

Hotel Brand Equity and Online Reviews on Social Commerce Intention: A Cross-Level Identification Process

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Acknowledgment: This research is supported by the National Natural Science Foundation of China (No. 72004239, 72074230) and Humanity and Social Science Foundation of Ministry of Education of China Grant (20YJCZH189)

Abstract

Customer reviews and brand equity are both key assets that offer hospitality providers competitive advantages over rivalries. However, how they can complement each other is a question that scholars and practitioners continue to seek. This research draws on social identity and social presence theories to synthesize a multilevel model with social identification as a mediator of the relationship between persuasive message compliance and social commerce intention. We take a resource-based view to conceptualize brand equity as a strategic asset and to model it as a moderator. This inquiry contributes to extant literature by illuminating a multilevel paradigm to better understand the strategic imperative of brand equity in fortifying a strong brand, while casting means for weak brands to capitalize on e-WOM to impel favorable guest behaviors. It adds to the literature by acknowledging a dual-identification process in which both customer reviews and branding exercise different roles in customers' brand identification.

Keywords: persuasive message compliance, brand equity, social identification, social commerce, multilevel analysis, hotel

INTRODUCTION

A growing body of marketing research has investigated the role of customer online reviews and corporate branding, while assuming that they are two independent factors (El-Said, 2020; Ho-Dac et al., 2013). Some scholars believe the availability of online reviews undercuts the perceived value of established brand names and diminishes their position in the environment of interactive marketing (Beneke et al., 2016; Fotis et al., 2012). Consumers would turn to the opinions of others (Wong et al.; Wu et al., 2021), eschewing reliance on brands and other marketer-influenced signals.

Ho-Dac, Carson, and Moore (2013), however, suggest that prevalence of online reviews is unlikely to deplete the value of well-established brands, as brand equity continues to have profound impacts on consumer decisions. Here brand equity is measured in a diadic pair between strong and weak brands (Ho-Dac et al., 2013; Krishnan and Hartline, 2001). In this study, strong brands are defined as those that have a significant favorable brand equity, whereas weak brands lack this kind of equity. Extensive research in the mainstream marketing literature on brand equity and marketing communications has shown that brands are safeguarded against adverse publicity (Dawar and Pillutla, 2000; Hoeffler and Keller, 2003; Stockman et al., 2020). Renowned brands have better resilience to crisis and negative publicity and are better able to present favorable connotations via communication media (Wong et al., 2021). This focus on market research shows great promise, but the extant outcomes are still inconclusive (Babić Rosario et al., 2016).

Although the literature has laid the necessary foundation regarding online reviews and brand equity, several research gaps remain, as it is unclear whether customer generated contents (UGCs) and organizational branding complement or hurt each other. Also, previous research largely ignores the nested structure of branding on the effect of online reviews. Given that online reviews for a

specific service provider are given shape by the firm's quality and performance, the influence of a firm's brand equity should be treated in a multilevel fashion leading from the brand level to the customer level (Ou et al., 2020; Wong, 2016). Accordingly, two research questions were raised: (1) How might different levels of brand equity condition the role of online reviews on consumer behaviors (e.g., social commerce behaviors)? (2) To what extent is consumers' social identification with a brand influenced by online reviews based on different brand equity levels?

The present research seeks to answer the above question in the hotel context. In particular, we introduce social presence theory (Argo, 2020; Short et al., 1976), which reflects social cues being disseminated through communication media to aid actors to develop personal relationships with a hotel. These relationships serve as anchor points to explain the social influences of branding and persuasive message contents (considering argument quality, post popularity, and post attractiveness) on hotel guests (Argo, 2020; Huang et al., 2021). Here persuasive messages projected from cyberspace render as a repository with portals that depict both erudite information about brands and their corresponding customer reviews (Huang et al., 2021). Online reviews in turn work as testimonies from consumer groups, serving as references to a given brand (Ho-Dac et al., 2013; Wong et al., 2022).

We improvise a multilevel model with social identification with a brand as a mediator of the relationship between persuasive message compliance (or message compliance, for short) and social commerce intention, which is defined as the propensity of posting, liking, sharing an online review, or making reservations at a hotel (Huang et al., 2020; Liang et al., 2011; Lin et al., 2017). We take a resource-based view (Arend and Lévesque, 2010) to conceptualize brand equity as a strategic asset at the organization level and to model it as a moderator of the proposed individual-level relationship

stated above. We further draw upon social identity theory (Ashforth and Mael, 1989; Tajfel, 1982; Wood, 2000) to justify a dual identification process in which customer online reviews along with equity from a focal hotel brand render as two different sources of influence on guests' in-group identification and their social commerce intentions. This inquiry contributes to the online review field of research by illuminating a multilevel paradigm that derails the predominant view of customer reviews and eWOM persisting at a single level (Sashi et al., 2019). It enriches the branding stream of work by understanding the strategic imperative of strong brand equity in fortifying consumer identification and social commerce intention, while casting means for weak brands to capitalize on online reviews to impel favorable consumer behaviors. This research adds to the social identity and presence literature by acknowledging a dual identification process in which both online reviews and branding exercise different roles in customers' brand identification.

The subsequent sections explain the conceptual framework, followed by research methodology with data collected from two separate surveys comprising a total of 1,664 samples from 30 properties. Results are presented in the findings section, with special focus on testing the hypothesized relationship through a series of multilevel analyses. The article concludes with theoretical and practical implications along with future research directions.

LITERATURE REVIEW

Theoretical Background

A persuasion process in a social context is derived from an integration between influences of social presences and social identity categorization (Crano and Prislin, 2006). Social presence is defined as the "degree of salience of the other person in the interaction and the consequent salience

of the interpersonal relationships” (Short et al., 1976, p. 65). Social presence theory was originated to investigate the effectiveness of telecoms media as social network sites (Cui et al., 2013), and it was gradually applied to other fields to understand the transmission of social influences, intentionally or not, from others (e.g., online review commenters and hotel brand managers) to individual actors through communication media (Argo, 2020). According to social identity theory, when individuals consider themselves to be in-group members, other members in the same group then become anchors for social comparison (Tajfel, 1981, 1982). The founding frame of mind and beliefs of the group are then considered to be proofs for one’s identity, which can be manifested in various social presences. Yet, the overlap of social presences in other settings (e.g., hotel brand and other potential guests) causes consumers to hold a dual-identification process (Wood, 2000).

A persuasive process is effective if the information adds to the recipient’s knowledge of the surrounding environment, thereby allowing the influence to convey functional significance to the receiver (Burnkrant and Cousineau, 1975; Huang et al., 2021; Kelman, 1961; Wood, 2000). Online persuasive messages as a form of narrative persuasion create a cognitive illusion that people may share a similar experience with the commenters when they are reading these messages, which in turn leads to identification with the group (i.e., hotel) that discloses their opinions (De Graaf et al., 2012). In essence, such identification renders a mechanism in which compliance with persuasive messages due to quality, popularity, and attractiveness of the message contents leads to user identification and hence, social commerce intention toward the group.

In the dual-identification process, we further propose a moderation of brand equity onto the proposed direct relationships based on a resource-based view. In this view, brand equity as an organizational strategy is a higher-level anchor point for individual customers (Arend and Lévesque,

2010; Wong et al., 2019). This study also draws on social identity theory (Tajfel, 1982; Wood, 2000) to illuminate the process by which consumers embrace brand names that connote superior quality and imagery and hence, better identify themselves with these labels. Accordingly, the role of message compliance on social identification should be elevated for brands that enjoy superior equity; likewise, the role of social identification on people's social commerce intention should also be enhanced for brands that possess such superiority. The following sections further illuminate our logic in developing the proposed model (see Figure 1) through a systematic review of the extant literature.

Insert Figure 1 here

Persuasive message compliance and social identification

Online review studies evolve from an examination of review valence to message creditability and persuasiveness. Online messages have a significant impact on many factors such as brand equity (Ho-Dac et al., 2013), purchase decision (Tsao et al., 2015), and sales (Berger et al., 2010; Ye et al., 2009). Berger et al. (2010) even find that negative reviews also increase sales. Further, Fang et al. (2016) argue that reviews imbued with extreme sentiment are perceived as more valuable, while Babic Rosario et al. (2016) disprove this statement and believe that high variability in comments jeopardizes sales. The reasons for the problems in establishing volume and valence have been put forward by Ho-Dac et al. (2013), who suggest that the feedback loop for positive online reviews is created because negative online reviews are slower to be identified with than positive ones. Diverse research viewpoints on online reviews have been examined, and their findings suggest that online reviews are influential in a positive way.

Recent research has found that consumers have gradually begun to be wary about the validity of

reviews due to the proliferation of disinformation and misinformation prevalent in cyberspace.

Huang et al. (2021) argue that tourists maintain an inherent vigilance about online hotel reviews.

Other than the discussion about the influential power of valanced reviews, a heated debate has recently surrounded the credibility and persuasiveness of message content (Chang et al., 2015; Huang et al., 2021; Kusumasondjaja et al., 2012). Using caution in persuasion of guests has become a critical aspect of online review research. Hence, this study focuses on the strength of persuasive message compliance. In the following section, we argue that three types of message valuation – argument quality, post popularity, and post attractiveness – superimposed by cyberspace user generated contents (UGCs) can facilitate people's identification with a focal brand.

Communication with receivers on benefits is pivotal in persuasive message compliance (Chang et al., 2015; Lee et al., 2009). The quality of arguments determines the effectiveness of online reviews (Bhattacharjee and Sanford, 2006). The crowdfunding market was found to attract far more investors when the project was presented in a well-written and comprehensible manner (Burtch et al., 2013). Zhou (2012) states that the topic must be evident when studying the value of message arguments. The content needs to provide a comprehensive presentation that eliminates any element of doubt in the mind of the viewer (Mudambi and Schuff, 2010). Information quality is important to provide details for other customers to help them realize what is offered and identify with the commenters.

Post popularity is a combination of the amount of likes and reposts together with user reviews (De Vries et al., 2012). This definition is consistent with Sinclair et al. (2010), who assert that post popularity has a direct influence on the behavioral response of prospective customers. Multiple reviews that are consistent will be considered of greater reliability than an individual review that may

be colored by a particular incident or experience (Cantalops and Salvi, 2014; Ho-Dac et al., 2013).

There is a tendency to associate good quality with popularity, thus reinforcing the effect of persuasive posts. The tacit belief is that when reviews are popular, they reflect the experiences of a large number of customers and thereby affirm quality. Customers subconsciously identify with commenters who leave popular information (Connelly et al., 2011; Huang et al., 2021).

Post attractiveness determines the manner in which social media postings are seen to be engaging and useful (Ahearne et al., 1999; Wu et al., 2021). Furthermore, to gain more attraction from customers, hybrid reviews (e.g., written reviews and photos) have become more ubiquitous, since customers can understand a picture much easier than thousands of words (Blanchette, 2013), and attractive contents with diagnostic cues can help customers when booking a hotel online (Wu et al., 2020). Thus, attractiveness is the fast track to source credibility (Ozanne et al., 2019).

Information cues as an anchored reference system could implicitly sway consumers' choices, as the influence of information on consumers is a gradual process of internalization (Burnkrant and Cousineau, 1975; Huang et al., 2021). We further synthesize the aforementioned argument with the social presence theory (Argo, 2020; Short et al., 1976) to conjecture a phenomenon in which social discourse via social media could alter one's attitude. This situation is referred to as *narrative persuasion*, in which a message's content creates a vicarious experience that gives receivers a cognitive illusion that they share similar experiences with the anonymous commenters, provoking an identification process (Argo, 2020; De Graaf et al., 2012).

This logic resonates closely with the premise of social identity theory (Ashforth and Mael, 1989; Crano and Prislin, 2006) in that consumers are likely to identify themselves with a focal brand due to favorable reviews online that convey an image that is congruent with who they are and what

they believe. Kelman (2006, pp. 3-4) further asserts that “identification occurs when an individual accepts influence from another person or group in order to establish or maintain satisfying self-defining relationship to the other.” Stated differently, customers may identify themselves depending upon the perception of value, including media posting quality, popularity, and attractiveness, from a source comprising informational cues (Qu et al., 2011). Hence, the following hypotheses were proposed:

Hypothesis 1. Argument quality of online reviews has a positive effect on social identification intention toward a brand.

Hypothesis 2. Post popularity of online reviews has a positive effect on social identification intention toward a brand.

Hypothesis 3. Post attractiveness of online reviews has a positive effect on social identification intention toward a brand.

Social identification and social commerce intention

Social commerce behavior reflects an intimate connection between an individual and a brand (Huang et al., 2020). It commonly includes four aspects of behavioral outcomes including likes, comments, shares, and purchases of brand-related products. Customer identification with a brand often induces favorable behavioral outcomes such as positive word of mouth recommendations, compliment and support of the brand’s offerings and activities, and loyalty through a higher level of repurchase intentions and behaviors (De Graaf et al., 2012; Qu et al., 2011).

The logic that underpins the connection between social identification with a brand and social commerce behavior rests on social identity theory (Ashforth and Mael, 1989), which posits a mechanism for how an individual references who they are and which group membership they should belong to. Self-concept is the very essence of the theory, as it suggests association with a social

group could bring benefits and emotional significance to the focal relationship availed by membership (Ashforth et al., 2008). In this sense, individuals who identify themselves with a group or organization often exercise favorable in-group membership behaviors such as loyalty and devotion (Huang et al., 2020; So et al., 2013). This theoretical premise provides support to our next hypothesis, which asserts a positive relationship between social identification with a brand and social commerce intention toward the brand.

Hypothesis 4. Customers' social identification has a positive effect on social commerce intention.

Moderation of brand equity

Brand equity is commonly defined as “the incremental utility or value added to a product by its brand name” (Yoo et al., 2000, p. 195); it is a key strategic asset to an organization, given that consumers are likely to possess favorable perceptions toward the brand and engage in supportive behaviors with strong brand identification as well as loyalty (Prentice and Wong, 2016). This study adopts the above definition to view brand equity as a strategic imperative at the organizational level based on the organizational resource view (Salanova et al., 2005). It further proposes brand equity as a boundary factor in conditioning the relationship between persuasive message compliance and social identification with a brand, by building the theoretical synthesis between social presence theory and social identity theory, as detailed below.

Consumers' identification with a brand is largely affected by the brand's image and quality, as mentioned above (Keller, 2013). Given that individuals' brand-related identification can be shaped by message contents' quality, popularity, and attractiveness, as Hypotheses 1–3 postulate, a strong brand (i.e., a brand with high level of equity) adds to the social identification process whereby such a brand could further facilitate consumers to accept a membership role with the brand (Liu et al., 2017;

Tuškej et al., 2013). In other words, there is a dual identity-building effect: one from brand-related contents supplied by UGCs from online reviews (Harrigan et al., 2017; Sung et al., 2020), and the other from the brand's equity crafted by an organization (Keller, 2013; Yoo et al., 2000). Hence, a brand that possesses favorable brand equity should intensify the effect of message compliance on social identification, given that a strong brand often invokes imagery and qualities that could induce consumers to accept and internalize online messages (So et al., 2017), especially when such contents are persuasive with a high quality of argument and are attractive. Hence, we proposed the following hypothesis.

Hypothesis 5. Brand equity moderates the relationship leading from (a) argument quality, (b) post popularity, and (c) post attractiveness to social identification.

Brand equity has the ability to sway consumers' purchase decisions and behaviors. We argue that it also plays a moderating role in conditioning the relationship between social identification and social commerce intention toward a focal brand. According to social presence theory, consumers prefer to associate with groups and organizations (e.g., brands) endowed with high social status; and to display their social presence, individuals can become involved in conspicuous consumption (Wang and Griskevicius, 2014) such as buying lavish branded items (Argo et al., 2005) as a means to project their wealth and social status. Alternatively, they may indicate their group membership by choosing identity-affirming products (White et al., 2018). In summary, people often manage their impressions by embracing a strong brand that can convey their self-image and promote their self-concept (Argo, 2020; Yankholmes and McKercher, 2019). This logic also resonates with the premise of social identity theory, which acknowledges the importance of self-esteem through association and consumption of products (Grappi and Montanari, 2011).

We proposed earlier that social identification with a brand leads to a higher likelihood of conducting social commerce penitent to the brand, as Hypothesis 4 asserts. Yet, when brand equity is prominent, consumers are even more likely to identify with the brand, which in turn triggers more positive behavioral intentions and social commerce intention to manage the brand as an extension of self (Huang et al., 2020). In other words, the stronger the brand is, the greater the desire of consumers to establish a relationship with it through social commerce activities, such as posting likes, writing favorable comments, and acquiring the brand's products, as an avenue to publicly display their positive selves (Grewal et al., 2020; Ward and Dahl, 2014).

Hypothesis 6. Brand equity moderates the relationship between social identification and social commerce intention.

METHODOLOGY

Sampling procedure

Macau represents an ideal field study environment to assess the impact of hotel brand equity on tourist behaviors. Hotels from Macau were selected as the research context because the enclave has a mix of international hotel chains as well as local operators, and it is one of the most visited destinations in Asia. To test the proposed cross-level hypotheses, we first studied hotel establishments located in Macau and identified 30 properties with adequate online reviews that can be assessed from different consumer opinion portals (COPs). The average size of each property was 609 (number of hotel rooms). Data collection involved two separate steps with two independent surveys. This approach helps to mitigate common method variance, which is further elaborated below.

The first survey sought to assess hotel guest's perception and behavior intentions on COPs such

as persuasive message compliance (argument quality, post popularity, post attractiveness), social identification, and social commerce intention. The second survey mainly focused on evaluating how customers perceived the brand equity of each participating hotel. Both surveys utilized a similar data collection procedure. In particular, each survey involved a group of well-trained investigators majoring in hospitality to intercept respondents and solicit participation through an explanation of the research goals, at the entrance of each selected establishment. The quota sampling method was utilized for both data collection waves. The survey on individual perception of persuasive message compliance at each hotel contains an average respondent size around 13, while the other survey focusing on evaluating brand equity contains a larger respondent size averaging 42 for each hotel brand. The average size of both datasets was largely based on the funding of the supporting project. The questionnaires for both surveys were first developed in English and then back-translated into Chinese. Both were pilot tested with the assistance of a group of tourism doctoral students and professors. Changes were made in order to better refine the wording of the translated questionnaires.

The first survey contained a total of 401 usable responses. Of these respondents, 43.60 % were male, and 56.40 % were female. As for age, 80% of participants were between 21 and 40 years old. In terms of monthly income, 68.1% of respondents had an average monthly income below 50,000 RMB. All the participants in the present study declared that they had booked hotel rooms through COPs, and they had posted (23.9 %), liked (25.4 %), and shared (19.5 %) online reviews in the past 12 months. The second survey contained 1,263 complete responses. Of these respondents, 47.72 % were male and 52.28 % were female. Two thirds of the respondents fell between age 21 and 40 (66.37 %), and 64.36 % came from mainland China.

Measures

Persuasive message compliance was assessed by how customers were convinced by information, mainly including three factors: argument quality, post popularity, and post attractiveness (Chang et al., 2015; Lee and Xia, 2011). Argument quality (Cronbach's $\alpha = .92$) evaluated the persuasive strength of statements on COPs using a three-item measure (e.g., "Online posts are valuable to my choice") based on Chang et al. (2015). Post popularity ($\alpha = .94$) assessed the prevalence of a post by observing the likes, comments, or reposts it received by using a three-item measure (e.g., "I think posts with positive remarks of people's social commerce features (likes, shares, comments, etc.) are trustworthy") (Chang et al., 2015; De Vries et al., 2012). Post attractiveness ($\alpha = .87$) measured the attractiveness a statement holds for reviewers, which was evaluated by a two-item construct (e.g., "Photos in online posts are aesthetically appealing") (Ahearne et al., 1999; Chang et al., 2015). Each item was evaluated by a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree).

Social identification scale ($\alpha = .82$) was a three-item scale developed by Malhotra and Galletta (1999) to measure how respondents identified themselves as an in-group member of a certain COP by using 9-point bipolar rating from 1 (least likely) to 9 (most likely). A sample question was, "I feel a sense of personal ownership about the use of _____," where the blank represents the online COP customers used.

Social commerce intention ($\alpha = .87$) was a four-item scale adapted from (Chang et al., 2015) and (Liang et al., 2011) to evaluate the intention respondents had to perform like, share, comment, and reservation behaviors on COPs. The scale was assessed on a 7-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). A sample question was, "I intend to share other members'

comments on accommodation products within the online COPs in the future.”

Brand equity assessed a hotel’s commercial value relative to other hotels. The four-item scale was adopted from Yoo et al. (2000) ($\alpha = .87$). Each item was measured using a 5-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). An example item was, “If there is another brand as good as _____, I still prefer this hotel,” where the blank refers to a specific hotel of interest. Because the scale was meant to operationalize at the organizational level, it was first aggregated and then its appropriateness validated. Results reveal that the scale was significantly different among hotels ($F_{(29, 1233)} = 9.38, p < .001$). Inter-member reliability indexes ($ICC_{[1]} = .20, ICC_{[2]} = .88$) and median inter-rater agreement ($r_{wg[j]} = .86$) exceeded the suggested threshold of .059 of ICC(1) and 0.7 of ICC(2) and $r_{wg[j]}$, providing support to aggregation of the scale at the higher level (Cohen, 2013; Lance et al., 2006; Zohar, 2000). $ICC_{[1]}$ also suggests that 20% of the variance of brand equity can be attributed to the differences among hotels.

Data Diagnostics

We performed a number of data diagnostics for the measures. The tolerance values and variance inflation factors (VIFs) were first examined. The tolerance values were greater than .57, which surpasses the threshold value of .1. VIF values were less than 1.77, which is below the critical value of 10 (Kleinbaum et al., 1988). Following the guideline from Podsakoff, MacKenzie, Lee, and Podsakoff (2003), data were acquired from multiple sources. Also, Harman single-factor procedure was used to diagnose common method variance (CMV); and the results show that $\chi^2/df = 3.90$ ($p < .05$), exceeding the critical value 2.0, which explains 38.89 % of the variance among the items (Ylitalo, 2009). These results demonstrate that multicollinearity and common method bias did not

pose a severe threat.

RESULTS

Tables 1 and 2 presented the descriptive statistics and correlations among the variables of interest. Compared to single-level analytical methods such as regression and structural equation modeling, hierarchical linear modeling (HLM) can test actors who may not be independent of one another since they are nested in a higher-level social system (e.g., hotel). This approach meticulously presents our theoretical logic in that there are cross-level interactions between individual-level customers' relationships that are conditioned by a higher-level system nested with hotels. An HLM model was employed to examine the proposed cross-level relationships. In particular, hotel guests (level 1) are nested within different hotels (level 2). Following Bryk and Raudenbush (1992), we first examined a null model in that social identification and social commerce intention were assessed as dependent variables without any predictor to test the appropriateness to utilize this analytical method. Additionally, we controlled for hotel star rating (2- to 4-star hotels as *ordinary* and 5- and 5-star deluxe hotels as *upscale*), as it may possibly affect the hotel branding and consumer behaviors.

Insert Table 1 and 2 here

Hypothesis 1 to 4 propose a relationship leading from persuasive message compliance and social identification to social commerce intention through social identification. Results from Table 3 show significant relationships between argument quality and social identification ($b = .41, p < .001$), between post popularity and social identification ($b = .14, p < .10$), and between post attractiveness and social identification ($b = .27, p < .05$). These three variables account for 19% of the variance of

social identification. The path from social identification to social commerce intention ($b = .27, p < .001$) was significant, and it explains 8% of the variance of the dependent measure. In summary, Hypotheses 1–4 were supported.

Hypotheses 5a–5c were proposed to investigate the moderation effect of brand equity from the hotel level onto the relationship between message compliance (i.e., argument quality, post popularity, and post attractiveness) to social identification. Results presented in Table 3 show an insignificant cross-level direct effect of brand equity ($\gamma = .04, p > .05$). However, the argument quality \times brand equity interaction term ($\gamma = -.43, p < .05$) was significant, while the post attractiveness \times brand equity interaction term ($\gamma = .24, p > .05$) and the popularity \times brand equity interaction ($\gamma = -.08, p > .05$) were not significant. These results support H5a, but not H5b and H5c. The R^2 improves from .19 to .25 with the group-level variable added to the model.

Insert Table 3 here

The present study followed the simple slope procedure proposed by Aiken, West, and Reno (1991) to graphically depict the cross-level interactions. As Figure 2 shows, the relationship between argument quality and social identification was more acute when brand equity was low. A careful examination of the graph reveals that the relation is fairly static for hotels with high brand equity. Also, the intercepts reveal further details about a rather contrary situation: while customer social identification with argument quality was lower for hotels with a weak brand, the reverse was observed where social identification was higher for hotels with a weak brand. This divergent situation may suggest that hotels with a strong brand do not need to enhance customer identification through improving the persuasiveness of online reviews. In other words, whether or not hotelier's

online comments and posting are informative and valuable to guests does not sway customers' decisions on identifying themselves with a prestigious hotel brand. On the contrary, hotels with a weak brand may focus on customers' identification through a high quality of online postings.

Results in Table 3 further report that the direct impact from brand equity to social commerce intention ($\gamma = .31, p < .10$) and the cross-level interaction term, brand equity \times social identification ($\gamma = .21, p < .10$) are moderately significant, supporting Hypothesis 6. The Pseudo $R^2_{\text{social commerce intention}}$ value is .10 with the group-level variable added to the model. Figure 3 demonstrates the effects of social identification on social commerce intention for different levels of hotel brand equity. The results show that the effect of social identification is more acute for hotels that enjoy a strong brand equity. On the other hand, for hotels with a weak brand equity, customers' social commerce intention is fairly similar regardless of the level of social identification. In other words, such hotels may receive a subsequent lower level of exposure to COPs because few customers would access the hotel information online (Xiang et al., 2015).

Insert Figures 2 and 3 here

DISCUSSION

The present study proposes a multilevel model that clarifies the fuzzy boundary between online reviews and brand equity, as Figure 1 depicts. This model is more in line with the way reviews and brands are presented in COPs. More importantly, the present study integrates individual-level and organizational-level forces to reconcile inconsistent findings presented in existing studies (Wen et al., 2021). This study further heeds the call from (Ho-Dac et al., 2013) to test the relationship between online reviews and brand equity in a nested model, and the call from (Argo, 2020) to test the

social influence of social presences in the hospitality industry. Drawing on data collected from two independent surveys, results present opportunities for weak brands to take advantage of online persuasive messages, which enable them to attract more attention from potential customers. In addition, high brand equity hotel customers experience a more promising transition from social identification to social commerce intention.

Our results failed to support H5b and H5c. The reasons that brand equity casts a non-significant impact on the path from post attractiveness and popularity to social identification may be found in social presence theory, in that social presences may cause negative impacts as physical or psychological intrusion when they are presented in a crowded or burdensome way. In particular, psychological intrusion is derived from space violation (Argo, 2020). A large number of customers crowded in the public space may create negative informational cues for that place, which elicits negative behavior responses such as unfavorable brand evaluation or curtailed experience (Argo, 2020; Cialdini, 1984; Huang et al., 2018; Martin and Nuttall, 2017). In the same vein, an intrusion into psychological space may be the reason that customers of high-end brands avoid self-identification with hotels with popular or attractive persuasive messages.

Theoretical Contributions

Social presence theory suggests that a negative social disclosure of oneself is likely to cause disappointment by the user, thereby diminishing understanding and familiarity with the presented entities as hotels; whereas a positive social presence allows an individual to interrelate with it closely (Kilic Cakmak et al., 2014). Existing studies mainly discuss the benefits a social presence may bring to cyberspace. For instance, adding some sensory stimulus information in the hotel description may render as heuristic cues that not only can enhance consumers' purchasing intention (Lv et al., 2020),

but also can invite customers to share their experiences online (Du et al., 2020; Huang et al., 2020).

The current work complements social presence theory on two ends. First, this research identifies a process in which quality and popularity of online reviews pertinent to a hotel brand could ultimately promote a higher level of social commerce propensity including likes, comments, and reposts about the brand's offering as well as acquiring the brand's services. Social identification works as a mediator that bridges the link between reading and evaluating online reviews on one hand, and disseminating reviews and likes on the other. The rationale behind this mechanism adds new nuances to the theory, in that acknowledging and identifying with high-quality, popular, and attractive hotel reviews helps individual guests to manifest themselves to the cyberspace community through engagement of social commerce activities.

Second, social presence theory also conjectures that social discourse via social media could alter one's attitude through narrative persuasion (Argo, 2020; De Graaf et al., 2012). According to social presence theory, a brand's equity manifests additional signals about the quality of a hotel. The negative interaction effect presented in Figure 2 hints at a rather unique situation, in that the effect of argument quality on social identification is rather stable for high equity hotels, whereas the effect is particularly salient for hotels with a low equity. Put differently, quality of persuasion from online reviews is only effective for properties that are inferior in their branding, as guests from stronger branded hotels do not seem to be affected by eWOM in respect to the social identification formation. An alternative explanation to this phenomenon points to Eagly and Chaiken's (1993) persuasion paradigm to suggest that less valued signals emanating from weak arguments produce more negative reactions. Friedrich and Smith (1998) found that persuasion can be damaging when potentially strong arguments are mixed with weaker ones. The theoretical lens presented from these early works may

help to explain why a strong brand is desirable, as it manifests signals that could fortify against negative review comments. This implication echoes the work from Ho-Dac et al. (2013), who have also found that brand equity can safeguard the impacts on a brand from conflicting online reviews. On the other hand, brand equity, as a more stable source of information, can further influence consumers' psychological identity and social commerce intention at the macro level.

In light of the above argument, this research also contributes to the branding literature by identifying the cross-level moderating role of brand equity on the message–identification–commerce chain of relationship. The tourism and hospitality literature on branding and brand equity has largely embraced a customer-based brand equity (CBBE) approach (Boo et al., 2009; Liu et al., 2017). The logic of such an approach rests fully on the individual's perceptions of a given brand's equity, either as an antecedent to other behavioral responses or as a consequence of consumer attitude and service design (Wen et al., 2021; Wong and Lin, 2022). The present inquiry takes a different approach germane to the resource-based view (e.g., Arend and Lévesque, 2010), to conjecture that equity endowed from a brand at the brand level that emanates cross-level conditioning influences individual perceptions. We thus build a synthesis between online reviews from a peer-to-peer perspective and branding from a corporate asset perspective, to better understand how these two aspects are entwined, thus offering new insights to the literature.

From the social identity theoretical perspective, the present inquiry adds to the identity literature on how contents generated from online review platforms render as a powerful force that subsequently facilitates hotel guests to identify themselves as members of a brand, while exercising in-group behaviors through social commerce intention. Importantly, the chain of identification presented in this study reflects a two-stage process, which combines the last two phases of social

identification (Ashforth and Mael, 1989; Wood, 2000). In particular, hotel guests first identify their membership with a brand through persuasive eWOM, while a brand's equity casts a conditioning effect onto this first identification stage. Our model further illuminates the second stage of the process in which guests exercise in-group patronage tendency, while a focal brand works as a reference that allows guests to draw comparisons with other brands, as social identity theory posits. Hence, a strong brand that enjoys a high brand equity magnifies the role of social identification to further promote social commerce behaviors that could help patrons to better maintain their self-esteem and project themselves in cyberspace. This line of argument offers new revelations to the identity literature by annotating the role of branding in guests' hotel social commerce decisions.

Managerial implications

Reviews that feature more reposts, likes, and comments may be perceived as persuasive messages. Persuasive messages are powerful forces that can help to develop a brand's equity. To this end, we encourage hotels with a weak brand to cultivate a cyberspace community that could nurture influential reviews on their behalf. For instance, some emerging micro-celebrity companies such as restaurants or hotels can gain attention through online reviews talking about their special settings or service offerings (Huang et al., 2021). The emergency of micro-celebrity is creating a new business economy in which small and medium sized enterprises can capitalize on this ecosystem as a platform to attract customers without having to rely heavily on their own branding endeavors.

Our results also yield implications for managers of strong brands. Ho-Dac et al. (2013) note that online reviews do not necessarily benefit the product model of strong brands, and, therefore, they do not adopt the same strategies weaker brands use. In particular, information that comes from anonymous sources independent of the brand may represent an infringement for a loyal customer of

a high-end hotel. Consumers can be adversely affected when they feel an invasion of their space, particularly evident in the instance of high social density. Previous observations have related more to a physical crossing of boundaries, whereas (Argo, 2020) cites psychological transgression as being equally invasive. For example, high-end hotels can enforce requirements such as door card restrictions or require dress codes; but the adverse impact of the intangible influence of online reviews is largely neglected. In particular, a large number of persuasive messages occupy a high-end hotel homepage. Customers are alerted to attempts that persuade them through misleading messages when they are not in accordance with their experiences, values, or standards of expression (Zhang et al., 2019). They may believe there is an attempt being made to manipulate their choice and thus are repelled by such attempts (Huang et al., 2021).

Limitations and future study

Limitations in the present work may inspire future studies. First, the current work adopts a cross-sectional method. Although we acquired data from two independent surveys while analyzing the proposed model through a multilevel approach, the cross-sectional and correlational nature of the study limits inference for causality. Future studies may adopt a longitudinal approach to validate the proposed relationships in this study, while experimental design could also assess plausible causal influence of these relationships. Second, as Macau was used as the location for the data collection from hotels, this is a limiting factor on the overall generalizability of the findings in this study.

Future researchers are advised to conduct their research over a larger and more varied geographical area. The multi-reference systems are ubiquitous in the real world. Not all brands will become strong, since brand equity is developed through long-term efforts from organizations and other social forces (Lundgren and Prislin, 1998). Hotel operators may take advantage of other social

forces to diversify the reference systems. For instance, corporate social responsibility also has been acknowledged to aid companies to fortify their corporate image and to confront malicious attacks (e.g., boycott, negative word of mouth) from political issues such as The Terminal High Altitude Area Defense (THAAD) (Kim, 2019). During the COVID-19 pandemic, the travel and hospitality industry (e.g., restaurants and hotels) launched several coping strategies such as providing free meals or shelter places for travelers in need. These initiatives have received a great deal of publicity (Ou and Wong, 2021; Ou et al., 2020).. But it remains unknown whether consumers will be influenced by such news reports and press releases Hence, it would be interesting to study whether consumers will make favorable hotel decisions based on other sources of online persuasive messages.

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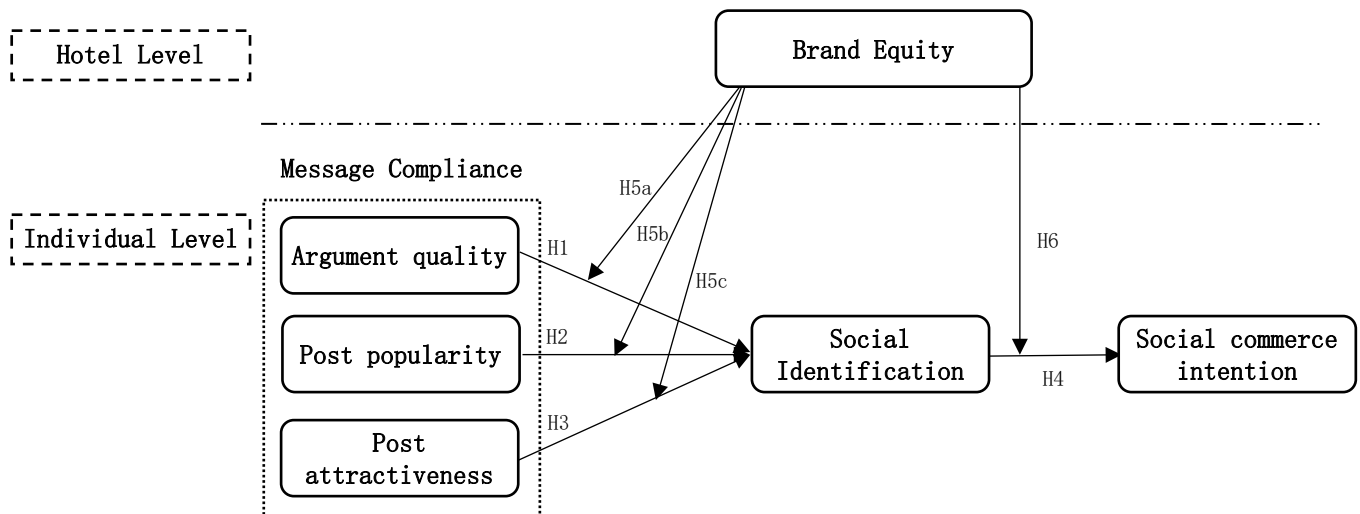


Figure 1. Cross-level effects of hotel brand equity and online persuasive message on tourist' s social identification and social commerce intention

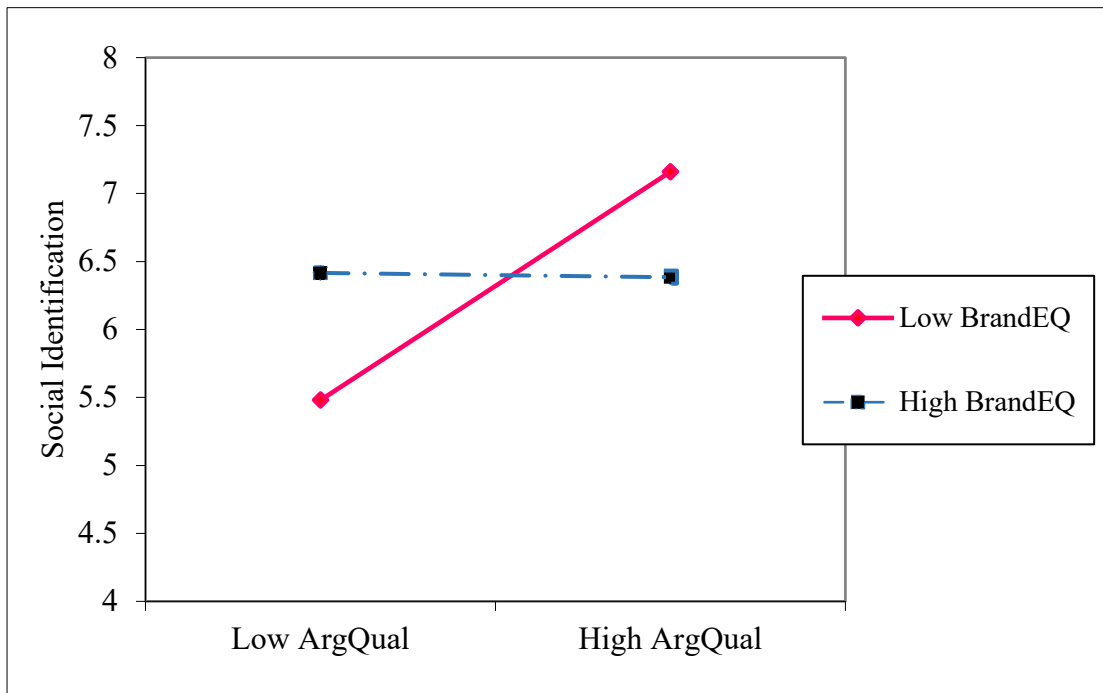


Figure 2. Argument quality \times brand equity interaction on social identification

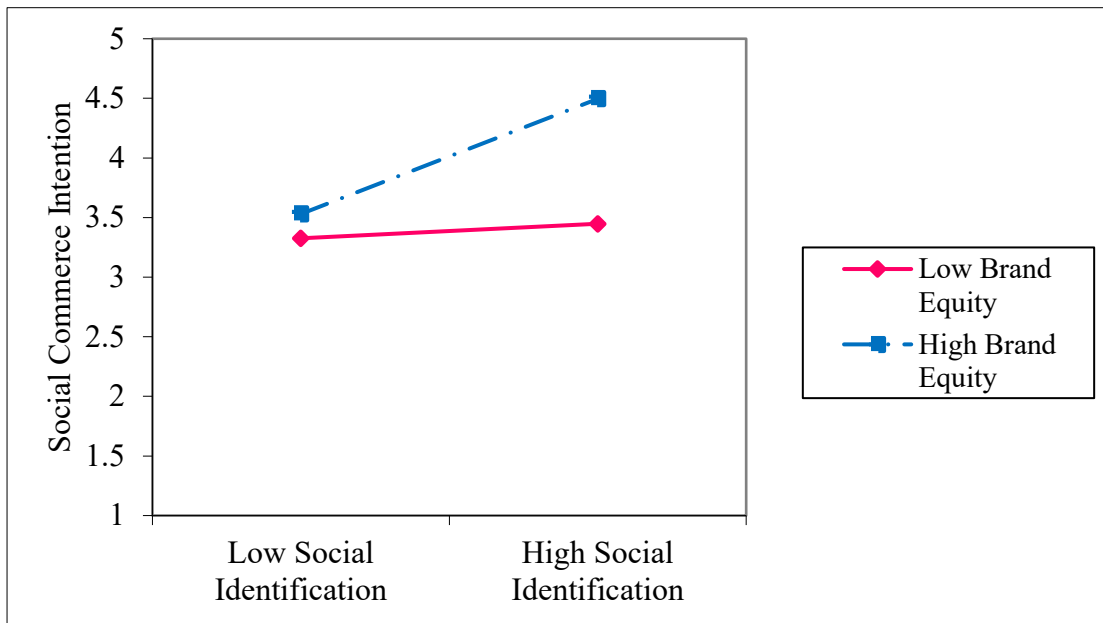


Figure 3. Social identification \times brand equity interaction on social commerce intention

Table 1. Results of factor analysis

Items	Mean	SD	Factor loading	Cronbach's α	CR	AVE
Argument Quality						
The comments in the post are informative for me to choose a hotel.	5.13	1.35	.83	.92	.95	.87
The comments in the post are helpful for me to choose a hotel.	5.48	1.23	.96			
The comments in the post are valuable for me to choose a hotel.	5.45	1.31	.90			
Posts Popularity						
I think comments with more social commerce features (likes, shares, comments, etc.) are trustworthy.	5.28	1.36	.89	.94	.96	.88
I think comments with more social commerce features (likes, shares, comments, etc.) are reliable.	5.13	1.41	.93			
I think comments with more social commerce features (likes, shares, comments, etc.) are believable.	5.21	1.35	.93			
Posts Attractiveness						
Comments with photos are aesthetically appealing.	5.32	1.31	.88	.87	.94	.88
Comments with photos look attractive.	5.37	1.35	.88			
Social Identification						
I talk up the use of _____ to my friends as a great use.	6.45	1.80	.81	.82	.90	.75
I feel a sense of personal ownership about the use of _____.	6.53	1.77	.78			
I am proud about using _____.	5.61	2.05	.75			
Social Commerce Intention						
I intend to press like on other members' comment on accommodation products within the online platform.	3.77	1.83	.82	.87	.91	.71
I intend to share other members' comment on accommodation products within the online platform.	3.78	1.84	.84			
I intend to comment on accommodation products within the online platform.	3.67	1.85	.83			

Other members' comments on accommodation products within the online platform make me have intention to purchase them.

Brand Equity						
It makes sense to buy ____ instead of any other brand.	3.29	.93	.73			
Even if another brand has same features as ____, I would prefer ____	3.17	.98	.80	.87	.87	.63
If there is another brand as good as ____, I still prefer ____	3.15	.99	.82			
It seems smarter to purchase ____.	3.21	.00	.81			

Table 2: Means, standard deviation, and correlations

	Mean	S.D.	Items	1	2	3	4	5	6
1 Argument Quality	5.39	1.25	3	.91 ^a					
2 Posts Popularity	5.23	1.32	3	.54***	.92 ^a				
3 Posts Attractiveness	5.41	1.24	2	.51***	.52***	.88 ^a			
4 Social Identification	6.18	1.60	3	.43***	.36***	.42***	.78 ^a		
5 Social Commerce Intention	3.81	1.58	4	.12*	.12*	.25***	.30***	.80 ^a	
6 Brand Equity	3.20	0.83	4	-.01	-.03	-.04	.01	.05	.79 ^a

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

^a Square root of the average variance extracted.

Table 3. Results of Hierarchical Linear Modeling.

Variables	Social Identification		Social Commerce Intention	
	Estimate	SE	Estimate	SE
<i>Control</i>				
Upscale	-.31 n.s.	.29	.02 n.s.	.27
<i>Individual-level</i>				
Argument Quality	.41***	.09		
Post Popularity	.14†	.07		
Post Attractiveness	.27*	.10		
Social Identification			.27***	.05
<i>Cross-level effects</i>				
Brand Equity (BE)	.04 n.s.	.35	.31 †	.31
Argument Quality × Brand Equity	-.43 *	.23		
Post Popularity × Brand Equity	-.08 n.s.	.15		
Post Attractiveness × Brand Equity	.24 n.s.	.13		
Social Identification × Brand Equity			.21 †	.13
R ² at individual level	.19		.08	
R ² at group level	.25		.10	

Note: † <0.1, *p < .05, ***p < .001.