Digital natives: internal defence mechanism to distrust tourism advertisements

Abstract

Tourism enterprises add commercial information in the hashtags on their business Instagram accounts, whereas digital natives tend to avoid advertisements. Digital natives actively analyse the intentions of advertisements, form an internal defence mechanism to distrust advertisements, and show a strong tendency to intentionally avoid advertisements. How to offset the negative effects of commercial information remains an open question. Thus, it is theoretically meaningful to investigate digital natives' perceptions of source credibility related to hashtags and the resistance theory underlying those perceptions that evokes a cognitive response to accept (i.e., persuasion) or reject (i.e., resistance to persuasion) commercial information. This study applied resistance theory to examine the roles of commercial information in hashtags and source credibility in the relationship between the number of hashtags and digital natives' travel intentions. A 3 (number of hashtags: low vs. moderate vs. high) x 2 (commercial information in hashtags: presence vs. absence) between-subjects experiment was conducted. The findings revealed that commercial information in three levels of hashtags influences source credibility differently. Source credibility mediates the effect of the number of hashtags on click-through intention and travel intention. The findings provide insights on digital natives' internal defence mechanism against commercial information from marketing perspectives.

Keywords. Tourism marketing, commercial information, digital natives, Instagram, hashtags

1. Introduction

As digital natives have emerged as an important consumer segment, advertising approaches to them have been rapidly changing (Lim, Gupta, Aggarwal, Paul, & Sadhna, 2021). Digital natives are those who grew up in a digital environment, and they view the online space as a place for communication and collaboration, creating trends by sharing common interests on social media (Kincl & Štrach, 2021). They actively analyse the intentions of advertisements, form an internal defence mechanism to distrust advertisements, and show a strong tendency to intentionally avoid advertisements (Chu, Deng, & Cheng, 2020; Lim et al., 2021). Thus, enterprises often use indirect exposure strategies on social media rather than direct advertising messages (Hu, Chen, Chen, & He, 2020).

For tourism destinations where visual exposure is important, Instagram has become a major marketing platform (Falk & Hagsten, 2021; Yu & Egger, 2021). As such, Instagram is regarded as an online travel agency (Kilic & Selvaduri, 2020). In 2021, its potential ad reach was estimated at 1 billion active users worldwide (Instagram, n.d.), and most tourism and hospitality enterprises operate Instagram accounts (Filieri, Yen, & Yu, 2021). Over 90% of users follow at least one business account, and 50% of users are willing to tap brand posts when they see them on Instagram (Instagram, n.d.).

Therefore, tourism scholars have paid increasing attention to Instagram by examining factors such as the power of colour in tourism photos (Yu & Egger, 2021; Yu, Xie, & Wen, 2020), destination branding through Instagram posts (Filieri, Yen, & Yu, 2021; Gunter & Önder, 2021; Iglesias-Sánchez, Correia, Jambrino-Maldonado, & de las Heras-Pedrosa, 2020), and the role of influencers (Yılmaz, Sezerel, & Uzuner, 2020). Despite this, empirical research on hashtags from a marketing perspective is limited in the tourism literature. Hashtags play a prime role by enabling users to find relevant Instagram posts. Marketers also benefit from the function of collecting and displaying posts by hashtag, as hashtags enhance

brand awareness and advertising effectiveness, and can be used to monitor promotions (Falk & Hagsten, 2021). Some attempts have been made to identify the motivation for using hashtags while traveling (Krisna, Handayani, & Azzahro, 2019), to compare the use of hashtags by gender (Ye, Hashim, Baghirov, & Murphy, 2018), and to analyse trending hashtags during Black (African American) travel experiences (Dillette, Benjamin, & Carpenter, 2019). However, research has tended to focus on the motivational factor of hashtags from the uses and gratifications theory perspective, overlooking how commercial information in hashtags and the number of hashtags influence source credibility on Instagram posts and users' behavioural intentions.

Commercial information and sponsorship disclosures on Instagram increase users' awareness that they are viewing advertisements; however, consumers form a negative attitude toward a product if they infer that the disclosure of commercial information is motivated by intentional behaviours (Boerman, 2020; De Jans, Van de Sompel, De Veirman, & Hudders, 2020). In a similar vein, commercial information in Instagram posts generates distrust, increasing the advertisement awareness that activates advertisement scepticism, which negatively affects source credibility and users' behavioural intentions (De Veirman & Hudders, 2020).

Enterprises inevitably add commercial information in the hashtags on their business accounts, whereas digital natives tend to avoid advertisements because they distrust them (Chu et al., 2020). How to offset the negative effects of commercial information remains an open question in the tourism and marketing literature. Furthermore, whether the number of hashtags used influences source credibility and thus digital natives' click-through and purchase intentions is also an open question. Thus, it is theoretically meaningful to investigate digital natives' perceptions of source credibility related to hashtags and the resistance theory underlying those perceptions that evoke a cognitive response to either

accept (i.e., to be persuaded) or reject (i.e., to resist persuasion) commercial information. For marketers, understanding consumer resistance to advertising is a prerequisite to successfully promote their products (Sadiq, Adil, & Paul, 2021). Consumer resistance to advertising begins in the form of 'initial resistance', develops into 'urgent resistance', and finally becomes 'belted resistance' (Mani & Chouk, 2018; Sadiq et al., 2021). Consumer resistance to advertising threatens marketers and undermines performance. By considering resistance to advertising and pursuing strategies to overcome it, marketers can transform these threats into new opportunities (Knowles & Linn, 2004; Sadiq et al., 2021).

To the best of our knowledge, there has been no attempt to empirically examine how digital natives perceive source credibility by examining the effect of commercial information (presence vs. absence) in three levels of hashtags (low vs. moderate vs. high) on Instagram posts. Thus, this study examined the following two questions:

Research question 1: How does the commercial information in hashtags influence the effect of the number of hashtags on source credibility?

Research question 2: How does the interaction effect of the number of hashtags and the commercial information in hashtags influence digital natives' click-through and travel intentions?

To answer these research questions, this study (1) examines the interaction effect of the number of hashtags (low vs. moderate vs. high) with the commercial information in hashtags (presence vs. absence) on source credibility; (2) investigates the mediating effect of source credibility in the effect of the number of hashtags on click-through intention; and (3) investigates the mediating impact of source credibility on the effect of the number of hashtags on travel intention. As shown in Figure 1, a 3 (number of hashtags: low vs. moderate vs. high) x 2 (commercial information in hashtags: presence vs. absence) between-subjects

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experimental design was used to achieve the research aims. This study's findings contribute to broadening the tourism literature by providing an in-depth exploration of hashtags to better understand digital natives' internal defence mechanism against commercial information online. Our study also has practical implications for a range of diverse tourism stakeholders, particularly from the marketing and promotion perspectives. Specifically, our findings suggest how the commercial information in hashtags differentiates the effect of the number of hashtags on source credibility. In addition, marketers will benefit from findings suggesting how combining hashtags and the commercial information contained in them influences digital natives' behavioural intentions. Given the substantial role of Instagram marketing among digital natives, marketers can use this information to develop effective advertising strategies that utilise hashtags.

Insert Figure 1 here

2. Literature Review

2.1. Instagram as a marketing channel

Like users of other types of social network services (SNSs), Instagram users have a broad range of options for information seeking. Users often search for information and photos from official Instagram accounts created by corporations and destination marketing organisations (DMOs) to reduce the uncertainties and costs associated with consuming tourism products and services (Teo, Leng, & Phua, 2018). Instagram has attracted user attention by imbuing the disseminated content with related information, photos and videos, personal thoughts, and emotions, all of which have significant marketing effects (Falk & Hagsten, 2021; Yu & Egger, 2021). Both the creator and users (i.e., the communicators) are satisfied with the process of sharing knowledge and experiences online (Na & Kim, 2019).

Users' attention span is shorter when using SNSs than when watching televised commercials (Falk & Hagsten, 2021). To conduct a successful marketing campaign amidst

the constant flow of content, marketers must strategise to grab the attention of SNS users immediately. They must optimally use combinations of posts, texts, and hashtags that affect users' behaviour intention (Fatanti & Suyadnya, 2015; Teo et al., 2018). Thus, DMOs and tourism suppliers have strived to shape the destination images shown on SNS posts to present unique selling points and appeal to prospective visitors (Mele, Kerkhof, & Cantoni, 2021). For example, the use of high-quality images and related hashtags is a well-known strategy that affects users' engagement, travel intention, and source credibility (Din, Ramli, & Bakar, 2018; Teo et al., 2018).

Particularly, scholars have demonstrated that 'e-word of mouth' via the use of effective related hashtags substantially influences user engagement and behaviour (Din et al., 2018). In addition, Yu and Egger (2021) emphasised the role of colour in photos on Instagram in the context of product promotion by DMOs and tourism suppliers. These authors asserted that photos of food experiences should be associated with the colour red, whereas photos of outdoor activities should be associated with the colour blue to foster user engagement and maximise advertising. Similarly, Yu et al. (2020) argued the importance of colour psychology in the context of Instagram, suggesting that the brightness and saturation of destination photos are associated with the retention of online users' attention. As such, the improved utilisation of Instagram as a marketing channel remains a topic of concern and further investigation among practitioners.

2.2. Hashtag ('#')

A hashtag is a display method or metadata tag created by adding a hash symbol '#' in front of a word or blank phrase. These tags are currently used on SNSs such as microblogging platforms, Twitter, and Instagram (Falk & Hagsten, 2021). The '#' symbol used in actual hashtags has been used in information technology since the 1970s to emphasise a special meaning. In C language, '#' is used to denote special keywords that must be processed first

by the C pre-processor (Erz, Marder, & Osadchaya, 2018; Falk & Hagsten, 2021). Internet Relay Chat has used this symbol to label groups and topics.

In 2010, Twitter introduced a 'trending topics' list that displays the most frequently mentioned hashtags. Although SNS hashtags were first used on Twitter, other SNSs, such as Instagram and Facebook support the use of hashtags for the same purpose (Na & Kim, 2019), namely to group messages (i.e., posts) by subject (Erz et al., 2018; Fatanti & Suyadnya, 2015; Na & Kim, 2019; Page, 2012). For example, users who search for the hashtag '#philippines' can view all relevant posts with the hashtag 'philippines' in the corresponding SNS. Twitter and Instagram prohibit the addition of overly general hashtags (e.g., '#photo') or hashtags related to illegal activities to prevent the misuse of this system.

Given the unique features of hashtags, scholars have paid increasing attention to exploring motivation for their usage based on uses and gratification theory. Sheldon and Bryant (2016, p. 89) revealed that four distinct motivations, namely "surveillance/knowledge about others, documentation, coolness, and creativity", contribute to individuals' use of hashtags. Interestingly, these authors found positive relationships between two of these dimensions, namely coolness and surveillance/knowledge about others, and narcissism. Based on these findings, Erz et al. (2018, p. 57) investigated six underlying motivations for hashtag use, namely "self-presentation, inventiveness, chronicling, venting, information seeking, and etiquette". They further contended that information seeking is highly related to the consumption of media content, whereas self-presentation, inventiveness, and chronicling are associated with the media-producing role of hashtags.

Similarly, Krisna et al. (2019, p. 1141) identified "information seeking, chronicling, and etiquette" as key motivations of hashtag use among tourists, particularly those engaged in smart tourism. Incorporating these findings, Rauschnabel, Sheldon, and Herzfeldt (2019, p.

473) later identified and validated the following 10 specific motivations for hashtag use: "amusing, organising, designing, confirming, trendgaging, bonding, inspiring, reaching, summarising, and endorsing". In addition to conventional motivations, their list included unique motivations, such as 'amusing' (for entertainment purposes) and 'trendgaging' (for leading public discussion on trending topics).

Studies on the roles of hashtags on SNS represent another major stream of research in this area. Scholars have reached consensus about the functions and roles of hashtags (Erz et al., 2018). Fatanti and Suyadnya (2015) classified the functions of hashtags on Instagram as 'media grouping for user content', 'searching media of user content', 'expanding the user content', and 'promotion of products'. They contended that the use of hashtags for the promotion of products increases the competitiveness of Instagram as a promotion channel. Similarly, Page (2012, p. 184) asserted that hashtags contribute to connecting, coordinating, and promoting content and are thus "a crucial currency which enables visibility" among users. In contrast to Page's (2012) perspective on hashtags as serving a broadcasting purpose (i.e., one-to-many), Zappavigna (2015) focused on the interpersonal role of hashtags by focusing on communication and emotion-sharing among users.

Hashtags also play a role in social movements (e.g., as social bookmarks) by creating political and social issues via exposure to a group of public relations messages or light topics (Ince, Rojas, & Davis, 2017; Na & Kim, 2019). Hashtags, which were initially used only as play cultures, have contributed to content production, and their role has been expanded to include social movements. Courageous confessions made by citizens and centred on hashtags have increasingly paved the way for change, and the power of the hashtag as a form of 'collective intelligence' has been proven by the ability of these tags to unite people offline. Public opinion driven by hashtags is not formed by the media but led directly by citizens via SNSs (Cornet, Hall, Cafaro, & Brady, 2017; Ince et al., 2017; Na & Kim, 2019). Hashtags

have also been used to measure visitor flows at World Heritage Sites in Europe and North America (Falk & Hagsten, 2021) and to characterise the locations of tourist images in destinations (i Agustí, 2018); this has been done by counting the total number of hashtags representing trending topics.

Meanwhile, some scholars have focused on the misuse of hashtags and hashtag-oriented spam. As a hashtag is a gatekeeper of information-seeking on SNSs, the increasing prevalence of hashtag-oriented spam has raised alarms (Sedhai & Sun, 2015). In a study by Angeles and Ramos (2021) on unrelated hashtags on Twitter, the misuse of hashtags by adding unrelated hashtags (e.g., '#COVID19') to draw users' attention was harmful to knowledge discovery and substantially weakened the credibility of posts. Sedhai and Sun (2015) took a similar stance on hashtag-oriented spam in an investigation of 14 million tweets. Their findings indicated that malicious users (e.g., spammers) tend to use multiple accounts and duplicate hashtags to promote their content. To detect and prevent spam on SNSs in real time, Binsaeed, Stringhini, and Youssef (2020) applied a machine learning approach based on domain popularity. Given that unrelated hashtags and spam can weaken the source credibility of protest hashtags on SNSs, the malicious use of hashtag should be minimised (Angeles & Ramos, 2021; Binsaeed et al., 2020; Sedhai & Sun, 2015).

2.3. Commercial information and source credibility on Instagram

The rapid increase in the use of SNSs, as represented by user-generated content, has increased the importance of understanding the credibility of online information. Credibility refers to the degree of believability and consists of two components: trustworthiness and expertise (De Veirman & Hudders, 2020; Rubin & Liddy, 2006). In a study by Yılmazdoğan, Doğan, and Altıntaş (2021) on source credibility in Instagram posts, trustworthiness and expertise positively affected users' intention to travel to the destinations posted on Instagram.

Social media users tend to accept information and ideas according to what (or who) the source of the content is (Cornet et al., 2017).

Particularly, social media users focus more on content they perceive to be trustworthy; once they have established trust in the online content yielded by their information search, the perceived credibility of the online content continues to increase (Angeles & Ramos, 2021; Yılmazdoğan et al., 2021). As such, if the user perceives a low level of source credibility, the information in a post is not disseminated as widely as expected (Binsaeed et al., 2020). That is, source credibility is one of the most important factors influencing users' attitudes and behavioural intentions.

Advertising disclosure (i.e., the inclusion of commercial information) in hashtags means that when a product is recommended on Instagram, the hashtags provide a clear indication of whether the poster has any commercial connection with the recommended brand (Boerman & Müller, 2022). Advertising disclosure in hashtags aims to make consumers aware of the persuasive nature of Instagram marketing, as consumers process marketing messages differently than they process messages as persuasive intentions (Lee & Kim, 2020). According to the persuasion knowledge model and resistance theory, an individual learns how to understand and recognise the persuasion intention of a marketing message through experience (Stathopoulou, Borel, Christodoulides, & West, 2017).

Specifically, persuasion knowledge aids in the selection and implementation of responses that are considered effective and appropriate by enabling the recognition, analysis, interpretation, evaluation, and memory of persuasion attempts (Kim & Phua, 2020; Stathopoulou et al., 2017). However, persuasion knowledge may not be activated for consumers who do not recognise that hashtags are advertisements and thus recognise such content as advertisements through advertisement disclosure, thus triggering consumers'

persuasive knowledge and coping mechanisms (Kim & Kim, 2021). When consumers recognise an attempt to persuade through advertisement disclosure, persuasion knowledge is activated, which negatively affects the persuasion effect. This phenomenon can be explained by resistance theory (Boerman & Müller, 2022; Stathopoulou et al., 2017). Consumers have a tendency to resist persuasive messages that are intended to influence their behaviour. In the context of advertising, a sense of scepticism or a negative attitude towards advertising, which is resistance to advertising, appears (Lee & Kim, 2020). That is, advertising disclosure in hashtags activates both consumers' knowledge of persuasion and a defensive and negative attitude that helps them to resist persuasion attempts.

Studies have identified people, technology, and information as the antecedents of source credibility on Instagram (Din et al., 2018). Technology attributes, such as the number of hashtags, number of followers, seller response, and perceived ease and usefulness of Instagram, contribute to high source credibility and influence consumer purchase intention (Din et al., 2018). In other words, the number of hashtags added to a post influences consumer psychology and behaviour in response to a post's content (Din et al., 2018; Doyle, Su, & Kunkel, 2020; Na & Kim, 2019). However, the addition of multiple unrelated hashtags (or the repetition of a single hashtag) to Instagram posts reduces the quality of search results and weakens source credibility. Sponsored posts (i.e., commercial content) by Instagram influencers also weaken the source credibility of media content (Din et al., 2018; Martínez-López, Anaya-Sánchez, Esteban-Millat, Torrez-Meruvia, D'Alessandro, & Miles, 2020).

An influencer's opinions or evaluations of a specific product or brand, when shared through SNSs, have a great impact on the perceptions and purchase decisions of users who consume content (Tafesse & Wood, 2021). Although influencers differ from celebrities in that they do not gain popularity due to their looks or performance abilities, they are able to induce a strong ripple effect on consumers through their self-produced content. Thus,

companies have been actively engaged in influencer marketing, wherein they pay influencers to promote their products online (Farivar, Wang, & Yuan, 2021; Tafesse & Wood, 2021). However, scholars have pointed out that such commercial postings substantially reduce the credibility of SNS posts.

For example, Martínez-López et al. (2020) argued that the inclusion of commercial information in SNS posts negatively affects source credibility and trust in the influencer. These authors further verified that source credibility leads to interest in a post and willingness to search for more information related to the posted product or service. In a study by De Veirman and Hudders (2020) on disclosing sponsored Instagram posts, users' recognition of sponsorship on posts was shown to negatively influence brand attitudes, and this relationship was mediated by scepticism regarding the posts and source credibility. Similarly, De Jans et al. (2020) identified that source credibility mediates the impact of sponsored posts (brand posts vs. influencer posts) on brand awareness and brand liking.

These authors further examined the moderating role of users' advertising recognition in the relationship between sponsored posts (brand posts vs. influencer posts) and source credibility. Interestingly, the perceived source credibility of sponsored posts by influencers (vs. brands) was found to be negatively correlated with the user's level of advertising recognition. In contrast, the perceived source credibility of sponsored posts by brands (vs. influencers) was found to be positively correlated with the user's level of advertising recognition. In a similar vein, sponsored hashtags posted by influencers on Instagram are associated with reduced content credibility and user engagement (e.g., liking and commenting) (Din et al., 2018). Based on a synthesis of the literature, the following hypotheses are developed:

H1. There exists a two-way interaction effect of the number of hashtags (low vs. moderate vs. high) with commercial information in hashtags (presence vs. absence) on source credibility. Specifically, the presence of commercial information in hashtags negatively moderates the effect of the number of hashtags (low vs. moderate vs. high) on source credibility, whereas the absence of commercial information in hashtags positively moderates the effect of the number of hashtags (low vs. moderate vs. high) on source credibility.

H2. Source credibility mediates the effect of the number of hashtags (low vs. moderate vs. high) on click-through intention.

H3. Source credibility mediates the effect of the number of hashtags (low vs. moderate vs. high) on travel intention.

3. Methodology

3.1. Preparation on experimental design and sample

The study used a 3 (number of hashtags: low vs. moderate vs. high) x 2 (commercial information in hashtags: presence vs. absence) between-subjects design. Table 1 shows each step of data collection procedures.

Insert Table 1 here

3.1.1. Procedure and stimuli

Stimuli in experiments play a key role in evoking participants' responses (Ryan & Morgan, 2007). Thus, this study conducted in-depth interviews and observations with 23 prospective tourists to better design the stimuli and make the study scenario more realistic. The interviewees were asked to find five posts about Palawan on Instagram that appeared to lack source credibility or to have been uploaded for commercial purposes, and to explain why they

thought so. The stimuli were then designed as follows based on these 23 in-depth interviews and 113 photos (two posts were excluded due to irrelevance).

Instagram post design: The Instagram post included a profile photo, ID, photo, and caption in all six conditions. The interviewees reached the consensus that the beach was the most representative photo of Palawan. The following captions were shown: 'relaxing holidays in Palawan!', 'best place ever!', 'lovely locals!', 'perfect weather', 'fresh air!', and 'amazing beach!'. To prevent compounding effects, features such as geotags, number of likes, and comments were not included on the posts used as stimuli.

Manipulation of the number of hashtags (low vs. moderate vs. high): The majority of the interviewees agreed that the number of hashtags affects source credibility, click-through intention, and travel intention. To better manipulate the three variations (i.e., a low, moderate, or high number of hashtags), we collected another 100 Instagram posts related to Palawan using the hashtags (#Palawan). After analysis, a total number of 4 hashtags was considered 'low', 15 hashtags 'moderate', and 27 hashtags 'high' based on the 10th percentile, median, and 90th percentile, respectively.

Manipulation of commercial information in hashtags (presence vs. absence): Based on an in-depth discussion with the 23 interviewees, the fake but neutral name 'Star Travel Agency' was adopted for the stimuli. The four commercial information hashtags were #Palawanstartravelagency, #Philippinesstartour, #Startravelagency, and #relaxingholidays_startravelpackage, and the four non-commercial information hashtags included #Palawan, #Philippines, #travel, and #relaxingholidays. By manipulating the number of hashtags (low vs. moderate vs. high) and the commercial information in hashtags (presence vs. absence), the six stimuli were created as shown in Appendix.

3.2. Pilot study

A pilot test with 38 undergraduate students was conducted to check appropriateness of stimuli prior to the main data collection. Results showed that the three variations of the number of hashtags and the differences in commercial information in hashtags were sufficiently distinguishable.

3.3. Data collection for main study

3.3.1. Measures

Click-through intention was measured on a 5-point scale (strongly disagree-strongly agree; $\alpha= 0.847$) using the following three items adapted and modified from Wu, Sundiman, Kao, and Chen (2018): 'I considered clicking on this post to obtain further information', 'I intended to click on this Instagram post', and 'I would most likely click on this Instagram post'. Travel intention was measured using the following three items adapted and modified from Abubakar and Ilkan (2016): 'I would visit Palawan over any other destination', 'I predict that I will visit Palawan for my holiday', 'If I need holiday, I will visit Palawan in the future' (strongly disagree-strongly agree; $\alpha= 0.906$). To measure source credibility, four items were adapted and modified from Flanagin and Metzger (2003) and Winter and Kramer (2014), as follows: 'This post is trustworthy', 'This post is credible', 'This post is reliable', and 'This post is honest' (strongly disagree-strongly agree; $\alpha = 0.813$).

In addition, 'perceived realism' was measured as a covariate using the following three items adapted and modified from Sparks and Browning (2011): 'I think this Instagram post is realistic', 'I can imagine seeing this Instagram post in the real world', and 'For the purpose of this survey, I was able to imagine using this Instagram post to find further destination information' (strongly disagree-strongly agree; $\alpha = 0.825$). To check the manipulation of the 'commercial information in hashtags', the participants were asked to indicate the extent to which they felt that the hashtags included commercial information on a five-point scale

(strongly disagree-strongly agree). They were also asked to indicate the extent to which they felt the number of hashtags used for an Instagram post was low, moderate, or high on a five-point scale (strongly disagree-strongly agree).

3.3.2. Participant recruitment and data collection

In the main study, 416 Korean participants were recruited in 2019 from Macromill Embrain, an established research firm in South Korea that provides the largest research panel (e.g., 3 million) and conducts professional academic and market research (Hwang & Jeong, 2019). The participants were randomly assigned to one of the six conditions: (C1: low and absence, C2: low and presence, C3: moderate and absence, C4: moderate and presence, C5: high and absence, and C6: high and presence). They were also asked two screening questions: (1) 'Were you born in/after 1980 (aged under 40 as of 2019)' and (2) 'Have you ever visited Palawan, Philippines?' Participants who respectively answered 'yes' and 'no' were invited to continue the survey.

Those who voluntarily agreed to continue the survey (i.e., 100%) were instructed to read the following scenario before the experiment: 'Imagine that you plan to go on holiday to a warm destination to escape the winter cold. While browsing your Instagram feed and searching for travel information, you find and click the following post about Palawan in the Philippines. You haven't been to Palawan before, but you know that it is one of the most famous holiday destinations for Koreans.' The participants then filled out a post-experiment questionnaire covering manipulation checks, source credibility, click-through intention, and travel intention. Two attention questions were also asked to ensure data quality: (1) 'Which of the following is not contained in an Instagram post? a) user ID; b) food photo; c) destination photo; d) hashtag' and (2) Which of the following is the background for the Instagram photos? a) mountain; b) beach; c) spa; d) tourist'. After data screening, 317 samples were used for data analysis.

4. Results

4.2. Profile of participants

The data showed that males and females respectively accounted for 46.7% and 53.3% of the sample, while participants in their 20s comprised 47.9% and those in their 30s accounted for 52.1% of the sample. Regarding the highest completed educational level, 67.2% of participants had completed a 4-year college/university degree and 16.4% had completed a 2-year college/university degree. A total of 33.1% of the participants had a monthly household income of US$ 2,000 - 3,900, and 24.9% had a monthly household income of US$ 4,000-5,999.

4.2. Manipulation checks

Manipulation checks were conducted to ensure the adequacy of the experimental design and stimuli, and thus the veracity of the results. The results indicated that the participants recognised the high level of commercial information in hashtags significantly more often ($t = 3.827$, $p < .01$) when it was present ($M_{present} = 3.07$, $SD_{present} = .799$) rather than absent ($M_{absent} = 2.72$, $SD_{absent} = .819$). In addition, the participants significantly differentiated the low, medium, and high number of hashtags ($M_{low} = 2.58$, $M_{moderate} = 3.73$, $M_{high} = 4.30$, $F(2, 314) = 137.802$, $p < 0.01$). Thus, the experimental manipulations were effectively designed.

4.3. Interaction effect on source credibility and click-through and travel intention

Two-way ANCOVAs were conducted to examine the interaction effect of the number of hashtags and the presence of commercial information in hashtags on source credibility and click-through intention. 'Perceived realism' was included as a covariate in the model. As shown in Figure 2 and Table 2, the interaction effect of hashtag number and commercial information on source credibility was significant ($F(2, 310) = 7.891$, $p < 0.01$). The participants perceived the low number of hashtags used on Instagram posts as credible when the hashtags did not include commercial information ($M_{low\ with\ commercial\ info} = 3.38$) rather than

when they did (M low without commercial info = 2.58). Similarly, the participants perceived the moderate number of hashtags used on Instagram posts as more credible when the hashtags did not include commercial information (M moderate with commercial info = 3.15) rather than when they did (M moderate without commercial info = 2.72). When a high number of hashtags was used in Instagram posts, the participants perceived the credibility to be higher in the absence of commercial information (M high without commercial info = 2.93) rather than with commercial information (M high with commercial info = 2.78).

In summary, when commercial information was absent, the participants perceived the low number of hashtags as the most credible, followed by the moderate and high numbers of hashtags. In contrast, when commercial information was present, the participants perceived the high number of hashtags as the most credible, followed by the moderate and low numbers of hashtags. The interaction effect of the number of hashtags and commercial information in hashtags was significant for both click-through intention ($F(2, 310) = 6.110$, $p < 0.01$) and travel intention ($F(2, 310) = 10.733$, $p < 0.01$). The effect of perceived realism was also significant for both click-through intention ($F(1, 310) = 98.523$) and travel intention ($F(1, 310) = 93.153$). Thus, H1 was supported.

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4.4. Moderated mediation model

Moderated mediation analyses using the bootstrapping approach of Hayes (2018, Model 7, bias-corrected bootstrap = 5000) were conducted. In Study 1 (see, Figure 1), the number of hashtags was the independent variable (X), commercial information in hashtags was the moderator (X), source credibility was the mediator (M), and click-through intention was the dependent variable (Y). A covariate (perceived realism) was also included in the model.

Consistent with the results of the two-way ANCOVA, the interaction effect of the number of hashtags and commercial information in hashtags was significant (Table 3). As shown in Table 4, the bootstrapping results indicated that source credibility mediated the impact of the number of hashtags on click-through intention when commercial information was absent from the hashtags (indirect effect = .0169; 95% CI = .0138 to .0561) as well as when commercial information was present (indirect effect = -.0186; 95% CI = -.0522 to -.0106). Thus, H2 was supported.

Insert Table 3 here.

Insert Table 4 here.

In Study 2 (Figure 1), the number of hashtags was specified as the independent variable (X), commercial information in hashtags was the moderator (X), source credibility was the mediator (M), and travel intention was the dependent variable (Y). A covariate (perceived realism) was also included in the model. Consistent with the results of the two-way ANCOVA, the interaction effect of the number of hashtags and commercial information in hashtags was significant (Table 5). In addition, as shown in Table 6, the bootstrapping results indicated that source credibility mediated the impact of the number of hashtags on travel intention in the absence of commercial information in hashtags (indirect effect= .0119; 95% CI = .0001 to .0404) as well as in presence of commercial information (indirect effect = -.0124; 95% CI = -.0369 to -.0093). Thus, H3 was supported.

Insert Table 5 here.

Insert Table 6 here.

5. Discussion

5.1. Theoretical contributions

This study makes several theoretical contributions. First, it broadens the scope of the tourism literature on Instagram marketing. Instagram marketing has become important because

photos uploaded by social media users (i.e., consumers) are an indicator of consumption trends (Mele et al., 2021; Teo et al., 2018). In various industries, such as tourism, hospitality, and retail, Instagrammable (a word coined by combining 'Instagram' and 'able') is becoming an indispensable keyword. As such, tourism enterprises are creating photo zones with high-end facilities and artwork as a background for users' photos and encouraging them to use hashtags and geotags for promotional purposes (Tussyadiah, Kausar, & Soesilo, 2018).

However, despite Instagram's substantial role in consumers' tourism purchase decisions and its advertising effects, tourism scholars have paid little attention to it. Although some studies have explored the power of colour in tourism photos (Yu & Egger, 2021; Yu et al., 2020) and the identification of destination branding through Instagram posts (Filieri et al., 2021), a comprehensive understanding of how hashtags influence consumers' behavioural intentions remains unclear, requiring further investigation. The findings of this study contribute to the tourism literature on Instagram from a marketing perspective by examining how the features of hashtags (e.g., the number of hashtags and commercial information in hashtags) affect digital natives' click-through and travel intentions through source credibility.

Second, this study offers an in-depth exploration of hashtags to better understand digital natives' internal defence mechanism against advertisements. To the best of our knowledge, this study is the first attempt to empirically examine how users perceive source credibility by examining the effect of commercial information in hashtags on three levels of hashtags: low, moderate, and high. Although studies on sponsored Instagram posts have verified the effect of commercial information on source credibility and consumer attitudes (Martínez-López et al., 2020; Yılmazdoğan et al., 2021), this study further investigates how the interaction of commercial information in hashtags (presence vs. absence) and the number of hashtags (low vs. moderate vs. high) influences source credibility in Instagram posts and click-through and travel intentions.

Consistent with previous studies, this study finds that digital natives perceive relatively greater source credibility when commercial information in hashtags is absent compared with when it is present. The moderating role of commercial information in hashtags can be interpreted with resistance theory. According to resistance theory, resistance is induced when consumers feel that their freedom of choice is threatened by persuasion (Knowles & Linn, 2004; Sadiq et al., 2021). When commercial information is disclosed, it evokes a cognitive response to either accept (persuasion) or reject (resistance) the message. The findings of this study reveal that users perceive the most source credibility with a low number of hashtags when commercial information is absent.

This can be described as a weak attempt at persuasion (i.e., no commercial information in a low number of hashtags), and it is effective because commercial information evokes consumers' resistance. In contrast, the results show the most source credibility is associated with a high number of hashtags when commercial information is present. Consumers' coping behaviour and a strong persuasion attempt (i.e., commercial information in a high number of hashtags) may affect the level of resistance to advertising. Given that overall source credibility is higher when commercial information is absent (vs. present) regardless of the number of hashtags, that substantially influences click-through and behavioural intentions, further investigation of strategies for overcoming resistance to persuasion in Instagram marketing is required.

Third, this study provides an in-depth understanding of digital natives and what drives their behaviour on social media in the context of tourism. Digital natives tend to be proficient at multitasking and seek rapid responses because they are used to instantaneous communication and using various digital devices to simultaneously obtain information and communicate (Harms, Bijmolt, & Hoekstra, 2017; 2019). By exclusively focusing on digital natives, this study identifies how they respond to commercial information in hashtags and the

number of hashtags on Instagram posts. Given that digital natives consider the internet a space for communication and collaboration and create trends by sharing common interests on social media (Harms et al., 2017; 2019), this study makes a meaningful contribution to better understanding digital natives and effective marketing approaches for them. Thus, researchers can build on this study to further enrich the tourism marketing literature.

5.2. Practical implications

This study provides tourism stakeholders with several practical implications from the marketing and promotion perspectives. First, tourism and hospitality enterprises (e.g., travel operators, accommodations, transportation, and food and beverage) can use this study's findings to enhance source credibility in Instagram marketing. Given the nature of business, official Instagram accounts and posts inevitably contain commercial information, which often negatively affect users' (i.e., prospective consumers) attitudes and behavioural intentions. Thus, marketers strive to alleviate the negative effects of commercial information and sponsored posts on consumer attitudes and click-through intentions. The findings indicate that when hashtags contain commercial information, a high number of hashtags in the Instagram post contribute to greater source credibility compared with moderate and low numbers of hashtags. Keeping this in mind, marketers can develop effective digital marketing strategies for Instagram.

Second, non-commercial bodies (e.g., national tourism organisations [NTOs], DMOs, local governments, charities, and educational institutions) can also benefit from this study's findings when engaging in marketing for the public good. For example, NTOs and DMOs can use a low number of hashtags (compared with moderate and high numbers) in Instagram posts when promoting local destinations for prospective visitors. The findings show that this approach enhances source credibility, leading to positive click-through and travel intentions. Thus, the marketing strategy will be appealing to prospective visitors and, therefore,

effective. In addition, the findings also apply to other public bodies beyond tourism stakeholders. For example, health charities, refuse charities, and public education institutions lead diverse campaigns to raise public awareness and inform and educate the public about research and prevention on Instagram as well as other SNSs. The interaction effect of a low number of hashtags and the absence of commercial information in hashtags on Instagram posts creates a high level of click-through and behavioural intentions through source credibility. Thus, it contributes to the success of campaigns that serve the public good.

5.3. Limitations and suggestions for future research

This study has some limitations. First, as the case study is set in South Korea, caution is required when generalising the findings. Future research could incorporate diverse samples and settings to better represent the effect of hashtags on click-through and travel intentions. Second, this study did not differentiate Instagram users in terms of engagement. There may be differences between more- and less-active Instagram users in how the contents and hashtags in Instagram posts influence future behavioural intentions. Thus, future research could examine user type (e.g., active users vs. less-active users) as a moderating variable. Finally, given that influencer marketing plays a key role in users' attitudes towards products/services and their consumption intentions, future research could compare how source credibility in Instagram posts and hashtags are affected by influencers, celebrities, and official tourism operators (e.g., travel agencies and airlines). From the self-congruity theory perspective, it would be meaningful to investigate how the level of self-congruity between prospective users and the contents and hashtags in Instagram posts affects behavioural intention through source credibility.

Appendix. Ad stimuli

Commercial information in hashtags **(presence)**: low, moderate, and high numbers of hashtags

Commercial information in hashtags **(absence)**: low, moderate, and high numbers of hashtags

References

Abubakar, A. M., & Ilkan, M. (2016). Impact of online WOM on destination trust and intention to travel: A medical tourism perspective. *Journal of Destination Marketing & Management, 5*(3), 192-201.

Angeles, C. N., & Ramos, C. D. L. (2021, November). Investigating unrelated# COVID19 Twitter expressions: Implications of spam content on information credibility. In *Proceedings of the Future Technologies Conference* (pp. 293-309). Springer, Cham.

Binsaeed, K., Stringhini, G., & Youssef, A. E. (2020). Detecting spam in Twitter microblogging services: A novel machine learning approach based on domain popularity. *International Journal of Advanced Computer Science and Applications, 11*(11), 11-22.

Boerman, S. C. (2020). The effects of the standardized Instagram disclosure for micro-and meso-influencers. *Computers in Human Behavior, 103*, 199-207.

Chu, S. C., Deng, T., & Cheng, H. (2020). The role of social media advertising in hospitality, tourism and travel: a literature review and research agenda. *International Journal of Contemporary Hospitality Management, 32*(11), 3419-3438.

Cornet, V. P., Hall, N. K., Cafaro, F., & Brady, E. L. (2017, May). How image-based social media websites support social movements. In *Proceedings of the 2017 CHI conference extended abstracts on Human Factors in Computing Systems* (pp. 2473-2479).

De Jans, S., Van de Sompel, D., De Veirman, M., & Hudders, L. (2020). # Sponsored! How the recognition of sponsoring on Instagram posts affects adolescents' brand evaluations through source evaluations. *Computers in Human Behavior, 109*, 106342.

De Veirman, M., & Hudders, L. (2020). Disclosing sponsored Instagram posts: the role of material connection with the brand and message-sidedness when disclosing covert advertising. *International Journal of Advertising, 39*(1), 94-130.

Dillette, A. K., Benjamin, S., & Carpenter, C. (2019). Tweeting the black travel experience: Social media counternarrative stories as innovative insight on# TravelingWhileBlack. *Journal of Travel Research, 58*(8), 1357-1372.

Din, S. M., Ramli, R., & Bakar, A. A. (2018, November). A review on trust factors affecting purchase Intention on Instagram. In 2018 IEEE Conference on Application, Information and Network Security (AINS) (pp. 49-53). IEEE.

Doyle, J. P., Su, Y., & Kunkel, T. (2020). Athlete branding via social media: examining the factors influencing consumer engagement on Instagram. *European Sport Management Quarterly*, 2020, AHEAD-OF-PRINT, 1- 21. https://doi.org/10.1080/16184742.2020.1806897

Erz, A., Marder, B., & Osadchaya, E. (2018). *Consuming and Producing on Social Media: A Uses and Gratifications Perspective on Motives of Hashtag Use on Instagram.* Abstract from the 47th EMAC Annual Conference 2018, Glasgow, United Kingdom.

Falk, M. T., & Hagsten, E. (2021). Visitor flows to World Heritage Sites in the era of Instagram. *Journal of Sustainable Tourism, 29*(10), 1547-1564.

Farivar, S., Wang, F., & Yuan, Y. (2021). Opinion leadership vs. para-social relationship: Key factors in influencer marketing. *Journal of Retailing and Consumer Services, 59*, 102371.

Fatanti, M. N., & Suyadnya, I. W. (2015). Beyond user gaze: How Instagram creates tourism destination brand? *Procedia-Social and Behavioral Sciences, 211*, 1089-1095.

Filieri, R., Yen, D. A., & Yu, Q. (2021). # ILoveLondon: An exploration of the declaration of love towards a destination on Instagram. *Tourism Management, 85*, 104291.

Flanagin, A. J., & Metzger, M. J. (2003). The perceived credibility of personal Web page information as influenced by the sex of the source. *Computers in human behavior*, *19*(6), 683-701.

Gkikas, D. C., Tzafilkou, K., Theodoridis, P. K., Garmpis, A., & Gkikas, M. C. (2022). How do text characteristics impact user engagement in social media posts: Modeling content readability, length, and hashtags number in Facebook. *International Journal of Information Management Data Insights*, *2*(1), 100067.

Gunter, U., & Önder, I. (2021). An exploratory analysis of geotagged photos from Instagram for residents of and visitors to Vienna. *Journal of Hospitality & Tourism Research, 45*(2), 373-398.

Hackett, P. (2018). *Quantitative research methods in consumer psychology: Contemporary and data driven approaches*. Taylor & Francis. New York.

Harms, B., Bijmolt, T. H., & Hoekstra, J. C. (2017). Digital native advertising: practitioner perspectives and a research agenda. *Journal of Interactive Advertising*, *17*(2), 80-91.

Harms, B., Bijmolt, T. H., & Hoekstra, J. C. (2019). You don't fool me! Consumer perceptions of digital native advertising and banner advertising. *Journal of Media Business Studies, 16*(4), 275-294.

Hayes, A. F. (2018). Partial, conditional, and moderated moderated mediation: quantification, inference, and interpretation, *Communication Monographs*, *85*(1), 4-40.

Hu, M., Chen, J., Chen, Q., & He, W. (2020). It pays off to be authentic: An examination of direct versus indirect brand mentions on social media. *Journal of Business Research, 117*, 19-28.

Hwang, Y., & Jeong, S. H. (2019). Editorial content in native advertising: How do brand placement and content quality affect native-advertising effectiveness?. *Journal of Advertising Research*, *59*(2), 208-218.

i Agustí, D. P. (2018). Characterizing the location of tourist images in cities. Differences in user-generated images (Instagram), official tourist brochures and travel guides. *Annals of Tourism Research, 73*, 103-115.

Iglesias-Sánchez, P. P., Correia, M. B., Jambrino-Maldonado, C., & de las Heras-Pedrosa, C. (2020). Instagram as a co-creation space for tourist destination image-building: Algarve and Costa del Sol case studies. *Sustainability, 12*(7), 2793.

Ince, J., Rojas, F., & Davis, C. A. (2017). The social media response to Black Lives Matter: How Twitter users interact with Black Lives Matter through hashtag use. *Ethnic and Racial Studies, 40*(11), 1814-1830.

Instagram. (n.d.). Join millions of businesses engaging with vibrant communities. https://business.instagram.com/?locale=en_GB

Kilic, D., & Selvaduri, S. S. (2020). Instagram as a modern tourist agency - A case study of influencers impact on the tourists of Bali, Linnaeus University, Kalmar and Växjö Sweden, Retrieved from https://www.diva-portal.org/smash/get/diva2:1466947/FULLTEXT01.pdf

Kim, D. Y., & Kim, H. Y. (2021). Influencer advertising on social media: The multiple inference model on influencer-product congruence and sponsorship disclosure. *Journal of Business Research*, *130*, 405-415.

Kim, T., & Phua, J. (2020). Effects of brand name versus empowerment advertising campaign hashtags in branded Instagram posts of luxury versus mass-market brands. *Journal of Interactive Advertising*, *20*(2), 95-110.

Kincl, T., & Štrach, P. (2021). Born digital: Is there going to be a new culture of digital natives?. *Journal of Global Scholars of Marketing Science*, *31*(1), 30-48.

Knowles, E. S., & Linn, J. A. (2004). *Resistance and persuasion*. Psychology Press: New York.

Krisna, D. F., Handayani, P. W., & Azzahro, F. (2019). The antecedents of hashtag and geotag use in smart tourism: case study in Indonesia. *Asia Pacific Journal of Tourism Research, 24*(12), 1141-1154.

Lee, S., & Kim, E. (2020). Influencer marketing on Instagram: How sponsorship disclosure, influencer credibility, and brand credibility impact the effectiveness of Instagram promotional post. *Journal of Global Fashion Marketing*, *11*(3), 232-249.

Lim, W. M., Gupta, S., Aggarwal, A., Paul, J., & Sadhna, P. (2021). How do digital natives perceive and react toward online advertising? Implications for SMEs. *Journal of Strategic Marketing*, 1-35.

Mani, Z., & Chouk, I. (2018). Consumer resistance to innovation in services: challenges and barriers in the internet of things era. *Journal of Product Innovation Management, 35*(5), 780-807.

Martínez-López, F. J., Anaya-Sánchez, R., Esteban-Millat, I., Torrez-Meruvia, H., D'Alessandro, S., & Miles, M. (2020). Influencer marketing: brand control, commercial orientation and post credibility. *Journal of Marketing Management, 36*(17-18), 1805-1831.

Mele, E., Kerkhof, P., & Cantoni, L. (2021). Analyzing cultural tourism promotion on Instagram: a cross-cultural perspective. *Journal of Travel & Tourism Marketing, 38*(3), 326-340.

Na, Y., & Kim, J. (2019). Sensibility and response keywords of users according to posting types of fashion Instagram: Focused on Koreans' fashion brands. *International Journal of Clothing Science and Technology*, 32(1), 23-36.

Page, R. (2012). The linguistics of self-branding and micro-celebrity in Twitter: the role of hashtags. *Discourse & Communication, 6*(2), 181–201.

Rauschnabel, P. A., Sheldon, P., & Herzfeldt, E. (2019). What motivates users to hashtag on social media? *Psychology & Marketing, 36*(5), 473-488.

Rubin, V. L., & Liddy, E. D. (2006, March). Assessing Credibility of Weblogs. In *AAAI Spring Symposium: Computational Approaches to Analyzing Weblogs* (pp. 187-190).

Ryan, T. P., & Morgan, J. P. (2007). Modern experimental design. *Journal of Statistical Theory and Practice*, *1*(3-4), 501-506.

Sadiq, M., Adil, M., & Paul, J. (2021). An innovation resistance theory perspective on purchase of eco-friendly cosmetics. *Journal of Retailing and Consumer Services*, *59*, 102369.

Saxton, G. D., Niyirora, J., Guo, C., & Waters, R. (2015). # AdvocatingForChange: The strategic use of hashtags in social media advocacy. *Advances in Social Work*, *16*(1), 154-169.

Sedhai, S., & Sun, A. (2017). An analysis of 14 Million tweets on hashtag-oriented spamming. *Journal of the Association for Information Science and Technology, 68*(7), 1638-1651.

Sheldon, P., & Bryant, K. (2016). Instagram: Motives for its use and relationship to narcissism and contextual age. *Computers in Human Behavior, 58*, 89-97.

Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. *Tourism management*, *32*(6), 1310-1323.

Stathopoulou, A., Borel, L., Christodoulides, G., & West, D. (2017). Consumer branded# hashtag engagement: can creativity in TV advertising influence hashtag engagement?. *Psychology & Marketing, 34*(4), 448-462.

Tafesse, W., & Wood, B. P. (2021). Followers' engagement with instagram influencers: The role of influencers' content and engagement strategy. *Journal of Retailing and Consumer Services, 58*, 102303.

Teo, L. X., Leng, H. K., & Phua, Y. X. P. (2018). Marketing on Instagram: Social influence and image quality on perception of quality and purchase intention. *International Journal of Sports Marketing and Sponsorship*, *20*(2), 321-332.

Tussyadiah, S. P., Kausar, D. R., & Soesilo, P. K. (2018). The effect of engagement in online social network on susceptibility to influence. *Journal of Hospitality & Tourism Research, 42*(2), 201-223.

Williams, M., Wiggins, R., Vogt, W. P., & Vogt, P. R. (2022). *Beginning Quantitative Research*. Sage. London.

Winter, S., & Krämer, N. C. (2014). A question of credibility–Effects of source cues and recommendations on information selection on news sites and blogs. *Communications*, *39*(4), 435-456.

Wu, C., Sundiman, D., Kao, S. C., & Chen, C. H. (2018). Emotion induction in click intention of picture advertisement: a field examination. *Journal of Internet Commerce*, *17*(4), 356-382.

Ye, Z., Hashim, N. H., Baghirov, F., & Murphy, J. (2018). Gender differences in Instagram hashtag use. *Journal of Hospitality Marketing & Management*, *27*(4), 386-404.

Yılmaz, M., Sezerel, H., & Uzuner, Y. (2020). Sharing experiences and interpretation of experiences: a phenomenological research on Instagram influencers. *Current Issues in Tourism, 23*(24), 3034-3041.

Yılmazdoğan, O. C., Doğan, R. Ş., & Altıntaş, E. (2021). The impact of the source credibility of Instagram influencers on travel intention: The mediating role of parasocial interaction. *Journal of Vacation Marketing,* 1356766721995973.

Yu, J., & Egger, R. (2021). Color and engagement in touristic Instagram pictures: A machine learning approach. *Annals of Tourism Research*, 103204.

Yu, C. E., Xie, S. Y., & Wen, J. (2020). Coloring the destination: The role of color psychology on Instagram. *Tourism Management, 80*, 104110.

Zappavigna, M. (2016). Social media photography: construing subjectivity in Instagram images. *Visual Communication, 15*(3), 271-292.

Figure 1. Research models

Study 1: Moderated mediation model of click-through intention
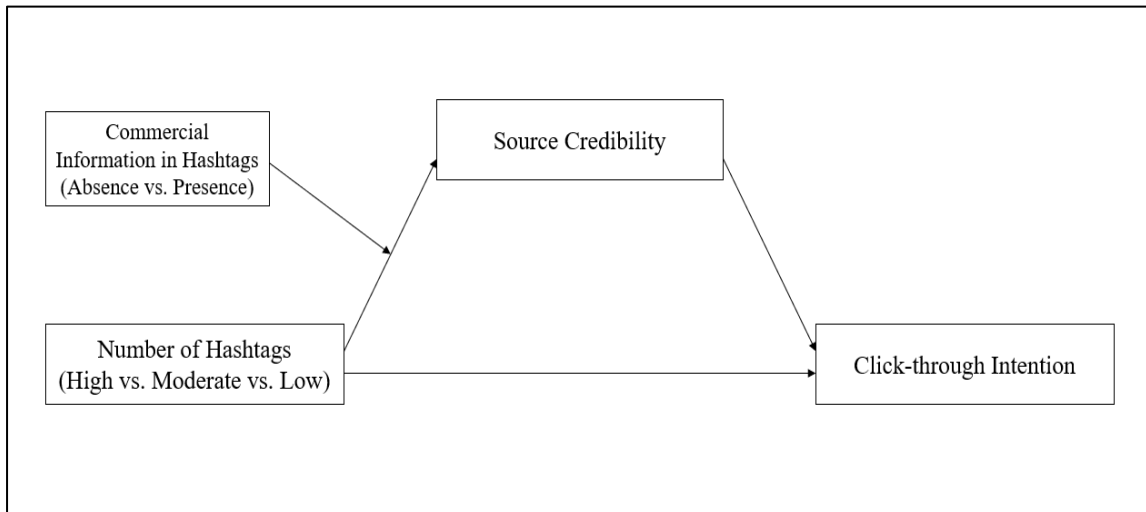
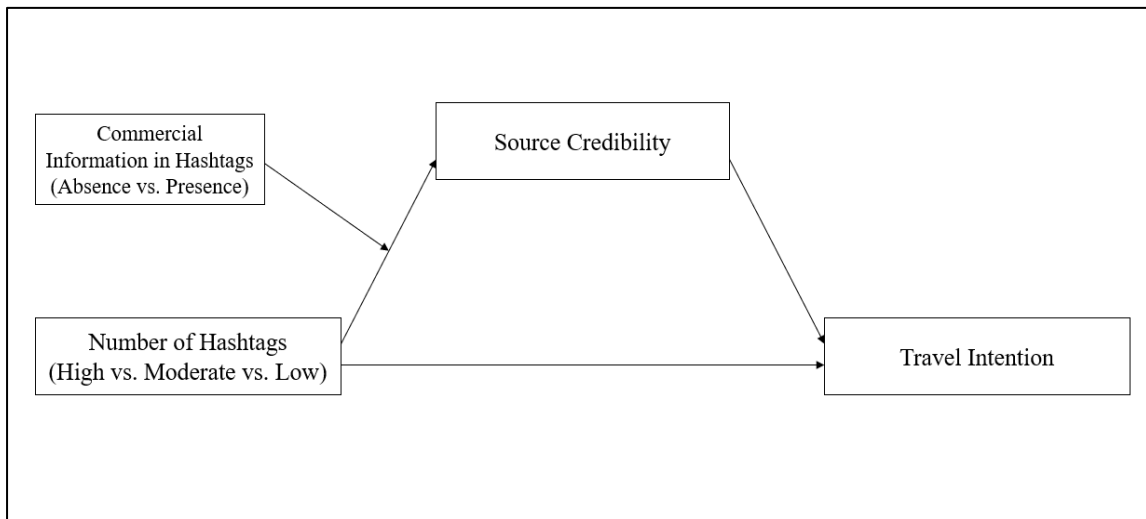Study 2: Moderated mediation model of travel intention

Figure 2. Interaction effect of the number of hashtags and commercial information in hashtags on source credibility
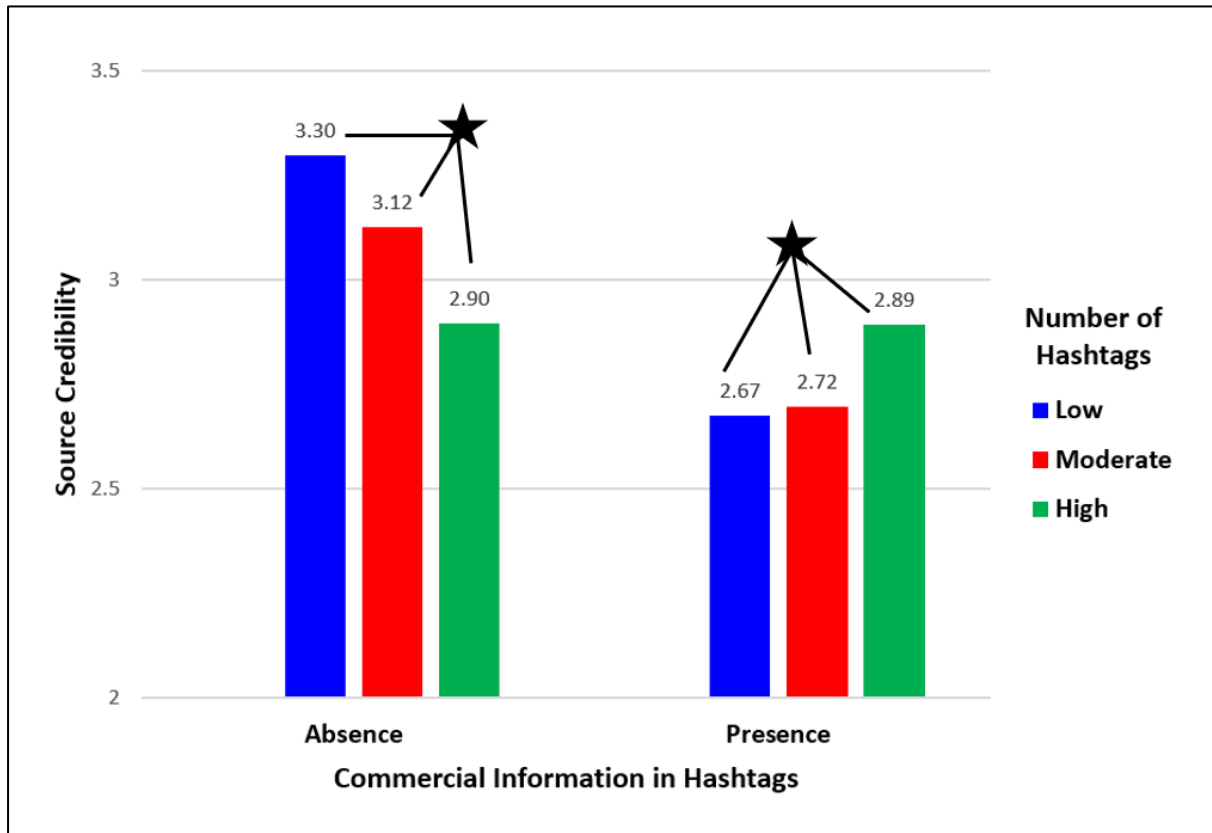
Table 1.

Steps of the data collection process

General step	Specific step	Purpose
Preparation of experimental design and sample	• In-depth interviews with 23 prospective tourists • Development of stimuli and scenario	• To better design the stimuli and make the study scenario more realistic • To use the stimuli and scenario for experimental research
Pilot test	• Pilot test with 38 undergraduate students	• To further check appropriateness of stimuli prior to the main data collection
Data collection for main study	• Development of measurement items and questionnaire • Participant recruitment and allocation into one of six conditions • After data screening and attention checks, completion of data collection	• To conduct a post-experiment survey • To conduct a 3 (number of hashtags: low vs. moderate vs. high) $\times$ 2 (commercial information in hashtags: presence vs. absence) between-subjects design experimental research • To conduct the data analysis and specifically to test H1-3

Table 2.
One-way ANCOVA results for trust in sellers and purchase intention (Study 2)

Source	Type III Sum of Squares	df	Mean Square	F
Trust in Sellers (R^2 =)				
Intercept	26.403	1	26.403	82.795**
Covariates				
Perceived realism	36.078	1	36.078	113.133**
Test Effects				
Commercial information in hashtags (CH)	9.349	1	9.349	29.315**
Number of hashtags (NH)	.492	2	.246	.772
CH*NH	5.033	2	2.516	7.891**
Error	98.859	310	.319	
Total	2921.438	317		
Purchase Intentions (R^2 = .313)				
Intercept	17.561	1	17.561	37.363**
Covariates				
Perceived realism	46.306	1	46.306	98.523**
Test Effects				
Commercial information in hashtags (CH)	5.605	1	5.605	11.927**
Number of hashtags (NH)	.073	2	.037	.078
CH*NH	5.744	2	2.872	6.110**
Error	145.700	310	.470	
Total	2882.000	317		
Travel Intention (R^2 = .323)				
Intercept	16.010	1	16.010	27.660**
Covariates				
Perceived realism	53.916	1	53.916	93.153**
Test Effects				
Commercial information in hashtags (CH)	9.054	1	9.054	15.643**
Number of hashtags (NH)	.156	2	.078	.135
CH*NH	12.424	2	6.212	10.733**
Error	179.424	310	.579	
Total	3112.000	317		

Note. *$p < .05$; **$p < .01$

Table 3.
Conditional indirect effect of number of hashtags on click-through intention through source credibility

	M (Source Credibility)			Y (Click-through Intention)		
	Coeff.	SE	p-value	Coeff.	SE	p-value
Study 1 (Model 7)						
Constant	1.5391	.1426	< .01	.8413	.1954	< .01
X (NH)	-.0012	.0361	.9734	.1670	.0463	< .01
W (CH)	-.2827	.0298	< .01	-	-	-
X * W	.0591	.0336	< .10	-	-	-
M (Source credibility)	-	-	-	.2937	.0632	< .01
S (Perceived realism)	.4694	.0464	< .01	.4276	.0683	< .01

Note: 1. X = independent variable, W = moderator, Z = moderator, M = mediator, and Y = dependent variable;
2. NH signifies number of hashtags and CH signifies commercial information in hashtags.

Table 4.
Indirect effects of number of hashtags on click-through intention through source credibility

	Effect	Boot LLCI	Boot ULCI
Study 1 (Model 7)			
Commercial Information in Hashtags: **Absence**	.0169*	.0138	.0561
Commercial Information in Hashtags: **Presence**	-.0186*	-.0522	-.0106

Note:* Significant conditional indirect effect; Index of moderated mediation = .0171, 95% CI = [.0037, .0435].

Table 5.
Conditional indirect effect of number of hashtags on travel intention through source credibility

	M (Source Credibility)			Y (Travel Intention)		
	Coeff.	SE	p-value	Coeff.	SE	p-value
Study 2 (Model 7)						
Constant	1.5391	.1426	< .01	.5355	.1584	< .01
X (NH)	-.0012	.0361	.9734	.2365	.0375	< .01
W (CH)	-.2827	.0298	< .01	-	-	-
X * W	.0591	.0336	<.10	-	-	-
M (Source credibility)	-	-	-	.1992	.0512	< .01
S (Perceived realism)	.4694	.0464	< .01	.5603	.0554	< .01

Note: 1. X = independent variable, W = moderator, Z = moderator, M = mediator, and Y = dependent variable;
2. NH signifies number of hashtags and CH signifies commercial information in hashtags.

Table 6.
Indirect effects of number of hashtags on travel intention through source credibility

	Effect	Boot LLCI	Boot ULCI
Study 1 (Model 7)			
Commercial Information in Hashtags: **Absence**	.0119*	.0010	.0404
Commercial Information in Hashtags: **Presence**	-.0124*	-.0369	-.0093

Note:* Significant conditional indirect effect; Index of moderated mediation = .0118, 95% CI = [.0030, .0305].