huang and Hsu (2010). Each item was evaluated using a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A 7-point scale with four items was adapted from the literature to measure *tie strength with peers* (TSP), which was adopted from Wang et al. (2012).

Fifteen items adopted based on Wong et al. (2019a) were employed to measure *foodstagramming benefits* (FBs). These items were assessed using a 9-point anchor ranging from 1 (strongly disagree) to 9 (strongly agree). We followed Wong et al. to operationalize the scale into five dimensions: self-expression, enrichment of dining experience, social connection, virtual community engagement, and memory of special occasions. However, after a preliminary analysis, we deleted the last dimension due to its low factor loading and convergent validity.

The *sharing satisfaction* (SSAT) scale was adopted from Tsiros and Mittal (2000) to measure consumers' satisfaction after food selfie sharing on social media. The scale had three items and was evaluated on an 11-point Likert scale with 1 = strongly disagree and 11 = strongly agree. *Dining fun* (DF) assessed the pleasant sensory experience from dining gained in foodservice consumption. A five-item scale measured by a 9-point anchor was employed based on the literature (Yang, 2018). A preliminary analysis showed that one of the five items ("Sometimes I feel more like I am playing than I am dining") should be removed due to

its unreliability.

The subjective well-being scale reflected people’s overall judgment or critical evaluation of life (Altainay et al., 2019), captured by four indicators adopted from Rosenbaum and Wong (2015). Each item was evaluated on an 11-point anchor where 1 = strongly disagree and 11 = strongly agree. Using multiple anchors could reduce common method bias, enhancing measurement accuracy without affecting standard variation, skewness, or kurtosis (Dawes, 2008). Most of the factor loadings were greater than 0.70, and two factor loadings on TSP were slightly below 0.70 but are still deemed acceptable. This assessment aligns with Hair et al. (2010), who suggested a cut-off value of 0.50. Each scale showed adequate internal reliability with Cronbach’s alpha and composite reliability (CR) that both exceeded the cutoff value of 0.70 (see more details on Table 1). In addition, construct validity was warranted with average variance extracted (AVE) above the 0.50 threshold, and the square root of AVEs was greater than the intercorrelation of the constructs of interest (see Table 2).

Before testing the proposed model in Fig. 1, we performed confirmatory factor analysis (CFA). Comparative fit index (CFI) = 0.97; goodness-of-fit index (GFI) = 0.91; root mean square error of approximation (RMSEA) = 0.05; and standardized root mean square residual (SRMR) = 0.05; thus demonstrating adequate fit of the measurement model. Furthermore, we diagnosed the common method bias (CMB) based on Harman’s single factor test. Results revealed that CMB was not a concern, as  $\chi^2/df = 20.456, p < .001$ . Also, use of different scale anchors should also help to mitigate CMB, as Podsakoff et al. (2003) suggest. Multicollinearity was not an issue in this study because none of the variance inflation factors (VIFs) was greater than the cutoff value of 3.0.

3.2. Results

Descriptive statistics and zero-order correlations of the variables were also presented in Table 2. We regarded education, age and gender as control variables. We tested the proposed research framework presented in Fig. 1 based on structural equation modelling (SEM) using AMOS version 28.0. In particular, this study employed a parceling method to manage the multidimensional construct of foodstagramming benefits. Each subdimension was represented by four parcels, derived from averaging the item scores and subsequently utilized as indicators for the latent construct (Landis et al., 2000). Past research highlights that structural equation modeling (SEM) utilizing parceled items tends to offer greater parsimony with more stable parameter estimates and a more compact model fit (Kim and Assaker, 2014).

This study tested the mediation effect (Model 1) and moderating effect (Model 2) in two different models. All the results were summarized into Table 3 which suggested that both Model 1 and Model 2 had an adequate overall model fit. For example, Model 2 demonstrate adequate fit with GFI = 0.90, CFI = 0.96, NFI = 0.92, RMSEA = 0.05 and SRMR = 0.09. Hypotheses 1 and 2 proposed a direct relationship leading from online social interaction to foodstagramming benefits and sharing satisfaction. Results from Model 1 reveal that the relationships are positive and significant ( $\beta_{SI \rightarrow FBs} = 0.33, p < .001$ ;  $\beta_{SI \rightarrow SSAT} = 0.26, p < .001$ ). Next, we examined the effects of foodstagramming benefits by testing Hypotheses 3, 4 and 5 in Model 1. Results show that foodstagramming benefits are positively related to sharing satisfaction and subjective well-being ( $\beta_{FBs \rightarrow SSAT} = 0.34, p < .001$ ;  $\beta_{FBs \rightarrow DF} = 0.38, p < .001$ ), but the results fail to support Hypothesis 4 ( $\beta_{FBs \rightarrow DF} = 0.08, p > .05$ ). In other words, dining fun fails to mediate the relationship between foodstagramming benefits and subjective well-being (95% CI = [-0.01,0.10],  $p > .05$ ). Hypotheses 6, 7 and 8 investigated the direct and indirect relationship between sharing satisfaction and subjective well-being, as well as the mediation of dining fun. Results are in support of the three hypotheses ( $\beta_{SSAT \rightarrow DF} = 0.24, p < .001$ ;  $\beta_{SSAT \rightarrow SW} = 0.22, p < .001$ ;  $\beta_{DF \rightarrow SW} = 0.23, p < .001$ ), indicating that dining fun partially mediated the relationship between sharing satisfaction and subjective well-being ( $b = 0.06, 95\% CI = [0.03, 0.12], p < .05$ ).

Table 1  
Scale items for the study constructs.

Scale items	FL	$\alpha$	AVE	CR	
<b>I Online social interaction</b>					
1. My interaction with online friends was harmonious.	0.71	0.79	0.58	0.80	
2. My interaction with online friends was friendly.	0.89				
3. My interaction with online friends was cooperative.	0.68				
<b>II Tie strength with peers</b>					
During socializing online, _____.					
1. How likely would you share personal confidences with your peers?	0.68	0.84	0.60	0.85	
2. How likely would you spend some free time socializing with your peers?	0.92				
3. How likely would you perform a large favor for your peers?	0.78				
4. How likely would your peers perform a large favor for you?	0.69				
<b>III Foodstagramming benefits</b>					
When I shared food photos online, I wanted _____.					
Self-expression	1. To establish social presence	0.71	0.85	0.63	0.87
	2. To showcase a different self.				
	3. To increase exposure to the community.				
	4. To showcase social status.				
Dining experience	5. To present a unique dining environment.	0.83			
	6. To share aesthetic food display.				
	7. To share food taste through images.				
Social connection	8. To provide recommendations for others.	0.82			
	9. To improve mutual understanding among social media peer group.				
	10. To improve mutual understanding among social media peer group				
Virtual community engagement	11. To engage in social media networking.	0.82			
	12. To build a community of followers.				
	13. To engage in private communication networks.				
<b>IV Social sharing satisfaction</b>					
After sharing food photos online, _____.					
1. I am happy as long as my online friends are happy with the experience I have in the restaurant.	0.85	0.93	0.82	0.93	
					2. I am pleased as long as my online friends are pleased with the experience I have in the restaurant.
					3. I am satisfied with the experience in the restaurant as long as my online friends are satisfied with it.
<b>V Dining Fun</b>					
1. This is a fun place to dine.	0.80	0.91	0.71	0.91	
2. At the restaurant, we try to have fun whenever we can.	0.95				
3. We laugh a lot at this restaurant.	0.93				
4. This restaurant has a fun atmosphere.	0.66				
<b>VI Subjective well-being</b>					
After browsing and sharing food photos on social media, _____.					
1. I feel mentally better.	0.87	0.95	0.82	0.95	
2. I am more relaxed.	0.96				
3. I am in a better mood.	0.87				
4. I feel physically better.	0.93				

Note: FL = factor loading;  $\alpha$  = Cronbach’s alpha; CR = composite reliability; AVE = average variance extracted.

Next, we tested the moderation effect of tie strength with peers on the FBs–SSAT link. Results from Model 2 support Hypothesis 10, in that the foodstagramming benefits  $\times$  tie strength interaction is significant ( $\beta = -0.09, p < .05$ ). We used the simple slope approach to illustrate the

**Table 2**  
Descriptive statistics and correlations among variables.

Variables	Mean	S.D.	1	2	3	4	5	6
1. Online social interaction	5.64	0.91	<b>0.76</b>					
2. Tie strength with peers	5.47	1.05	.46**	<b>0.77</b>				
3. Foodstagramming benefits	5.46	1.44	.32**	.27**	<b>0.80</b>			
4. Social sharing satisfaction	8.29	2.23	.34**	.30**	.40**	<b>0.90</b>		
5. Dining fun	6.47	1.45	.34**	.35**	.18**	.27**	<b>0.84</b>	
6. Subjective well-being	6.45	2.41	.35**	.31**	.49**	.44**	.37**	<b>0.91</b>

Note: All correlations are significant at the.01 level.

S.D. = standard deviation.

The values in bold along diagonal refer to the square root of AVE.

**Table 3**  
Results from SEM path estimations.

	Model 1				Model 2			
	Foodstagramming benefits	Social sharing satisfaction	Dining fun	Subjective well-being	Foodstagramming benefits	Social sharing satisfaction	Dining fun	Subjective well-being
<b>Control variable</b>								
Education	—	—	—	-0.04 <sup>n.s.</sup>	—	—	—	-0.04 <sup>n.s.</sup>
Age	—	—	—	-0.07 <sup>†</sup>	—	—	—	-0.07 <sup>†</sup>
Gender	—	—	—	-0.04 <sup>n.s.</sup>	—	—	—	-0.04 <sup>n.s.</sup>
<b>Main effect</b>								
Online social interaction	0.33***	0.26***	—	—	0.35***	0.21***	—	—
Foodstagramming benefits	—	0.34***	0.08 <sup>n.s.</sup>	0.38***	—	0.33***	0.08 <sup>n.s.</sup>	0.38***
Social sharing satisfaction	—	—	0.24***	0.22***	—	—	0.24***	0.22***
Dining fun	—	—	—	0.23***	—	—	—	0.23***
<b>Moderating effect</b>								
Tie strength with peers	—	—	—	—	—	0.11**	—	—
Foodstagramming benefits × tie strength with peers	—	—	—	—	—	-0.09**	—	—
R <sup>2</sup>	0.11	0.24	0.08	0.38	0.13	0.25	0.08	0.38
GFI	0.92				0.90			
CFI	0.97				0.96			
NFI	0.94				0.92			
RMSEA	0.05				0.05			
SRMR	0.07				0.09			

<sup>n.s.</sup>: not significant; Path estimates are standardized.

<sup>†</sup> p < .10.

\*\* p < .05.

\*\*\* p < .001.

moderating effect vividly. As Fig. 2 delineates, the slope of foodstagramming benefits on sharing satisfaction is more salient for people with a low tie strength with peers. More importantly, the marked difference between high (vs. low) tie strength groups were particularly acute for

the low foodstagramming benefit condition. In other words, when diners perceived a low level of foodstagramming benefits, a high level of tie strength with friends is particularly critical in fostering sharing satisfaction. However, when diners perceived a high level of food selfies

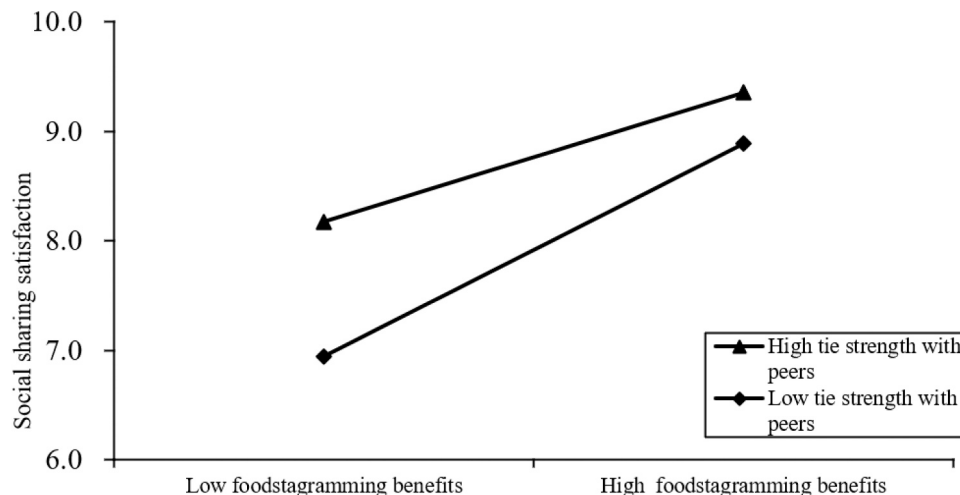


Fig. 2. Moderating effect of tie strength with peers.

benefits, the difference between high (vs. low) tie strength is relatively small.

## 4 Study 2: qualitative field inquiry

### 4.1. Methods

To deepen our understanding of how online social interactions can be stimulated by foodstagramming and how it can impact individual subjective well-being, semistructured interviews were conducted with 12 diners (8 women and 4 men) using a purposive sampling approach. Their ages ranged from 20 to 43 years old. Respondents were recruited from mainland China and Australia, while all interviewees engaged in foodstagramming after their meals. Each interview lasted around 20 minutes. Firstly, the respondents were required to share some of their foodstagramming experiences during their recent restaurant encounters. Then, they were invited to share their feelings about this activity. Example interview questions included: “What role does foodstagramming play in your personal affect and life satisfaction?” “How does recalling your foodstagramming experience make you feel?”

We followed [Saldaña's \(2009\)](#) coding guidelines by first having one researcher read the data corpus line by line. Open coding was used in the first cycle of the coding process, “breaking down qualitative data into discrete parts, closely examining them, and comparing them for similarities and differences” ([Saldaña, 2009](#), p. 81). The second cycle involved axial coding by relating initial codes into categories or themes. Another researcher was invited to engage in the second coding cycle. The entire process extracted two themes and 11 categories associated with the subjective well-being resulting from foodstagramming activities. [Table 4](#) illustrates the themes of positive affect and life satisfaction, aligning with the widely acknowledged dimensions of subjective

well-being ([Diener et al., 1999](#)).

### 4.2. Results

Nearly all participants highlighted that posting food photos enhances their positive affect and life satisfaction. In particular, foodstagramming on one hand provides consumers with instant happiness, as Interviewee #10 suggested: “The process of posting and sharing is enjoyable for me.” On the other hand, it offers enjoyable reminiscences by transforming dining experiences into vivid memories recollected during the dining occasion. As Interviewee #2 stated: “When I browsed through my posts on WeChat moments, memories were triggered, reminding me what my boyfriend did for me. Each time I view these photos, I genuinely feel happiness and contentment.”

Nine respondents highlighted that foodstagramming postings serve as records for autobiographical memories, which encourage them to revisit these memories periodically. This review process allows them to relive past dining experiences, recalling details such as dishes, tastes, people, and social interactions during their meals. Engaging in reminiscing activities continues to bring them joy. Individuals also experience contentment when others appreciate or like their recommendations in the post, as was mentioned by Interviewee #12: “Sharing food pictures is actually a way for me to recommend these dishes to my friends. Whether they try it and like it or not, it brings me enjoyment.”

The core themes from [Ryff's \(1989\)](#) model were adapted to code life satisfaction. Results suggest that foodstagramming contributes to enhanced individual life contentment by enabling self-presentation, fostering self-reflection, building shared memories, and promoting autonomy and positive relations with others ([Pera et al., 2020](#)). Food-selfie postings serve as a documentary or confessional memoir, revealing individual life and shaping a digital self on social media ([Lin et al., 2022](#)).

**Table 4**  
Illustrative Coding examples.

Themes	Categories	Example quotes
Positive affect	Instant happiness	• “Posting food photos online can enlarge the happiness obtained from dining.” (#9, #10, #11)
	Pleasure of reminiscing	• “I often go back and revisit these posts I’ve shared. It’s surprising to see so many wonderful memories from before, realizing how great our times were together. Remembering the moment and feedback from my friends still brings me happiness and contentment.” (#5)
	Joy of recommendation	• “Sharing food pictures is actually a way for me to recommend these dishes to my friends. Whether they try it and like it or not, I’m content.” (#10, #12)
	Sensory arousal Cocreation playfulness	• “The post triggers memories of the taste of the food we had, the ambiance of the restaurants, and the friends I dined with.” (#3, #10) • “When I share photos about some unenjoyable experiences, my humorous partner always finds a way to make it comedic by relating the dining experience to things in life or current events and turning it into a joke, creating a lot of humor from it.” (#8)
Life satisfaction	Self-acceptance Positive relations with others	• “Foodstagramming is an expression of my love for life. It helps me feel closer to life and shapes a happier self.” (#9)
		• <i>Social interaction</i> : “If I post a beautiful scenery picture and someone says it looks great, that might be it. But when I share a food picture, there’s a lot more conversation among friends. They’ll ask me where I ate, how it tasted, and what other delicious things were there, and so on. Comparatively, when I post about food, the interaction between my friends and me is more extensive, and there’s this feeling of discussion among us.” (#3)
		• <i>Altruistic</i> : “I think my foodstagramming would be beneficial for them (food stall) to get some publicity.” (#4)
		• <i>Reciprocity</i> : “The post would let friends who dine out with me know how much I cherish those moments dining together. It’s a beautiful experience for me.” (#1, #2, #3, #5, #6)
		• <i>Social support</i> : “I see my friends’ likes and comments on my foodstagramming posts as a form of support, something that makes me feel the warmth they bring into my life.” (#5)
		• <i>Resonance</i> : “Many friends really like the food I post, and when they equally appreciate it during our conversations, it feels like I’ve found resonance online.” (#3)
	Autonomy	• “I’m just photographing and sharing things I like, and they only hold meaning for me, allowing me to see glimpses of my life. I don’t really care about others’ opinions on this content. Whether they like it or not is their business.” (#6)
	Purpose in life	• “I call it an admirable experience. Discovering this food and sharing it within my network is not just for life satisfaction anymore; it serves as a personal motivation for me. I would like to visit another kind of destination which also has such things and share with others again.” (#4)
	Personal growth	• “I often scroll through my WeChat Moments, checking out this period of my life—I like posting my dining-out experiences and cooking experience. I can look over my personal life in the new city through these posts.” (#9)
	Memory	• <i>Special occasion memory</i> : “This day was incredibly special to me as it marked my first birthday celebrated with my boyfriend. He arranged all the activities, and I was really pleased with everything, so I want to document it. I want to capture this joy and share it with my family and friends.” (#2) • <i>Shared memory</i> : “I made a collection of all the things we ate during those days and posted it to capture our trip with friends. I carefully arranged a grid of nine photos and shared it on Weibo because my friends follow me there, and it’s a way for them to also cherish those memories. Organizing and posting everything we ate together on Weibo felt like sharing memories and storing those beautiful moments together in the cloud.” (#3) • <i>Confessional memoir</i> : “I post whenever I feel like it, almost like keeping a diary. It’s like an open notebook for me.” (#6)



On one hand, it reflects individual personality, as one participant stated, “It portrays me as someone willing to venture to rural places in search of authentic cuisine” (Interviewee #4). Additionally, easily discussable food topic helps strengthen relationship ties with friends, as expressed by Interviewee #10: “It creates a sort of connection among us, especially with friends and family from afar. That interactive feeling is great, making me feel like everyone is getting more connected and livelier.”

Moreover, food postings may reflect one’s self-determination and personal growth. Some participants expressed that they share food selfies because they want to, regardless of other people’s commentaries. Upon revisiting the posts, they sense changes in their personal lives and progress in photography skills. As the testimony of Interviewee #9 shows,

These food photos reflect my personal life in the new city, indicating my increasing adaptation to this environment. Upon reviewing the posted photos, I can feel the improvement in my photography skills; and it motivates me to share more of my dining experiences on social media.

Furthermore, posting food selfies is seen as bringing vibrancy and meaning to life. As stated by Interviewee #4: “Knowing and sharing this traditional experience truly makes my life really colorful; it serves as a personal motivation for me. I feel encouraged to explore and share more similar food culture.”

## 5. Discussion

Guided by social presence theory, this research aims to enhance our understanding of foodstagramming’s impact on consumers’ dining experiences and outcomes. It also heeds the call from Argo (2020) to further explore the influence of social presence in the hospitality industry. Results from Study 1 corroborate the proposed model in Fig. 1, demonstrating that online social interaction, via foodstagramming, can positively affect consumers’ sharing satisfaction, dining fun and subjective well-being. Expanding upon Wong et al. (2019a), this study interprets foodstagramming from a socialization standpoint and broadens the customers’ food selfie responses to include offline dining experiences (i.e., dining fun) and deeper emotional arousal (i.e., subjective well-being). Moreover, it incorporates tie strength with peers as a moderator, thus revealing a boundary condition that attenuates the relationship between foodstagramming benefits and individual satisfaction. Study 2 provides further evidence about the impact of food-selfie sharing on online social interaction and subjective well-being, through a qualitative field study. The findings suggest that posting food photos on social media and engaging with online audiences not only elicits temporary positive affect (such as instant happiness and cocreation playfulness), but also contributes to enhance life satisfaction through aspects like self-acceptance, positive relationships with others, life purpose and personal growth. In summary, this research illuminates that the act of sharing food selfies impacts immediate personal happiness upon posting and has a lasting effect on subjective well-being over a relatively extended period. These insights help broaden the work originally presented by Wong et al. (2019a).

### 5.1. Theoretical implications

The opening of this article presents the importance of food selfie taking and sharing (or foodstagramming) in the dining encounter. The question remains as to why this social sharing activity is increasingly popular. While earlier research sets the necessary foundation for this domain of knowledge (Chang, 2022; Lin et al., 2022; Wong et al., 2019a; Xiong et al., 2023), the need for online social interactions as an antecedent to foodstagramming benefits has been overlooked. Accordingly, this research moves beyond the current discussion on motivation, self-presentation and expression (Zhu et al., 2019), image management (Lin et al., 2022; Wong et al., 2019a), social commerce behaviors (Huang et al., 2021; Shin et al., 2020), and normative conduct (Xiong et al., 2023) to embark on the role of interaction in the selfie sharing and

taking phenomenon. Doing so allows us to build a nomological network that identifies the mediation role of foodstagramming as well as its consequences. This research thus adds to the current discourse on photo taking and sharing in hospitality settings by showcasing the relationships presented in Fig. 1.

The findings also hint at Andersson and Mossberg’s (2004) proposition recognizing that meals satisfy not only physiological but also social needs. These social needs are met not only through interactions with employees and fellow customers in the physical environment, but also through online social engagement within virtual communities. This understanding extends the “meeting factor” in Gustafsson et al.’s (2006) Five Aspects of the Meal Model by showcasing how one’s online social interaction through foodstagramming can bring an alternative avenue for diners to meet other customers via cyberspace. Additionally, the nomological network presented in the present research also highlights the mediating effects of foodstagramming benefits, social sharing satisfaction and dining fun, and the moderating role of tie strength with peers. Foodstagramming extends the dining experience from the physical setting to the virtual realm, enhancing it with broader social connections and engagement in virtual communities (Wong et al., 2019a). This process transcends mere on-site social needs, leading to greater satisfaction in the context of social sharing. The transmission of emotions through these activities is conditioned by the strength of ties with peers on social media. Furthermore, this sharing satisfaction extends to enhancing feelings of fun during dining, supplementing the scholarship of customer satisfaction reaped from traditional service settings.

Second, by crossing the boundary between online and offline domains, this research adds to the boundary crossing literature (Akkerman and Bakker, 2011) to identify how communications from the virtual world could transcend into specific outcomes in the physical world. In particular, dining fun reflects a leap forward as we steer away from the taken-for-granted dining outcomes such as service quality, customer experience, and loyalty. Importantly, this research seeks to build a better understanding of the drivers of fun in a dining environment to highlight customers’ sense of being with other individuals through communication media. Accordingly, benefits and satisfaction reaped from foodstagramming present as salient drivers of fun in the dining encounter. In order words, pleasure received from dining is not necessarily initiated from food or restaurant service quality; it could be obtained also from cyberspace. In essence, having fun in eateries is an important condition that could elevate diners’ subjective well-being, at least temporarily. This path thus offers new insights to the hospitality literature on how offline and online boundaries could collectively afford customers with a greater sense of life satisfaction in a commercial setting. The transition from a commercial environment to customers’ life benefits also hints at transformative research (e.g., Rosenbaum, 2006) to underscore why hospitality services bear excellent potential to fulfill patrons’ various needs beyond mere product/service consumption.

For years, social presence theory (Biocca et al., 2003; Short et al., 1976) has provided a solid theoretical footing for how specific media communications could bridge the gap between distant human interactions. Strong social presence allows individuals to feel a sense of belonging to a community. The present inquiry adds two new nuances to this stream of work. First, it introduces the concept of social sharing satisfaction as an evaluation to one’s social sharing behaviors. It thus allows scholars to better understand the importance of social sharing in the hospitality setting. This type of satisfaction differentiates itself from the conventional understanding of customer satisfaction, as people’s gratification is an indirect outcome of hospitality service provided, through sharing their experience online. Second, it unpacks the notion of tie strength as a salient boundary condition on the foodstagramming – sharing satisfaction linkage. It helps to predict the extent to which foodstagramming could be an effective means to promote pleasure in sharing. More importantly, it helps to better explain how one’s social presence through foodstagramming could be conditioned based upon the relationship with one’s peers. Interestingly, our results suggest that

using food selfie sharing as a strategy to gain socialization benefits (i.e., sharing satisfaction) is particularly effective when people have a low tie strength with friends/loved ones. This evidence may point to how social sharing via photographs is indeed a key avenue for people with a relatively low level of tie strength to gain a stronger sense of social presence. It adds new knowledge to the scant literature on tie strength to unlock reasons for how it could strengthen customers' sharing gratification via selfie sharing.

## 5.2. Practical implications

Although foodstagramming is a temporary leisure activity, this empirical research reveals that it can improve sharing satisfaction and affect subjective well-being from a social interaction perspective. Consumers on their own initiative make self-presentations and establish a social presence on social media by posting food selfies (Lin et al., 2022). A burgeoning social presence among foodstagrammers on social networks strengthens others' sense of connection and willingness to engage with them. It will benefit personal social connections, which imbues overtones into foodstagramming activity and dining experience. Foodstagramming bridges consumers' physical dining activity (offline) and virtual interaction (online), thus it also extends the functional value of the dining experience and expands customers' satisfaction with more aspects of life, leading to subjective well-being (Altinay et al., 2019). Therefore, restaurateurs should make more efforts to enhance the social value of foodstagramming to consumers, such as initiating a tagged activity on social media which can increase exposure for customers' posting and attract more potential consumers to engage in this carnival.

This research further unveils that enhancement in subjective well-being is mediated by foodstagramming benefits and resultant social sharing satisfaction. In essence, consumers can heighten their life satisfaction when internally rewarded through foodstagramming. As Study 2 manifests, diners allude to a happier life after engaging in foodstagramming because it brings them autonomy, life reflection (i.e., personal growth and self-acceptance), life meaning, social acceptance, and enjoyable recollection of the past. This constellation of benefits prompts life satisfaction and well-being. Consequently, restaurateurs can aid diners in constructing a personalized social presence online, facilitating a more positive approach for social interactions and acceptance. To enhance social interactivity, restaurants can undertake efforts to improve customer engagement through visually appealing photography and vibrant design. Simultaneously, they might consider staff training in photography or collaborations with micro-celebrities to impart photography and posting skills. Artificial intelligence software such as Canva AI, Picsart, and Pixlr could also help to improve selfie quality with support for creative food-photo design and editing. Such initiatives aim to bolster consumers' confidence in sharing their dining experiences within virtual communities, thereby amplifying the benefits of foodstagramming and further promoting subjective well-being. Concurrently, restaurants can refine their service design by incorporating engaging and enjoyable activities. This approach not only encourages diners to actively document and share their experiences but also enhances the enjoyment of their dining experience. Ultimately, these measures collectively contribute to the improvement of individual subjective well-being.

Although it is quite common for restaurants to implement a food selfie program which requires their customers to share food photos on social media, the effectiveness of that strategy is still underexamined (Xiong et al., 2023). According to the findings of this research, consumers who spontaneously engage in foodstagramming aim to obtain internal incentives through positive social interactions. Thus, restaurants can establish connections with their customers on social media, and try to give prompt social responses (i.e., giving a like or comment) to their food selfie sharing. This would be a great way to help customers achieve their foodstagramming goals. Simultaneously, such responsive actions can foster a sense of being valued as an important clientele that

foodservice operators treasure. As indicated by people's responses in this research, a stronger tie with customers leads to their heightened perception of value in the dining experience. This result proves advantageous in customer retention and enhancing loyalty. Consequently, customers may not merely regard restaurateurs as dining providers but also as friends or even family (Rosenbaum, 2006).

For the foodservice business, this research also provides some inspiration as to the kind of social media to encourage customers to post on. For general food photos, managers can encourage customers to post on weak-tie social media (i.e., TikTok, Google reviews), for more marketing exposure. However, for those food selfies with high interactivity, managers can encourage customers to prioritize posting on strong-tie social media (i.e., WeChat and Facebook), representing persuasive recommendations to customers' friends and an enhancement of their own dining experience through interaction. Additionally, managers can select some customers with good foodstagramming skills and reward them with a discount coupon for their next meal, as an unexpected bonus for customers that might attract them to visit again, or which they could use to recommend friends.

## 5.3. Limitations and future research directions

A number of limitations need to be noted regarding the present research. First, Study 1 is limited by cross-sectional survey data. Considering well-being has a long-term outcome on individuals' activities, future studies can employ a longitudinal study to track the influence of social interactions on an individual's well-being. Second, the current investigation is only conducted within a travel destination, hence there could be cross-cultural difference if the research was conducted in a different country. Future research is encouraged to test the proposed relationships in different cultural contexts. Also, foodstagramming around the luxury dining experience might be slightly different in different types of eateries. Third, individuals' social media usage varies based on their occupations, potentially influencing the outcomes of social sharing. Future studies are encouraged to explore the differences and expand the validity of these findings. Fourth, although we have identified a moderating effect on the relationship between foodstagramming benefits and social sharing satisfaction, the boundary conditions governing other constructs of interests remain unclear from a theoretical standpoint. This limitation renders as a plausible avenue for future research. We advocate that scholars explore plausible boundary conditions both at the group / social media platform and individual levels (e.g., social norm, platform functionalities, need for communitas, and more) applicable to the proposed model.

## CRediT authorship contribution statement

**Guoqiong Ivanka Huang:** Writing – original draft, Validation, Formal analysis, Conceptualization. **Aliana Man Wai Leong:** Writing – review & editing, Validation, Methodology, Conceptualization. **IpKin Anthony Wong:** Writing – review & editing, Writing – original draft, Supervision, Methodology, Funding acquisition, Conceptualization. **Yun Victoria Chen:** Writing – review & editing, Writing – original draft, Methodology, Investigation, Formal analysis, Data curation, Conceptualization.

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## References

- Abell, A., Biswas, D., 2023. Digital engagement on social media: how food image content influences social media and influencer marketing outcomes. *J. Interact. Mark.* 58 (1), 1–15.
- Akkerman, S.F., Bakker, A., 2011. Boundary crossing and boundary objects. *Rev. Educ. Res.* 81 (2), 132–169.
- Altınay, L., Song, H., Madanoglu, M., Wang, X.L., 2019. The influence of customer-to-customer interactions on elderly consumers' satisfaction and social well-being. *Int. J. Hosp. Manag.* 78, 223–233.
- Andersson, T.D., Mossberg, L., 2004. The dining experience: do restaurants satisfy customer needs? *Food Serv. Technol.* 4 (4), 171–177.
- Argo, J.J., 2020. A contemporary review of three types of social influence in consumer psychology. *Consum. Psychol. Rev.* 3 (1), 126–140.
- Baloglu, S., Busser, J., Cain, L., 2019. Impact of experience on emotional well-being and loyalty. *J. Hosp. Mark. Manag.* 28 (4), 427–445.
- Baron, R.A., Byrne, D., 2004. *Social psychology*, 10 ed. Pearson, New York.
- Basch, J.M., Melchers, K.G., Kegelmann, J., Lieb, L., 2020. Smile for the camera! The role of social presence and impression management in perceptions of technology-mediated interviews. *J. Manag. Psychol.* 35 (4), 285–299.
- Bazarova, N.N., Choi, Y.H., 2014. Self-disclosure in social media: extending the functional approach to disclosure motivations and characteristics on social network sites. *J. Commun.* 64 (4), 635–657.
- Bazarova, N.N., Choi, Y.H., Sosik, V.S., Cosley, D., Whitlock, J., 2015. Social sharing of emotions on Facebook: Channel differences, satisfaction, and replies. *Proceedings of the 18th ACM Conference on Computer Supported Cooperative Work & Social Computing*, pp. 154–164.
- Berg, D.H., 2001. The power of a playful spirit at work. *J. Qual. Particip.* 24 (2), 57.
- Bharara, G., Duncan, S., Jarden, A., Hincson, E., 2019. A prototype analysis of New Zealand adolescents' conceptualizations of wellbeing. *Int. J. Wellbeing* 9 (4).
- Biocca, F., Harms, C., Burgoon, J.K., 2003. Toward a more robust theory and measure of social presence: review and suggested criteria. *Presence: Teleoperators Virtual Environ.* 12 (5), 456–480.
- Chang, C.-M., Hsu, M.-H., 2016. Understanding the determinants of users' subjective well-being in social networking sites: an integration of social capital theory and social presence theory. *Behav. Inf. Technol.* 35 (9), 720–729.
- Chang, R.C.Y., 2022. Developing a taxonomy of motivations for foodstagramming through photo elicitation. *Int. J. Hosp. Manag.* 107, 103347.
- Chen, Y., Lin, D., 2020. Research on tourism sharing behavior of strong-tie network mobile social platform—Data analysis based on WeChat and QQ users. *Tour. Trib.* 35 (04), 89–103.
- Chiu, C.-M., Huang, H.-Y., Cheng, H.-L., Sun, P.-C., 2015. Understanding online community citizenship behaviors through social support and social identity. *Int. J. Inf. Manag.* 35 (4), 504–519.
- Cloninger, C.R., 2004. *Feeling good: the science of well-being*. Oxford University Press.
- Dawes, J., 2008. Do data characteristics change according to the number of scale points used? An experiment using 5-point, 7-point and 10-point scales. *Int. J. Mark. Res.* 50 (1), 61–104.
- Diener, E., Suh, E.M., Lucas, R.E., Smith, H.L., 1999. Subjective well-being: three decades of progress. *Psychol. Bull.* 125 (2), 276.
- Dunbar, R.I.M., 2017. Breaking bread: the functions of social eating. *Adapt. Hum. Behav. Physiol.* 3 (3), 198–211.
- Ford, R.C., Newstrom, J.W., McLaughlin, F.S., 2004. Making workplace fun more ctional. *Ind. Commer. Train.* 36 (3), 117–120.
- Fredrickson, B.L., 1998. What good are positive emotions? *Rev. Gen. Psychol.* 2 (3), 300–319.
- Goldman, K.L., 1993. Dining decisions. *Cornell Hosp. Q.* 34 (6), 63.
- Grace, D., O'Casey, A., 2004. Examining service experiences and post-consumption evaluations. *J. Serv. Mark.* 18 (6), 450–461.
- Gram, M., O'Donohoe, S., Schänzel, H., Marchant, C., Kastarinen, A., 2019. Fun time, finite time: temporal and emotional dimensions of grandtravel experiences. *Ann. Tour. Res.* 79, 102769.
- Grove, S.J., Fisk, R.P., 1997. The impact of other customers on service experiences: a critical incident examination of "getting along. *J. Retail.* 73 (1), 63–85.
- Gunawardena, C.N., Zittle, F.J., 1997. Social presence as a predictor of satisfaction within a computer-mediated conferencing environment. *Am. J. Distance Educ.* 11 (3), 8–26.
- Gustafsson, I.B., Öström, Å., Johansson, J., Mossberg, L., 2006. The Five Aspects Meal Model: a tool for developing meal services in restaurants. *J. Foodserv.* 17 (2), 84–93.
- Hair, J.F., Black, W.C., Babin, B.J., Anderson, R.E., 2010. *Multivariate data analysis: A global perspective*, 7th ed. Prentice Hall, New Jersey.
- Heinonen, K., Jaakkola, E., Neganova, I., 2018. Drivers, types and value outcomes of customer-to-customer interaction. *J. Serv. Theory Pract.* 28 (6), 710–732.
- Huang, G.I., Chen, Y.V., Wong, I.A., 2020. Hotel guests' social commerce intention: the role of social support, social capital and social identification. *Int. J. Contemp. Hosp. Manag.* 32 (2), 706–729.
- Huang, G.I., Liu, J.A., Wong, I.A., 2021. Micro-celebrity restaurant manifesto: the roles of innovation competency, foodstagramming, identity-signaling, and food personality traits. *Int. J. Hosp. Manag.* 97, 103014.
- Huang, J., Hsu, C.H., 2010. The impact of customer-to-customer interaction on cruise experience and vacation satisfaction. *J. Travel Res.* 49 (1), 79–92.
- iiMedia Research, 2021. *Catering industry data analysis: 74.8% of Chinese netizens experienced Internet celebrity restaurants in 2021*, iiMedia.cn.
- Karl, K., Peluchette, J., 2006. How does workplace fun impact employee perceptions of customer service quality? *J. Leadersh. Organ. Stud.* 13 (2), 2–13.
- Kim, H.S., Choi, B., 2016. The effects of three customer-to-customer interaction quality types on customer experience quality and citizenship behavior in mass service settings. *J. Serv. Mark.* 30 (4), 384–397.
- Kim, S., Assaker, G., 2014. An empirical examination of the antecedents of film tourism experience: a structural model approach. *J. Travel Tour. Mark.* 31 (2), 251–268.
- Knobloch, U., Robertson, K., Aitken, R., 2017. Experience, emotion, and eudaimonia: a consideration of tourist experiences and well-being. *J. Travel Res.* 56 (5), 651–662.
- Kozinets, R.V., 1999. E-tribalized marketing?: The strategic implications of virtual communities of consumption. *Eur. Manag. J.* 17 (3), 252–264.
- Landis, R.S., Beal, D.J., Tesluk, P.E., 2000. A comparison of approaches to forming composite measures in structural equation models. *Organ. Res. Methods* 3 (2), 186–207.
- Li, H., Zhang, L., Hsu, C.H.C., 2023. Research on user-generated photos in tourism and hospitality: A systematic review and way forward. *Tour. Manag.* 96104714.
- Lin, B., Fu, X., Lu, L., 2022. Foodstagramming as a self-presentational behavior: perspectives of tourists and residents. *Int. J. Contemp. Hosp. Manag.* 34 (12), 4686–4707.
- Lin, Z., Wong, I.A., Kou, I.E., Zhen, X.C., 2021. Inducing wellbeing through staycation programs in the midst of the COVID-19 crisis. *Tour. Manag. Perspect.* 40, 100907.
- Lo, I.S., McKecher, B., 2015. Ideal image in process: online tourist photography and impression management. *Ann. Tour. Res.* 52, 104–116.
- Lo, I.S., McKecher, B., Lo, A., Cheung, C., Law, R., 2011. Tourism and online photography. *Tour. Manag.* 32 (4), 725–731.
- Luo, J., Wong, I.A., King, B., Liu, M.T., Huang, G., 2019. Co-creation and co-destruction of service quality through customer-to-customer interactions: Why prior experience matters. *Int. J. Contemp. Hosp. Manag.* 31 (3), 1309–1329.
- Moon, S., Bonn, M.A., Cho, M., 2020. How can the solo dining experience be enhanced? Focusing on perceived territoriality. *Int. J. Hosp. Manag.* 88, 102506.
- Murphy, K., 2010. *First camera, then fork*. *The New York Times*.
- Neukov, G.Y., Scott, M.L., 2014. So cute I could eat it up": priming effects of cute products on indulgent consumption. *J. Consum. Res.* 41 (2), 326–341.
- Oliver, R.L., 1997. *Satisfaction: A Behavioral Perspective on the Consumer*. McGraw-Hill, New York.
- Park, C., 2004. Efficient or enjoyable? Consumer values of eating-out and fast food restaurant consumption in Korea. *Int. J. Hosp. Manag.* 23 (1), 87–94.
- Parry, D.A., Fisher, J.T., Mieczkowski, H., Sewall, C.J.R., Davidson, B.I., 2022. Social media and well-being: a methodological perspective. *Curr. Opin. Psychol.* 45101285..
- Pera, R., Quinton, S., Baima, G., 2020. I am who I am: sharing photos on social media by older consumers and its influence on subjective well-being. *Psychol. Mark.* 37 (6), 782–795.
- Podilchak, W., 1991. Distinctions of fun, enjoyment and leisure. *Leis. Stud.* 10 (2), 133–148.
- Pounders, K., Kowalczyk, C.M., Stowers, K., 2016. Insight into the motivation of selfie postings: impression management and self-esteem. *Eur. J. Mark.* 50 (9/10), 1879–1892.
- Rathee, S., Masters, T.M., Yu-Buck, G.F., 2022. So fun! How fun brand names affect forgiveness of hedonic and utilitarian products. *J. Bus. Res.* 139, 44–55.
- Reis, H.T., Maniaci, M.R., Capriello, P.A., Eastwick, P.W., Finkel, E.J., 2011. Familiarity does indeed promote attraction in live interaction. *J. Personal. Soc. Psychol.* 101 (3), 557.
- Reis, H.T., O'Keefe, S.D., Lane, R.D., 2017. Fun is more fun when others are involved. *J. Posit. Psychol.* 12 (6), 547–557.
- Richardson, J.C., Maeda, Y., Lv, J., Caskurlu, S., 2017. Social presence in relation to students' satisfaction and learning in the online environment: a meta-analysis. *Comput. Hum. Behav.* 71, 402–417.
- Rosenbaum, M.S., 2006. Exploring the social supportive role of third places in consumers' lives. *J. Serv. Res.* 9 (1), 59–72.
- Rosenbaum, M.S., Wong, I.A., 2015. When gambling is healthy: the restorative potential of casinos. *J. Serv. Mark.* 29 (6/7), 622–633.
- Ryff, C.D., 1989. Happiness is everything, or is it? Explorations on the meaning of psychological well-being. *J. Personal. Soc. Psychol.* 57 (6), 1069.
- Saldaña, J., 2009. *The coding manual for qualitative researchers*. Sage.
- Shin, Y., Noone, B.M., Robson, S.K., 2020. An exploration of the effects of photograph content, photograph source, and price on consumers' online travel booking intentions. *J. Travel Res.* 59 (1), 120–139.
- Short, J., Williams, E., Christie, B., 1976. *The social psychology of telecommunications*. John Wiley & Sons.
- Smith, M.K., Diekmann, A., 2017. Tourism and wellbeing. *Ann. Tour. Res.* 66, 1–13.
- Spence, C., Okajima, K., Cheok, A.D., Petit, O., Michel, C., 2016. Eating with our eyes: From visual hunger to digital satiation. *Brain Cogn.* 110, 53–63.
- Srivastava, M., Kaul, D., 2014. Social interaction, convenience and customer satisfaction: the mediating effect of customer experience. *J. Retail. Consum. Serv.* 21 (6), 1028–1037.
- Sultan, A.J., 2021. Fear of missing out and self-disclosure on social media: the paradox of tie strength and social media addiction among young users. *Young. Consum.* 22 (4), 555–577.
- Tasci, A.D., Ko, Y.J., 2016. A fun-scale for understanding the hedonic value of a product: the destination context. *J. Travel Tour. Mark.* 33 (2), 162–183.
- Tomazelli, J., Broilo, P.L., Espartel, L.B., Basso, K., 2017. The effects of store environment elements on customer-to-customer interactions involving older shoppers. *J. Serv. Mark.* 31 (4/5), 339–350.
- Tsiros, M., Mittal, V., 2000. Regret: a model of its antecedents and consequences in consumer decision making. *J. Consum. Res.* 26 (4), 401–417.

- Uysal, M., Sirgy, M.J., Woo, E., Kim, H.L., 2016. Quality of life (QOL) and well-being research in tourism. *Tour. Manag.* 53, 244–261.
- Wang, X., Yu, C., Wei, Y., 2012. Social media peer communication and impacts on purchase intentions: a consumer socialization framework. *J. Interact. Mark.* 26 (4), 198–208.
- Wong, I.A., Liu, D., Li, N., Wu, S., Lu, L., Law, R., 2019a. Foodstagramming in the travel encounter. *Tour. Manag.* 71, 99–115.
- Wong, I.A., Xu, Y.H., Tan, X.S., Wen, H., 2019b. The boundary condition of travel satisfaction and the mediating role of destination image: The case of event tourism. *J. Vacat. Mark.* 25 (2), 207–224.
- Wu, C.H.-J., 2007. The impact of customer-to-customer interaction and customer homogeneity on customer satisfaction in tourism service—The service encounter perspective. *Tour. Manag.* 28 (6), 1518–1528.
- Xiong, X., Lian, Q.L., Wong, I.A., 2023. How can foodstagramming improve dining outcomes? A normative focus perspective. *Int. J. Hosp. Manag.* 113, 103490.
- Xu, Xa, Xue, K., Wang, L., Gursoy, D., Song, Z., 2021. Effects of customer-to-customer social interactions in virtual travel communities on brand attachment: the mediating role of social well-being. *Tour. Manag. Perspect.* 38, 100790.
- Yang, F.X., 2018. Social media friending in building coworker guanxi: a study in the hotel industry. *Int. J. Hosp. Manag.*, 102183.
- Zhang, S., Li, Y., Ruan, W., 2021. Accept, resonate and share: the process mechanism of EWOM promoting the fan effect of internet celebrity restaurant. *Nankai Bus. Rev.* 24 (3), 37–51.
- Zhang, X., Liu, M., Bai, C., 2020a. Research on the elements of tourists' well-being from a naturalism perspective. *Tour. Trib.* 35 (5), 37–51.
- Zhang, Y., Yin, T., Huang, Y., Chen, J., 2020b. Blue book of Guangzhou: Annual report of social development of Guangzhou (2020). Guangzhou Academy of Social Sciences Academic Press, CHINA.
- Zhou, Y., Li, Y.-Q., Ruan, W.-Q., Zhang, S.-N., 2023. Owned media or earned media? The influence of social media types on impulse buying intention in internet celebrity restaurants. *Int. J. Hosp. Manag.* 111, 103487.
- Zhu, J., Jiang, L., Dou, W., Liang, L., 2019. Post, eat, change: the effects of posting food photos on consumers' dining experiences and brand evaluation. *J. Interact. Mark.* 46, 101–112.