Unlocking the customer engagement-brand loyalty relationship in tourism social media: The roles of brand attachment and customer trust

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1. Introduction

Growth of social media technology is a global phenomenon in the current generation (Itani, Kassar, & Loureiro, 2019; Loureiro & Lopes, 2019). Trivago, Booking.com, and TripAdvisor are popular tourism social media platforms and enable hospitality and tourism firms to promote their brand to customers (Alalwan, Rana, Dwivedi, & Algharabat, 2017) and develop connections with customers beyond the service encounter (So, King, & Sparks, 2014). Consumers are also spontaneously involved in social media platforms and develop relationships with brands (So, King, Sparks, & Wang, 2016a). Therefore, these social media applications have crucial marketing implications (Leung, Law, van Hoof, & Buhalıs, 2013). The tourism social media literature that examines customer behaviors has received considerable attention (Barreda, Nusair, Wang, Okumus, & Bilgihan, 2020; Bravo, Catalán, & Pina, 2020; Harrigan, Evers, Miles, & Daly, 2018; Mellinas & Reino, 2019).

The concept of engagement has been applied to multiple fields, such as marketing, service, and hospitality (Itani et al., 2019; Meire, Hewett, Ballings, Kumar, & Van den Poel, 2019). Customer engagement refers to “a customers' personal connection to a brand as manifested in cognitive, affective, and behavioral actions outside of the purchase situation” (So et al., 2014, pp. 310–311). Customer engagement is a crucial trigger that enhances value creation, which is an important marketing strategy in the tourism industry (Chathoth, Altinay, Harrington, Okumus, & Chan, 2013). The Internet enables the tourism corporations to extensively use customer engagement strategies for developing customer-brand relationships (Aluri, Price, & McIntyre, 2019). For example, tourism corporations can enhance their interactions with customers by encouraging customer to vote and comment online or share their tourism experiences on social media channels (e.g. Facebook, Twitter, and Instagram) (Touni, Kim, Choi, & Ali, 2020). Customer engagement also enhances customer’s review endeavor, brand usage intent, and subjective well-being (Bilro, Loureiro, & Guerreiro, 2019; Prentice & Loureiro, 2018). However, empirical customer engagement research in the tourism social media domain is relatively nascent and scarce (Loureiro & Lopes, 2019).

Studies have explored factors that enhance (Rather, Hollebeek, & Islam, 2019; Yen, Teng, & Tzeng, 2020) or hamper (Chathoth et al., 2014) the development of customer engagement. Regarding the outcomes of customer engagement, studies have paid attention that customer engagement positively influences brand loyalty (Bergel, Frank, & Brock, 2019; Harrigan, Evers, Miles, & Daly, 2017). However, the direct effect of customer engagement on loyalty does not receive full support in the study of Steinhoff, Witt, and Eggert (2018). Therefore, the association between customer engagement and brand loyalty remains unclear, and other variables need to be explored to elucidate this association.
Brand attachment and customer trust are crucial factors in developing consumer-brand relationships, especially in tourism and social media settings (Fillieri, Alguezau, & McLeay, 2015; Jain, Kamboj, Kumar, & Rahman, 2018). Brand attachment indicates the closeness of the relationship between customers and brands (Hwang & Lee, 2019). With the rapid growth of the internet, customers may develop an emotional attachment toward social media (Barreda et al., 2020). Emotionally attached consumers can reflect themselves through a preferred brand and exhibit notable awareness and responsiveness about the brand (Park, MacInnis, Priester, Eisingerich, & Iacobucci, 2010). Customer engagement enhances self-brand collection (a dimension of brand attachment) (Park et al., 2010) and the emotional bonds between customers and service providers (Brodie, Ilic, Juric, & Hollebeek, 2013), implying that engaged customers are attached to a brand. Additionally, customers with emotional attachment to a brand display considerable brand loyalty (Schmalz & Orth, 2012). Thus, customer engagement may influence brand loyalty through brand attachment.

Customer trust refers to the committed and personal bond between customers and a brand (Hes & Story, 2005). The essential role of customer trust in the tourism market has received much academic and practical attention (Brun, Rajaoebelina, Ricard, & Amiot, 2020; Rather et al., 2019). When customers experience high engagement with the brand, they develop high levels of customer trust (So, King, Sparks, & Wang, 2016b; Wei, Miao, & Huang, 2013). In addition, customer trust positively affects brand loyalty (Huang, 2017; Veloutsou, 2015). Thus, customer engagement may influence brand loyalty through customer trust.

Researchers have explored the customer engagement-mediators-outcomes relation (Bergel et al., 2019; So et al., 2016a). However, to the author’s knowledge, no studies have explored the relationships among customer engagement, brand attachment, customer trust, and loyalty in the same framework. Accordingly, this study was inspired by the research question of whether brand attachment and customer trust mediate the association between customer engagement and brand loyalty. To answer this, the purpose of this study aimed to fill the literature gap by considering the effects of brand attachment and customer trust on the customer engagement-brand loyalty relationship in the tourism social media context.

From the theoretical viewpoint, scholars have suggested that future studies need to examine the customer engagement concept (Croeevey, Kidney, & Mehta, 2019; Harrigan et al., 2018), especially for tourism social media. Thus, this study responds to their call by investigating customer engagement’s outcomes, including brand attachment, customer trust, and brand loyalty. The findings can supplement previous studies (Bergel et al., 2019; So et al., 2016b) that have investigated the psychological process underlying how customer engagement affects brand loyalty. The research contributes to the extant knowledge base by revealing other potential mediators in the association between customer engagement and brand loyalty.

From the managerial perspective, we propose a novel framework that integrates these factors and seek to understand why loyal customers prefer to use particular social media. These findings of the current research provide a new type of information service and serve as a reference for managers in designing tourism social media platforms and developing marketing strategies for companies’ products and services.

2. Literature review and research hypotheses

2.1. Customer engagement and brand loyalty

Based on social exchange theory, customer engagement includes mutual interactions between customers and brands (Hollebeek, 2011). Customer engagement differs from customer involvement and participation, as it involves customers’ interactivity and experience with a focal brand (Brodie et al., 2013). These emotional interactions are not mere purchase interactions (Van Doorn et al., 2010) or traditional transactions (Wei et al., 2013); these emotional interactions encourage customers to become brand advocates.

In tourism studies, researchers have positioned consumer engagement as a multidimensional variable (Harrigan et al., 2017), but do not offer consistent customer engagement dimensions and how it should be measured (Hollebeek, 2011; Zhang, Gordon, Buhalas, & Ding, 2018). According to So et al. (2014), vigor, absorption, interaction, attention, and identification are five customer engagement’s sub-dimensions in the tourism domain. Harrigan et al. (2017) modified the scale of So et al. (2014) and proposed a parsimonious customer engagement scale with three dimensions: identification, absorption, and interaction. Identification refers to the degree that customers perceive their belonging to a brand. Absorption refers to a pleasant condition that a customer happily focuses on being involved with the brand. Interaction denotes that customers participate in online and offline brand activities and connect other customers outside of the purchase transaction. In the current study, we adopt Harrigan et al.’s (2017) conceptualization of these dimensions. Customer engagement in this study indicates frequent transactions between customers and the tourism social media brand that enhance customers’ affective (e.g., identification), cognitive (e.g., absorption), and behavioral (e.g., interaction) investment toward the brand.

Brand loyalty indicates that consumers have positive attitudes toward a particular brand and are inclined to regularly purchase this brand (Fullerton, 2003). Brand loyalty is essential for succeeding and accomplishing marketing strategies and related research (Chaufruti & Holbrook, 2001). Brand loyalty has behavioral and attitudinal components (Jacoby & Kyner, 1973). Behavioral loyalty refers to the repeat purchasing of the brand. Attitudinal loyalty means that a consumer’s attitude toward a brand is favorably preferred (Cossio-Silva, Reviila-Camacho, Vega-Vázquez, & Palacios-Florespo, 2015). Consumers with high attitudinal loyalty are likely to recommend this brand to others or friends.

Compared with customers with low level of loyalty, loyal customers have a strong connection with the brand and demonstrate a tendency of exhibiting repeated purchase behaviors (Kandampully, Zhang, & Bilgihan, 2015; Šerić & Franičević, 2018). Furthermore, they become brand advocates and ambassadors. Brand loyalty is also essential in enhancing a company’s market share and sustainability in the tourism industry (Yoo & Bai, 2012). Therefore, many marketers plan and implement loyalty programs to gain new customers and retain their existing customers. Enhancing customer brand loyalty is imperative for a company’s brand development and sustainability.

Past research has focused on the effect of customer engagement on brand loyalty. Consumers having high engagement in social media brand communities tend to perceive strong brand loyalty (Brodie et al., 2013). So et al. (2016a) proved that engaged customers are loyal to the tourism brand. As argued by Dwivedi (2015), consumers with high level of engagement elicit considerable tourism brand loyalty. Currently, customer engagement is a positive driver of brand loyalty (Harrigan et al., 2017). The aforementioned studies have explored the customer engagement-brand loyalty relationship (Harrigan et al., 2017; So et al., 2016a) or used qualitative design (Brodie et al., 2013). Compared with our study, Dwivedi (2015) adopted different dimensions of customer engagement. Tourism social media platforms play an important role in travel decision making and increase value co-creation between customers and marketers (Dewnarain, Ramkissoon, & Mavondo, 2019). Therefore, understanding whether consumers who engage with tourism social media brands are inclined to have a high level of brand loyalty is imperative. However, to our knowledge, only one quantitative study (Harrigan et al., 2017) examined the customer engagement-brand loyalty relationship in the tourism social media domain, suggesting that future studies can explore such a relationship in other countries. Therefore, the current research seeks to fill the literature gap and proposes the following hypothesis:

H1. Engaged customers are loyal to the tourism social media brands.

2.2. Mediating role of brand attachment

Brand attachment, including brand-self connection and brand prominence (Park et al., 2010), means that customers are attached to a
product or a brand emotionally (Jahn, Gaus, & Kießling, 2012) and plays the pivotal role of establishing the relationship between brands and consumers (Loureiro, Sarmento, & Le Bellego, 2017; Veloutsou, 2015). Brand-self connection denotes that people link the brand cognitively and emotionally (Escalas & Bettman, 2003). Brand prominence is the intensity of the bond between the brand and the consumer (Park et al., 2010). Customers develop emotional attachment to objects in the tourism industry, such as travel agencies and tour leaders (Yen, Chen, Cheng, & Teng, 2018). In other words, customers may form an attachment to these social media brands. However, brand attachment through social media has received little attention (Wang, Yeh, Yen, & Sandoya, 2016), especially regarding tourism social media brands. Hence, in this study, brand attachment means that purchasers are psychologically attached to social media brands in tourism.

Past studies have examined the psychological mechanism regarding whether customer engagement influences loyalty. For example, Bergel et al. (2019) examined the role of affective attitude in the relationship between customer engagement and loyalty. They found that affective attitude mediates the customer engagement-loyalty relationship in multiple samples (e.g. customers of a hotel chain and visitors of a national forest park). So et al. (2016b) found that engagement has an effect on brand loyalty through brand relationship quality with retail service brands. Jahn and Kunz (2014) reported that brand attachment mediates the relationship between customer engagement (i.e. customer participation) and brand loyalty in a sample of Facebook fan pages. Accordingly, past studies have not reached a conclusion about the mechanism that customer engagement influences brand loyalty.

Customer engagement aims to establish emotional bonds between service providers and customers and turns customers into advocates for sellers (Sashi, 2012). Customers who engage in the online brand community develop strong emotional bonds with the brand (Brodie et al., 2013; Hollebeek, Glynn, & Brodie, 2014). Customer engagement enhances self-brand collection (i.e. brand attachment’s dimension) (Harrigan et al., 2018; Park et al., 2010). Thus, these aforementioned findings suggest that customers who are engaged in the online social media community are likely to develop mental relationships with the brand/community. That is, customer engagement enhances brand attachment.

Emotional attachment theory reports that emotional attachment to a specific object influences how people interact with that object (Belaid & Behi, 2011). A person with strong attachment to an object develops more positive memories of the object than a person with weak emotional attachment (Collins, 1996). High brand attachment results in pleasurable consumption experiences, which consequently induces positive brand evaluation (Belaid & Behi, 2011) and motivates to build brand bonding (Mikulincer, Hirschberger, Nachmias, & Gillath, 2001). Positive memories and participation evoke consumers' positive attitudes toward the brand. Therefore, brand attachment contributes to an increase in behavioral commitment, which is an indicator of brand loyalty (Levy & Hino, 2016). Therefore, brand attachment intensifies brand loyalty (Jahn & Kunz, 2014).

Accordingly, customer engagement enhances brand attachment and thus strengthens brand loyalty. Additionally, the mediating role of brand attachment has been evidenced in past studies (Li, Lu, Bogicevic, & Bujisic, 2019; Zhang, Zhou, Su, & Zhou, 2013). Hence, the hypothesized association is as follows:

H2. The association between customer engagement and brand loyalty is mediated by brand attachment.

2.3. Mediating role of customer trust

Customer trust plays an essential role in encouraging bonding between service providers and customers. Trust results in customers constantly maintaining committed relationships with the brand (So et al., 2016b). Customers with high trust incline to develop strong relationships with the corporation. Social exchange theory states that customers are likely to interact with service providers they trust (Cheng, Chen, Yen, & Teng, 2017). Customer engagement enhances positive and mutual exchange relationships between a customer and service providers, which enhances their trusting relationships (Sashi, 2012). Customer engagement can increase customer trust (Brodie et al., 2013). Customers with high engagement incline to retain a trusting bond with the sellers (Vivek, Beatty, & Morgan, 2012). Therefore, customer engagement positively enhances customer trust (So et al., 2014). That is, customers engaging with the tourism social media have a high tendency of developing a trusting relationship with tourism social media.

Researchers have explored the linkage between customer trust and brand loyalty. Veloutsou (2015) revealed that customer trust positively increases brand loyalty. Huang (2017) stated that customers who trust the brand tend to develop higher brand loyalty. Customer trust positively associated with loyalty (Palacios-Florenceo, del Junco, Castellanos-Verdugo, & Rosa-Díaz, 2018). Thus, the above findings suggested that customer trust reinforces brand loyalty.

Accordingly, customer engagement enhances customer trust and in turn increases brand loyalty. Additionally, the mediating impact of customer trust on the customer-brand outcomes relationship has been evidenced (Huang, 2017; Palacios-Florenceo et al., 2018). Hence, we suggest the following hypothesized relationship:

H3. The relation between customer engagement and brand loyalty is mediated by customer trust.

Based on the literature review and the defined research hypotheses, the conceptual framework is presented in Fig. 1.

3. Methodology

3.1. Data collection

Currently, social media has become the primary consumer engagement platform (Harrigan et al., 2017). Airline and hotel social media brands are the main brand categories for travel experiences (So et al., 2016a). For example, customers usually visit TripAdvisor to collect relevant travel information (Biolo et al., 2019). Sites such as Booking.com and Trivago are also popular social media tourism platforms. These platforms are often the channels that provide relevant travel information and ratings to tourists. Hence, the popularity of these platforms are attributed to customers’ ability to review, comment, share, and even indicate satisfaction on these platforms, which then appears in search engine results.

Recently, independent travel has become popular in Taiwan. A total of 74.5% of travelers choose to purchase foreign tourism products through online travel agencies (Taiwan Trend Research, 2019). In the independent travel market, the business opportunity is up to US$ 9.5 billion (Euromonitor International, 2017), and the average annual growth rate from 2017 to 2020 is 8.5%. In sum, the growth of the independent travel market in Taiwan is stable and increasing. Hence, Taiwanese travelers were selected as participants in our study.

We conducted an online survey (https://www.surveycake.com/) of Taiwanese travelers who were familiar with and had visited these tourism social media platforms (e.g. Booking.com and Trivago) in the past one year. The respondents had to select one tourism social media platform and answered the questionnaire items with that brand in mind. To encourage participation in this survey, the researchers sent a gift (NT$50 (US$1.65) coupon) to respondents who completed the questionnaire. Their confidentiality and anonymity were ensured to diminish the possibility of common method variance (CMV).

Back translation was adopted to diminish translation bias (Wilson, 2010). The researchers collaborated with two managers who worked in social media tourism corporations and had excellent skills in Chinese and English. The researchers mailed the questionnaire to one manager who translated the English version into Chinese and returned it by mail. Then, the researchers mailed the Chinese version of the questionnaire to the other manager who translated the Chinese version back into
English and returned it by mail. Finally, the researchers checked the original and translated English versions to ensure that the translation quality and the consistency in meaning were maintained. No significant differences in language were identified.

In addition, a pretest of the questionnaire with 30 respondents who had participated in the tourism social media platforms was conducted to identify any ambiguity perceived in responding to individual questionnaire items. According to the pre-test results, the researchers modified one customer engagement item (No. 8) from passive voice to active voice and all brand attachment items from interrogative voice to active voice in Chinese to ensure clarity.

Of the 310 questionnaires returned between February and April 2017, we obtained 298 useable questionnaires after removing 12 surveys in which respondents did not provide complete answers or had missing data. According to Gorsuch (1983), a ratio of respondent to questionnaire is five to one. Our ratio (11.8) met the requirement. Of the 298 respondents (Table 1), 194 (65.1%) were women, and the age of 40.9% of respondents was between 31 and 40 years old. Hence, Taiwanese females and customers who were aged between 31 and 40 years displayed a high tendency for browsing the websites of these online travel agencies. These respondents’ characteristics were similar to these findings (Lee, Xuan, & Wan, 2018; Taiwan Travel Map, 2017). Additionally, 91.6% of the respondents had received a bachelor's or higher degree, and 59.1% of the respondents identified themselves as married.

3.2. Measures

Customer engagement was measured using eleven items suggested by Harrigan et al. (2017). We used ten items from Park et al. (2010) to measure brand attachment. Customer trust was measured with four questions developed by Sun and Lin (2010). Brand loyalty was measured by four items (Zeithaml, Berry, & Parasuraman, 1996). All questions utilized a five-point scale from strongly disagree (1) to strongly agree (5), excepted for brand attachment items, which were adopted a five-point scale from not at all (1) to completely (5). Previous studies have adopted the aforementioned questionnaire items with a five-point scale (Cheng et al., 2017; Malär, Krohmer, Hoyer, & Nyffenegger, 2011; Samala, Singh, Nukhu, & Khetarpal, 2019; Touni et al., 2020). The questionnaire items are listed in the Appendix.

4. Results

4.1. Measurement reliability and validity

Before testing measures properties, this study utilized skewness and kurtosis values to test whether our data met the normality assumption.

Table 1
Sample characteristics.

<table>
<thead>
<tr>
<th>Variable</th>
<th>(N = 298) n</th>
<th>%</th>
<th>Mean</th>
<th>SD</th>
</tr>
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<tbody>
<tr>
<td>Gender²</td>
<td>Male 104 34.9%</td>
<td></td>
<td>0.65</td>
<td>0.48</td>
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<tr>
<td></td>
<td>Female 194 65.1%</td>
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<td>2.15</td>
<td>0.92</td>
</tr>
<tr>
<td>Age³</td>
<td>Less than 30 79 26.5%</td>
<td></td>
<td>0.59</td>
<td>0.49</td>
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<tr>
<td></td>
<td>31–40 122 40.9%</td>
<td></td>
<td>3.05</td>
<td>0.87</td>
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<tr>
<td></td>
<td>41–50 70 23.5%</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>51 and over 27 9.1%</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Marital status⁴</td>
<td>Single 122 40.9%</td>
<td></td>
<td>3.05</td>
<td>0.87</td>
</tr>
<tr>
<td></td>
<td>Married 176 59.1%</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Education⁵</td>
<td>High school 25 8.4%</td>
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<tr>
<td></td>
<td>Junior college 31 10.4%</td>
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<td></td>
<td>College degree 146 49.0%</td>
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<tr>
<td></td>
<td>Graduate degree 96 32.2%</td>
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</tbody>
</table>

Notes.
² 0 = male, 1 = female.
³ 1 = less than 30 years old, 2 = 31–40, 3 = 41–50, 4 = 51 and over.
⁴ 0 = single, 1 = married.
⁵ 1 = high school, 2 = junior college, 3 = college degree, 4 = graduate degree.

(Kim, 2013). The skewness values (−0.44 to −0.04) and the kurtosis values (−0.05 to 0.74) were lower than 2. Therefore, our data did not oppose the normality assumption.

Each individual Cronbach’s alpha was between 0.75 and 0.92. Every individual value was greater than the standard of 0.7 (Nunnally, 1978), indicating that our questionnaire had high reliability. With regards to the construct validity, two items from brand attachment and one item from customer engagement (listed in the Appendix) were removed from further study because of low factor loading (< 0.5). The confirmatory factor analysis (CFA) results were as follows: $\chi^2/df = 2.8$ (739.23/264), root mean square residual (RMR) = 0.05, root mean square error of approximation (RMSEA) = 0.08, incremental fit index (IFI) = 0.91, comparative fit index (CFI) = 0.91. Therefore, this measurement model offered a reasonable fit.

All constructs’ standardized loadings (0.66–0.91) were significant. The composite reliability (CR) was in the range (0.84–0.95), higher than 0.6 (Hair, Black, Babin, & Anderson, 2010). Moreover, the average variance extracted of each variable ranged from 0.57 to 0.78, higher than 0.5. Hence, convergent validity was supported. Table 1 shows that all squared correlations were less than the variances extracted by each construct, presenting that discriminant validity was supported. Finally, the CFA results evidenced that the one-factor model had an inferior fit.
\( \chi^2 = 1886.64, df = 275, \chi^2/df = 6.86, RMR = 0.07, RMSEA = 0.14, IFI = 0.70, CFI = 0.70 \) than the hypothesized model did. Consequently, CMV was not a threat in our research.

### 4.2. Intercorrelation

The means, standard deviations, skewness values, kurtosis values, AVEs, and correlations of all variables are displayed in Table 2. Customer engagement was associated with brand attachment (\( r = 0.70, \) all \( p < 0.01 \)), customer trust (0.55), and brand loyalty (0.64) positively. Brand attachment related to customer trust (0.67) and brand loyalty (0.74) positively. Customer trust was positively associated with brand loyalty (0.73).

### 4.3. Hypotheses testing

The results of structural equation modelling with AMOS 24.0 version provided excellent fit (\( \chi^2 = 762.56, df = 265, \chi^2/df = 2.88, RMR = 0.05, RMSEA = 0.08, IFI = 0.91, CFI = 0.91 \)). The results of SEM reported that the path value (customer engagement→brand loyalty) was not significant (\( \beta = 0.01, p > 0.05 \)). Therefore, \( H1 \) was not evidenced. In addition, the paths from identification, absorption, and interaction to customer engagement were positive and significant (0.76, 0.94, and 0.80 respectively, \( p < 0.01 \)).

The significant paths (customer engagement→brand attachment) and (brand attachment→brand loyalty) were 0.89 and 0.56 respectively. Additionally, the significant paths (customer engagement→customer trust) and (customer trust→brand loyalty) were 0.71 and 0.44 respectively. The results of confidence interval (CI) with bootstrapping method showed that the CI for the mediating influence of brand attachment on the customer engagement-brand loyalty relationship did not include zero (95% CI = 0.26, 0.88). Additionally, the CI for the mediating influence of customer trust on the customer engagement-brand loyalty relationship did not include zero (95% CI = 0.21, 0.47).

Hence, \( H2 \) and \( H3 \) were evidenced. The indirect impact of brand attachment on the customer engagement-brand loyalty relationship was greater (0.50) than that of customer trust (0.31). Because customer engagement did not affect brand loyalty directly and significantly, the customer engagement-brand attachment-brand loyalty relationship was closer than the customer engagement-customer trust-brand loyalty relationship.

### 4.4. Model replication

To test the research framework generalizability, we conducted the second online survey from April to May in 2020 and placed the questionnaire items on the Google form to validate the replication of the research model. The sampling frame of this study comprised individuals who had visited travel websites (e.g. Hotels.com, Booking.com, and Trivago) in the past 12 months. We received 290 responses returned, with 273 valid responses after the removal of 17 questionnaires with incomplete or multiple answers in Sample 2. Of the 273 respondents, 188 (68.9%) were women. A total of 36.6% of respondents was aged between 31 and 40 years old. 88.6% had a bachelor’s or higher degree, and 57.1% identified themselves as married. We compared the difference in background information between Sample 1 and Sample 2. The results of chi-square tests indicated no differences in gender (\( \chi^2 = 0.91, \) all \( p > 0.05 \)), age (\( \chi^2 = 1.99 \)), marital status (\( \chi^2 = 0.22 \)), and education (\( \chi^2 = 6.87 \)). Hence, the background information of the two samples was homogeneous.

Regarding measurement model, this study adopted CFA, and the results provided a satisfactory fit (\( \chi^2 = 788.58, df = 313, \chi^2/df = 2.52, RMR = 0.06, RMSEA = 0.08, IFI = 0.91, CFI = 0.91 \)). Regarding hypotheses testing, the results of SEM reported that the model had accepted fit values (\( \chi^2 = 813.95, df = 314, \chi^2/df = 2.59, RMR = 0.06, RMSEA = 0.08, IFI = 0.90, CFI = 0.90 \)). Fig. 2 depicts that the path value (customer engagement→brand loyalty) was not significant (\( \beta = -0.06, p > 0.05 \)). Hence, customer engagement was unrelated to brand loyalty. In addition, the paths from identification, absorption, and interaction to engagement were significant (0.66, 0.99, and 0.64 respectively; \( p < 0.01 \)).

The significant paths (customer engagement→brand attachment) and (brand attachment→brand loyalty) were 0.78 and 0.86, respectively. Additionally, the significant paths (customer engagement→customer trust) and (customer trust→brand loyalty) were 0.77 and 0.29, respectively. The results of CI with the bootstrapping method showed that the mediating influence of brand attachment did not include zero (95% CI = 0.52, 0.88). The mediating influence of customer trust did not include zero (95% CI = 0.13, 0.41). Accordingly, the results (Sample 2) supported that both brand attachment and customer trust mediated the customer engagement-brand loyalty relationship. The indirect impact of brand attachment on the customer engagement-brand loyalty relationship was greater (0.67) than that of customer trust (0.22). Therefore, same empirical results for the research hypotheses testing were obtained through two different samples.

### 5. Discussion

The role of customer engagement for establishing customer-brand loyalty relationship has received much attention in the tourism social media domain (Harrigan et al., 2017; So et al., 2014, 2016a). However, few studies have explored how customer engagement combines with other loyalty antecedents to influence the development of brand loyalty (So et al., 2016a). Hence, this study advanced the customer engagement literature by examining the bridge between customer engagement and brand loyalty and including the mediating roles of brand attachment and customer trust. These empirical findings reported that brand loyalty was not affected by customer engagement directly. Both brand attachment and customer trust fully mediated the influence of customer engagement on brand loyalty. Specifically, the customer engagement-brand attachment-brand loyalty relationship was closer than the customer engagement-customer trust-brand loyalty. Both theoretical and practical implications are shown in the following sections.

#### 5.1. Theoretical implications

Touni et al. (2020) suggested that future studies should examine the concept of customer engagement in online brand communities. From the tourism social media brands perspective, customer engagement is under-researched (Harrigan et al., 2017). Thus, our research responds to their call by investigating the impact of customer engagement on brand loyalty toward tourism social media brands. However, our
findings are not consistent with previous research that customer engagement enhances brand loyalty (Brodie et al., 2013). The study found that customer engagement did not directly affect brand loyalty. This is because lack of transparency and intangibility exist in travel services (Zillifro & Morais, 2004). These characteristics cause customers to have high-risk perception toward travel products. In tourism settings, customers prefer to review comments and ratings from service providers that they trust and with whom they have emotional bonds to reduce their uncertainty (Cheng et al., 2017). In addition, compared with the brands of actual products, customers display low loyalty to virtual brands. Levy (2014) stated that it is essential to compare the difference between sincere loyalty and fake loyalty. In the fake loyalty situation, repeated purchase behaviors do not mean the sincere loyalty because consumers with fake loyalty are easily attracted to operators who provide products with lower prices and convenient service. Therefore, to enhance consumer loyalty to tourism social media companies, only considering customer engagement is not sufficient. It is necessary to establish a deeper connection between customers and brands as well as to strengthen customers’ emotional attachment and trust toward the brand. Accordingly, customer engagement is unrelated brand loyalty in the domain of tourism social media platforms. In other words, brand attachment and customer trust cannot be neglected when elaborating that customer engagement links to brand loyalty. Thus, this study provides a crucial explanation of how customer engagement affects brand loyalty in the tourism social media domain and supplements this nomological framework of customer engagement offered by Harrigan et al. (2017).

Prior studies have examined the psychological processes by which customer engagement influences brand loyalty in many fields, such as hotels, national parks, and retail (Berge et al., 2019; So et al., 2016b). However, to the author’s knowledge, no study has investigated the mechanisms by which customer engagement influences brand loyalty toward tourism social media brands. Hence, the current study supplements the literature by including the roles of brand attachment and customer trust. The findings showed that both brand attachment and customer trust fully mediated how customer engagement connected with brand loyalty. Therefore, brand attachment and customer trust can be treated as a bridge that connects the association between customer engagement and brand loyalty in tourism social media domain. These findings seem to complement the literature that treats brand attachment and customer trust as mediators (Huang, 2017; Li et al., 2019; Palacios-Florence et al., 2018; Zhang et al., 2013).

Compared with the mediating effect of customer trust, brand attachment has a more mediating influence on the customer engagement-brand loyalty relationship. Previous studies have demonstrated that customer engagement boosts brand loyalty through customer trust in the online retail brand community (So et al., 2016b). Our findings complement this line of research by highlighting that in addition to considering the role of customer trust, the mediating role of brand attachment cannot be ignored when the management plans to enhance engaged customers’ brand loyalty, especially for tourism social media. The current study partially responds to Wang et al. (2016) by demonstrating that customers who perceive more attachment to a tourism social media brand have strong brand loyalty.

5.2. Practical implications

Brand loyalty is a crucial antecedent of actual consumers’ buying behavior. Hence, understanding the determinants and processes of the customer-brand relationship is crucial. Our findings reveal that, compared with identification and interaction, absorption has a more influence on customer engagement. Therefore, marketers must focus on strategies that foster customer absorption in tourism social media platforms. For example, travelers often utilize social media channels to seek, collect, and share their travel information. Managers can provide coupons, discounts, or presents to active visitors as a signal of acknowledgment and highly engaged customers ultimately become brand advocates.

Our findings indicate that brand attachment and customer trust fully mediate the customer engagement-brand loyalty relationship, especially the mediating role of brand attachment. Therefore, enhancing customer engagement is inadequate to increase brand loyalty; brand attachment and customer trust should be considered. Compared with customer trust, the role of brand attachment should receive much attention in the customer engagement-brand loyalty relationship. Therefore, they should prioritize and plan to improve customers’ emotional attachment with their offerings. Managers must make investments to engender emotional connections with a tourism social media brand. For example, they can design some brand awareness activities for establishing a closer and more sustainable relationship between their brands and consumers to build connectivity with customers. The adoption of virtual experiential technology can also change the user experience and enhance customer emotional attachment toward tourism social media. Additionally, when designing the transaction interface of tourism social media platforms, marketers should strengthen website functions that provide customers value co-creation in the service process. The creation of valuable and memorable experiences for customers requires much attention to establish brand attachment.

Furthermore, managers on the social media platform need to enhance brand trust among customers. First, platform operators should ensure the security of online transactions and personal information. Second, service providers should be selective with tourism suppliers to ensure that the price of each tourism product meets the expected

Fig. 2. Structural Path Estimates Model.
Notes:
1. Sample 1/Sample 2.
2. ** denotes $p < 0.010$.
3. Dotted line means a nonsignificant path.
service quality. Finally, sophisticated software and algorithms can be considered to effectively manage and monitor each company's promotional information and online comments to maintain the credibility of all reviews and ratings on the platform.

5.3. Future suggestions and limitations

This study has some limitations that require further attention. First, the research design of our study was quantitative. The current research measured customer engagement through questionnaire items. However, Bilro et al. (2019) suggested that customer engagement information can be obtained from the website content and messages of social media channels. Customer engagement behaviors on social media include online rating, reviewing, commenting, blogging, and customer-to-customer interactions. These data can capture the real customer engagements that occur between tourism corporations and their customers through social media channels (Loo, 2020). Therefore, qualitative research design can be considered in the future research. Second, this study used procedural and statistical approaches to eliminate CMV. However, we measured all the variables in a self-administrated data collection design. Future research can implement a multiple-source research design to weaken the CMV.

Third, the formation of brand loyalty is complex. Future studies can consider other brand loyalty's drivers to understand the customer-brand relationship thoughtfully. Fourth, this study adopted an online questionnaire survey, and this sampling method may produce sample bias. This is because some qualified people may not participate in this survey because of personal issues. Finally, our main targets were Taiwanese people who had visited tourism social media platforms, and the majority of respondents were women aged between 31 and 40 years, which could limit the generalizability of our results to other populations. Therefore, samples from other regions or countries could be employed to examine the relationships analyzed in this study.

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Appendix A

Customer engagement (Harrigan et al., 2017)

1. When someone criticizes this tourism site, it feels like a personal insult.  
2. When I talk about this tourism site, I usually say ‘we’ rather than ‘they’.  
3. When someone praises this tourism site, it feels like a personal compliment.  
4. I am passionate about this tourism site.  
5. I feel excited about this tourism site.  
6. Anything related to this tourism site grabs my attention.  
7. When I am interacting with the tourism site, I forget everything else around me.*  
8. In my interaction with the tourism site, I am immersed.  
9. In general, I like to get involved in the tourism site community discussions.  
10. I am someone who enjoys interacting with like-minded others in the tourism site community.  
11. I often participate in activities of the tourism site community.

Brand attachment (Park et al., 2010)

1. To what extent is the tourism site of you and who you are?  
2. To what extent do you feel personally connected to the tourism site?  
3. To what extent do you feel emotionally bonded to the tourism site?  
4. To what extent is the tourism site part of you?  
5. To what extent does the tourism site say something to other people about who you are?  
6. To what extent are your thoughts and feelings toward the tourism site often automatic, coming to mind seemingly on their own?  
7. To what extent do your thoughts and feelings toward the tourism site come to your mind naturally and instantly?  
8. To what extent do your thoughts and feelings toward the tourism site come to mind so naturally and instantly that you don’t have much control over them?  
9. To what extent does the word the tourism site automatically evoke many good thoughts about the past, present, and future?  
10. To what extent do you have many thoughts about the tourism site?

Customer trust (Sun & Lin, 2010)

1. I believe that the tourism site is concerned about my interest.  
2. I feel that the tourism site is trustworthy.  
3. I have confidence in the products and services of the tourism site.  
4. I feel that the tourism site has the ability to provide good products and services.

Brand loyalty (Zeithaml et al., 1996)

1. I would say positive things about this tourism site to other people.  
2. I would recommend this tourism site to someone who seeks my advice.  
3. I would encourage friends and relatives to do business with this tourism site.  
4. I would do more business with this tourism site in the next few years.

Note

* Questions were removed during the data analysis.

References


