

Tuyet, Tran Thi; Huyen, Vu Thi Thu; Nguyen, Viet Thai

Article

Effect of facial presence in user-generated photos on intention to purchase restaurant foods: an experimental study from vietnam

Cogent Business & Management

Provided in Cooperation with:

Taylor & Francis Group

Suggested Citation: Tuyet, Tran Thi; Huyen, Vu Thi Thu; Nguyen, Viet Thai (2024) : Effect of facial presence in user-generated photos on intention to purchase restaurant foods: an experimental study from vietnam, Cogent Business & Management, ISSN 2331-1975, Taylor & Francis, Abingdon, Vol. 11, Iss. 1, pp. 1-16,
<https://doi.org/10.1080/23311975.2024.2368704>

This Version is available at:

<https://hdl.handle.net/10419/326357>

Standard-Nutzungsbedingungen:

Die Dokumente auf EconStor dürfen zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden.

Sie dürfen die Dokumente nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, öffentlich zugänglich machen, vertreiben oder anderweitig nutzen.

Sofern die Verfasser die Dokumente unter Open-Content-Lizenzen (insbesondere CC-Lizenzen) zur Verfügung gestellt haben sollten, gelten abweichend von diesen Nutzungsbedingungen die in der dort genannten Lizenz gewährten Nutzungsrechte.

Terms of use:

Documents in EconStor may be saved and copied for your personal and scholarly purposes.

You are not to copy documents for public or commercial purposes, to exhibit the documents publicly, to make them publicly available on the internet, or to distribute or otherwise use the documents in public.

If the documents have been made available under an Open Content Licence (especially Creative Commons Licences), you may exercise further usage rights as specified in the indicated licence.



<https://creativecommons.org/licenses/by/4.0/>

Effect of facial presence in user-generated photos on intention to purchase restaurant foods: an experimental study from vietnam

Tran Thi Tuyet, Vu Thi Thu Huyen & Viet Thai Nguyen

To cite this article: Tran Thi Tuyet, Vu Thi Thu Huyen & Viet Thai Nguyen (2024) Effect of facial presence in user-generated photos on intention to purchase restaurant foods: an experimental study from vietnam, Cogent Business & Management, 11:1, 2368704, DOI: [10.1080/23311975.2024.2368704](https://doi.org/10.1080/23311975.2024.2368704)

To link to this article: <https://doi.org/10.1080/23311975.2024.2368704>



© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group



Published online: 26 Jun 2024.



[Submit your article to this journal](#)



Article views: 966



[View related articles](#)





[View Crossmark data](#)



Citing articles: 1 [View citing articles](#)

Effect of facial presence in user-generated photos on intention to purchase restaurant foods: an experimental study from vietnam

Tran Thi Tuyet^a , Vu Thi Thu Huyen^{a,b} and Viet Thai Nguyen^{a,b} 

^aFaculty of Hospitality and Tourism, Thuongmai University, Hanoi, Vietnam; ^bAdministration and business in services, Tourism and Hospitality Research Group, Thuongmai University, Hanoi, Vietnam

ABSTRACT

As online activities related to purchasing restaurant foods have become more common, user-generated photos (UGPs), including a customer's face, have emerged as crucial sources of information because they offer a better visual cue and create a higher level of trust, subsequently increasing purchase intention. However, little research has examined the effect of facial presence in UGPs on customers' purchase behavior in restaurants in Vietnam. This study aims to investigate the relationship between facial presence in UGPs and purchase intention while simultaneously testing the mediating role of trust. A two-group design was used, with one group featuring UGPs with facial presence and the other UGPs without facial presence. Results indicate that participants in the UGPs with facial presence condition exhibited a higher level of trust and, hence, a greater purchase intention than those in the UGPs without facial presence condition. These findings expand our understanding of UGPs and purchase intention and provide restaurant managers with valuable practical implications.

ARTICLE HISTORY

Received 20 September 2023

Revised 29 May 2024

Accepted 11 June 2024

KEYWORDS

Purchase intentions; user-generated photos; facial presence; online restaurant review; heuristic-systematic model; source credibility

REVIEWING EDITOR

Len Tiu Wright, De Montfort University Faculty of Business and Law, United Kingdom of Great Britain and Northern Ireland


SUBJECTS

Asian Studies; Hospitality; Marketing

Introduction

Online user-generated photos (UGPs) have become essential sources of information that affect customers' behavior and decision-making processes (An & Ozturk, 2022; Li et al., 2021; Li et al., 2022; Ma et al., 2018). For example, they are used for product evaluation before purchase (An & Ozturk, 2022; Jeong & Yeu, 2023; Konijn et al., 2016; Li et al., 2022; Vu et al., 2015). In particular, in hospitality and tourism, due to the intangible nature of the products and services, UGPs play an essential role in building positive intention to visit tourist destinations or book hotels (An & Ozturk, 2022; He, 2023; Kim & Stepchenkova, 2015; Zhang et al., 2022). For instance, numerous travel review websites such as TripAdvisor and Yelp permit users to upload product photographs and reviews, which may significantly impact how consumers perceive the products when purchasing (Lo et al., 2011). Understanding how UGPs affect consumers can be of great importance for research and practice in the hotel and tourism industry.

UGPs typically refer to the static visual content that tourists create and share online (Mak, 2017), which can shape potential customers' restaurant search (Oliveira & Casais, 2018), destination search, and purchase intention (Bigne et al., 2020; Kim & Stepchenkova, 2015; Marder et al., 2021). Oliveira and Casais (2018) found that potential customers search online for UGPs of restaurant foods. For example, Lin and Huang (2006) found that 45% of participants desired to visit Greece after viewing photos shared by other travelers. Thus, customers may consider UGPs a credible reference source to aid decision-making.

CONTACT Viet Thai Nguyen  thainv@tmu.edu.vn  Faculty of Hospitality and Tourism, Thuongmai University, 79 Ho Tung Mau, Cau Giay District, Hanoi, 100000 Vietnam.

© 2024 The Author(s). Published by Informa UK Limited, trading as Taylor & Francis Group

This is an Open Access article distributed under the terms of the Creative Commons Attribution License (<http://creativecommons.org/licenses/by/4.0/>), which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited. The terms on which this article has been published allow the posting of the Accepted Manuscript in a repository by the author(s) or with their consent.

In addition, since many customers know the disguised commercial intentions and biased messaging in promotional images (Kim & Stepchenkova, 2015; Li et al., 2023), they search for more reliable cues, particularly for UGP with a human face. Many studies found that reviews, including a human face, increase trust by making online communication more similar to face-to-face interaction (Cyr et al., 2009; Guan et al., 2023). As a result, prospective customers are more engaged and inspired to review other users' detailed feedback. Moreover, photos with real customers in them enhance reviews' credibility (Cyr et al., 2009) and reduce the possibility of them being perceived as fake (Guan et al., 2023).

Facial presence in UGP leads to greater trust, significantly impacting customers' responses (Cyr et al., 2009; Guan et al., 2023; Li et al., 2023; Yoo & Kim, 2012). Conversely, lacking trust reduces the willingness to purchase online (Wagner Mainardes et al., 2019). Trust plays an increasingly significant role in the hospitality industry in purchase intention (Kim et al., 2017; Li et al., 2021; Park et al., 2021). For example, Anaya-Sánchez et al. (2019) pointed out that tourists tend to trust credible sources of online evaluations, and trust is an essential factor in gaining positive recognition from customers. As a result, it is critical to comprehend the role of trust in UGP in online reviews on customer purchase intention.

However, most related studies focus on the importance of UGP to review their usefulness. In contrast, a few studies pay attention to the effect of UGP on other dependent variables, such as customer purchase intention, especially in hospitality (Li et al., 2022). So far, previous research has studied the different content of photos in UGP (with vs. without human faces) (An & Ozturk, 2022), disclosure of posters' profile pictures (Kim et al., 2020; Lee & Shin, 2014), random facial presence (Li et al., 2022), and aesthetics (Marder et al., 2021). However, little research has explored the effect of facial presence on purchase intention. Moreover, concerning the role of UGP in the hospitality industry, most studies have been conducted in the USA (An & Ozturk, 2022; Shin et al., 2020), Korea (Park et al., 2021), China (Zhang et al., 2022), and Portugal (Oliveira & Casais, 2018), while little research has been carried out on UGP in restaurants in Vietnam. To fill the above research gaps, the study aims to examine the impact of facial presence in UGP on customers' purchase intentions. Concurrently, it will explore the mediating role of trust in the relationship between facial presence in UGP and purchase intentions within Vietnamese restaurant contexts.

This research makes several significant contributions to the existing literature on UGP. Firstly, it adds to the theoretical understanding of consumer behavior in UGP by exploring the role of facial presence as a determinant of purchase intention. By synthesizing theories of HSM and source credibility, we offer insights into the mechanisms underlying this relationship. Secondly, our findings reveal a significant positive effect of facial presence on purchase intention, highlighting the importance of visual cues in influencing consumer behavior within UGP. This contributes to practical implications for restaurant managers, who can leverage the inclusion of human faces in online reviews to enhance trust and drive purchase intention.

Theoretical foundation and hypothesis

Heuristic-systematic model

The heuristic-systematic model (HSM) is a well-known model developed by Chaiken (1989). It aims to explain how people perceive and take in persuasive communications. According to the model, people can process messages systematically or heuristically, using the two systems separately or simultaneously (Chaiken & Maheswaran, 1994; Zhang et al., 2014). Systematic information processing involves careful, deliberate assessments of relevant cues and an increased investment of time, effort, and cognitive skills (Chaiken, 1989). On the other hand, the heuristic mode relies on only a few cues (or even only one cue) to assess related information and quickly evaluate the content of messages. Since the human brain has a limited capacity for processing information, the heuristic processing mode is activated so individuals can minimize their use of cognitive resources whenever possible (Chaiken & Maheswaran, 1994). According to HSM, these types of processing impact how much a person is persuaded and affected by attitude change (Chaiken, 1989).

Prior research indicates that the HSM plays a significant role in elucidating customers' decision-making processes across various fields. For instance, in marketing, Zhang et al. (2014) revealed that customers employ heuristic cues, such as the credibility of information sources and their perceptions of information

quality, to evaluate online reviews, thereby impacting their purchase intentions. Similarly, in the tourism sector, numerous studies (Akhtar et al., 2020; Bigne et al., 2020; Hlee et al., 2018; Kim et al., 2017; Luo et al., 2021; Shi et al., 2021) have utilized HSM as a conceptual framework to explicate tourists' decision-making processes. Notably, several studies have highlighted consumers' reliance on heuristic processing to evaluate online reviews and foster purchase intentions, examining factors such as positive and negative information (Ruiz-Mafe et al., 2018), time constraints (Bigne et al., 2020), hotel room rates (Luo et al., 2021), social influence (Shi et al., 2021), and price transparency (Bai et al., 2022).

The research highlighted above underscores the utility of the HSM as a valuable lens for understanding consumer decision-making process. However, the influence of heuristic cues on customers' purchase intentions has not received adequate attention from researchers, as Hlee et al. (2018) noted. Notably, the significance of facial presence in UGP as a heuristic cue in shaping consumers' intention to purchase restaurant products merits further investigation. Hence, our study adopts HSM as its theoretical framework to explore the impact of facial presence in UGP (with vs. without a human face) on consumer decision-making regarding restaurant products in the online context.

Source credibility theory

The second critical theory for this study is the source credibility theory, developed by Hovland and Weiss (1951). It explains how persuasive communication is affected by the perceived credibility of the source of the communication. According to these authors, several dimensions contribute to source credibility, including dynamism, attractiveness, authority, character, trustworthiness, expertise, and others. While many of these dimensions have been debated, trustworthiness and expertise appear widely accepted (Baxter et al., 2015; Tseng & Fogg, 1999; Pornpitakpan, 2004; Wu & Lin, 2017; Yoo & Gretzel, 2008). In the context of UGP, we focus on trustworthiness, one of the significant elements that form credibility.

Trustworthiness refers to the degree of confidence in the source's 'intent to communicate the assertions they consider the most valid and true' (Hovland et al., 1953). In the present study, the source refers to consumers who post food pictures, including a human face. Several studies in various contexts have proved the significant effects of source trustworthiness on purchase intentions (Ayeh, 2015; Kim & Kim, 2014; Li, 2013). For instance, Kim and Kim (2014) have found that trustworthiness significantly impacts visits to green hotels. In UGP, Guan et al. (2023) found that a human face included in UGP positively influenced product assessment. This is because UGP originating from other travelers are considered credible/trustworthy sources, and potential customers might think there is no commercial interest in UGP. Moreover, human faces in UGP provide real customers' faces, which may lessen the sense of phony reviews among other customers (Guan et al., 2023), which makes them credible sources that may positively affect customers' purchase intentions.

In this study, we combine the HSM theory and source credibility to explain how facial presence affects customers' food purchase intention in restaurants. The HSM explains that customers rely on pictures with a human face as a heuristic cue to minimize mental sources, which might affect food purchases. In addition, source credibility explains that a picture with a human face creates more trust, which involves customers' food purchase intentions.

User-generated photos and purchase intention

Today, with advanced technology and fast internet, sharing UGP on websites or social media is common, which can affect other customers' perceptions. The reason behind this is that UGP offer a more significant number of visual cues of tourist destinations or service providers (Li et al., 2021), enhance information's trustworthiness (Ert et al., 2016; Filieri, 2016; Khateb et al., 2002), boost perceived review usefulness (Li et al., 2021), perceive review enjoyment (Yang et al., 2017) and form positive attitude (Najar & Hamid Rather, 2021). For instance, Aydınoğlu and Cian, (2014) found that using pictures in marketing and advertising to depict products could increase potential customers' willingness to purchase the products. Resti's (2013) study in restaurants found that displaying food images on social media generated a favorable impression of the meal among potential customers. Nevertheless, much less is known about the impact of UGP on purchase intention specifically (Guan et al., 2023; Li et al., 2023).

Several studies have found that UGP impact customers' purchase intentions using the theory of HRM and source credibility (An & Ozturk, 2022; Ayeh, 2015; He, 2023; Kim & Stepchenkova, 2015b; Li et al., 2023; Marder et al., 2021; Park et al., 2021). For instance, a study by Ayeh (2015) found that source credibility posted by travelers significantly impacts other travelers' intention to visit a tourist destination. In addition, a study by Zhang et al. (2014) found that source credibility and perceived quantity of reviews (heuristic factors) directly impact customers' purchase intention. Recent research by Chakraborty (2019) also concluded that source credible online reviews positively affect customers' purchase intention. However, the findings on the impact of UGP content on consumers' purchase intentions in the hospitality industry are inconsistent (An & Ozturk, 2022; Li et al., 2023; Park et al., 2021). Specifically, previous studies found that the content of UGPs, such as photos of hotel rooms or restaurants, facilitated the visualization of hotel products and services, ultimately enhancing the booking decision-making process (An & Ozturk, 2022; Leung et al., 2017; Liu et al., 2022; Oliveira & Casais, 2018) or boosting the sales (Chen & Xie, 2008; Najar & Hamid Rather, 2021). In contrast, other research proved that irrelevant factors and specific characteristics of UGPs (e.g., random human faces that are unrelated to the core products, more than one face, etc.) prevented customers from acquiring and processing related information (Li et al., 2022; Yoo et al., 2000; Yoo & Kim, 2012) and hence, distorted consumers' decision-making process (Guan et al., 2023). As a result, the impact of the content of UGPs on purchase intention needs to be further explored (Li et al., 2023).

Facial presence and purchase intention

Facial presence in UGPs refers to consumers' faces, including photos, which customers share online on multiple platforms such as blogs, social networks, communities, and instant messaging applications. In this study, we refer to facial presence as photos, including a human face with the core products of the service providers (namely restaurants) shared by consumers online on multiple platforms. Prior research has found that facial presence in UGPs influences customer's purchase intention (Broeder, 2022; Srivastava & Kalro, 2019; Yoo & Kim, 2012). However, the results are inconsistent. For example, while Yoo and Kim (2012) found that a review photo including an attractive model's face negatively impacts purchase intention, Li et al. (2014) found that the appearance of humans in product photos positively affects online consumers' purchase intent. In addition, existing literature has mainly focused on the effect of randomness, irrelevant to the core products or the profile picture (Broeder, 2022; Lee & Shin, 2014; Zhang et al., 2014) on customers' purchase intention. There is a noticeable gap in research in the restaurant industry (An & Ozturk, 2022; Wang & Tsai, 2014) to extensively explore the relationship between facial presence (e.g., human faces that are related to core products) and purchase intention.

The effect of facial presence on purchase intention can be explained by the theory of HSM and source credibility. Specifically, the HSM suggests that content-related information might refer to heuristic cues in the processing of data (Chaiken, 1989). Facial presence is an observable content-related cue in the context of UGPs on social networks. Specific photos are contextually relevant, whereas others are simply self-portraits with limited information about the featured products or services. These photos can facilitate or hinder potential customers' purchase intention (Guan et al., 2023). Customers doing online reviews often make quick decisions with little cognitive effort by initially relying on content-related information, notably the face presence shown in images, as a heuristic cue. Later, they engage in systematic processing to meticulously evaluate the photos, which ultimately shapes their behavior. After these evaluations, customers may find UGPs credible and noticeable (based on source credibility theory), positively affecting purchase intention. Hence, the first hypothesis is proposed as follows:

Hypothesis 1. Participants exposed to the UGPs with facial presence are more likely to purchase restaurant foods than those without the UGPs without facial presence.

The roles of trust/trustworthiness between facial presence and purchase intention

Customers may always face some levels of risk due to the inherent nature of Internet shopping (Sutinen et al., 2022; Wu et al., 2020). They essentially bet on the uncertainty of the future and the free actions

of others (hackers, unknown new technologies, user-generated content, reviews, ratings, or UGPs, etc.). When consumers are forced to act in these uncertain circumstances, trust solves the unique issues with risk shopping (Sutinen et al., 2022; Wu et al., 2020). Hence, trust is one of the critical factors in affecting positive purchase intention (Kim et al., 2017; Li et al., 2021; Park et al., 2021). Additionally, trust is widely recognized as a mediating variable between online reviews and purchase intention. For instance, Chang (2014) found that perceived trust substantially impacted consumer's purchase intentions in the hotel industry and acted as a mediating factor in the relationship between website quality and consumers' intentions. Online trust had a substantial impact on online booking intention, according to Li et al. (2017), who looked at the possible theoretical relationship between the quality of Chinese budget hotels' websites, online trust, and online booking intention. The conclusion could be drawn from this was that reviews with UGPs, which contained visual information, could be considered more reliable by consumers than text-based reviews. This was likely because these photos provided more vivid illustrations of the products or services being evaluated before purchasing (Filieri, 2016; Thomas et al., 2019).

According to source credibility, facial presence in UGPs can help build customer trustworthiness (Filieri, 2016). Customers can infer that UGPs with facial disclosure have been posted by experienced customers, not service providers. Moreover, reviewing UGPs with facial presence can create more trust and, thus, enhance purchase intention. Hence, the second and third hypotheses are as follows:

Hypothesis 2. Trust has a positive impact on purchase intention.

Hypothesis 3. Trust mediates the relationship between facial presence and purchase intention.

Thus, to summarize, hypothesis 1 considers the impact of facial presence on purchase intention, hypothesis 2 describes the influence of trust on purchase intention, and hypothesis 3 considers the mediating role of trust between facial presence and purchase intention. The model of this paper is shown in Figure 1.

Methods

Pilot tests

Two pilot tests were carried out before conducting the main experiment. First, 30 undergraduate students (21 women and nine men; Age $M=20.35$, $SD=1.28$) participated in selecting the food that they were most familiar with. A total of 5 most popular foods were derived from this CNN website (<https://edition.cnn.com/travel/article/vietnam-food-dishes/index.html>), the title: 'Vietnamese food: 40 delicious dishes you'll love'. These foods were famous in Vietnam and worldwide, namely Pho, Cha ca, Ga nuong, Com suon nuong, and Bun cha. Participants indicated, 'How often do you eat this food in a typical week?' on a scale of 1 to 7 (1=0-1 days/week; 7=6-7 days/week). These foods were rated in order as follows: Pho ($M=6.25$, $SD=0.84$), Bun cha ($M=6.01$, $SD=0.97$), Com suon nuong ($M=4.62$, $SD=1.08$), Ga nuong ($M=4.42$, $SD=1.16$), and Cha ca ($M=4.21$, $SD=1.05$). Therefore, Pho was chosen to be presented in the main experiment.

Second, six photos, including a human face (3 women, 3 men), were selected to select a human face. 24 undergraduate students (15 women, 9 men; Age $M=21.08$, $SD=1.02$) participated in the study. As the primary aim of this study was to investigate the impact of facial presence in UGPs on purchase intention, it was crucial to diminish the effect of unique photo attributes. Thus, participants were instructed to evaluate each picture on three factors: attractiveness, friendliness, and likeability (1=Describes very poorly; 7=Describes very well; $\alpha=0.89$) (Lee & Shin, 2014). Among six photos, one photo (a woman's

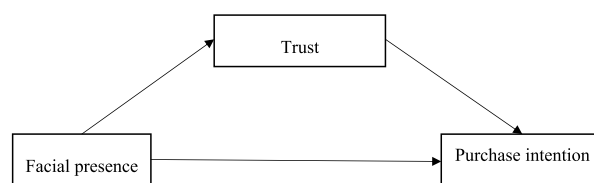


Figure 1. The research model.

face) was selected because it scored in the middle of the scale (4.00), $t_s < 1.36$, $p_s > 0.5$, which suggested that it was neither too attractive/friendly/likable nor too unattractive/unfriendly/unlikeable.

Main experiment

Ethical approval

The ethical conduct of our research was under scrutiny by the ethics committee of Thuongmai University, which ensured adherence to ethical standards throughout the research process. All participants were told the purpose of the study and the name of the researchers and introduced to finish informed consent before participating. The informed consent was collected in a written form attached to the questionnaire link.

Participants

Participants in this study were Vietnamese people and must have used online reviews to purchase foods at least once in the past 12 months - this requirement aimed to ensure that they were familiar with online reviews posted by other consumers. To ensure the data were obtained from the desired population (Vietnamese who had utilized online reviews to select foods at a restaurant), the questions were designed in Vietnamese, and two screening questions were posed to participants (i.e., 'Have you consumed food at a restaurant in the last 12 months?' and 'Have you examined user-generated food reviews of a restaurant in the last 12 months?').

Data

Responses to a questionnaire were collected online. First, we contacted the managers of the thirty business partners affiliated with our faculty, specifically hotels and travel agents around Vietnam. Then we asked them for help acquiring customers' contacts (email, Facebook, or Zalo account). Four hundred thirty-five customers voluntarily provided their contacts and participated in this study. However, 57 were excluded because they had not purchased any restaurant foods, leaving a total sample of 378 (116 men, 226 women; Age $M = 29.44$, $SD = 5.29$) respondents for further analysis. More importantly, all customers were told to read the purpose of this study and finish an informed consent before answering survey questions, which were attached to the link to the questionnaire. They were informed about their anonymity and could withdraw their participation any time they wanted, enabling them to engage confidently and provide comments most comfortably and accurately.

Research tools and procedures

The data was collected through an online questionnaire from March 30th to April 30th, 2023. The questionnaire was delivered online for the following two reasons. First, conducting the survey online allowed the researchers to reach participants quickly and obtain real-time results for quick and easy analysis, and more importantly, at a low cost. Second, the participants could choose a suitable time to complete the questionnaire via a smartphone with a 3G connection or computer.

Several steps were followed to collect the data. The first step involved creating two Google form surveys, each corresponding to two questionnaire conditions. Namely, these two conditions were the UGPs without facial presence condition in which participants were exposed to photos including the neutral review valence and three-star rating, and the UGPs with facial presence condition in which participants were exposed to pictures including the customer-eating-Pho image with the neutral review valence and three-star rating. Participants were randomly assigned to either the UGPs without facial presence or the UGPs with facial presence condition following the two-group design. In each condition, participants were asked questions about (1) personal information (gender, age, marital status, times to buy food through online reviews) and (2) trust and purchase intention. After creating the two corresponding links, they were assigned to Q1 and Q2 using a random number.

Second, to obtain the participants' contact list, we asked the managers of hotels and travel agents affiliated with our faculty to collect their customer's email addresses or Facebook or Zalo accounts. The

next step involved randomly dividing the participants' contact information list into two columns. This contact list was put in a column, and two links (Q1, Q2) were placed in a row in one Excel file. Then, the command 'Rand()' in Excel was used to sort respondents' contacts and fill them into Q1 and Q2 columns. The last step was to send the links to respondents' accounts under the sorted lists.

Both rating and review valence were controlled to diminish unintended effects caused by other variables. More specifically, the number of words in the neutral review valence was controlled at eight words in Vietnamese 'Một bữa ăn bình thường tại nhà hàng,' and the format of the rating was taken from Tripadvisor.com.vn so that participants felt familiar with it. The ratings were controlled as three stars (neutral). In addition, for the facial presence variable, the content of the photos was obtained from TripAdvisor's reviews. Participants were informed that other experienced consumers had taken and posted these photos.

Measures

Respondents were asked to answer four questions about trust, which were adopted from previous studies (Kim, 2018; Kim, 2017). Specifically, these four questions were (1) the information of review is reliable (TRUST1); (2) The review is written appropriately (TRUST2); (3) The decision based on the review is the proper choice (TRUST3); (4) I believe the online review about the restaurant (TRUST4). These four items formed a 'perception of trust' scale ($\alpha = .761$). The Alpha coefficient for the four items was .761, suggesting that the items were reliable. Moreover, everyone was asked to answer three questions relating to purchase intention, which were adapted from previous studies (Kim, 2018; Kim, 2017) because it measures precisely the intention to purchase in the online context. These items are changed to ensure the measurement of purchase intention. Specifically, these three items were: '1- I am willing to purchase the restaurant's foods' (PI1); '2- I will visit the restaurant' (PI2); and '3- I will buy the restaurant's foods' (PI3). The participants answered all the questions on a 7-point Likert scale, with 1=strongly disagree and 7=strongly agree. These three items formed a 'purchase intention' scale ($\alpha = .707$). The Alpha coefficient for the three items was .707, suggesting that the items were reliable.

ANOVA and macro process analysis using SPSS 24 were used to validate the hypotheses in this study (Hayes, 2017). ANOVA has been used in the studies by An and Ozturk (2022) and Filieri et al. (2021), and it is appropriate for comparing the two differences in each condition. Meanwhile, the macro process is suitable for analyzing the mediating variable (Hayes, 2017).

Results

Descriptive statistics

Table 1 presents the participants' demographic information. 69.3% of the participants were female, 62.7% were between the ages of 26 and 35, and 60.1% were married. 41.5% of the participants had monthly incomes between 10 and 20 million VND. Less than half (44.4%) reported making more than two or three internet food purchases.

Manipulation check

To ensure that the manipulations elicited the expected results, this study controlled for the neutral review, the food familiarity, and the facial-presence image. Firstly, for the neutral rating, the participants were asked to answer two items (e.g., three stars indicated that this restaurant food is just fine). These two items formed a 'neutral rating' scale ($\alpha = .832$). The Alpha coefficient for the two items was .832, suggesting that the items were reliable. Moreover, the average mean of the 'neutral rating' evaluation was 5.31 ($SD=1.21$), which means the respondents strongly agreed that the review rating was neutral. These results suggest that the manipulation of the neutral rating was successful.

Moreover, to manipulate the neutral review valence, respondents were asked to answer two items (e.g., this review is written neutrally). These two items formed a 'neutral valence' scale ($\alpha = .716$). The Alpha coefficient for the two items was .717, suggesting that the items were reliable. Moreover, the average mean of the 'neutral valence' evaluation was 5.16 ($SD=1.15$), indicating that respondents strongly

Table 1. Profile of the respondents.

Variable	Category	N	(%)
Gender	Male	116	30.7
	Female	262	69.3
	Total	378	100
Age	18-25	100	26.5
	26-35	237	62.7
	36-45	37	9.8
	46 or older	4	1.1
	Total	378	100
Marital status	Single	126	33.3
	Married	227	60.1
	Others	25	6.6
	Total	378	100
Monthly income	Below 10,000,000VND	90	23.8
	10,000,001 - 20,000,000VND	157	41.5
	20,000,001 - 30,000,000VND	99	26.2
	30,000,001 or more	32	8.5
	Total	378	100
Times to purchase restaurant foods	1 time	42	11.1
	2 - 3 times	168	44.4
	4 - 5 times	106	28.0
	6 times or more	62	16.4
	Total	378	100

Table 2. Mean and standard deviation of purchase intention.

	Facial presence		Trust	
	UGPs with facial presence (n=201)	UGPs without facial presence (n=177)	High (n=206)	Low (n=172)
Purchase intention	4.68 (1.23)	3.65 (1.09)	4.61 (1.35)	3.70 (0.98)

agreed that the review valence was neutral. These results imply that the manipulation of the neutral review valence was successful.

In addition, for food familiarity, respondents were asked to answer two items for controlling food familiarity (e.g., I often eat Pho). These two items formed a 'food familiarity' scale ($\alpha = .916$). The Alpha coefficient for the two items was .916, suggesting that the items were reliable. Moreover, the average mean of the 'food familiarity' evaluation was 5.43 ($SD = 1.14$), indicating that respondents strongly agreed that they were familiar with Pho. These findings show that the food familiarity variable was successfully manipulated.

Lastly, regarding manipulating the facial presence variable, respondents were asked to answer two items (e.g., I see customers are eating foods). These two items formed a 'facial presence' scale ($\alpha = .809$). The Alpha coefficient for the two items was .809, suggesting that the items were reliable. Moreover, there was a statistically significant difference in facial presence between the two conditions (UGPs with facial presence vs. without facial presence) with $F = 32.517$, $p < .001$ ($M_{UGPs \text{ with facial presence}} = 5.24$, $SD_{UGPs \text{ with facial presence}} = 1.19$; $M_{UGPs \text{ without facial presence}} = 4.51$, $SD_{UGPs \text{ without facial presence}} = 1.29$). These results indicate a successful manipulation of the facial presence variable.

Hypothesis testing

Table 2 presents the mean and standard deviation of purchase intention. The mean purchase intention in high and low trust was 4.61 (1.35) and 3.70 (0.98), respectively. The mean purchase intention in the UGPs with facial presence and UGPs without facial presence was 4.68 (1.23) and 3.65 (1.09), respectively.

Table 3 shows the findings of correlation analysis. The correlation coefficients were .193 ~ .437, indicating that facial presence, trust, and purchase intention all have positive relationships.

To test hypothesis 1, a two-group design (review with facial presence vs. without facial presence) was implemented in this study. The results showed that there was a significant difference in purchase intention depending on the content of UGPs, with $F(1, 376) = 73.116$, $p < .001$, partial $\eta^2 = 0.163$. More specifically, participants exposed to the UGPs with facial presence condition were more likely to purchase

Table 3. Results of correlation analysis.

		1	2	3
1. Purchase intention	Pearson Correlation	1		
	Sig. (2-tailed)			
	N	378		
2. Trust	Pearson Correlation	.437**	1	
	Sig. (2-tailed)	.000		
	N	378	378	
3. Facial presence	Pearson Correlation	.404**	.193**	1
	Sig. (2-tailed)	.000	.000	
	N	378	378	378

** $p < .001$.

Table 4. ANOVA for purchase intention.

Source	Sum of Squares	df	Mean square	F-value
Between Groups	100.625	1	100.625	73.166***
Within Groups	517.111	376	1.375	
Total	617.135	377		

Note: * $p < 0.05$, ** $p < 0.01$, *** $p < 0.001$.

Table 5. Regression results for simple mediation.

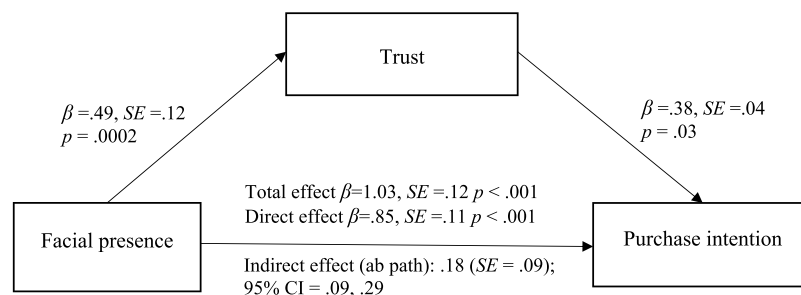
	Purchase intention (DV)			Trust (MV)			Purchase intention (DV)		
	Coefficient	SE	t-value	Coefficient	SE	t-value	Coefficient	SE	t-value
Constant	2.61**	.19	13.41	3.21**	.21	15.49	1.41**	.23	6.15
Facial presence	1.03**	.12	8.55	.49**	.12	3.82	.85**	.11	7.51
Trust							.38**	.04	8.44
R ²	.16			.04			.29		
Indirect Effect ^a	.18**								
95% CI ^b	[.09, .29]								

Note. N=378. Facial presence (1= UGPs without facial presence, 2=UGPs with facial presence). DV=dependent variable. MV=mediator variable.

^aSignificant using the normal distribution.

^bBias-corrected confidence interval for the indirect effect estimate through 5,000 bootstrap samples.

* $p < .05$, ** $p < .001$.

**Figure 2.** Mediated model for the effect of facial presence on purchase intention via trust.

restaurant foods ($M = 4.68$, $SD = 1.23$) than those exposed to the UGPs without facial presence condition ($M = 3.65$, $SD = 1.09$), $d = 0.165$. Hypothesis 1 is thus supported (see Table 4).

To test hypothesis 2 and hypothesis 3, this study utilized the bootstrapping procedure by Hayes (2017) and its corresponding SPSS macro, with five thousand bootstrap resamples performed. Results are presented in Table 5 and Figure 2. The total effect of facial presence on purchase intention was statistically significant, $\beta = 1.03$, ($SE = .12$), $t(377) = 8.55$, $p < .001$. The effect of facial presence on trust was also statistically significant (a path), $\beta = .49$, ($SE = .12$), $t(377) = 3.82$, $p = .0002$. Furthermore, trust was affected by facial presence (review with facial presence vs. without facial presence), which in turn affected purchase intention, $\beta = .38$, ($SE = .04$), $t(377) = 8.44$, $p < .001$. The direct influence of facial presence on purchase intention, after controlling for the mediating impact of trust, was significant (c' path), $\beta = .85$, ($SE = .11$), $t(377) = 7.51$, $p < .001$. The indirect effect (the mediated effect) of facial presence on purchase

intention via trust was .18 ($SE = .09$), and 95% confidence interval $CI = .09, .29$ did not include zero. Moreover, our findings showed that these partially standardized indirect effects were 0.14, $SE = .04$, with 95% confidence interval $CI = .07, .23$. These suggest that trust mediated the impact of facial presence on purchase intention. Notably, a 5,000 resamples bootstrap indicated that the effect of facial presence on customers' purchase intention was mediated by trust (95% bias-corrected, $CI = .09, .29$). Hence, hypotheses 2 and 3 are supported.

Discussion

General discussion

This study investigated how heuristic, systematic information and source credibility cues in UGPs affected potential customers' decision-making process. Through an experimental approach and the use of ANOVA and macro process in data analysis, this study explored the impact of facial presence in UGPs on customers' purchase intention in restaurants in Vietnam and the mediating effect of trust. The study's results reveal a statistically significant relationship between facial presence in UGPs and purchase intention. Furthermore, facial presence was one of the credible cues that affected consumers' decision-making process.

First, similar to studies in restaurants (Park et al., 2021), hotels (An & Ozturk, 2022; Kim et al., 2020), and e-marketing (Lee & Shin, 2014), our findings reinforce the positive effect of facial presence on purchase intention and trust mediates this relationship. We posit that this influence stems from both the heuristic and systematic processing of information by humans, alongside the perceived credibility of the sources. Essentially, including a human face in photos is interpreted as a sign of credibility, rendering them more trustworthy and affecting their intention to purchase. Several potential explanations support this finding. Firstly, visual cues significantly influence human perception (Oliveira & Casais, 2018; Yoo & Kim, 2012). For instance, a human face in UGPs enhances trust perception and amplifies their persuasive impact on potential customers (Filieri, 2016). Secondly, given the abundance of alternative reviews and UGPs available to consumers as reference sources, those containing human faces may instill greater trust and subsequently influence consumer behavior.

Second, unlike previous research that suggests the negative impact of facial presence in UGPs on review usefulness (Li et al., 2022), potentially impeding customers' decision-making processes, this study highlights the positive effect of facial presence on purchase intention. The differences in designing the experiment can explain these results. Specifically, previous studies selected random human faces (Li et al., 2022) or included posters' profile pictures (Kim et al., 2020; Lee & Shin, 2014). In contrast, we controlled for the human face (a woman is eating the food) related to the core restaurant products (foods); therefore, the UGPs with facial presence may enhance purchase intention. These findings imply that facial presence in UGPs may increase purchase intention when this face is related to core restaurant products (foods).

Theoretical implications

This paper contributes significantly to understanding consumer behavior in UGPs by investigating the influence of facial presence on purchase intention. Drawing on the HSM's holistic approach and source theory's credibility aspect, this research delves into the nuanced relationship between facial presence and purchase intention. Previous studies in this domain have often relied solely on individual theories (Li et al., 2022), leading to inconsistent findings across different investigations. In contrast, our study combines these theories, offering a more comprehensive explanation for the positive impact of facial presence on purchase intention within UGPs. Notably, while prior research has primarily focused on the content of UGPs (An & Ozturk, 2022; Kim et al., 2020; Lee & Shin, 2014; Li et al., 2022), our study distinguishes itself by explicitly examining the influence of facial presence. In doing so, we unveil a robust positive relationship between facial presence and purchase intention, advancing the scholarly discourse on the specific content elements within UGPs that drive consumer behavior.

Practical implications

This study provides practical implications by providing evidence-based insights that can inform customers' decision-making processes in UGPs. Restaurant managers may use the findings to make more informed choices and develop effective marketing strategies. The research underscores the crucial role of facial presence in UGPs, particularly in increasing trust and shaping purchase intention within online restaurant reviews. As such, restaurant managers are encouraged to foster the inclusion of photo reviews featuring human faces, as this has been identified as a critical driver of future customers' purchase intentions. To incentivize customers to contribute such reviews, strategies such as offering digital cash or promotional codes redeemable for future purchases can be implemented. Moreover, practical measures can be taken within restaurant settings to facilitate the capture of high-quality photos, such as designating specific locations or tables for photography and equipping staff or professional photographers to capture compelling images of customers enjoying their meals. By leveraging these tactics, restaurant owners and managers can enhance the visibility and appeal of their establishments on social media platforms, thereby amplifying the purchase intentions of prospective customers.

Conclusion

The primary objective of this study was to investigate the impact of facial presence in UGPs on purchase intention. The results confirmed that facial presence had a statistically significant effect on customers' purchase intention. In particular, customers were more likely to purchase restaurant foods when exposed to UGPs with facial presence than UGPs without. One possible explanation for this is that participants exposed to UGPs with facial presence have a higher level of trust than those exposed to UGPs without facial presence.

The study has two main contributions. Firstly, this study is among the first to investigate the impact of facial presence on purchase intention. By drawing on the HRM and the source credibility theories, this study has found that facial presence in UGPs positively affects purchase intention, thus providing a more comprehensive understanding of the factors that impact customers' purchase behavior. Secondly, the study reinforces trust's important role in the online environment. The findings reveal that customers consider UGPs with facial presence as one trustworthy source of information when purchasing products and services online. As a result, it is recommended that restaurant managers encourage customers to take photos with their faces and post them on social media using reward points or online promotional codes.

Despite these significant findings, this study has several limitations. Firstly, since the study data were collected solely from Vietnamese restaurant customers, cultural differences may influence the generalizability of the study results. Therefore, future research should attempt to verify the findings in other cultural contexts. Secondly, although we controlled for neutral reviews during the experiment, they may still impact purchase intention as customers might perceive neutral reviews as above-average service quality (An & Ozturk, 2022). Further research should consider this variable when investigating the relationship between facial presence and purchase intention. Thirdly, although we control for the text review (8 words in Vietnamese) during the experiment as in the study of Park et al. (2021), it is worth noting that such brevity might render the text less informative and valuable for participants. Consequently, participants may have relied more heavily on the photo stimuli, potentially increasing the significance of facial presence. To address this, future research should explore the impact of varying text lengths in reviews when examining the relationship between facial presence and purchase intention. Fourthly, in this study, we employed a stimulus featuring a woman enjoying 'Pho' in our method design, and our findings revealed a notable influence of facial presence in UGPs on purchase intention. However, it is essential to acknowledge a potential limitation regarding participant trust towards female reviewers, which could potentially inflate purchase intentions and thus constrain the generalizability of our results. Therefore, future research endeavors should explore including control measures for customers' faces, specifically gender, to further elucidate the effects on purchase intention within UGPs. Fifthly, there was a significant number of females in the sample, which may restrict the generalizability of our findings. Although we demonstrate that gender does not affect purchasing intention, gender balance should be considered in future investigations. Finally, we only included one face in our design, which may restrict the generalizability of our findings; future studies should construct UGPs with more than one face.

Disclosure statement of funding

No potential conflict of interest was reported by the author(s).

About the authors

Dr. Tran Thi Tuyet is a young lecturer in the Faculty of Hospitality and Tourism at Thuongmai University. She holds a PhD in Business Administration from Daegu University, South Korea. Her research interest includes tourism consumer behavior, tourism employee behavior, and tourism marketing.

Vu Thi Thu Huyen, PhD, is a lecturer in the Faculty of Hospitality and Tourism at Thuongmai University. She is a young researcher interested in hotel management and operations, service quality management in tourism, and the sustainable development of green hotels.

Viet Thai Nguyen is the dean of the Faculty of Hospitality and Tourism at Thuong Mai University in Vietnam. He holds a PhD in Commerce from Thuongmai University. His research interests include sustainability tourism, customer behavior, tourism marketing, and knowledge management. He has published in several journals, such as the African Journal of Hospitality, Tourism, and Leisure, Knowledge Management Research & Practice, International Journal of Hospitality & Tourism Systems, Tourism and Hospitality Research, and Economic & Development.

Authors contribution

- Tran Thi Tuyet, Viet Thai Nguyen, and Vu Thi Thu Huyen are responsible for the conception or design of the work or the acquisition, analysis, or interpretation of data for the work.
- Tran Thi Tuyet and Viet Thai Nguyen are responsible for drafting the work or reviewing it critically for important intellectual content.
- Tran Thi Tuyet and Viet Thai Nguyen are responsible for the final approval of the version to be published.
- Viet Thai Nguyen is responsible for the agreement to be accountable for all aspects of the work and for ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

Disclosure of interest

We have no conflicts of interest to disclose.

Funding

Funded by Thuongmai University (Grant No 433/QĐ-DHTM).

ORCID

Tran Thi Tuyet  <http://orcid.org/0000-0002-4764-1265>

Viet Thai Nguyen  <http://orcid.org/0000-0003-3808-8274>

Data availability statement

- We agree to make data and materials supporting the results or analyses presented in this paper available upon reasonable request to the corresponding author.
- We confirm that we have obtained an SPSS 24 copyright license.

References

Akhtar, N., Siddiqi, U. I., Akhtar, M. N., Usman, M., & Ahmad, W. (2020). Modeling attitude ambivalence and behavioral outcomes from hotel reviews. *International Journal of Contemporary Hospitality Management*, 32(9), 1–15. <https://doi.org/10.1108/IJCHM-11-2019-0962>

- An, Q., & Ozturk, A. B. (2022). Assessing the effects of user-generated photos on hotel guests' price, service quality, overall image perceptions and booking intention. *Journal of Hospitality and Tourism Technology*, 13(4), 608–625. <https://doi.org/10.1108/JHTT-05-2021-0146>
- Anaya-Sánchez, R., Molinillo, S., Aguilar-Illescas, R., & Liébana-Cabanillas, F. (2019). Improving travellers' trust in restaurant review sites. *Tourism Review*, 74(4), 830–840. <https://doi.org/10.1108/TR-02-2019-0065>
- Aydinoğlu, N. Z., & Cian, L. (2014). Show me the product, show me the model: Effect of picture type on attitudes toward advertising. *Journal of Consumer Psychology*, 24(4), 506–519. <https://doi.org/10.1016/j.jcps.2014.04.002>
- Ayeh, J. K. (2015). Travellers' acceptance of consumer-generated media: An integrated model of technology acceptance and source credibility theories. *Computers in Human Behavior*, 48, 173–180. <https://doi.org/10.1016/j.chb.2014.12.049>
- Bai, S., Chu, L., Fam, K.-S., & Wei, S. (2022). The impact of price transparency of bundled vacation packages on travel decision making: An experimental study. *Frontiers in Psychology*, 13, 1053135, 1–13. <https://doi.org/10.3389/fpsyg.2022.1053135>
- Baxter, S., Illicic, J., & Kulczynski, A. (2015). What's in a name? Examining the effect of phonetic fit between spokesperson name and product attributes on source credibility. *Marketing Letters*, 26(4), 525–534. <https://link.springer.com/article/10.1007/s11002-014-9287-0> <https://doi.org/10.1007/s11002-014-9287-0>
- Bigne, E., Chatzipanagiotou, K., & Ruiz, C. (2020). Pictorial content, sequence of conflicting online reviews and consumer decision-making: The stimulus-organism-response model revisited. *Journal of Business Research*, 115, 403–416. <https://doi.org/10.1016/j.jbusres.2019.11.031>
- Broeder, P. (2022). Profile photos' impact in online reviews: The effect of cultural differences. *Review of Marketing Science*, 20(1), 21–36. <https://doi.org/10.1515/roms-2021-0074>
- Chaiken, S. (1989). Heuristic and systematic information processing within and beyond the persuasion context. *Unintended Thought*, 212–252.
- Chaiken, S., & Maheswaran, D. (1994). Heuristic processing can bias systematic processing: Effects of source credibility, argument ambiguity, and task importance on attitude judgment. *Journal of Personality and Social Psychology*, 66(3), 460–473. <https://doi.org/10.1037/0022-3514.66.3.460>
- Chakraborty, U. (2019). The impact of source credible online reviews on purchase intention: The mediating roles of brand equity dimensions. *Journal of Research in Interactive Marketing*, 13(2), 142–161. <https://doi.org/10.1108/JRIM-06-2018-0080>
- Chang, K. C. (2014). The impact of website quality and perceived trust on customer purchase intention in the hotel sector: Website brand and perceived value as moderators. *International Journal of Innovation, Management and Technology*, 5(4), 255–260. <https://doi.org/10.7763/IJIMT.2014.V5.523>
- Chen, Y., & Xie, J. (2008). Online consumer review: Word-of-mouth as a new element of marketing communication mix. *Management Science*, 54(3), 477–491. <https://doi.org/10.1287/mnsc.1070.0810>
- Cyr, D., Head, M., Larios, H., & Pan, B. (2009). Exploring human images in website design: A multi-method approach. *MIS Quarterly*, 33(3), 539–566. <https://www.jstor.org/stable/20650308> <https://doi.org/10.2307/20650308>
- Ert, E., Fleischer, A., & Magen, N. (2016). Trust and reputation in the sharing economy: The role of personal photos in Airbnb. *Tourism Management*, 55, 62–73. <https://doi.org/10.1016/j.tourman.2016.01.013>
- Filieri, R. (2016). What makes an online consumer review trustworthy? *Annals of Tourism Research*, 58, 46–64. <https://doi.org/10.1016/j.annals.2015.12.019>
- Filieri, R., Lin, Z., Pino, G., Alguezaui, S., & Inversini, A. (2021). The role of visual cues in eWOM on consumers' behavioral intention and decisions. *Journal of Business Research*, 135, 663–675. <https://doi.org/10.1016/j.jbusres.2021.06.055>
- Guan, Y., Tan, Y., Wei, Q., & Chen, G. (2023). The effect of customer-generated images on product rating dynamics. *Information Systems Research*, 34(4), 1641–1663. <https://doi.org/10.2139/ssrn.3633590>
- Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.
- He, J. (2023). The power of photographs: The impact of marketer- and user-generated photographs on consumers' online hotel booking. *Asia Pacific Journal of Marketing and Logistics*, 35(9), 2145–2163. <https://doi.org/10.1108/APJML-06-2022-0496>
- Hlee, S., Lee, H., & Koo, C. (2018). Hospitality and tourism online review research: A systematic analysis and heuristic-systematic model. *Sustainability*, 10(4), 1141. <https://doi.org/10.3390/su10041141>
- Hovland, C. I., & Weiss, W. (1951). Influence of source credibility on communication effectiveness. *Public Opinion Quarterly*, 15(4), 635–650. <https://academic.oup.com/poq/article-abstract/15/4/635/1923117> <https://doi.org/10.1086/266350>
- Hovland, C. I., Janis, I. L., & Kelley, H. H. (1953). *Communication and persuasion*. Yale University Press.
- Jeong, J. E., & Yeu, M. (2023). Can mental imagery enhance review helpfulness and product evaluation? The role of contextual background and mental simulation. *Journal of Research in Interactive Marketing*, 17(6), 959–974. <https://doi.org/10.1108/JRIM-08-2022-0237>
- Khateb, A., Pegna, A., Michel, C., Landis, T., & Annoni, J. M. (2002). Dynamics of brain activation during an explicit word and image recognition task: An electrophysiological study. *Brain Topography*, 14(3), 197–213. <https://doi.org/10.1023/A:1014502925003>
- Kim, H. S. (2018). *Restaurant customer's word of mouth information and structural relationship among trust, purchasing intention, and word of mouth intention-focused on mediation role of SNS poster's trait* [Doctoral dissertation]. Sangmeong University.

- Kim, H., & Stepchenkova, S. (2015). Effect of tourist photographs on attitudes towards destination: Manifest and latent content. *Tourism Management*, 49, 29–41. <https://doi.org/10.1016/j.tourman.2015.02.004>
- Kim, H. Y. (2017). *Effects of consumer innovativeness, dependency on online reviews and usage of internet on reliability and reservation intention of hotel review* [Master's thesis]. Keiyoung Unviersity.
- Kim, J. M., Kim, M., & Key, S. (2020). When profile photos matter: The roles of reviewer profile photos in the online review generation and consumption processes. *Journal of Research in Interactive Marketing*, 14(4), 391–412. <https://www.emerald.com/insight/content/doi/10.1108/JRIM-10-2019-0163/full/html> <https://doi.org/10.1108/JRIM-10-2019-0163>
- Kim, S. B., & Kim, D. Y. (2014). The effects of message framing and source credibility on green messages in hotels. *Cornell Hospitality Quarterly*, 55(1), 64–75. <https://doi.org/10.1177/1938965513503400>
- Kim, S. Y., Kim, J. U., & Park, S. C. (2017). The effects of perceived value, website trust and hotel trust on online hotel booking intention. *Sustainability*, 9(12), 2262. <https://doi.org/10.3390/su9122262>
- Konijn, E., Sluimer, N., & Mitas, O. (2016). Click to share: Patterns in tourist photography and sharing. *International Journal of Tourism Research*, 18(6), 525–535. <https://onlinelibrary.wiley.com/doi/abs/10.1002/jtr.2069> <https://doi.org/10.1002/jtr.2069>
- Lee, E. J., & Shin, S. Y. (2014). When do consumers buy online product reviews? Effects of review quality, product type, and reviewer's photo. *Computers in Human Behavior*, 31, 356–366. <https://doi.org/10.1016/j.chb.2013.10.050>
- Leung, X., Tanford, S., & Jiang, L. (2017). Is a picture really worth a thousand words? An experiment on hotel Facebook message effectiveness. *Journal of Hospitality and Tourism Technology*, 8(1), 19–38. <https://doi.org/10.1108/JHTT-08-2016-0039>
- Li, C., Kwok, L., Xie, K. L., Liu, J., & Ye, Q. (2021). Let photos speak: The effect of user-generated visual content on hotel review helpfulness. *Journal of Hospitality & Tourism Research*, 47(4), 665–690. <https://doi.org/10.1177/10963480211019113>
- Li, C. Y. (2013). Persuasive messages on information system acceptance: A theoretical extension of elaboration likelihood model and social influence theory. *Computers in Human Behavior*, 29(1), 264–275. <https://doi.org/10.1016/j.chb.2012.09.003>
- Li, H., Zhang, L., Guo, R., Yu, H., & Ji, B. X. B. (2022). Information enhancement or hindrance? Unveiling the impacts of user-generated photos in online reviews. *International Journal of Contemporary Hospitality Management*, 35(7), 2322–2351. <https://doi.org/10.1108/IJCHM-03-2022-0291>
- Li, H., Zhang, L., & Hsu, C. H. C. (2023). Research on user-generated photos in tourism and hospitality: A systematic review and way forward. *Tourism Management*, 96, 104714. <https://doi.org/10.1016/j.tourman.2022.104714>
- Li, L., Peng, M., Jiang, N., & Law, R. (2017). An empirical study on the influence of economy hotel website quality on online booking intentions. *International Journal of Hospitality Management*, 63, 1–10. <https://doi.org/10.1016/j.ijhm.2017.01.001>
- Li, X., Wang, M., Chen Y., (2014). The impact of product photo on online consumer purchase intention: An image-processing enabled empirical study. In K. Siau, Q. X. Guo (Eds.), *18th pacific asia conference on information systems, PACIS 2014* (pp. 325–339), Association for Information Systems (AIS). <https://www.scopus.com/record/display.uri?eid=2-s2.0-84928592684&origin=recordpage>
- Lin, Y. S., & Huang, J. Y. (2006). Internet blogs as a tourism marketing medium: A case study. *Journal of Business Research*, 59(10), 1201–1205. <https://doi.org/10.1016/j.jbusres.2005.11.005>
- Liu, H., Feng, S., & Hu, X. (.). (2022). Process vs. outcome: Effects of food photo types in online restaurant reviews on consumers' purchase intention. *International Journal of Hospitality Management*, 102, 103179. <https://doi.org/10.1016/j.ijhm.2022.103179>
- Lo, I. S., McKercher, B., Lo, A., Cheung, C., & Law, R. (2011). Tourism and online photography. *Tourism Management*, 32(4), 725–731. <https://doi.org/10.1016/j.tourman.2010.06.001>
- Luo, P., Ma, X., Zhang, X., Liu, J., & He, H. (2021). How to make money with credit information? Information processing on online accommodation-sharing platforms. *Tourism Management*, 87, 104384. <https://doi.org/10.1016/j.tourman.2021.104384>
- Ma, Y., Xiang, Z., Du, Q., & Fan, W. (2018). Effects of user-provided photos on hotel review helpfulness: An analytical approach with deep learning. *International Journal of Hospitality Management*, 71, 120–131. <https://doi.org/10.1016/j.ijhm.2017.12.008>
- Mak, A. H. N. (2017). Online destination image: Comparing national tourism organisation's and tourists' perspectives. *Tourism Management*, 60, 280–297. <https://doi.org/10.1016/j.tourman.2016.12.012>
- Marder, B., Erz, A., Angell, R., & Plangger, K. (2021). The role of photograph aesthetics on online review sites: Effects of management- versus traveler-generated photos on tourists' decision making. *Journal of Travel Research*, 60(1), 31–46. <https://doi.org/10.1177/0047287519895125>
- Najar, A. H., & Hamid Rather, A. (2021). Mediating role of guest's attitude toward the impact of UGC benefits on purchase intention of restaurants; Extending social action and control theories. *Journal of Foodservice Business Research*, 24(3), 249–273. <https://doi.org/10.1080/15378020.2020.1842958>
- Oliveira, B., & Casais, B. (2018). The importance of user-generated photos in restaurant selection. *Journal of Hospitality and Tourism Technology*, 10(1), 2–14. <https://doi.org/10.1108/JHTT-11-2017-0130>
- Park, C. W., Sutherland, I., & Lee, S. K. (2021). Effects of online reviews, trust, and picture-superiority on intention to purchase restaurant services. *Journal of Hospitality and Tourism Management*, 47, 228–236. <https://doi.org/10.1016/j.jhtm.2021.03.007>

- Pornpitakpan, C. (2004). The persuasiveness of source credibility: A critical review of five decades' evidence. *Journal of Applied Social Psychology*, 34(2), 243–281. <https://onlinelibrary.wiley.com/doi/abs/10.1111/j.1559-1816.2004.tb02547.x> <https://doi.org/10.1111/j.1559-1816.2004.tb02547.x>
- Resti, N. D. (2013). The psychological effect of uploading food picture on social media to willingness to dine out. *Journal of Social and Development Sciences*, 4(7), 316–324. <https://doi.org/10.22610/jsds.v4i7.767>
- Ruiz-Mafe C., Bigne-Alcañiz E., Sanz-Blas S., & Tronch J. (2018). Does social climate influence positive eWOM? A study of heavy-users of online communities. *BRQ Business Research Quarterly*, 21(1), 26–38. <https://doi.org/10.1016/j.brq.2017.12.001>
- Shi, S., Gong, Y., & Gursoy, D. (2021). Antecedents of trust and adoption intention toward artificially intelligent recommendation systems in travel planning: A heuristic–systematic model. *Journal of Travel Research*, 60(8), 1714–1734. <https://doi.org/10.1177/0047287520966395>
- 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. *Journal of Travel Research*, 59(1), 120–139. <https://doi.org/10.1177/0047287518817399>
- Srivastava, V., & Kalro, A. D. (2019). Enhancing the helpfulness of online consumer reviews: The role of latent (content) factors. *Journal of Interactive Marketing*, 48(1), 33–50. <https://doi.org/10.1016/j.intmar.2018.12.003>
- Sutinen, U. M., Saarijärvi, H., & Yrjölä, M. (2022). Shop at your own risk? Consumer activities in fashion e-commerce. *International Journal of Consumer Studies*, 46(4), 1299–1318. <https://doi.org/10.1111/ijcs.12759>
- Thomas, M. J., Wirtz, B. W., & Weyerer, J. C. (2019). Determinant of online review credibility and its impact on customers' purchase intention. *Journal of Electronic Commerce Research*, 20(1), 1–20.
- Tseng, H., & Fogg, B. J. (1999, May). The elements of computer credibility. In *Proceedings of the SIGCHI Conference on Human Factors in Computing Systems* (pp. 80–87). <https://dl.acm.org/doi/abs/10.1145/302979.303001> <https://doi.org/10.1145/302979.303001>
- Vu, H. Q., Li, G., Law, R., & Ye, B. H. (2015). Exploring the travel behaviors of inbound tourists to Hong Kong using geotagged photos. *Tourism Management*, 46, 222–232. <https://doi.org/10.1016/j.tourman.2014.07.003>
- Wagner Mainardes, E., de Almeida, C. M., & de-Oliveira, M. (2019). e-Commerce: An analysis of the factors that anteced purchase intentions in an emerging market. *Journal of International Consumer Marketing*, 31(5), 447–468. <https://doi.org/10.1080/08961530.2019.1605643>
- Wang, Y. H., & Tsai, C. F. (2014). The relationship between brand image and purchase intention: Evidence from award winning mutual funds. *The International Journal of Business and Finance Research*, 8(2), 27–40. <https://ssrn.com/abstract=2322833>
- Wu, I. L., Chiu, M. L., & Chen, K. W. (2020). Defining the determinants of online impulse buying through a shopping process of integrating perceived risk, expectation-confirmation model, and flow theory issues. *International Journal of Information Management*, 52, 102099. <https://doi.org/10.1016/j.ijinfomgt.2020.102099>
- Wu, T. Y., & Lin, C. A. (2017). Predicting the effects of eWOM and online brand messaging: Source trust, bandwagon effect and innovation adoption factors. *Telematics and Informatics*, 34(2), 470–480. <https://doi.org/10.1016/j.tele.2016.08.001>
- Yang, S. B., Shin, S. H., Joun, Y., & Koo, C. (2017). Exploring the comparative importance of online hotel reviews' heuristic attributes in review helpfulness: A conjoint analysis approach. *Journal of Travel & Tourism Marketing*, 34(7), 963–985. <https://doi.org/10.1080/10548408.2016.1251872>
- Yoo, B., Donthu, N., & Lee, S. (2000). An examination of selected marketing mix elements and brand equity. *Journal of the Academy of Marketing Science*, 28(2), 195–211. <https://doi.org/10.1177/0092070300282002>
- Yoo, J., & Kim, M. (2012). Online product presentation: The effect of product coordination and a model's face. *Journal of Research in Interactive Marketing*, 6(1), 59–72. <https://doi.org/10.1108/17505931211241378>
- Yoo, K. H., & Gretzel, U. (2008). The influence of perceived credibility on preferences for recommender systems as sources of advice. *Information Technology & Tourism*, 10(2), 133–146. <https://doi.org/10.3727/109830508784913059>
- Zhang, K. Z. K., Zhao, S. J., Cheung, C. M. K., & Lee, M. K. O. (2014). Examining the influence of online reviews on consumers' decision-making: A heuristic–systematic model. *Decision Support Systems*, 67, 78–89. <https://doi.org/10.1016/j.dss.2014.08.005>
- Zhang, M., Zhao, H., & Chen, H. (2022). How much is a picture worth? Online review picture background and its impact on purchase intention. *Journal of Business Research*, 139, 134–144. <https://doi.org/10.1016/j.jbusres.2021.09.050>