



I want to go there too! Tourism destination envy in social media marketing

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ABSTRACT

Envy has been widely discussed as a type of consumption motivation and a consumer attitude towards specific consumer goods in the context of social media. However, research on envy in tourism consumption decision-making is still relatively scarce. Accordingly, adopting social cognitive theory while considering benign envy, this study discusses the impact of social media content on consumers' destination envy and behavioural intention during the COVID-19 pandemic. Using a survey of 320 Chinese tourists who travelled to Macao, this paper develops and tests a conceptual framework. The results show that destination envy plays an intermediary role between social media content and consumer behavioural intention. Our findings thus integrate disparate literature streams while shedding light on the impacts of social media content on tourism consumers' travel decisions during the COVID-19 era.

1. Introduction

News of the spread of COVID-19 develops in real time on social media, transforming users' related travel content into important reference information, especially regarding unfamiliar destinations [1]. Imagine the following scenario: due to COVID-19 concerns, you have cancelled all unnecessary long trips, and even simple outings have made you cautious. However, tonight, when browsing social media before going to bed, you view updated travel content shared by your friends or online celebrities. Based on this content, you then research many other tourism experiences in and view marketing content about this destination on social media. How would you feel? Since your friends or celebrities can travel there, what is stopping you?

Because COVID-19 may accompany and disturb human social life for a long time in the future, this consumer psychology of pursuing self-improvement may be amplified by social media. When consumers' long-suppressed desires to travel intertwine with concerns about health and safety, they express complex attitudes towards travelling to unfamiliar destinations [2,3]. In this context, textual narrations, photos or videos on social media showing travel-related information may instantly ignite viewers' travel enthusiasm. Indeed, the attitudes and emotions conveyed by social media content unobtrusively shape consumers' cognition and decision-making [4,5]. The tourism literature has completed much fruitful work on consumer tourism decision-making in the context of social media, specifically on the sharing of personal tourism experiences and the direct impacts of social media content on consumer tourism decision-making [6–8]. These findings directly reflect the attitude of consumers as viewers when facing a single information source. However, social media is a public opinion hub that provides users with access to a broad range of information [4]. Consumers' cognition of consumption goals therefore varies because they can interpret a single information source in different ways [9]. Accordingly, this study clarifies the path from the social media public opinion environment to the behavioural intention of potential

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consumers and provides new empirical evidence for the potential mechanism behind this relationship.

Against this background, this study has three research purposes: first, to extend the literature on the influence mechanisms of the online environment on tourist behaviours; second, to assess the online environment as a whole and reveal the overall influence of different online information sources on consumers' tourism decision-making process; third, in the context of the COVID-19 pandemic, to test the effect of envy on potential tourism consumers during the pandemic.

In this study, applying sociological psychology and following the marketing literature, we apply the concept of consumption envy to the context of tourism decision-making on social media. The envy consumption literature states that the basis for judging benign envy consumption is whether consumers want to possess the same products as others [10]. On this basis, we define destination envy as an individual's desire to obtain the same destination travel experiences as those posted by others on social media. In the tourism literature, envy is one of the key factors in explaining the tourism decision-making process in the context of social media. For example, Lin [11] has shown that in reality, the tourism content shared by friends will arouse benign envy in their audience. However, regarding the broader social media public opinion environment, it is not clear whether the value orientation of social media content will become the source of such envy. We thus ground destination envy in social cognitive theory (SCT) [12] and propose that the formation of envy consumption is a relatively complex cognitive construction process. Specifically, the formation condition of envy entails that the envier must first judge the value of the envied object and that the value orientation in the social public opinion environment may shape this value cognition. Therefore, we believe that destination envy is a subjective attitude based on value expectations and the desire for self-improvement.

To develop the study's conceptual model, we draw on social cognition theory [12] and investigate how social media public opinion affects consumers' destination envy, which influences their behavioural intentions. We focus on two aspects of the main sources of consumer information in social media environments, which we identify as the antecedents of destination envy: firm-generated content (i.e., destination marketing visibility) and user-generated content (i.e., electronic word-of-mouth (eWOM) and subjective social media norms). In this study, we test our conceptual model using primary data on Chinese tourism consumers.

Our study therefore contributes to the literature in three important ways. First, we integrate studies on social media public opinion factors and consumer envy and reveal the impact of different public opinion factors on consumer envy in the context of social media. Second, this study further explains the impact of social media public opinion on consumers' behavioural intention in the context of tourism. The core of this outstanding problem is that the literature has typically focused on the impact of a single public opinion factor on the decision-making of tourism consumers while ignoring the cognitive impact of social media, as a social place, on the individuals involved. Thus, drawing on social cognition theory, we introduce the concept of consumer destination envy as a mediator to explain the formation mechanism of the impact of the social media public opinion environment on tourism consumers' behavioural intentions. Finally, this study enriches the literature on tourism envy consumption by responding to the calls of relevant scholars. Hence, it is one of the few studies focused on envy consumption amid the influence of different information sources.

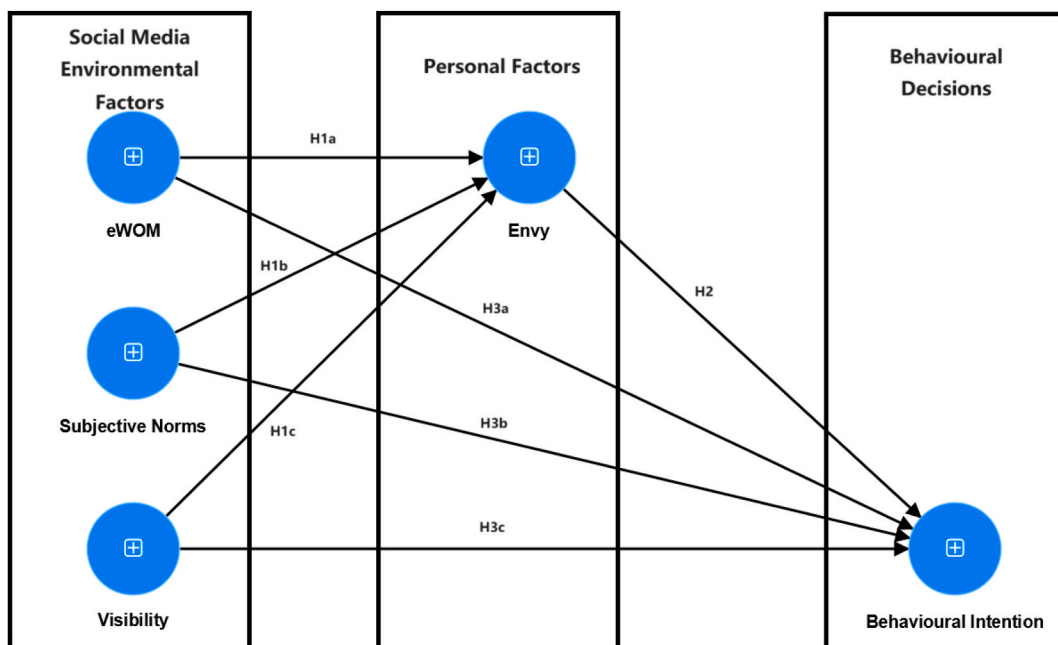


Fig. 1. Conceptual model.

2. Theoretical background and hypotheses

This study is based on SCT. In essence, the purpose of SCT is to explain how an individual's cognitive level affects his or her behaviour [12], a useful basis for this study. In the next section, we briefly introduce SCT and the conceptual framework of this research, define all the variables in this framework by drawing on SCT, and develop the study's hypotheses.

2.1. Social cognitive theory

Social cognitive theory emphasizes that human behaviour is shaped and controlled by individual cognition in the social environment [12]. This theory incorporates the mechanism of triadic reciprocal determination whereby environmental, personal and behavioural factors form a closed cycle and exert influence on each other [12]. According to this mechanism, individual behaviours are shaped by cognitive processes, which, in turn, are influenced by external factors in the environment. Specifically, when making decisions, individuals encode information in accordance with the environmental factors that attract their attention to evaluate possible results and identify expected results [13]. This assessment process is a source of information and confidence, enabling individuals to perform particular behaviours. In addition, an outcome expectation refers to an expected outcome of individual behaviour [12]. In SCT, outcome expectations usually include three main forms: physical effects (e.g., pleasure and discomfort), social effects (e.g., social recognition and applause), and self-evaluation effects (e.g., self-satisfaction). When setting personal goals, the human cognitive process is affected by outcome expectations, which in turn play a mediating role in whether and how certain behaviours are performed [14].

In the tourism literature, SCT has mainly been applied to evaluate the goal incentives and moral behaviour of relevant practitioners in the organizational or market environment [15,16]; there is thus a lack of discussion on consumers' travel decision-making process. Specifically, in the social media environment, people's travel decisions are affected or disturbed by many diverse information resources. Hence, SCT provides a useful theoretical framework to assess these decisions, as it has been widely used in the field of social psychology to study the mechanism of environmental factors and personal cognitive causality behind behavioural intention [17].

Accordingly, we establish a conceptual model based on the triadic reciprocal determinism of SCT (see Fig. 1) and argue that since consumers' brand envy for a specific destination is key in their evaluation of a large amount of relevant information on social media, it eventually improves their visiting intention. Specifically, our model is supported by the salient causal chain of the social media public opinion environment (environment), destination envy (individual) and visiting intention (behaviour). A cognitive and behavioural motivation to pursue self-improvement, destination envy is triggered and promoted by the external environment (i.e., social media public opinion) and ultimately enhances consumers' behavioural intentions. This is consistent with SCT, which suggests that personal behaviour is influenced by the self-regulatory mechanism (i.e., self-efficacy) generated by the continuous fit between external experience and individual cognition [12].

2.2. Social media public opinion environment

In the past, people's public consumption choices and experiences were not easy to track unless they were dictated or observed in person [18]. However, today, as long as they are willing to do so, on social media, consumers can present their life experiences and consumption evaluations on social networks anytime and anywhere [19]. Media richness theory indicates that media with rich information and high vividness can improve communication efficiency to better conceptualize emotional responses and internal relationships between target clues and individuals [20,21]. The content and operation mechanism of social media, especially mobile social media, reasonably meet the criteria of media richness theory and set four standards for media tools [22]: 1) instant feedback ability, the speed and quality of ordinary interpretation transmitted through social media; 2) the ability to transmit multiple cues such as body presence, sound changes, words, numbers, animations and graphic symbols, which help convey interpretation information; 3) linguistic diversity, i.e., conceptual levels—for example, numbers and formulas can provide higher accuracy, while natural language can convey a wider range of concepts and ideas; and 4) personal focus, the ability of social media to transmit emotions and feelings or to be customized according to the specific needs and views of the receiver. Indeed, consumers now believe that social media is a more reliable source of consumer information than other direct corporate marketing communication channels [23].

In addition, the active users on social media mainly comprise enterprise users and individual users. The social media content they produce, firm-generated content and user-generated content [24], construct a multilevel public opinion environment. In the context of tourism, the sources of destination-related social media content mainly include the business or management information released by destination management organizations and the relevant content independently generated by users [25,26]. In this study, we assume that the travel- or destination-related content displayed by these different users constitutes a strong value-oriented public opinion environment composed of the subjective norms of social media, eWOM and destination marketing visibility. According to the theory of media richness, these factors provide consumers with target information clues about specific destinations from different perspectives.

Social media subjective norms reflect the cognitive pressure from their social environment felt by individuals when performing or trying to perform specific behaviours [27]. The subjective norms of social media perceived by consumers mainly come from the information shared by the social media users whom they follow. These users given special attention may be friends, professionals or celebrities. Users invest the most emotions in these individuals and are thus the most vulnerable to their words and actions. eWOM is the positive degree of other consumers' evaluation of tourism destinations on social media [19]. It refers to the online destination comments shared by other consumers who have been to a particular destination. Such eWOM values may be large in number and considered relatively true and impartial [19]. The tourism literature shows that eWOM provides auxiliary support for travel

recommendations among tourists from either familiar people or marketing information [28,29]. Destination marketing visibility refers to the observability and quantity of social media marketing activities carried out by destination management organizations. Such marketing information may be communicated through an official operation's account from its associated destination or via the product endorsement of celebrities working with a destination management organization. Such official marketing activities provide consumers with relatively accurate destination information and data guidance and are a way for them to obtain authoritative information.

2.3. Destination envy

Envy is a feeling of inferiority and frustration [11]—a personal factor within the framework of triadic reciprocal determinism in this study. In the context of materialism, envy is an important dimension [30], especially when others have enviable products or brands [31,32]. Envy is conceptualized into two main types: dispositional envy and situational envy [33,34]. Dispositional envy is a distinctive personality trait that reflects the tendency of an individual to experience envy, while situational envy is the envy of others or things in a specific environment. A type of situational envy, material envy refers to an unpleasant emotion, the unwitting desire to covet others' superior property [31]. Notably, the extant research on consumption envy focuses on the desire to achieve specific consumption purposes rather than the jealousy in three-person situations concerning romantic relations [35]. The social psychology literature also points out that the ultimate goal of jealousy is to monopolize something (or someone) and expel competitors [36]. In contrast, envy in the consumption scenario represents the desire to buy ideal goods with material value; it has nothing to do with strong exclusivity [37–39].

On this basis, envy may evolve into one of two main subtypes, malicious envy or benign envy, according to environmental factors [40]. Previously, researchers have often focused on the destructiveness of envy [35], which is mainly reflected in how malicious envy relates to negative thoughts about others who possess an envied object [41]. Negative thoughts can also lead to destructive consequences, such as dislike, hostility, resentment, social destruction, and lying within groups [42]. In contrast, benign envy does not generate personal hostility or harmful behaviour but spurs envious to sufficiently improve themselves to realize the advantages already possessed by others [43]. More recent studies have found that envy also manifests in nonhostile and benign forms and may have a greater impact on individuals on social media than malicious envy [11,44].

Moreover, Van Boven et al. [45] have found that the content related to tourism experiences typifies experiential consumption content, the basis for stimulating benign envy. Thus, based on these findings [45], we assume that destination envy among social media users is not only a type of consumption situational envy but also a type of benign envy. Although this emotion causes consumers to feel uncomfortable, it can stimulate their need for self-satisfaction and improvement to eliminate their discomfort caused by envy. Because the desire to buy ideal goods or service experiences is one of the important effects of envy on customer behaviour, scholars and practitioners continue to seek a better understanding of the impact of marketing strategies on consumer envy [31].

2.4. Social media environment antecedents of destination envy

According to SCT, environmental factors can stimulate and affect personal cognitive factors [12]. Among consumers, sharing their consumption content on social media may increase their happiness [46]; however, among viewers, observing such consumption-related posts may arouse their envy [11]. Accordingly, Smith [47] has proposed four preconditions of envy: self-relevance of the situation, similarity of the compared, sense of control over the situation, and entitlement. The psychological literature has also shown that low perceptual control and unworthy and disgusting goals can lead to malicious envy [48]. Lin [11] has indicated that although it is difficult to judge the average level of the perceived control of viewers in the social media environment, social media users are unlikely to contact people they dislike or to actively follow them (because they can choose to block or ignore such content). Furthermore, when posting on social media, consumers generally and rarely mention that a purchase was not desirable, except when venting or asking for help in extreme cases [11,46]. Thus, we examine the envy of certain social media users, viewers affected by social media public opinion in the tourism context. However, this research does not explore the characteristics of individual information senders.

Therefore, the key factor in envy-type judgement caused by social media is the self-relevance of the situation and the similarity of the compared material. Lin [11] has found that in the context of consumption, the benign envy of an audience is inspired by experiential consumption content. As the content related to experiential consumption has greater social value, it is more likely to cause interaction and resonance among users [45]. Moreover, compared to displaying specific consumption results (e.g., a watch), sharing one's actual consumption (e.g., travel experience) is more relevant and interesting to most other users; it is also unlikely to be considered too materialistic or ostentatious [11,44,45]. In particular, tourism destinations are increasingly becoming the topics of shared tourism experiences and stories on social media [25]. This expressive, emotional and instantly interactive content generates a certain value-oriented cognitive pressure. Combined with the anonymity mechanism of social media, it thus provides a natural basis for private upwards comparison (i.e., nonactual contact) based on imitation [49,50].

During the pandemic, many people were forced to perform health isolation measures at home or at designated locations for various reasons. In isolation, an easy way to pass time is browsing the internet. We therefore employ media richness theory and assume that the subjective norms of social media, eWOM and marketing visibility are the three factors influencing social public opinion, from near to far. These three factors may offer a logical clue as to how individual cognition changes; that is, they may be the antecedents of audience destination envy. For example, when an audience observes the travel content shared by the social media users they follow, they may selectively and carefully read only the travel experiences that interest them. Travel-content-seeking viewers will continue to search for relevant information on social media according to the information clues they acquire and thereby obtain evidence confirming their

views on a given travel destination. eWOM also provides a relatively accurate evaluation via other unfamiliar consumers, and a destination's marketing content provides official information support to its audience. Conversely, this audience may first be affected by marketing activities and then seek follow-up information support and destination evaluation among other unfamiliar and familiar consumers. In short, these social public opinion factors both confirm each other and impact an audience's cognition of a specific destination, consistent with SCT; that is, they function as a prerequisite for consumers' upwards comparative psychology. Thus, the following hypothesis is proposed:

H1a-c: On social media, (a) eWOM, (b) subjective norms, and (c) destination marketing visibility have positive effects on destination envy.

2.5. Destination envy and behavioural intention

SCT posits that individual cognitive factors influence behavioural decisions [12]. Both a social cognitive state and emotion, envy is common among social media users in the context of materialistic consumption [11,37,44]. One possible way to reduce envy is to fill the gap between oneself and the envied object [51]. Van de Ven et al. [40] have indicated that envy should be further distinguished by corresponding behavioural tendencies. For example, when it is associated with the desire to obtain something similar to another's possession, envy is essentially benign (i.e., benign envy), but when envy is accompanied by the hope that another will lose ownership of the envied object, it is malicious (i.e., malicious envy). Although envy seems uncomfortable, benign envy is both an available consumption desire and an emotion that can be harnessed by marketers because it promotes beneficial consumption results [52]. Van de Ven et al. [10] have found that the experience of benign envy increases the willingness to buy envied products and that malicious envy increases the willingness to buy related but different products (even more superior products). As experiential consumption content, a travel experience is therefore the key antecedent in stimulating consumers' intention to visit the focal destination [45]. In addition, the situational envy of others in a specific environment (i.e., tourism and social media) promotes consumers' behavioural intentions towards the focal destination.

In this study, consumers' behavioural intentions refer to the degree of their further information searches, active discussions with others and visit intentions with regards to a specific destination [53]. Specifically, when consumers have benign envy for a consumption purpose, they invest in positive respect, praise, and may enthusiastically discuss their envied object with others [54]. Furthermore, to enhance their possibility of such envious consumption, consumers invest a great deal of energy in collecting favourable information. For instance, those who implemented health isolation policies during the pandemic spent a great deal of their leisure time collecting information about envied destinations and participating in interactions concerning related topics on social media. Thus, we hypothesize the following:

H2: On social media, destination envy has a positive effect on behavioural intentions.

2.6. The mediating effect of destination envy

Disparate literature streams have identified distinct factors that affect consumers' behavioural intentions in the social media public opinion environment. For example, the marketing and tourism literature has found that subjective norms [55–57] and eWOM [19,28,29] have an impact on consumers' behavioural intentions on social media. Furthermore, the social impact literature suggests that when they observe many others adopting a technology or product, consumers' attitudes and willingness to adopt change [58,59]. In addition, some scholars have used destination trust to explain the promoting effect of user-generated social media content on consumers' behavioural intentions [28]. However, although trust, a common consumption attitude, represents consumers' cognition of a specific destination, it cannot immediately trigger their desire to pursue the same consumption experience. That is, trust may not fully explain the internal impact of the social network public opinion environment on consumers' behavioural intentions.

On the other hand, the tourism literature has evaluated travel envy based on relatively close interpersonal relationships and has shown that whether according to their situational envy [37] or benign (malicious) envy [44], consumers eventually produce a travel intention. However, the information environment considered in these studies has been consistently and relatively limited. Specifically, in behavioural decision-making, it is impossible for individuals to simply rely on a single information source for evaluation [60].

In this study, destination envy is therefore not only a specific type of situational envy generated in the tourism consumption context and social media public opinion environment but also a form of benign envy based on tourism-related content (i.e., experiential consumption). Accordingly, consumption envy does not result only from specific and relatively close one-to-one interpersonal relationships but is also a type of cognitive judgement and self-regulation of a diversified and complex information environment. As information receivers, the comments of other, unfamiliar consumers, the attitudes of the users they follow, and the introduction and constant prompting of official marketing information shape consumers' cognitive state with regards to a specific destination. This causes them to project their envy onto a travel experience related to a specific destination and to urgently desire that experience for themselves. Therefore, destination envy can also be regarded as an attitude towards designated consumer goods (i.e., consumption at the destination) that reflects the value orientation in the social media public opinion environment and individual subjective preferences, to a certain extent. In addition, the anonymity of social media provides a natural platform for upwards comparison concerning this desire for self-satisfaction without raising consumers' concerns about the exposure of their desires and true attitudes [50]. On this basis, destination envy, a type of consumption desire and benign envy based on self-satisfaction, enables consumers to display relatively real behavioural intentions on social media, including further information search, increased visit intention and expanded word-of-mouth. The following hypothesis is therefore proposed:

H3a-c: On social media, destination envy plays a mediating role between behavioural intentions and (a) eWOM, (b) subjective norms, and (c) destination marketing visibility.

3. Research methods

3.1. Sampling

The study was reviewed and approved by the Research Ethics Committee of Guangxi Minzu University and relevant funding agencies. We collected data from Zhuhai City, Guangdong Province, during a two-week period from March 7 to March 21, 2022. Eight well-trained interviewers conducted face-to-face interviews with Chinese citizens who intended to travel to Macao at the Zhuhai immigration hall (i.e., the place where the applications of Hong Kong and Macao entry permits are submitted and processed). This arrangement was made because the research design requires a destination to be specified so that the respondents can recall the social media opinion environment associated with it. Therefore, Macao became the focus of this study. Since April 2020, Mainland China had largely contained the COVID-19 outbreak, and Macao was one of the few outbound destinations that were not severely affected by the pandemic. Thus, Macao had become a popular outbound travel option for many Chinese travellers.

The tourism industry is a dominant industry in Macao, with 39.4 million people visiting in 2019, of whom half (20.8 million) were single-day tourists [61]. Due to its colonial history and geographical location, Macao is a city with characteristics of both East and West [62]. The Macao government is currently seeking to eliminate its excessive dependence on the gaming industry to achieve a more sustainable and diversified economy. Although gaming is the most famous tourism sector in Macao, after years of efforts and operations, tourism activities, including leisure, shopping and/or sightseeing, have also become well known [63]. Moreover, Macao's convenient transportation options, unique culture and high-quality services have helped many tourist attractions become popular and widespread on social media.

To select appropriate participants, the researchers formulated four screening criteria: 1) they had experience with city lockdowns or quarantine measures during the past six months in the COVID-19 pandemic era; 2) they had not been to Macao before; 3) they intended to visit sightseeing attractions rather than gaming venues in Macao; and 4) they had browsed Macao-related attractions (e.g., food, hotels, tourist attractions) on social media (e.g., WeChat, Weibo, Xiaohongshu, etc.) during the quarantine period. Since all eight interviewers had some knowledge of Macao's transportation and tourism attractions, they were able to offer relevant travel advice in exchange for the respondents' completion of the research instrument, especially those who were visiting Macao for the first time. Finally, the survey was conducted using a self-administered questionnaire approach with research assistants present to assist. Adopting this approach 1) guaranteed a high response rate, 2) prevented incomplete or invalid responses, and 3) allowed the interviewers to explain and clarify the questionnaire when the respondents had questions [64]. Oral informed consent was obtained from every respondent who participated in the survey.

A total of 403 questionnaires were distributed to potential participants, and 320 (79.4 %) valid responses were collected (Table 1). Most of the respondents were able to complete the questionnaire within 17 min with the help of a research assistant. The sample had a larger proportion of females (58.1 %) than males (41.9 %). Approximately 70 % of the respondents were under 45 years of age. In terms of education, the majority of the sample (72.5 %) held an associate's degree or higher. Regarding income, 73.8 % of the respondents had a monthly income above Chinese yuan ¥3000 (approximately US \$471 as of April 11, 2022). According to the Guangdong Statistical Bureau [65], the per capita monthly disposable income of Zhuhai residents is Chinese yuan ¥4661 (approximately US \$732

Table 1
Demographic profiles.

Characteristics	Frequency	Percentage
Gender		
Male	134	41.9 %
Female	186	58.1 %
Age		
Under 18	6	1.9 %
18–30	76	23.8 %
31–45	146	45.6 %
46–60	84	26.3 %
Above 60	8	2.5 %
Education		
Primary/elementary	3	0.9 %
Secondary/high school diploma	85	26.6 %
Associate's degree	106	33.1 %
Bachelor's degree	101	31.6 %
Advanced college degree	25	7.8 %
Monthly income		
Under RMB1000	40	12.5 %
1000–2999	44	13.8 %
3000–4999	105	32.8 %
5000–9999	110	34.4 %
10000 and above	21	6.6 %

b y April 11, 2022). Therefore, the monthly income data collected by this survey are roughly consistent with those of the Guangdong Statistical Bureau and have a certain level of representativeness regarding the targeted population.

3.2. Measures

The structural model of this study contained 4 reflective measurement models (subjective norms, eWOM, destination envy and behavioural intention) and 1 formative measurement model (destination marketing visibility). All variables in this study were measured with validated scales from previous studies. To measure “destination envy”, the scales developed by Loureiro et al. [66] and Liu et al. [44] were adapted to the context of China’s tourism market. “Subjective norms” were measured by employing a three-item scale adopted by Hsu and Huang [67]. The construct of “eWOM” was measured with a four-item scale from Lim [68] and Jalilvand et al. [29]. “Behavioural intention” was measured with a three-item scale adopted from Nunes et al. [53]. Finally, “visibility” was measured using a three-dimensional scale adapted from Moore and Benbasat [58] and included the activeness of the destinations’ official social media accounts, the number of advertisements observed on social media websites, and social media celebrities’ endorsements. Since these indicators measure the construct based on the visibility of Macao on different social media information channels, the items for this construct are consistent with the measurement of a formative latent variable. Specifically, the items are more likely to be the causal causes rather than the causal consequences of the construct [69], and they are not interchangeable [70]. In addition, the measurement of the construct comprises a combination of items [71]. A 5-point Likert scale was employed to measure all five constructs mentioned above (1 = strongly disagree/highly unlikely; 5 = strongly agree/highly likely).

We used back-translation to translate the questionnaire items from English to Chinese and vice versa to check the consistency and clarity thereof [72]. In this process, a professional manager in the tourism industry and two scholars with doctorates in marketing and tourism management evaluated the questionnaire items to ensure the effectiveness of their content. A pilot test with 16 university students was also carried out to determine survey completion time. All these students were able to complete the survey within 15 min.

3.3. Common method bias

This study prevented the problems associated with common method variance (CMV) through three measures. The first two measures were a priori measures. First, during the development of the survey instrument, the researchers, following the procedures recommended by Tehseen et al. [73], carefully examined and compared the variable items to achieve conciseness and accuracy and to guarantee easy comprehension among the respondents. Second, the questionnaire did not gather any identifying information during data collection. The respondents were assured of the anonymity of the survey to create a worry-free atmosphere for them while completing the questionnaire [73]. The third measure was a post hoc statistical test in which the researchers used Harman’s single-factor test to examine the loading of all construct items into a single EFA factor. These results indicated that the variables explained 37.58 % of the single factor, below the 50 % threshold suggested by Podsakoff et al. [74]. Therefore, we concluded that CMV-related issues could be ignored in this study.

Table 2
Reflective measurement model evaluation.

Constructs	Mean	SD	SK	Rku	OL	t Value	α	CR	AVE
Subjective norms (SN)									
i. Most of my mutual followers on social networks think it is a good idea to visit Macao.	3.63	0.79	-.264	-.107	.825	33.345	.714	.838	.633
ii. The internet celebrity I follow thinks it is a good idea to visit Macao.	3.49	0.82	-.090	-.343	.793	19.074			
iii. The people on social networks whose opinion I value think Macao is a good place to go.	3.64	0.82	-.315	-.198	.768	21.282			
Electronic word-of-mouth (eWOM)									
i. I often see people make positive comments about Macao on the internet.	3.92	0.75	-.780	1.352	.757	20.929	.780	.858	.603
ii. I often see people make positive comments about Macao on online travel agency (OTA) platforms.	3.79	0.74	-.292	.158	.830	30.082			
iii. Many netizens claim to have been to Macao, and they praise it.	3.78	0.74	-.427	.404	.755	20.284			
iv. The positive comments about Macao online have deeply impressed me.	3.80	0.74	-.400	.331	.761	20.321			
Destination envy (DE)									
i. I wanted to work hard so that I can visit Macao after the quarantine.	3.92	0.69	-.518	.939	.773	23.114	.822	.883	.653
ii. I noticed that many social media users had visited Macao during my quarantine period.	3.96	0.67	-.709	1.714	.764	25.841			
iii. Seeing other social media users visit Macao has inspired me.	3.84	0.69	-.455	.758	.826	34.735			
iv. It is somehow disturbing when I see on social media that many people could visit Macao and I could not.	3.92	0.69	-.465	.831	.865	53.440			
Behavioural intention (BI)									
i. How likely would you be to talk to others about Macao?	3.88	0.74	-.762	1.298	.819	31.242	.785	.875	.699
ii. How likely would you be to seek out more information about Macao?	3.88	0.70	-.745	1.652	.869	32.736			
iii. How likely would you be to visit Macao?	3.94	0.69	-.441	.789	.820	33.572			

Note: SD = standard deviation, SK = skewness; Rku = Kurtosis; OL = outer loading; CR = composite reliability; AVE = average variance extracted.

3.4. Methodological details and model building

IBM SPSS 26 was used to examine the demographics of the respondents as well as the descriptions and frequencies of the data. Next, PLS-SEM was employed to evaluate the measurement models and the structural model via SmartPLS 4.0.9 software. Several measures were adopted to assess construct reliability and validity, including Cronbach’s alpha values, average variance extracted (AVE) values, composite reliability (CR) values, factor loadings, factor weights and variance inflation factors (VIFs) [75].

4. Results

4.1. Measurement model assessment

4.1.1. Reflective measurement model

The structural model contains 4 reflective measurement models: destination envy (DE), subjective norms (SN), eWOM and behavioural intentions (BI). We adopted the procedure recommended by Hair et al. [75] to examine the convergent validity and discriminant validity of the reflective constructs. These results (Table 2) showed that the outer loadings of all construct indicators were within the range of 0.700–0.870. The Cronbach’s α coefficients were all above the 0.70 threshold. In addition, the bootstrapping test results indicated that all outer loadings were significant at the 95 % confidence level. Furthermore, all constructs had an AVE above 0.50. These results therefore confirmed the convergent validity of the reflective constructs.

Moreover, we confirmed discriminant validity using the Fornell-Larcker criterion and the heterotrait-monotrait ratio of correlations (HTMT) [76]. The square roots of all the constructs’ AVEs were larger than their correlations with other constructs (Table 3). In addition, the HTMT values among all the variables were smaller than the threshold of 0.85 recommended by Hair et al. [75].

4.1.2. Formative measurement model

Below, Table 4 lists the results of the evaluation of the formative measurement model (i.e., destination marketing visibility, VIS). We confirmed the convergent validity of the VIS by using the method recommended by Hair et al. [75]. Specifically, we created a structural model for redundancy analysis. The model correlated the formatively measured construct of VIS with the same construct that was measured by a global indicator (i.e., measured reflectively). The path coefficient was examined, and the result was 0.750, exceeding the threshold of 0.70.

Following this we examined the content validity of the formative construct and potential collinearity issues. The test results showed that 1) one indicator (Item 1) had a nonsignificant outer weight. However, since it had a significant outer loading of 0.573, we chose to retain this item, as suggested by Hair et al. [75]. 2) The VIF values of all the items were below the threshold of 3, indicating no serious collinearity issues.

4.2. Structural model assessments

The inner VIF values of the structural model were within the range of 1.30–2.50, indicating no serious collinearity problems. We then examined the path coefficients, predictive accuracy (R^2), impact of predictive accuracy (f^2) and predictive relevance (Q^2) of the structural model. As shown below in Table 5, eWOM ($\beta = 0.150$; $p < 0.05$), SN ($\beta = 0.287$; $p < 0.001$), and VIS ($\beta = 0.207$; $p < 0.01$) had significant direct effects on DE. Accordingly, these results suggested that the relationships represented in H1a, H1b and H1c were supported by the data.

We next tested the mediating effects by following Zhao et al. [77]. These test results (Table 5) therefore confirmed the effect of destination envy on behavioural intention ($\beta = 0.515$; $p < 0.001$), as well as the indirect effects proposed in H3a ($\beta = 0.077$; $p < 0.05$), H3b ($\beta = 0.148$; $p < 0.001$) and H3c ($\beta = 0.107$; $p < 0.01$). Since all the direct effects shared the same directionality with the indirect effects, we concluded that DE plays a complementary mediating role between the relationships of the three antecedents and BI. Below, Fig. 2 illustrates the overall model and displays the path coefficients of the hypotheses.

Next, R^2 and its effect size (f^2) were tested. The R^2 values for the two endogenous constructs, DE and BI, were 0.278 and 0.482, respectively. This result suggested that the model has strong explanatory power. In addition, a test of effect size f^2 revealed a large effect size of DE on BI ($f^2 = 0.370$) and three small effect sizes of SN ($f^2 = 0.074$), VIS ($f^2 = 0.043$) and eWOM ($f^2 = 0.018$) on DE.

Stone-Geisser’s Q^2 value and the PLSpredict technique were used to evaluate the predictive relevance of the model [78,79]. This computation obtained a Q^2 value of 0.172 for DE and 0.322 for BI. Both figures were above zero, indicating the structural model had

Table 3
Discriminant validity: Fornell–Larcker criterion and HTMT results.

Construct	SN	eWOM	DE	BI
SN	.796^a			
eWOM	.574 ^a .774 ^b	.776^a		
DE	.461 ^a .597 ^b	.418 ^a .521 ^b	.808^a	
BI	.454 ^a .590 ^b	.443 ^a .566 ^b	.656 ^a .809 ^b	.836^a

^a Values of discriminant validity: Fornell–Larcker criterion.

^b HTMT values.

Table 4
Formative measurement model evaluation.

Construct:	Convergent validity	Mean	Std Dev	Outer weights	Std. Err	p Value	Outer VIF
Destination marketing visibility							
i. I found that Macao's official DMO social media accounts were very active on various platforms (e.g., WeChat, Weibo, Xiaohongshu).	0.750	3.46	0.95	.202	.148	.085	1.235
ii. I found that travel information related to Macao had been placed in the ad columns of social media websites several times.		3.92	0.78	.412	.177	.010	1.778
iii. I found that several web celebrities I followed had shared their travel experience at Macao and/or endorsed Macao as a good tourism destination.		4.06	0.66	.585	.150	.000	1.636

Table 5
Structural model evaluation.

Hypothesis	Path coeff.	t Value	STDEV	P Value	Hypothesis support		
Direct effect							
Hypothesis 1a	eWOM→DE	.150*	2.046	.073	.020	Supported	
Hypothesis 1b	SN→DE	.287***	4.468	.064	.000	Supported	
Hypothesis 1c	VIS→DE	.207**	2.811	.074	.002	Supported	
Hypothesis 2	DE→BI	.515***	10.253	.050	.000	Supported	
Mediating effect							
Hypothesis 3a	eWOM→DE→BI	.110* (p = 0.047)	.077*	1.957	.039	.025	Supported: Partial mediation
Hypothesis 3b	SN→DE→BI	.106* (p = 0.036)	.148***	3.959	.037	.000	Supported: Partial mediation
Hypothesis 3c	VIS→DE→BI	.113* (p = 0.013)	.107**	2.823	.038	.002	Supported: Partial mediation

***p < 0.001; **p < 0.01; *p < 0.05.

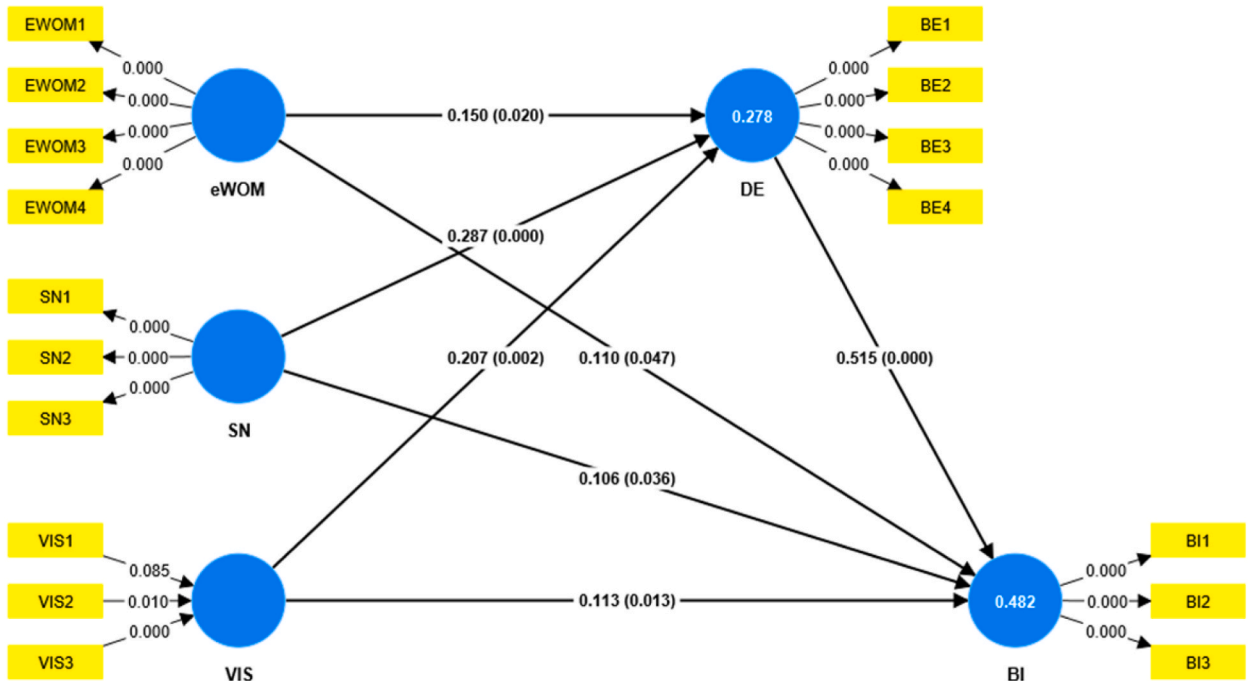


Fig. 2. Path coefficients.

Table 6
PLSpredict results.

	PLS-RMSE	LM-RMSE	PLS-LM	Predictive power
DE1	.644	.652	-.008	High
DE2	.611	.614	-.003	
DE3	.632	.639	-.007	
DE4	.636	.645	-.009	
BI1	.674	.679	-.005	High
BI2	.640	.648	-.008	
BI3	.624	.632	-.008	

predictive relevance [80]. The PLSpredict results (Table 6) also indicated that the model has high predictive power for both endogenous constructs [79].

5. Discussion

Based on social cognitive theory, this study has introduced the concept of destination envy to explore the impact of social media public opinion environment on consumer behavioural intentions in the COVID-19 pandemic. First, the PLS-SEM results show that social media environmental factors have a positive impact on consumers' destination envy. This result is in line with the literature (e.g., Hajli et al. [37]), suggesting that certain factors on the internet can influence consumers' psychology and make them feel envious. Furthermore, this study has confirmed that the overall social media environment (e.g., destination visibility, electronic word-of-mouth, and subjective norms) exerts a significant positive influence on consumers' destination envy. Second, the results corroborate that consumers' destination envy has a significant positive influence on their subsequent behavioural decisions. This result verifies Liu et al.'s [44] study, highlighting that benign consumption envy significantly influences tourists' behavioural intentions. Third, affirming existing research (Hajli et al. [37]; Liu et al. [44]), this study finds that destination envy mediates the relationship between the social media public opinion environment and individual behavioural decisions. Fourth, the findings reveal that this mediating mechanism of destination envy remained effective during the COVID-19 pandemic. This is reflected in China's domestic and short-haul tourism market, which prospered after the country lifted its zero-COVID policy in November 2022. For example, according to CGTN [81], China witnessed 274 million domestic trips during the 2023 Labour Day holiday after the zero-COVID policy was rescinded. With regards to the 2019 Labour Day, this figure represents an increase of 0.7 % compared to the pre-pandemic period [82].

5.1. Theoretical contribution

Our findings contribute a better understanding of destination envy and its role in the social media context during the COVID-19 pandemic. Specifically, we reveal how the internal mechanism of destination envy mediates the stimulation of the social media public opinion environment and consumer behavioural intention. These findings therefore not only integrate divergent literature streams but also extend relevant research boundaries. In the following paragraphs, we elaborate on the contributions of this study.

First, this study integrates studies on social media public opinion factors and envy. Although social media public opinion factors and the envy literature have intersected at some specific research situations, most studies are scattered and do not involve tourism, whereby there is a general lack of integration. Hence, we reverse this situation by adopting SCT from an empirical perspective. Building on creative research on consumption envy [39,83], we introduce the concept of consumer destination envy to the tourism literature and explore its causes in the public opinion environment of social media. The empirical results show that both user-generated content (i.e., eWOM and subjective norms) and enterprise-led marketing content (i.e., destination marketing visibility) can be used to stimulate consumers' benign envy regarding destinations. Hence, the public opinion orientation of social media content directly affects consumers' cognition of a destination and shapes it into an enviable consumer object. Therefore, our findings expand existing research boundaries to provide new insights into destination marketing in the social media context during the COVID-19 pandemic.

Second, this study further explains the relationship between social media content and consumers' behavioural intentions. The empirical results show that consumer destination envy plays a mediating role between social media public opinion environmental factors (i.e., eWOM, subjective norms and visibility) and consumer behavioural intentions. In other words, destination envy fosters a better understanding of the relationship between social media content and destination visit intention. Regarding the visibility of destination marketing on social media, critically, although investing in such marketing may not enable destination managers to obtain direct financial returns, it positively impacts and deepens consumers' impressions of destinations, thereby shifting consumers' attitudes. Such visibility thus directly influences a consumer's final travel decision. Some relevant scholars have emphasized the difficulty of tourism enterprises to generate marketing content with a substantial impact on consumers [66,84]. However, the presence of such content is very important; it is one of the only types of social media marketing content that can be completely manipulated by managers. These findings thus enrich the existing tourism consumption decision-making literature and provide novel insights into the impacts of destination brand social media marketing on consumer perceptions.

Finally, concerning the contribution of envy consumption to the tourism context, the literature emphasizes the consumption envy generated in specific relationships or information sources [44]. Hence, despite repeated calls for more extensive research along these lines [38], this study is one of the few to examine exploratory and developmental learning based on different sources of information. Given the need for destination management organizations to shape their destination image through better manoeuvrability

mechanisms, our research thus enhances the understanding of consumers' behavioural decisions in the context of social media and tourism.

5.2. Managerial implications

This study deepens the understanding of the tourism consumer market during the COVID-19 pandemic and emphasizes the information age. Thus, the results of this study have important managerial implications not only for the ongoing recovery of the tourism market but also for the online/social media marketing of a destination.

First, the findings are particularly relevant to the tourism market during the COVID-19 pandemic. As a result of the strict restrictions in the efforts to limit the pandemic, consumers began to rely primarily on the internet and social media applications to communicate with others [85]. Therefore, their purchase decisions now rely heavily on word-of-mouth among peers. Given that today's travellers pay more attention to the authenticity and unique added value of destinations [86], destination managers should highlight these aspects in their online marketing campaigns to foster positive eWOM while taking concrete measures to encourage the dissemination of positive comments that emphasize these. A large number of positive comments may also reflect a broad consensus indicating a destination is desirable. A good example of this is the Universal Beijing Resort. Before its opening in September 2021, it localized and adapted many of its features with Chinese characteristics. This localization offered visitors a unique experience and created positive eWOM. Thus, several of its characteristics, such as the Megatron statue at its Transformer Metrobase, went viral on social media and engaged consumers for weeks.

Second, the findings of this study also confirm the influence of the visibility of social media destination marketing on consumers' envy mentality and purchase decisions. Although online advertising always entails high investment and uncertainty, it is a direct means of increasing consumers' brand familiarity. Furthermore, according to Liao et al. [87], influencer marketing in which web celebrities play important roles has become a new emphasis in online consumption growth. Therefore, it is important for destination managers to comprehend this emerging trend. Furthermore, destination managers can provide free WiFi at certain locations to enhance the visibility created by tourists themselves, helping them share the positive experiences they have had at their destination.

6. Limitations and future research

There are several limitations to this study. First, the study's sample is biased in terms of age, as more than half of the sample belonged to a young or middle-aged cohort. Only a small proportion of the sample was over 60 years of age. Therefore, it is difficult to generalize the findings to senior individuals. Future research should thus further study this market in particular. Second, since we did not use a two-stage data collection method in this study, we could only use behavioural intentions as a proxy for the respondents' actual behaviours. According to the literature, behavioural intentions do not always translate into specific behaviours. Future research could therefore adopt a two-stage data collection design to obtain specific behavioural information. Third, we did not explore the influences of reference groups on the formation of destination envy. Some studies, such as Yang and Mattila [88], have shown that a person's aspirational groups significantly influence his or her consumption behaviours and that such reference groups are often associated with socioeconomic status. Accordingly, future research may also focus on the effects of different reference groups and socioeconomic statuses. Fourth, this study investigated only Chinese citizens. Consequently, we did not consider the differences in destination envy's influence across different cultural, social, and economic situations. Hence, future research could conduct salient cultural comparative studies. Finally, future research should also investigate the other influential mechanisms of destination envy. For example, Loureiro et al. [66] have found that envy can influence people's purchase intention by mediating their moral disengagement, affiliation, and admiration.

Data availability

Data will be made available on request.

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CRediT authorship contribution statement

Yu-Hao Zheng: Writing - original draft, Supervision, Investigation. **Tao Xu:** Writing - original draft, Investigation, Funding acquisition, Formal analysis. **Guicheng Shi:** Writing - review & editing, Writing - original draft, Validation, Conceptualization. **Linli Jiang:** Writing - review & editing, Writing - original draft, Methodology, Funding acquisition.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to

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