



The impact of user-generated content on intention to select a travel destination

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Abstract

The purpose of this study is to investigate the impact of user-generated content (UGC) on intention to select a travel destination (ISTD) in the context that Internet users passively access to travel-related UGC. The paper further examines the mediating role of desire to visit a travel destination (DVTD), destination image, attitude toward visiting a travel destination (AVTD), and envy. This study developed a theoretical model on the basis of existing literature and empirical studies on consumer behavior and UGC. An online questionnaire was used to organize empirical research, and the structural equation model (SEM) method was employed to test the data of 407 respondents. The empirical results suggest that passive access to travel-related UGC (PAU) positively influences ISTD, DVTD, AVTD, and envy. Destination image significantly impacts DVTD, AVTD, and ISTD. DVTD, AVTD, and envy positively affect ISTD. DVTD, AVTD, and envy mediate the relationship between PAU and ISTD. This paper enriches the online consumer behavior research by contributing a predictive model of influence process of the exposure to UGC on user's intention in the background of tourism industry.

Keywords Travel-related UGC · Intention · Desire · Attitude · Envy

Introduction

Before the outbreak of a new coronavirus disease in 2019 (Covid-19), tourism was among the world's most rapidly growing economic sectors. Globally, it accounted for 10 percent (%) of gross domestic product (GDP), 30% of services exports, and 1 out of every 11 jobs (World Tourism Organization (UNWTO), 2018). Besides, tourism is closely linked with other sectors such as transport, agriculture, handicraft, and so on, which make it a vital pillar of the economy's growth, both at the national and global levels. Contributing approximately 6% to Vietnam's GDP every year (Nguyen 2019), *tourism* was one of the key forces driving Vietnam's economic development. Despite the severe effect of Covid-19 on tourism industry since 2020, tourism is expected to return to pre-pandemic 2019 levels after 2023 (UNWTO

2020). Tourism, therefore is still believed to be of great important for the world economy.

The invention of Web 2.0 in 2004 has veered the Internet users' roles from passive readers to active creators and sharers of content and information (Lo and Yao 2019). Via Web 2.0 platforms, communities and individuals discuss, share, co-create, and alter user-generated content (UGC). UGC appears under numerous forms from Twitter tweets, Facebook status updates, YouTube published videos, to consumer-produced reviews, and so on (Yu et al. 2014). Since the application of UGC to the travel industry, the way travel-related information is acquired and circulated, as well as the way tourist journeys are planned have fundamentally been redesigned (Latif et al. 2020). Cox et al. (2009) found that social media are predominantly used before traveling. At this stage, prospective tourists search for ideas on destinations, accommodation options, jaunts, and other leisure activities (Amaro et al. 2016). This is because tourism product depends on visual evidences provided by commercial sources, mass communication, and interpersonal channels due to its intangible characteristic. Additionally, tourists could only evaluate the service after the consumption experience, therefore their purchases are considered risky, and information intensive in terms of decision-making process

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(Huang et al. 2010). Hence, UGC quickly became a powerful tool for potential tourists to reduce the purchase associated risk as they believe more in other travelers' opinion who experienced a specific tourism product, traveled to a particular destination, or patronized a property (Yu et al. 2014) instead of official marketing advices. UGC acts as an incubator for a destination's prestige or stature as media are more mobile with high-quality digital recording and imagery, customers are able to visually record and report service failures or incidents in real time (Wilson et al. 2012). UGC not only possess the ability to attract or detract a traveler, but also develops a consumer expectations of particular destinations (De Bruyn and Lilien 2008). By providing visual cues, imagining what destinations will be like is easier with UGC.

A number of past researches attempt to reveal the influence of UGC on consumers' perceptions and travel-related decision making with theoretical foci on the social influence theory, dual process theory, and elaboration likelihood model (Liu et al. 2020; Caber et al. 2020; Latif et al. 2020; Sharif and Mura 2019; Yan et al. 2018; Hu and Kim 2017; Chong et al. 2018; Abubakar and Ilkan, 2016; Wang, 2015; Chung et al. 2015). Nevertheless, most of those studies focus on written reviews and employ an approach that concentrates on the active access to UGC of travel consumers, in which prospective travelers are proactive in searching for UGC to assist the decision-making process. Although that approach has advantages, the general picture on how travel consumer behavior impacted by UGC still remains unclear. A few work has been conducted to examine how passive access to travel-related UGC affects destination visit intention (Latif et al. 2020; Liu et al. 2018; and Hajli et al. 2018). The common point of these studies is that they emphasize on the role of envy as a mediator between travel-related content exposure and destination visit intention, largely leaving aside other important psychological factors. To bridge this gap, this research conducts an empirical investigation to discover more predictors of the destination selection intention when potential travelers passively access to destination-related UGC to provide a better understanding of UGC potential implications for tourism practitioners in Vietnamese tourism market.

Literature review

User-generated content

UGC is defined as media content produced or created by ordinary people instead of paid professionals and distributed primarily on the Internet (Bruno 2016). Accordingly, content that qualifies as UGC should demonstrate three key characteristics: (1) UGC contains a degree of personal contribution, (2) UGC is accessible by means of transmission media

that are open to the public, and (3) UGC is not derived from professional practices and routines (Naab and Sehl 2017). UGC plays a vital role in tourism industry. Present day consumers appreciate UGC as the demonstration of individual travel experience (Cheung and Law 2011). The tremendous growth of Web 2.0 applications such as Facebook, Youtube, and Instagram provide travelers with unequal platforms to share their experiences and opinions not only in the text form but also in visual modality (e.g., photos, moving images, videos), which have been proven to be attractive, persuasive, and memorable in virtual environments (Hautz et al. 2014). The practice of sharing holiday photos, diaries, comments, or tips has become widespread among travelers (Carvão 2010). According to Del Chiappa et al. (2015), above one-third of Asia-Pacific travelers rely on UGC for ideas on vacation activities, attractions, and hotels. UGC is estimated to have contributed to over \$10 billion annually in online travel (Cox et al. 2009). Indeed, UGC generates persuasive effects on travelers' behavior (Wang 2015).

Behavioral intention

Behavioral intention (BI) refers to the extent to which individuals have devised conscious plans for performing or not performing some specific behavior in the future (Warshaw and Davis 1985). This concept depicts how close individuals are to making a decision (Konerding 1999). An extremely high BI indicates a decision in favor of the behavior, and an extremely low BI implies a decision against it. A medium BI illustrates the state of being uncertain whether the behavior should be performed or not (Konerding 1999).

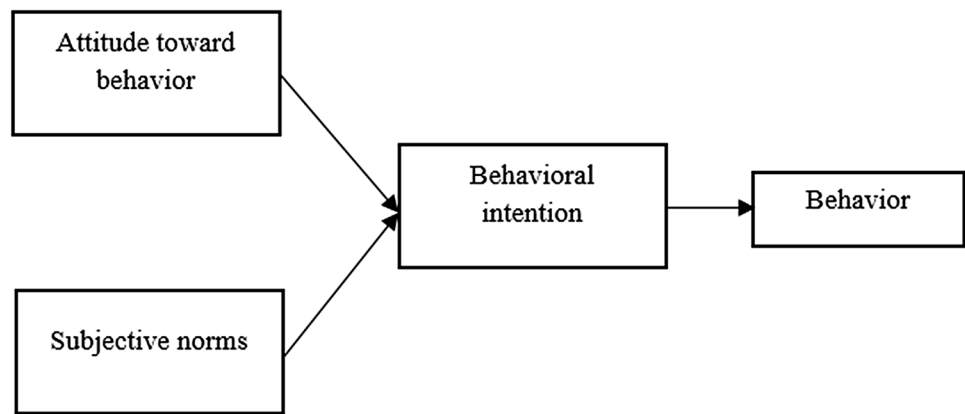
In the service platform, Zeithaml et al. (1996) split behavioral intention into favorable BI and unfavorable BI based on service quality. Customers with favorable BI would spread constructive word of mouth (WOM) about the company (Zeithaml et al. 1996). Meanwhile, customers who have unfavorable BI tend to leave the company and disseminate negative WOM to their peers. In today's tourism context when web 2.0 application allows UGC that reflects travel experiences to be shared under diverse forms at real time, extreme BI could be formed faster and easier than ever before. A comment or a picture or a video of a travel destination posted by a traveler could formulate or blow away an intention to visit that place.

Conceptual framework and hypotheses

Our study applied the Theory of Reasoned Action (TRA) (Fig. 1) introduced by Fishbein and Ajzen in 1975 as the supported theory. According to TRA, the behavioral intention to fulfill a particular behavior determines an individual's behavior, stronger intention results in increased



Fig. 1 Fishbein and Ajzen's model of reasoned action.
Source Fishbein and Ajzen (1975)



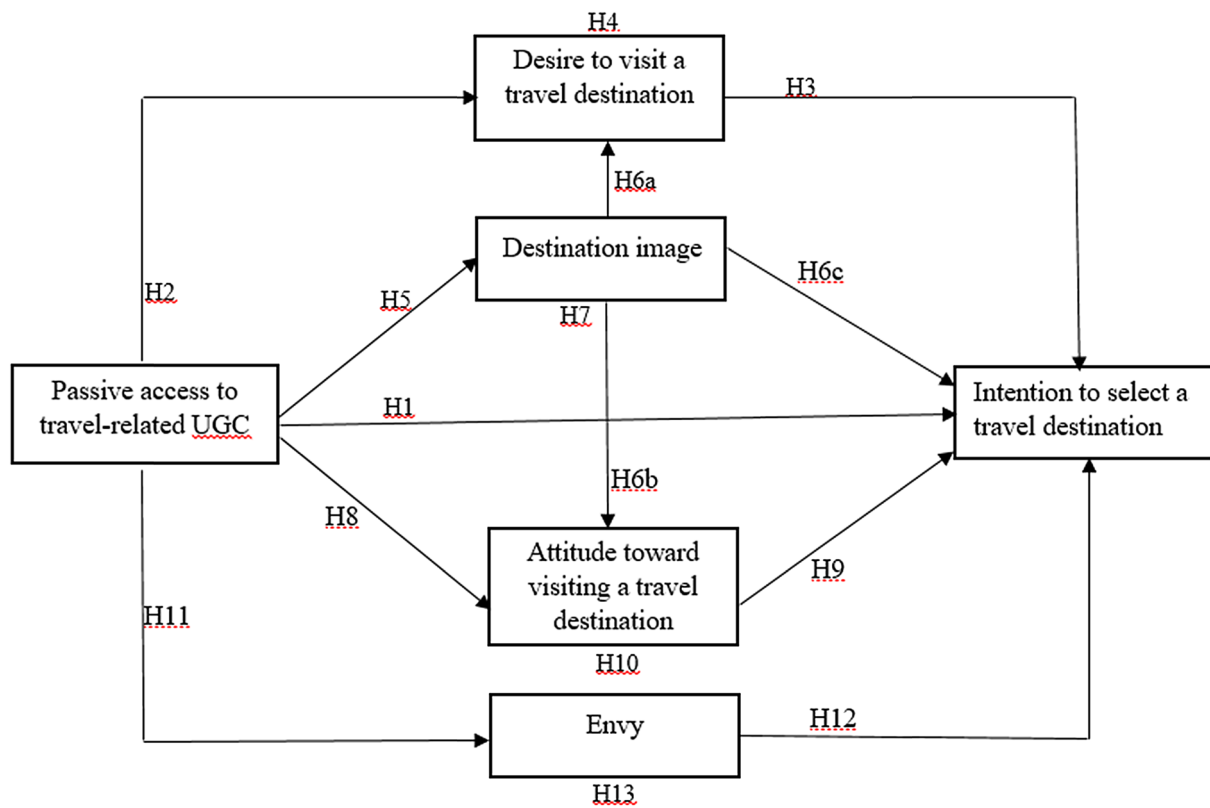
effort to carry out the behavior. In turn, this behavioral intention is determined by the individuals' attitude toward the behavior and their subjective norm regarding it (Fishbein and Ajzen 1975). However, the result of TRA in explaining behavior depends on the extent to which the behavior is under volitional control, which refers to the person's ability to carry out the behavior (Montaño and Kasprzyk 1992). To overcome this limitation, Ajzen (1991) expanded TRA into the Theory of Planned Behavior (TPB), which posits that a person's intention to carry out a behavior is decided by attitude, subjective norm, and perceived behavioral control. Both the TRA and the TPB have been extensively applied and tested to explain behavior on the Internet in various contexts, disciplines, and countries (George 2004). Although the two models have been rigorously tested ones in predicting consumer behavior, modifying and incorporating application-specific variables into these models is needed to further improve their explanation and prediction power (Wu and Lederer 2009). To meet this need, a review on 15 empirical studies on the effects of UGC or a specific Web 2.0 application (e.g., Facebook or Instagram) or specific UGC type (e.g., reviews or photos) on travel behavior from 2015 to 2020 was conducted (Liu et al. 2020; Caber et al. 2020; Latif et al. 2020; Bahja et al. 2019; Sharif and Mura 2019; Mehmood et al. 2018; Liu et al. 2018; Jadhav et al. 2018; Hajli et al. 2018; Shuqair and Cragg 2017; Koo et al. 2016; Jin and Phua 2016; Kavoura and Stavrianeas 2015; Llodra-Riera et al. 2015). The empirical studies during this period have identified a number of constructs impacted by UGC/specific UGC platform/specific UGC type, including (1) "Destination image," (2) "Attitude toward destination," (3) "Travel/visit intention," (4) "Desire to travel," (5) "Destination content gratification," (6) "Motivation for traveling," (7) "Travel envy," and (8) "Perceived risk." Furthermore, there are constructs attested to influence visit intention such as (a) "Destination image," (b) "Attitude toward destination," (c) "Desire to travel," and (d) "Envy."

Based on the abovementioned theories and empirical studies, this study integrates passive access to travel-related UGC, desire to visit a travel destination, destination image, attitude toward visiting a travel destination, and envy as antecedents of the intention to select a tourism destination. The rationale of variables in the model (Fig. 2) and developed hypotheses among them are described in the remaining part of this section.

Passive access to travel-related UGC and intention to select a travel destination

In this study, passive access to travel-related UGC is defined as the Internet user's unintentional exposure to travel-related UGC via UGC platforms (e.g., social media sites, content sharing sites, blogs and review sites). Accordingly, Internet users simply come across travel-related UGC (e.g., travel photo and videos from friends) while they are browsing social media sites, content sharing sites, blogs, and review sites such as Facebook, Instagram, Youtube without any intention to search for travel-related UGC in advance. Nowadays, the emergence of new Internet enabled devices (e.g., tablets and smartphones) as well as the abundance of new technological features that these devices feature (e.g., high-definition photo and video cameras, global positioning system (GPS), etc.) have lead to further increase in the richness and volume of content sharing and interaction among Internet users through UGC platforms (Fotis 2015). As a result, the probability for the Internet users to passively access to travel-related UGC has been intensified.

The amount of information an individual receives or the channels through which he/she gets it greatly relates to his/her travel intention (Gartner 1994). The impact of messages from peer-to-peer communication on consumer behavior has been recorded to be often more considerable than that of a corporate or expert source (Andsager et al. 2006) as message receivers find more familiar with uncommercial sources (Chakravarty et al. 2010). Social influence literature has reported that people



Source: Author

Fig. 2 Conceptual model of the impact of passive access to UGC on intention to select a travel destination. Source Author

respond more accordingly to messages that come from someone like themselves (Hautz et al. 2014). The proliferation of Internet enabled devices as well as new technological features (e.g., GPS, high-definition photo and video cameras) that these devices feature have further increased the riches and volume of content sharing and interaction among individuals (Fotis, 2015). Recent research indicates that destination decisions of over 20% of American tourists were impacted by their relatives' and friends' posts on social media platforms (Liu et al. 2018). Thus, a hypothesis is proposed as follows:

H1 Passive access to travel-related UGC significantly influences intention to select a travel destination.

Passive access to travel-related UGC, desire to visit a travel destination, and intention to select a travel destination

Desire refers to a psychological state of motivation toward an experience or specific stimulus that is predicted to be satisfying (Papies and Barsalou 2015). Desires have been proven to result from pure cognitive processes, often as a

reaction to environmental factors (Kavanagh et al. 2005). As being mentioned before, the cues of travel trips have never been more visual and lively thanks to the development of Internet technologies and Internet enable devices. Latif et al. (2020) explore that travel-related content exposure on Facebook prompts consumers' desire to travel to the same destination. Therefore, the next hypothesis is postulated:

H2 Passive access to travel-related UGC positively influences desire to visit a travel destination.

Desire is considered to be an important determinant of behavioral intention because it is the source and the reason for behavioral motivations (Koo et al. 2016). Authors have proved the relationship between desire and behavioral intention. According to Song et al. (2014), desire influences the behavioral intention to visit a festival. Chung et al. (2015) confirmed that potential travelers will try to visit a destination if they have a high desire to visit it. It is thus posed that



H3 Desire to visit a travel destination positively influences intention to select a travel destination.

H4 Desire to visit a travel destination mediates the relationship between passive access to travel-related UGC and Intention to select a travel destination.

Passive access to travel-related UGC, destination image, desire to visit a travel destination, attitude toward visiting a travel destination, and intention to select a travel destination

Crompton (1979) defined destination image (DI) as a person's ideas, beliefs, and impressions about a destination. DI is formed by processing information from various sources over time, which can be divided into organic (books, news, movies, actual destination visits, etc.) and induced (advertisements and travel posters) (Crompton, 1979). The omnipresent presence of the Internet and Internet enable devices have made UGC to be among the most frequent organic sources that prospective travelers exposure. Hidalgo et al. (2014) argue that UGC can help potential tourists and travelers to formulate a destination's image since it is very credible. As such a hypothesis is proposed as follows:

H5 Passive access to travel-related UGC significantly influences the formulation of destination image.

Woodside and Lysonski (1989) present that destination awareness consists of four mental categories: (a) Consideration set that includes destinations with positive affective associations; (b) inert set that includes destinations with neither a positive nor a negative evaluation; (c) inept set that comprises destinations with negative associated feelings; and (d) destinations that are unavailable but aware. Accordingly, a destination's image can be favorable, neutral, or unfavorable. In the decision process, travelers who hold a favorable image about a destination would more likely to select that one over other alternatives. Conversely, travelers with a negative image perception toward a destination would show reluctance to travel there, and as a result their desire to travel to that destination will decline (Moreira and Iao 2014). Hence, a hypothesis is posed as follows:

H6a Destination image significantly influences desire to visit a travel destination.

Attitude toward the behavior is the extent to which individuals evaluate a particular behavior favorably or unfavorably (Ajzen 1991). The relationship between DI and attitude has been proven in different contexts. Kim and Kwon (2018) confirm that Tanzanian students' affective image of Korea affects their attitude toward the country.

According to Song et al. (2014), oriental medicine image of festival site positively influences attitude toward attending the Oriental medicine festival. Therefore, we posit the following hypothesis:

H6b Destination image significantly influences the attitude toward visiting a travel destination.

Image is a pivotal concept in effecting people's selections of products, services, and destinations (Zhang et al. 2018). According to Hidalgo et al. (2014, p. 160), "strong, positive, distinct and recognizable images" increase a destination's probability of being chosen by prospective travelers. Doosti et al. (2016) found that DI significantly relates to travel intention. Likewise, Phillips et al. (2013) reported that affective image has positive influence on intention to visit Korea of the United States Upper Midwesterners. As such the following hypotheses are postulated:

H6c Destination image significantly influences intention to select a travel destination.

H7 Destination image mediates the relationship between passive access to travel-related UGC and intention to select a travel destination.

Passive access to travel-related UGC, attitude toward visiting a travel destination, and intention to select a travel destination

The shared travel experiences on social media play a vital role in shaping tourists' awareness, expectations, perceptions, attitudes, and behaviors (Liu et al. 2018). Freberg et al. (2011) consider influencers on social media as new forms of third-party endorsers who build audience attitudes via tweets, blogs as well as other social media usage. The role of product/company-related contents produced by social media users in affecting consumer attitudes has been acknowledged by previous authors (Xia and Bechwati 2008; Chevalier and Mayzlin 2006). In the tourism context, Jalilvand and Samiei (2012) confirm that electronic WOM positively affects tourist attitude toward destination. Besides, it has long been proven that attitude affects behavioral intentions (Ajzen and Fishbein 1980). Individuals' intention to fulfill a behavior is stronger if their attitude toward it is more favorable (Ajzen and Fishbein 1980). Previous studies reported strong influence of attitude on travel intention (Juschten et al. 2019 and Prayogo et al. 2017). Therefore, we propose the following hypotheses:

H8 Passive access to travel-related UGC significantly influences attitude toward visiting a travel destination.



H9 Attitude toward visiting a travel destination significantly influences intention to select a travel destination.

H10 Attitude toward visiting a travel destination mediates the relationship between passive access to travel-related UGC and intention to select a travel destination

Passive access to travel-related UGC, envy, and intention to select a travel destination

Envy is the emotion experienced by those who lack an achievement, superior quality, or possession of another and either desire to possess it or wish that it was not available to the other (Parrott and Smith 1993). Envy has been categorized into three types: situational envy—a general feeling of envy toward others in a specific environment (Duffy et al. 2012); dispositional envy—a type of personality characteristic that reflects an individual's propensity to experience envy; and specific envy which involves a specific individual as a referent (Cohen-Charash 2009). This study takes the first view of envy as situational envy into consideration since it is subject to a particular situation. Given the context of this study is the passive access to UGC, envy can be understood as the envious feelings that happen when seeing acquaintances' posts of their vacation trips. Social media is acknowledged as an online space that provide sufficient conditions to stimulate envy as users of social platforms often share positive news (Lin et al. 2018). Krasnova et al. (2013) identify travel and leisure are among the content categories that often engender envy on Facebook, along with material and money possessions, job and school achievements, relationships, and appearance. Social media users' connections can perceive such information extremely positive (Wu 2015), which could lead to the experience of envy. Anecdotal evidence shows that a remarkable proportion of adults decide to visit a destination shared in their friends' journeys on social media out of envious thoughts (Hajli et al. 2018). Liu et al. (2018) prove that envy can drive individuals' destination visit intention by their peers' travel posts on a social networking site. Likewise, Latif et al. (2020) confirm benign envy's mediating role between exposure to travel-related posts on Facebook and destination visit intention. Thus, the next hypotheses are formulated:

H11 Passive access to travel-related UGC significantly influences envy.

H12 Envy significantly influences intention to select a travel destination.

H13 Envy mediates the relationship between passive access to travel-related UGC and intention to select a travel destination.

Methodology

Data collection and sampling

Because of the lack of a sampling frame, this study employed a non-probabilistic, purposive sampling technique in an effort to achieve high quality of data and credibility. Although non-probabilistic sample method is limited in empirical generalizations, purposive sampling technique involves participants who possess specific features which enable detailed understanding of the central subjects which the researcher wishes to study (Ritchie and Lewis 2003). Given that the attempt of this study is to research the impacts of UGC on potential travelers' destination selection intention in Vietnamese tourism market, it was considered essential that participants meet the following requirements: (1) To be Vietnamese; (2) To be above 18 years old; (3) To be users of at least one Web 2.0 application that enable UGC to be developed and exchanged (hereinafter referred to as UGC platform).

In agreement with Israel (1992), concerning the sample size when the population proportion is unknown, the sampling error of this research was in the range of $\pm 5\%$, a confidence level of 95%, and $p = q = 0.5$. The calculations yielded a sample size of 385. A survey was conducted online between September 2020 and December 2020 with 407 responses received. The online self-administered questionnaire was created using Google Docs and distributed on UGC platforms including Facebook, Zalo, and Wechat, so that it can guarantee all of the respondents are users of at least one UGC platform. Respondents could only submit complete data into the system according to the online questionnaire's design.

Measurements

This study included six constructs: (1) passive access to travel-related UGC (PAU), (2) desire to visit a travel destination (DVTD), (3) destination image, (4) attitude toward visiting a travel destination (AVTD), (5) envy, and, (6) intention to select a travel destination (ISTD). Each construct was measured using multiple items. Valid and reliable measures developed by previous authors were used wherever possible. Nonetheless, several items were self-developed to enhance the operationalization of key concepts within the context of this research, that is, the unintentional exposure to travel-related UGC. Specifically, all items in the PAU section were self-developed. Four items used to measure DVTD were adapted based on Koo et al.'s (2016) study. Six items of the destination image section were adapted from Marine-Roig's (2019)



research and the rest two ones were self-developed. Three items of the AVTD section were adapted from Porter and Donthu's (2006) study and the rest three ones were self-developed. Five items of the envy section were adapted from Hajli et al.'s (2018) work and two items of the ISTD section were adapted from Chen et al.'s (2014) research. The Likert scale of five point was utilized to measure all items, ranging from “strongly disagree” (1) to “strongly agree” (5). The demographics section collects participants' information about gender, age, marital status, monthly income, education, daily hours spent on the Internet, and the respondents' UGC platforms usage.

Data analysis

This study employed the structural equation model (SEM) test with AMOS 23.0 using the maximum likelihood estimation to test the interrelationships among the research constructs. The test for mediation was performed using a bootstrap analysis with a 95% confidence interval and 1000 bootstrap samples in each analysis. The model fit was estimated by examining several goodness of fit indices, namely, χ^2 statistic (χ^2), the χ^2 re-estimate test (χ^2/df), the Tucker–Lewis Index (TLI), and the comparative fit index (CFI); the root mean square error of approximation (RMSEA), and standardized root means square residual (SRMR). Based on the accepted thresholds suggested by Hu and Bentler (1999), χ^2/df should be less than 3.0, TLI and CFI should be equal to or greater than 0.95, RMSEA should be below 0.05, SRMR should be less than 0.08.

Results

Data examination

A Cook's distance analysis was ran to determine whether any influence outliers existed. The results for Cook's distance were all less than 1, most cases were far less than 0.3, suggesting that no serious influence outliers appears in the present work (Gaskin 2020). The variance inflation factor (VIF) was used to test the existence of multicollinearity. The VIF values for all the constructs were found to range from 1.291 to 1.864, lower than the threshold value of 5, which suggests that the multicollinearity problem is excluded (Gaskin 2020).

Socio-demographic characteristics

Table 1 presents the demographic profile of the survey participants. Of the 407 respondents, 55.3% are females and 44.7% are males. With regard to age, most of the participants are in the two groups: from 22 to 30 (31%) and from 31 to

Table 1 Profile of respondents

Profile category	Percentage (%)
Gender	
Male	44.7
Female	55.3
Age	
18–21	6.9
22–30	31.0
31–40	41.3
41–50	15.2
51–60	4.9
More than 60 years old	0.7
Marital status	
Single	46.4
Married	51.6
Others (divorced/widowed, etc.)	2.0
Monthly income	
Less than 250 USD	5.7
250 to less than 450 USD	49.4
450 to less than 850 USD	31.2
850 to less than 2100 USD	13.7
Education level	
High school or less	12.8
College/technical school/vocational school or equivalent	7.9
Bachelor degree	62.7
Master degree or higher	16.7
Average time spent on the Internet/day	
Less than 1 h a day	1.0
1–less than 2 h	27.5
2–less than 3 h	46.4
3–4 h	14.5
Above 4 h a day	10.6
UGC platform usage	
Social media application	100
Content sharing application	98.5
Blog	23.1
Tourism-related review site	25.3
Travel-related online forum	20.1

40 (41.3%), while only 5.6% are aged over 50. In respect of marital status, above 51% of the respondents are married, 46.4% are single and the rest are divorced, widowed, etc. The majority of the participants (49.4%) have monthly income between 250 USD and less than 450 USD, and 31.2% have monthly income from 450 to less than 850 USD. The sample appears to consist mostly of highly educated individuals, with more than 87% of the participants holding at least a college/technical school/vocational school degree, against only 12.8% who have only completed the 12th grade or less. The participants are largely habitual Internet users which



approximately 88.5% spent from 1 to less than 4 h on the Internet daily. 100% of the respondents are users of one or more social media sites, above 98% of the participants are viewers of content sharing sites. However, the percentage of the survey participants who follow tourism blogs, read tourism-related review sites and travel-related online forums are pretty low: 23.1%, 25.3%, and 20.1%, respectively.

Exploratory factor analysis (EFA)

An EFA using Maximum Likelihood with Promax rotation was conducted to assess the validity and the feasibility of the used measuring instruments. The Kaiser–Meyer–Olkin (KMO) test showed a good sample adequacy (KMO=0.894), the Bartlett's test of sphericity was significant at the 0.001 level, and the communalities for each variable were sufficiently high (all above 0.300), suggesting the study sample was factorable. Items with factor loading equal or greater than 0.5 were retained in the data analysis. One item was removed from the data analysis since it had factor loading of less than 0.5. The EFA's results yielded an eight-factor model, explaining 61.792% of the variance.

Assessment of the measurement model

Table 2 illustrates the indicator values for the evaluation of the measurement model. The obtained results surpass the lowest recommended values in the literature. Specifically

To evaluate the reliability of the research model, Cronbach's alpha coefficient (CA) and the factor's composite reliability (CR) were utilized. The results for CA ranged from 0.874 to 0.915, above the standard value of 0.7 and the results for CR ranged from 0.875 to 0.917, higher than the standard value of 0.7 (Gaskin 2020). It is therefore suggested that all constructs are considered reliable.

The average variance extracted (AVE) was utilized to verify the convergent validity of the research model (Fornell and Larcker 1981). The AVE allows us to estimate the quantity variance a construct obtains from its indicators in connection with the quantity variance due to measurement error

(Fornell and Larcker 1981). The results for AVEs ranged from 0.513 to 0.846, above the 0.5 standard value suggests that all of the scaling measurements indicate a good level of convergent validity.

To measure the discriminant validity of the research model, the square root of the AVE of all the constructs were compared with the intercorrelation matrix. Table 2 shows that the squares of estimates of correlations are smaller than the corresponding AVE estimates for all pairs of construct, which indicates the evidence of good discriminant validity of the research model (Fornell and Larcker 1981).

Confirmatory factor analysis (CFA)

CFA was carried out to investigate the goodness of model data fit. The CFA results presented the following fit indexes: $\chi^2 = 654.654$ ($df = 362$, $p = 0.000$), $\chi^2/sd = 1.808$, RMSEA = 0.045, CFI = 0.952, TLI = 0.957, and SRMR = 0.0456. All item loadings were higher than 0.5 and significant. Therefore, a good fit between the data and the model was found.

Hypotheses testing results

The relationships between each of two constructs as hypothesized were examined using the SEM analysis. Before exploring the path coefficient, the goodness of model fit was tested. In the first-order SEM, three out of five goodness of fit indices did not match the basic threshold values (RMSR = 0.0917 > 0.08, TLI = 0.942 < 0.95, CFI = 0.947 < 0.95). Following the modification indices, two sets of errors, namely e22 and e23, and e31 and e34, were covaried. The revised structural model had a good fit $\chi^2 = 670.874$ ($df = 364$), $\chi^2/df = 1.843$, TLI = 0.950, CFI = 0.955, RMSEA = 0.046, and SRMR = 0.0662, suggesting that the hypothesized model fits the empirical data well.

Next, the hypothesized relationships between every pair of constructs were measured through path coefficients (β) and significance levels (p). Figure 3 graphically shows path coefficient results. Ten out of eleven hypotheses on direct

Table 2 Results of the overall measurement model

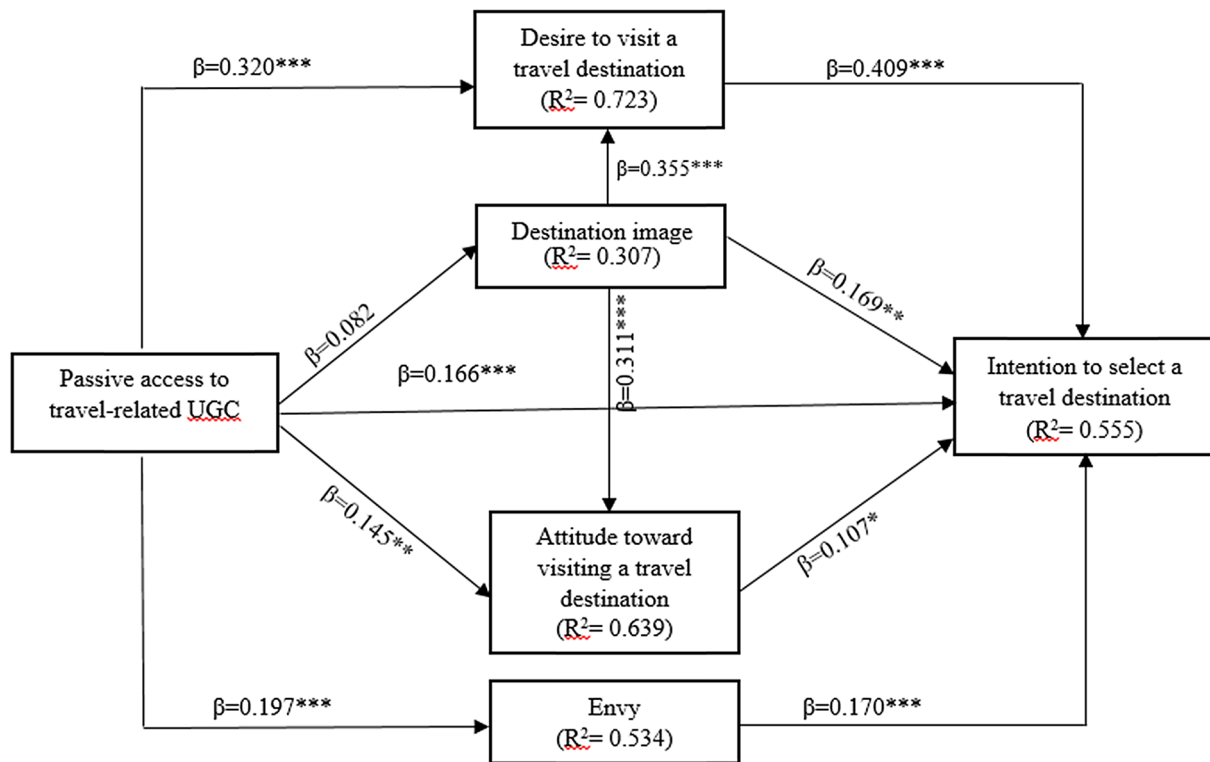
	CA	CR	AVE	DI	AVTD	Envy	PAU	DVTD	ISTD
DI	0.874	0.879	0.513	0.716					
AVTD	0.880	0.882	0.556	0.326***	0.745				
Envy	0.906	0.906	0.659	0.260***	0.315***	0.812			
PAU	0.893	0.895	0.631	0.086	0.177**	0.179**	0.795		
DVTD	0.874	0.875	0.636	0.424***	0.330***	0.386***	0.400***	0.797	
ISTD	0.915	0.917	0.846	0.425***	0.361***	0.423***	0.384***	0.609***	0.920

Main diagonal in bold: square root of the AVE

Significance of Correlations:

† $p < 0.100$, * $p < 0.050$, ** $p < 0.010$, *** $p < 0.001$





Source: Author

Fig. 3 Path coefficients and R² values. *** $p < 0.001$; ** $p < 0.01$; * $p < 0.05$. Source Author

Table 3 Results of hypothesis testing

Hypothesis	Estimate	S.E	C.R	P	Result
H1: PAU → ISTD	0.166	0.048	3.482	***	Supported
H2: PAU → DVTD	0.320	0.044	7.326	***	Supported
H3: DVTD → ISTD	0.409	0.063	6.510	***	Supported
H5: PAU → DI	0.082	0.055	1.486	0.137	Not supported
H6a: DI → DVTD	0.355	0.044	8.067	***	Supported
H6b: DI → AVTD	0.311	0.051	6.065	***	Supported
H6c: DI → ISTD	0.169	0.052	3.258	0.001	Supported
H8: PAU → AVTD	0.145	0.050	2.900	0.004	Supported
H9: AVTD → ISTD	0.107	0.048	2.227	0.026	Supported
H11: PAU → Envy	0.197	0.058	3.411	***	Supported
H12: Envy → ISTD	0.170	0.042	4.079	***	Supported

*** $p < 0.001$

effects were supported in this research (Table 3). The results presented that passive access to travel-related UGC had a positive significant effect on intention to select a travel destination ($\beta = 0.166, p < 0.001$), desire to visit a travel destination ($\beta = 0.320, p < 0.001$), attitude toward visiting a travel destination ($\beta = 0.145, p = 0.004$), and envy ($\beta = 0.197, p < 0.001$); supporting hypotheses H1, H2, H8, and H11.

The path analysis also revealed that there was a positive significant impact of destination image on desire to visit a travel destination ($\beta = 0.355, p < 0.001$), attitude toward visiting a travel destination ($\beta = 0.311, p < 0.001$), and intention to select a travel destination ($\beta = 0.169, p = 0.001 < 0.05$); supporting hypotheses H6a, H6b, and H6c. Findings indicated that intention to select a travel destination was also significantly influenced by desire to visit a travel destination ($\beta = 0.409, p < 0.001$), attitude toward visiting a travel destination ($\beta = 0.107, p = 0.026$), and envy ($\beta = 0.170, p < 0.001$); supporting hypotheses H3, H9, and H12.

This study also suggests the mediating impact of desire to visit a travel destination, destination image, attitude toward visiting a travel destination, and envy between passive access to travel-related UGC and intention to select a travel destination. As shown in Table 4, the mediation analysis results revealed that desire to visit a travel destination mediates the relationship between passive access to travel-related UGC and intention to select a travel destination (indirect effect = 0.131; $p < 0.001$, 95% CI [0.062, 0.220]). This scenario is applicable to attitude toward visiting a travel destination (indirect effect = 0.016; 95% CI [0.002, 0.043]), and envy (indirect effect = 0.034; 95% CI [0.012, 0.067]). The direct effect of desire to visit a travel destination, attitude



Table 4 Test for mediation using a bootstrap analysis with a 95% confidence interval

Relationships	Indirect effect	Confidence interval		<i>p</i> value	Conclusion
		Low	High		
PAU → DVTD → ISTD (H4)	0.131	0.062	0.220	0.000	Partial mediation
PAU → Destination image → ISTD (H7)	0.014	−0.004	0.046	0.127	No mediation
PAU → AVTD → ISTD (H10)	0.016	0.002	0.043	0.019	Partial mediation
PAU → Envy → ISTD (H13)	0.034	0.012	0.067	0.000	Partial mediation

toward visiting a travel destination, and envy are significant for intention to select a travel destination. Therefore, it is concluded that desire to visit a travel destination, attitude toward visiting a travel destination, and envy partially mediate the relationship between passive access to travel-related UGC and intention to select a travel destination, supporting hypotheses H4, H10, and H13.

Discussion and implications

Discussion

This study sought to investigate the relationship between passive access to travel-related UGC and intention to select a travel destination with desire to visit a travel destination, destination image, attitude toward visiting a travel destination, and envy as mediating variables.

The findings suggest that passive access to travel-related UGC is positively related to intention to select a travel destination. This positive relationship shows that passive access to travel-related UGC stimulates potential travelers to cause the intention to select the same travel destination to visit. That is to say, it is the exposure to travel pictures, video clips, posts, statuses, and other type of UGC on UGC platforms that triggers individuals' behavioral intentions in the form of intention to select a travel destination. Via this finding, it can be said that generation of intention is a form of response that results from unintentional exposure to travel-related UGC.

Passive access to travel-related UGC was also found to significantly influence potential travelers' desire to visit a travel destination. This result indicates that the more likely people are to experience the destination content via UGC platforms, the more likely they are to have a desire to travel to the same destination. This finding aligned with the researches of Liu et al. (2020) who advocate that the shared contents on social platforms can remind the viewers about particular destinations and support their desire to visit these places regardless the reasons why they browse social media. Therefore, another form of response that results from

unintentional exposure to travel-related UGC has been identified: development of desire.

Likewise, the findings released that the passive access to travel-related UGC significantly impacts attitude toward visiting a travel destination. This finding suggests that when potential travelers are exposed to UGC that is related to a certain travel destination, they become emotionally involved with the destination, which leads to building their attitude toward visiting that place. The generated attitude may be positive if the UGC pertaining to the destinations is positive, and on the other hand, it can be negative if the UGC related to those destinations is negative. From this finding, generation of attitude is identified as another form of response when potential travelers come across travel-related UGC. Because there are limited numbers of past research on the relationship between UGC exposure and attitude, these findings could not be compared to the other studied ones. Nevertheless, it can be argued that potential traveler's passive access to travel-related UGC is determined by passive access to travel-related UGC as Kane et al.'s (2012) study suggested that social media seem to impact tourists' attitude in the long term.

A positive relationship between passive access to travel-related UGC and envy was also confirmed. This finding suggests the travel-related contents to which individual's unintentional exposure triggers their travel envy toward the ones who posted them. As such, generation of travel envy is identified as a type of response that results from exposure to travel-related UGC on UGC platforms. The finding of this study aligned with the research of Latif et al. (2020) who indicate that exposure to travel-related content on social networking sites has a significant effect on travel envy.

Furthermore, the empirical results showed that intention to select a travel destination was significantly influenced by the desire to visit a travel destination, destination image, attitude toward visiting a travel destination, and envy. These findings are consistent with the previous studies (i.e., Latif et al. 2020; Soliman 2019; Hajli et al. 2018), indicating that a growth in potential travelers' desire, destination image, attitude, and envy will generate an increase in their intention to travel to a specific travel destination. Besides, destination image was found to significantly affect desire and attitude



toward visiting a destination. These findings are in line with the ones of Han et al. (2014) and Jalivand et al. (2012) that endorse the role of destination image as a strong determinant of desire and attitude.

Additionally, the current study found that travel-related UGC exposure on UGC platforms triggers the intention to select a travel destination among prospective travelers via the underlying mechanism of desire to visit a travel destination, attitude toward visiting a travel destination, and envy. These findings suggest that interesting UGC about a destination that Internet users come across increases the interest in visiting that destination by generating desire and favorable attitude toward the destination, as well as the envy toward the UGC posters, which, in turn, elevate the intention to select that destination for the next trip as a way to relieve the unpleasant emotion of envy. These findings are consistent with the researches by Latif et al. (2020), Sharif and Mura (2019), Liu et al. (2019), and Hajli et al. (2018).

It is out of the authors' expectations that passive access to travel-related UGC did not significantly influence destination image (H5 was rejected). This might be because the UGC related to a particular destination to which viewers passively access is not impressive or does not contain enough information to form its image in their mind as the shared personal travel experiences are usually discrete pieces of the journey at that destination, not a completed high-quality material made with the image-building purpose.

By and large, the empirical results of this study help to understand the predictors of the intention to select a travel destination when potential travelers are unintentionally exposed to travel-related UGC. It can be said that UGC has been among the chief sources that triggers potential tourists' intention to travel. Besides, Vietnamese potential travelers' destination selection intention is strongly impacted by emotional and social pressure factors such as desire, attitude, and envy.

Theoretical implications

The current work contributes to the tourism and consumer behavior literature in the following ways.

First, this study filled up the research gap by introducing the role of passively accessed UGC as the determinant of destination selection intention, which has not been researched extensively. It provides evidence that in the form of intention to select a travel destination, behavioral intention is triggered by travel-related UGC exposure. It also demonstrates that passive access to travel-related UGC is predictor of desire to visit a travel destination, attitude toward visiting a travel destination, and envy; through which four response types that are brought about by travel-related UGC exposure on UGC platforms can be identified, including development

of desire; formulation of attitude, generation of envy, and creation of intention.

Second, this study contributes a predictive model of influence process of passive access to travel-related UGC on user's intention in the milieu of tourism industry. In addition to attitude toward behavior that affect behavioral intention based on the Theory of Reasonable Action, this study proves that desire to visit a travel destination and envy are significantly impacted by passive access to travel-related UGC, which in turn constitute important antecedents to intention to select a travel destination. These findings support the previous studies that individuals in online social groups alter their behaviors to conform with that of other members (Reicher et al. 2010).

Third, the failing in proving the relationship between passive access to travel-related UGC and destination image suggests that travel-related UGC do not serve the function of conveying knowledge about travel destinations, regardless whether the information is positive or negative. Notwithstanding, although destination image is not related to passive access to travel-related UGC, it significantly affects desire to visit a travel destination, attitude toward visiting a travel destination, and intention to select a travel destination. This result is in line with prior researches that destination image plays a crucial role in driving travel consumer behavior by generating desire and attitude toward destinations and accelerating intention to select a travel destination.

Practical implications

The current work's findings offer practical suggestions for travel destination marketers and managers.

First, this research proved that potential tourists' destination visit desire and intention to select a travel destination are significantly influenced by the travel-related UGC that they passively exposure. Besides, desire to visit a travel destination also mediates the relationship between passive access to travel-related UGC and intention to select a travel destination. Additionally, UGC with fabulous content about specific destinations strongly attract prospective travelers. These finding implies that tourism practitioners should build good strategies to encourage tourists to post UGC with fascinating contents to generate the desire and travel intention of potential customers.

Second, this study reveals that passive access to travel-related UGC significantly affects attitude toward visiting a travel destination, which in turn affects the selection intention of that destination. Attitude toward visiting a travel destination also serves as a mediator in the relationship between passive access to travel-related UGC and intention to select a travel destination. Thus, travel marketers could stimulate visit intention by evoking positive attitude toward visiting a specific destination via positive UGC. Positive



UGC related to a particular destination is usually generated by satisfactory experiences. Destination managers and marketers should therefore develop strategies to motivate tourists to share UGC that shows pleasant enjoyable experiences to attract potential customers. The more positive UGC that is available, the easier it will be for potential tourists to formulate a positive attitude toward a destination. Further, great service recovery should be built in case incidents or failures happen as consumers are especially interested in writing and reading negative product reviews in an online WOM context (Jalilvand and Samiei 2012). Tourism practitioners should concentrate on tracking travelers' opinion in order to improve the service aspects that received negative UGC. Ignoring complaints can lead to negative UGC, which will result in negative attitude toward that destination. Conversely, a great service recovery will even generate a higher satisfaction for customers.

Third, it is evident from this study that passive access to travel-related UGC significantly influences envy, and then envy remarkably influences intention to travel to a destination mentioned by their friends. The role of envy as a mediating factor between passive access to travel-related UGC and intention to select a travel destination was confirmed as well. This implies that tourism practitioners should motivate tourists to share extraordinary travel experiences on UGC platforms to induce envy in others, which subsequently triggers travel intention.

Last but not least, although destination image was not proven to be related to passive access to travel-related UGC, destination image is still an essential antecedent of desire to visit a travel destination, attitude toward visiting a travel destination, and intention to select a travel destination. This means that destination image plays a crucial role in a person's travel purchase-related decision making. Therefore, building a strong and impressive image for a destination is an indispensable requirement for tourism practitioners in order to attract the potential travelers. According to Fakeye and Crompton (1991), a travel destination with a consolidated and strong image comprises a better guarantee of prosperity in the market. As such, destination managers and marketers should analyze the image of a destination carefully to discover its key characteristics and subsequent positioning through destination image strategies to their target market.

Conclusion, limitations, and future research

Conclusion

The aim of this study was to examine the impact of UGC on intention to select a travel destination with particular focus on the context of unintentional exposure to travel-related UGC in Vietnam. Desire to visit a travel destination,

destination image, attitude toward visiting a travel destination, and envy were incorporated as mediators between passive access to travel-related UGC and intention to select a travel destination in the research model. The proposed model was tested among Vietnamese who are above 18 and use at least one UGC platform using a quantitative approach. The findings indicate that there was a positive direct relationship between passive access to travel-related UGC and intention to select a travel destination. Passive access to travel-related UGC also positively influences desire to visit a travel destination, attitude toward visiting a travel destination and envy, which, in turn, affect intention to select a travel destination. Although destination image was not proven to be influenced by passive access to travel-related UGC, it significantly impacts the desire to visit a travel destination, attitude toward visiting a travel destination, and intention to select a travel destination. Additionally, desire to visit a travel destination, attitude toward visiting a travel destination, and envy also serve as mediators in the relationships between passive access to travel-related UGC and intention to select a travel destination. The current work' results represented the complexity of intention to select a travel destination when an individual is unintentionally exposed to travel-related UGC and provided evidence for a person's destination selection intention's dependence on psychological and emotional factors. At the same time, this research identified the three response types that are brought about by travel-related UGC exposure on UGC platforms, including development of desire, creation of attitude and feelings, generation of intentions.

Limitations and future research

The current work has several limitations and future researches are needed to validate the results.

First, in this study behavioral intention in the form of intention to select a travel destination of a potential traveler was used as the ultimate outcome of the structural model. However, users' behavioral intention may not accurately predict an actual behavior (Yadav et al. 2013), therefore future research should examine the influence of travel-related UGC exposure on actual travel destination visit behavior. Second, since this study employed a non-probabilistic sample, its results are only valid for the certain respondent group that satisfy the sampling criteria and willing to answer the online survey. Third, the generalization ability of this research's findings to other countries should be investigated in future studies as the current work utilized a sample with a single-country focus.

Supplementary Information The online version contains supplementary material available at <https://doi.org/10.1057/s41270-022-00174-7>.



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