

Impact of Electronic Word-of-Mouth (eWOM) on Travellers' Green Hotel Booking Intentions and Policymaking

Elaheh Yadegaridehkordi

PhD Amirkabir University of Technology;
Email: yellah@gmail.com

Saeedeh Momtazi*

PhD Amirkabir University of Technology;
Email: momtazi@aut.ac.ir

Mohd Hairul Nizam Bin Md Nasir

PhD University of Malaya;
Email: hairulnizam@um.edu.my

Received: 16, Jun. 2021 | Accepted: 1, Feb. 2022

Abstract: Nowadays, electronic word-of-mouth (eWOM) has become the primary source of tourism-related information. Travelers are increasingly seeking additional information provided in eWOM platforms to minimize the complexity and insecurity involved in making a purchase decision. However, there still is a lack of research on the impact of eWOM on travelers' green hotel booking intentions. Therefore, this study aims to develop a theoretical model to examine the effects of positive and negative eWOM on travelers' green hotel booking intentions and provide practical guidelines for hotel marketing and policymaking. To do this, a model was developed based on the theory of planned behavior (TPB) while positive and negative eWOM were linked to the model as two new factors. This study utilized a quantitative research approach and data collection was performed through an online survey questionnaire. Data was collected from 418 travelers who had the experience of searching on social media for collecting travel-related information. The statistical software SmartPLS and SPSS were used to analyze the data. Findings showed that customer attitudes, subjective norms, perceived behavioral controls, and positive eWOM positively influenced

Iranian Journal of
**Information
Processing and
Management**

Iranian Research Institute
for Information Science and Technology
(IranDoc)

ISSN 2251-8223

eISSN 2251-8231

Indexed by SCOPUS, ISC, & LISTA

Special Issue | Autumn 2022 | pp. 81-104

<https://doi.org/10.35050/JIPM010.2022.043>



* Corresponding Author

travelers' green hotel booking intentions. In contrast, the influence of negative eWOM on travelers' green hotel booking intentions was not supported. The findings of this study can assist hotel managers in social and content media policymaking. Meanwhile, they can help policymakers in the tourism industry develop optimum policies. This study can provide new capabilities for policymakers to address existing challenges and opportunities and promote green practices in the hotel sector.

Keywords: Electronic Word-of-Mouth (eWOM), Green Hotel, Policymaking

1. Introduction

Electronic Word-of-Mouth (eWOM) is any type of unofficial discussion directed at other consumers concerning the usage, ownership, or attributes of specific services and goods or their providers (Silverman, 2011). Literature shows that eWOM plays a progressively critical role in forming consumers' attitudes and purchase decisions. eWOM has increasingly become an essential source of information for customers and an exciting topic for marketing and business researchers (Zarrad & Debabi, 2015). Hennig-Thurau, et al. (2004) highlighted the significance of research into eWOM because customers have the chance to post their negative and positive evaluations and experiences for other interested users to access.

The impact of eWOM is particularly strong in the tourism industry as tourism services are intangible and cannot be assessed before use. Since paying for intangible services and products requires higher risk, users rely more on eWOM (Albarq, 2014). This proves that the emergence of the Internet and social websites has shifted travelers' behavior in the way that they seek information before making decisions for travel (Zhou et al. 2014). Meanwhile, the capacity to decrease ambiguity in decision-making and the trustworthiness of the information created by consumers are two critical justifications for considering eWOM as an effective management strategy for businesses in the tourism sector (Bronner & De Hoog, 2011). According to a report by May, K. (2014), more than 80% of travelers check reviews when deciding which hotel to stay, and 53% believe that they have no interest in reserving a hotel without reviews (Prabu, 2014). Therefore, there is a need for more research intended to incorporate eWOM into business policymaking (Baka, 2016).

The hospitality industry is considered one of the most important sectors that consumes a substantial percentage of natural resources while producing enormous amounts of pollutants and waste worldwide (Asadi et al., 2020). The highest amounts of energy consumption have been recorded by hotels in the tourism industry (Bohdanowicz, 2005). Thus, more and more hospitality organizations have been involved in different sustainable practices to preserve environmental resources, protect nature, and get more socioeconomic advantages (Verma, Chandra, & Kumar, 2019). Undeniably, customers' demand for green initiatives and services has been rapidly increasing in the hospitality marketplace. Therefore, the terms "green", "eco-friendly", "sustainability" have increasingly found their way in the hotel sector. A green hotel refers to "an eco-friendly lodging operation that is proactive in decreasing its hazardous environmental impact and offers guests a healthy environment, facilities, and accommodations for their overnight stay" (Han, 2015). It is believed that customers' decision-making processes are directly influenced by a green hotel image (Prendergast & Man, 2002). The positive feelings and green images of guests can significantly impact their favorable intentions and cause positive eWOM behavior, therefore improving benefits in the hotel sector (Han, Hsu, & Lee, 2009).

Travelocity.com, *Tripadvisor.com*, *Expedia.com*, and *Booking.com* are famous examples of online third-party travel agents that present less biased comments with higher reliability (Kim & Hardin, 2010). TripAdvisor has already provided the "GreenLeaders" program and got involved in encouraging green habits. These can be good resources to promote the word about hotels' green practices (Lee, Jai, & Li, 2016). On the one hand, hotels focus on enhancing their environmental performance and offering green services/products to boost travelers' appreciation of green products and encourage them to accept green consumption attitudes. Green hotels aim to decrease resource consumption while providing high-quality services. On the other hand, travelers have become more and more conscious of environmentally friendly hotels. Guests have the rising expectation for hotels to consider more green practices. In this trend, eWOM performs a vital role in exploring customers' decision-making and increasing service providers' revenue in the hotel market. So far, many studies have investigated the impacts of eWOM on hotel guest satisfaction (Aakash, Tandon, & Gupta Aggarwal, 2021), performance

(Mathews et al., 2021; Tseng et al. 2021), users' segmentation (Yadegaridehkordi et al., 2021), and purchase intention (Plidtookpai & Yoopetch, 2021). However, investigating the impact of eWOM on travelers of green hotels and their booking intentions is still less explored in the literature. Meanwhile, there is a lack of research on developing guidelines for tourism policymakers and green marketers. Policies can deliver consistency, assistance, and competence on how hotels can operate and thus form green rationale among all hotel industry stakeholders. Therefore, the aims of this study are:

- ◇ To identify the impact of eWOM (i.e., positive online reviews and negative online reviews) on travelers' green hotel booking intentions by proposing a theoretical model and conducting an experimental study.
- ◇ To provide practical guidelines for hotel marketing and policymaking.

The organization of this research is as follows. The literature review is presented in Section 2. Model development is presented in Section 3. Section 4 represents the research methodology. Data analysis and Discussions and conclusions are presented in Sections 5 and 6, respectively. Section 7 provides implications for policymaking. Finally, Section 8 represents limitations and future directions for research.

2. Literature review

A summary of the related studies on eWOM and hotel booking intentions has been provided in this section. Using the Theory of Planned Behavior (TPB), Ran et al. (2021) proposed that having a robust destination image through eWOM can impact the intention and attitude of tourists to visit Beijing. Findings indicated a significant connection between eWOM credibility and eWOM utilitarian function while eWOM credibility meaningfully impacts destination image. Harold Lee, Min, and Yuan (2021) focused on the role of eWOM on luxury hotels' booking intentions. They used TBP covering factors such as enjoyment, perceived usefulness, subjective norm, and perceived behavioral control. This study discloses how eWOM can change purchase intentions of Generation Y. Danish et al. (2019) explored the influence of eWOM on perceptions of hotel booking. Data was collected from a university in Pakistan.

Results showed that the volume of reviews, realism, and positive reviews are the most important characteristics of online consumer reviews. Trust was found to be a mediating factor between the volume of reviews, positive reviews, realism, and hotel reservation perceptions. Zarrad and Debabi (2015) studied the connections between eWOM and tourists' intention to travel. Data was collected from travelers who contributed to online discussions and traveled to Tunisia. Findings showed that eWOM significantly influences intention and attitude to revisit Tunisia (2015) studied the impacts of online reviews on hotel booking intention. The findings confirmed the effectiveness of positive reviews compared to the negative ones in improving booking intentions. Sparks and Browning (2011) explored the influence of eWOM on the booking intention of hotels. Results demonstrated that travelers are more affected by negative comments. Nevertheless, numerical rating details and positive information boosts consumer trust and booking intentions. Generally, customers are interested in trusting easy-to-process reviews when assessing a hotel. A literature review shows there is a lack of research on the impact of eWOM on travelers' green hotel booking intentions. Therefore, this study aims to address this gap by proposing a theoretical model.

3. Model development

So far, TPB has been successfully used to investigate users' behavioral intention in the hotel industry (Lee, Min & Yuan 2021; Ran et al., 2021). In 1991, TPB was proposed by (Ajzen, 1991). This theory covers different aspects to predict the target behavior of users, such as the intention to reserve a sustainable hotel. TPB described that customer Attitudes (ATT), Subjective Norms (SN), and Perceived Behavioural Controls (PBC) have significant influences on intention to perform a behavior (ibid).

ATT towards the behavior is "the degree to which a person has a favorable or unfavorable evaluation or appraisal of the behavior in question". ATT consists of two aspects: cognitive attitude and effective attitude. Cognitive attitude is a user's belief about an object, and affective attitude is the degree to that a user likes it (Yang & Yoo, 2004). Researchers commonly utilize ATT to explain users' behavior, such as intentions to reserve hotels (Ponnareddy et al. 2020) and destination images (Ran et al., 2021). This study expected that ATT positively

influences Travelers' Green hotel booking Intentions (TGI).

SN is the degree to which an individual is impacted by the beliefs of friends, family, and the surrounding environment. SN can significantly predict green hotel booking intentions (Kun-Shan & Yi-Man, 2011; Ponnareddy et al., 2020). In this study, it is expected that SN positively influences travellers' green hotel booking intentions.

PBC is "the perceived ease or difficulty of performing the behavior" (Ajzen, 1991). PBC is the degree to which a user believes that they can perform a target behavior (Ponnareddy et al., 2020). PBC facilitates the selection of a green hotel. In this study, it is expected that PBC positively influences travellers' green hotel booking intentions. Therefore, the following hypotheses are proposed:

Hypothesis 1: ATT has a positive influence on TGI.

Hypothesis 2: SN has a positive influence on TGI.

Hypothesis 3: PBC has a positive influence on TGI.

Park, Lee, and Han (2007) confirmed that consumers' intentions for purchasing increase if the value of reviews is retained. They found positive reviews that highlight objective assessment, and the product's effectiveness can positively influence customers' behaviors. According to Bulchand-Gidumal, Melián-González, and Lopez-Valcarcel (2013), online reviews have a significant and positive influence on the bookings intentions of the hotel. Therefore, online communications need to be handled as an appropriate communication channel. According to Vermeulen and Seegers (2009), negative reviews negatively impact hotel bookings and even attitudes towards hotel bookings. Generally, how travelers recognize the credibility of the website's information can significantly impact online bookings of hotels. Encouraging reviews positively influence the hotels' ratings, and negative comments impact vice versa (Sparks & Browning, 2011). Meanwhile, the theory of negative effects shows that users are more discouraged by negative comments in comparison to a positive one. In this study it is expected that positive eWOM has positive influence and negative ones has negative influence on travellers' green hotel booking intentions. Therefore, the following hypotheses are proposed:

Hypothesis 4: Positive eWOM has a positive influence on TGI.

Hypothesis 5: Negative eWOM has a negative influence on TGI.

Figure 1 illustrates the theoretical model of this study.

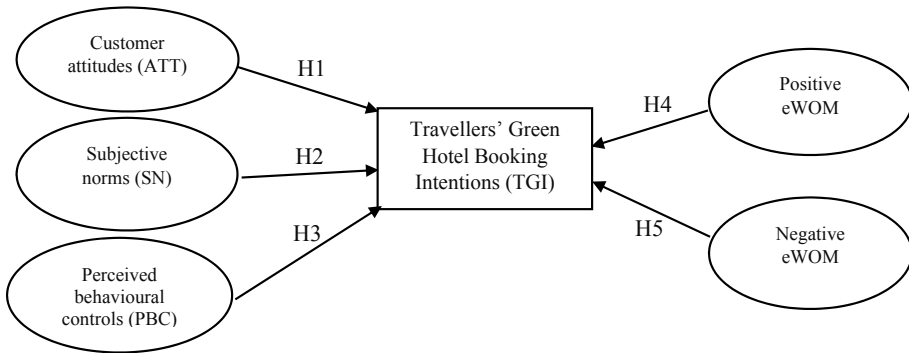


Figure 1. Theoretical model

4. Methodology

The focus of this study for data collection was users who rely on tourism-related information presented in social media for their previous travels. Therefore, a filtering question was put at the beginning of the questionnaire to identify the exact target population. The question was “If the respondents searched on social media for collecting travel-related information.” The online questionnaire was created by Google Forms, and the links of questionnaires were distributed through social media (Facebook, Instagram, etc.). By using online questionnaires, the exact samples who are Internet users were directly targeted. Meanwhile, employing online questionnaires makes the process of data collection faster and more effective. Respondents were asked to select their favorite responses from a five-point Likert scale ranging from “1 strongly disagree” to “5 strongly agree” (see Appendix 1). The questionnaire was divided into two parts. The first part covered respondents’ demographic information (such as age, gender, and travel platform), and the second part contained (21) questions related to the factors. Questions for each factor were adopted from previous related studies and modified to match with the aim and scope of this study. Four questions of ATT were adopted from (Berné Manero, Ciobanu, & Pedraja Iglesias, 2020), three questions of P eWOM and three questions of N eWOM were adopted from (Danish et al., 2019), three questions of SN were adopted from (Ponnappureddy et al., 2020) and (Zainal, Harun, & Lily, 2017), three questions of PBC were adopted from (Ponnappureddy et al., 2020), and four questions of TGI were adopted from (ibid) and (Doosti et al.,

2016). Finally, after five weeks, 425 questionnaires were successfully gathered. After excluding uncompleted questionnaires, 418 usable questionnaires remained to evaluate the proposed model. As presented in Table 1, 71% of respondents were male, and 29% were female. Most of the respondents were aged 31-40 years old (30%), 27% were aged 20-30, 24% were above 40, and 19% were under 20 years old. 60% of respondents used TripAdvisor, 24% Booking.com, and 16% other platforms for collecting travel-related information.

Table 1. Respondents' profile

Demographics	Groups	Frequency (Percentage%)
Gender	Male	298 (71%)
	Female	120 (29%)
Age	Under 20	80 (19%)
	20- 30	113 (27%)
	31-40	125 (30%)
	Above 40	100 (24%)
Travel-related Platform	Booking.com	102 (24%)
	TripAdvisor.com	250 (60%)
	Other	66 (16%)

5. Data analysis

Partial Least Squares-Structural Equation Modelling (PLS-SEM) was used to test the hypotheses. Hair Jr et al. (2016) recommended that PLS-SEM consist of two phases: measurement model assessment and structural model assessment. Data analysis was performed using Smart PLS software. Cronbach's Alpha (CA) and Composite Reliability (CR) were checked to verify the construct reliability. Average Variance Extracted (AVE) was performed to verify convergent validity, while discriminant validity was performed using two approaches (Fornell & Larcker, 1981) and (Chin, 1998). The factor loadings should be significantly greater than 0.7 for all constructs (Hair et al. 2010). Similarly, CA and CR should be greater than 0.7 for all constructs for acceptable construct reliability. All constructs should show an AVE of higher than 0.5 (Fornell & Larcker, 1981). According to Table 2,

all factor loadings, CA, CR, and AVEs reached acceptable values, and thus items, construct reliability, and convergent validity are achieved.

Table 2. Factor loadings, CA, CR, and AVEs

Constructs	Items	Factor loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted (AVE)
Customer attitudes (ATT)	ATT 1	0.840	0.869	0.910	0.717
	ATT 2	0.881			
	ATT 3	0.850			
	ATT 4	0.815			
Negative eWOM	N eWOM 1	0.892	0.839	0.903	0.757
	N eWOM 2	0.898			
	N eWOM 3	0.819			
Positive eWOM	P eWOM 1	0.868	0.781	0.873	0.697
	P eWOM 2	0.867			
	P eWOM 3	0.765			
Perceived behavioral controls (PBC)	PBC 1	0.899	0.878	0.924	0.803
	PBC 2	0.895			
	PBC 3	0.895			
Subjective norms (SN)	SN 1	0.847	0.877	0.916	0.732
	SN 2	0.843			
	SN 3	0.894			
	SN 4	0.837			
Travellers' Green Hotel Booking Intentions (TGI)	TGI 1	0.909	0.920	0.943	0.806
	TGI 2	0.895			
	TGI 3	0.923			
	TGI 4	0.864			

For discriminant validity, the AVEs' square root for each construct needs to be higher than the joint correlations with other constructs in columns and rows (ibid). Meanwhile, all constructs need to have higher factor loadings than the cross-loadings in columns and rows (Chin, 1998). Tables 3 and 4 show the discriminant

validity of the model in the item and construct levels. Additionally, the “heterotrait-monotrait ratio of correlations (HTMT)” recommended by Henseler, Ringle, and Sarstedt (2015) was checked in this step. According to Table 5, all values are less than a threshold of 0.85. Thus, the validity of the measurement model has been confirmed. Figure 2 shows the result of measurement model evaluation.

Table 3. Item discriminant validity (Fornell & Larcker, 1981)

	ATT	SN	N eWOM	PBC	P eWOM	TGI
ATT	0.847					
SN	0.647	0.855				
N eWOM	0.544	0.493	0.870			
PBC	0.694	0.528	0.459	0.896		
P eWOM	0.507	0.426	0.453	0.399	0.835	
TGI	0.578	0.525	0.435	0.536	0.456	0.898

Table 4. Construct discriminant validity (Chin, 1998)

	ATT	SN	N eWOM	PBC	P eWOM	TGI
ATT 1	0.840	0.508	0.489	0.639	0.414	0.426
ATT 2	0.881	0.576	0.522	0.611	0.448	0.562
ATT 3	0.850	0.573	0.482	0.576	0.430	0.464
ATT 4	0.815	0.531	0.348	0.529	0.422	0.488
N eWOM 1	0.466	0.451	0.892	0.405	0.390	0.369
N eWOM 2	0.507	0.430	0.898	0.473	0.354	0.401
N eWOM 3	0.445	0.405	0.819	0.312	0.444	0.363
P eWOM 1	0.415	0.346	0.348	0.333	0.868	0.391
P eWOM 2	0.414	0.377	0.377	0.339	0.867	0.390
P eWOM 3	0.443	0.344	0.414	0.327	0.765	0.359
PBC 1	0.606	0.476	0.409	0.899	0.336	0.459
PBC 2	0.673	0.512	0.437	0.895	0.414	0.496
PBC 3	0.584	0.430	0.386	0.895	0.320	0.483
SN 1	0.552	0.847	0.452	0.516	0.368	0.460

	ATT	SN	N eWOM	PBC	P eWOM	TGI
SN 2	0.489	0.843	0.362	0.361	0.322	0.449
SN 3	0.622	0.894	0.427	0.492	0.365	0.472
SN 4	0.549	0.837	0.448	0.433	0.407	0.411
TGI 1	0.545	0.498	0.389	0.485	0.494	0.909
TGI 2	0.488	0.410	0.344	0.438	0.369	0.895
TGI 3	0.498	0.478	0.420	0.487	0.404	0.923
TGI 4	0.539	0.490	0.403	0.509	0.361	0.864

Table 5. Heterotrait-Monotrait Ratio (HTMT)

	ATT	SN	NeWOM	PBC	P eWOM	TGI
ATT						
SN	0.739					
N eWOM	0.636	0.576				
PBC	0.796	0.600	0.531			
P eWOM	0.617	0.517	0.565	0.482		
TGI	0.639	0.581	0.493	0.594	0.536	

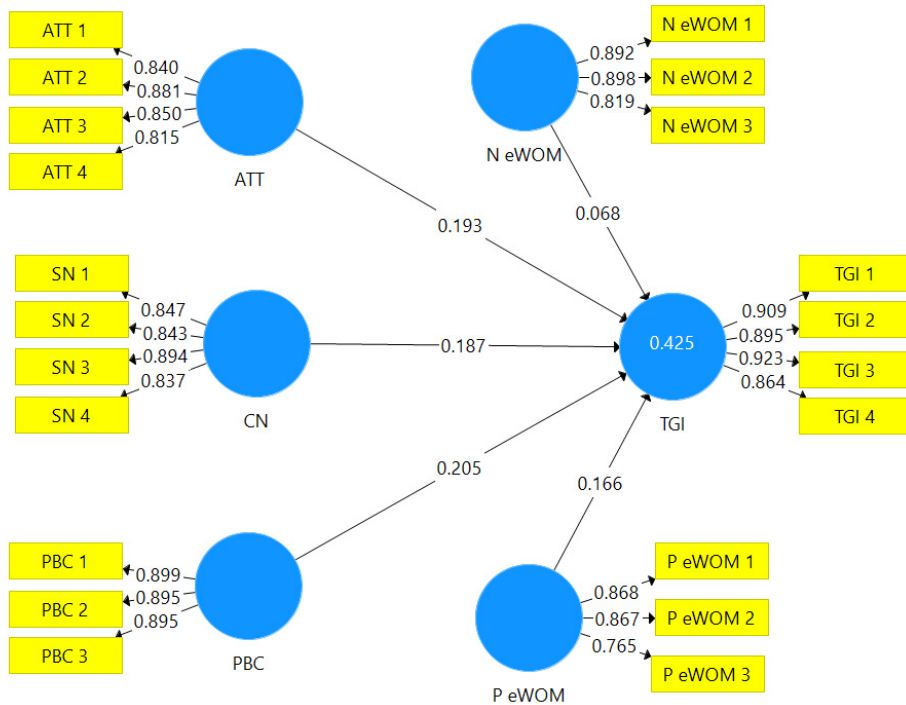


Figure 2. Measurement model

After checking the measurement model, the structural model should be assessed by calculating path coefficients (b), t -values (t) and p -values (p), effect size (f^2), and R^2 . R^2 shows the amount of variance in the TGI construct caused by its predictors (ATT, SN, PBC, positive comments, and negative comments). R^2 values of 0.67, 0.33, and 0.19 are considered substantial, moderate, and weak, respectively (Chin, 1998). The R^2 value of TGI was 0.425, meaning that the proposed model represented enough predictive power. Results of hypotheses assessment were showed that all hypotheses were accepted except H5. According to the Table 6, ATT ($\beta = 0.193$, t -value= 3.447, $P=0.001$), SN ($\beta = 0.187$, t -value= 3.927, $P=0.000$), PBC ($\beta = 0.205$, t -value= 4.058, $P=0.000$) and P eWOM ($\beta = 0.166$, t -value= 3.509, $P=0.000$) positively influenced TGI. Therefore, H1, H2, H3, and H4 were accepted. However, H5 was rejected and N eWOM did not show significant influence on TGI ($\beta = 0.068$, t -value= 1.506, $P=0.132$). Results of hypotheses evaluation are shown in Figure 3.

Table 6. Hypotheses results

Hypotheses		Sample Mean (M)	Standard Deviation (STDEV)	Path Coefficients	T Statistics (O/STDEV)	P Values	Result
ATT -> TGI	H1	0.194	0.056	0.193	3.447	0.001	Accept
SN -> TGI	H2	0.189	0.048	0.187	3.927	0.000	Accept
PBC -> TGI	H3	0.200	0.051	0.205	4.058	0.000	Accept
P eWOM -> TGI	H4	0.169	0.047	0.166	3.509	0.000	Accept
N eWOM -> TGI	H5	0.068	0.045	0.068	1.506	0.132	Reject

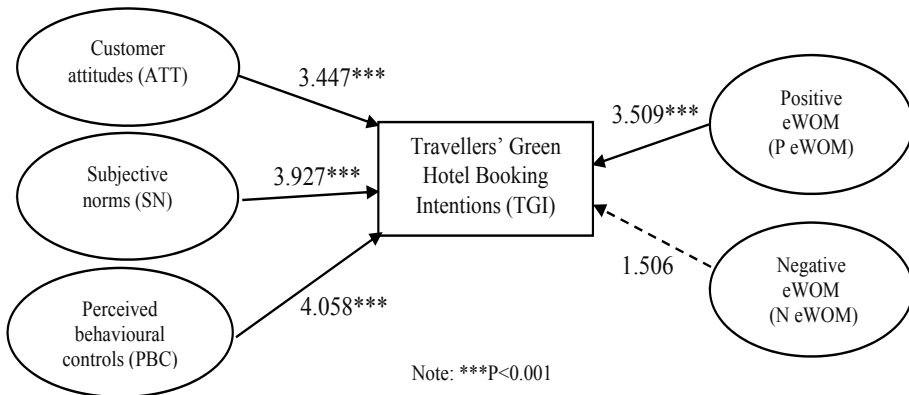


Figure 3. Path analysis results

6. Discussions and conclusions

The wide availability of Internet technology has fundamentally changed how travelers book hotel accommodations. Therefore, the hotel sector has also emphasized online marketing management (Xie et al. 2011). An industry such as hotel industry offers services and products that travelers cannot experience their features or quality before purchase. In this situation, eWOM plays a key role, and users are more interested in sharing their experiences on social websites (Kang & Schuett, 2013). Nowadays, more and more hospitality organizations have been involved in different sustainable practices, and the demand for green initiatives and services has been rapidly increasing (Verma, Chandra & Kumar 2019). However, investigating the impact of eWOM on travelers of green hotels

and their booking intentions is still less explored in the literature. Meanwhile, there is a lack of research on developing guidelines for tourism policymakers and green marketers. Therefore, this research aimed to identify the impact of eWOM on travellers' green hotel booking intentions by proposing a theoretical model and conducting an experimental study. Meanwhile, providing practical guidelines for hotel marketing and policymaking is another aim of this study. Guidelines can be considered as policies that can deliver consistency, assistance, and competence on how hotels can operate and thus form green rationale among all hotel industry stakeholders. To do this, a theoretical model was developed based on TPB and P eWOM, and N eWOM was linked to the model as two new factors. Data was collected from 418 travelers who had experience searching on social media to collect travel-related information through an online questionnaire.

Findings showed that four out of five hypotheses were accepted. ATT, SN, PBC, and P eWOM positively impacted TGI. In contrast, the negative impact of N eWOM on TGI was not supported. Similarly, Ponnappureddy et al. (2020) found that ATT and SN significantly influenced intention to book the hotel through perceived benefits. SN is the opinion of individuals who are valuable to the user and believe they should do or ignore a specific behavior. Husin, Ismail, and Ab Rahman (2016) found that SN is created by eWOM and can significantly influence hotel purchase intention. However, this outcome differs from Plidtookpai and Yoopetch (2021), which did not confirm SN's significant influence on hotel purchase intention. PBC is the ability of users to manage a given behavior. Goh (2015) found a positive impact of PBC on the intention to reserve accommodation. Wijyaningtyas, Handoko, and Hidayat (2019) realized that PBC could influence greenhouse purchase intention in two ways. Firstly, customers consider perceived difficulty, which may be challenging for them to buy eco-friendly houses. Secondly, they consider perceived benefits that gain both health and financial advantages when purchasing an eco-friendly home. Alhidari, Iyer, and Paswan (2015) defined eWOM as "any positive or negative statement made by potential, actual, or former customers about a product or company, which is made available to a multitude of people and institution[s] via the internet". They found that eWOM has a positive relationship with purchase intentions. Aprilia and Kusumawati (2021) and Zarrad and Debabi (2015) confirmed the positive impact of eWOM on visitors' intentions.

This study found a positive influence of P eWOM on the GTI. Similarly, Sulthana and Vasantha (2019) realized that information credibility and attitude towards eWOM significantly influence engagement in eWOM and increase purchase intention. Danish et al. (2019) found a meaningful influence of positive comments on customers' booking intention. However, the impact of negative online reviews on booking intention was not supported. Tseng et al. (2021) studied the effect of eWOM on the performance of hotels and concluded that forms of online consumer reviews do not directly impact hotel performance. However, negative eWOMs are concerns of many brands and advertisers. They frequently contribute to eWOM communications by replying to negative online reviews and fixing the problem for an angry customer.

7. Implications for policymaking

Results of this study can provide helpful insights to make appropriate decisions related to management, policymaking, marketing strategy, and the expansion of tourist destinations. Hotels can improve consumer review management by considering the fundamental factors found in this study and eventually boost travellers' hotel booking intentions. This study found that positive eWOMs positively influence the behavior of travelers, while the negative impact of negative comments was not supported. This result does not mean that negative reviews are safe. Considering the increasing importance of eWOM, corporations need to be conscious that hiding online reviews written by customers is not a logical solution for managing negative feedback (Danish et al., 2019). In this situation, there are many ethical solutions or methods that will not even harm the company's reputation. The destination managers and policymakers can manage this situation by discovering the factors responsible for these behaviors among travelers. For example, hotel managers must react to all positive and negative forms of review comments. In particular, they need to appreciate travelers for taking the time and effort to share their experiences and opinions on online travel-related websites. If a comment is not favorable, the company can express that they will consider this opinion and learn about this experience (Zarrad & Debabi, 2015). In this situation, hotels should apologize for logical objections and clarify what measures they will consider solving the shortcoming because public acknowledgment of a problem

establishes a good reputation. These behaviors make travelers feel they are being accepted and enhance their trust and return intention. Undeniably, hotel managers should identify which sort of experience can trigger positive eWOM significantly (Albarq, 2014).

Providing a positive experience of green services (offering energy-efficient appliances and furnishing rooms sustainably) can influence tourists positively in which they wish to visit again and put positive comments to encourage other potential tourists (Berné Manero, Ciobanu & Pedraja Iglesias 2020). To encourage hotel guests to be thankful for green initiatives, a hotel manager should inform and educate travelers about provided green services. Without complete information, the travelers will not realize the green benefits and complain more about them. To inform the guest about green practices, hotels can provide complete information on their websites or design cards, brochures, and disclosures at the front desk. Generally, appropriate management of eWOM can significantly improve hotel performance. In this regard, hotels are recommended to hire full-time experts to handle online reviews and analyze their influence on their performance (Sparks & Browning, 2011). As participants' favorable attitudes to select green hotels mainly depended on the opinions of friends, family, and colleagues/co-workers, green hotel's managers and all involved parties are advised to enhance the perceptions of green hotels of the target population.

From the theoretical side, this study contributes to the body of knowledge by developing a theoretical model to examine the factors that influence the hotel booking intentions of travelers. While the concepts of green hotel and eWOM have received significant attention in the previous research, far less attention has been paid to exploring the direct impacts of positive and negative eWOM on travellers' booking intentions. Since the theoretical development in this context is still early, proposing this model is the most essential contribution of this research. The proposed model and its associated constructs can help hotel managers and policymakers successfully initiate green practices.

8. Limitations and future directions for research

This study followed a quantitative research approach to identify the roles of positive and negative eWOM on travelers' behavior towards green hotels. Future

research can be conducted based on mix method approach by incorporating qualitative methods. The mixed approach assists in collecting in-depth information about tourists' behavior using interviews or focus groups. Future studies can implement soft computing or multi-criteria decision-making techniques to uncover the complex relationships between factors. In this way, factors can even be ranked based on their level of importance. Reviews generated by customers are an excellent source of information that can provide enormous understandings of what customers prefer and hate about a product or service. Therefore, analyzing available comments and ratings on social media using data mining techniques can be another direction for future research. This can help to extract useful information from big datasets and convert them into meaningful rules and policies. This study collected data from end-users who are the traveler. In future research, hotel decision-makers and owners can be target populations. This can help green hotels benefit eWOM management, supported by trained staff and a strategic plan. Finally, by considering other factors, the theoretical model of this study can be extended in future research. It is suggested to policymakers in the hotel industry to implement the guidelines proposed in this study in real situations and examine the outcomes they achieve. This can help modify or improve the existing policies and improve the policymaking processes.

References

- Aakash, A., Tandon, A., & Gupta Aggarwal, A. (2021). How features embedded in eWOM predict hotel guest satisfaction: An application of artificial neural networks. *Journal of Hospitality Marketing & Management*, 30(4), 486-507. doi:10.1080/19368623.2021.1835597
- Ajzen, I. (1991). The Theory of Planned Behavior. *ORGANIZATIONAL BEHAVIOR AND HUMAN DECISION PROCESSES*, 50, 179-211.
- Albarq, A. N. (2014). Measuring the impacts of online word-of-mouth on tourists' attitude and intentions to visit Jordan: An empirical study. *International Business Research*, 7(1), 14.
- Alhidari, A., Iyer, P., & Paswan, A. (2015). Personal level antecedents of eWOM and purchase intention, on social networking sites. *Journal of Customer Behaviour*, 14(2), 107-125.

- Aprilia, F., & kusumawati, A. (2021). Influence of Electronic Word of Mouth on Visitor's Interest to Tourism Destinations. *The Journal of Asian Finance, Economics, and Business*, 8(2), 993-1003.
- Asadi, S., OmSalameh Pourhashemi, S., Nilashi, M., Abdullah, R., Samad, S., Yadegaridehkordi, E., . . . Razali, N. S. (2020). Investigating the influence of green innovation on sustainability performance: A case on the Malaysian hotel industry. *Journal of Cleaner Production*, 258, 120860. doi:<https://doi.org/10.1016/j.jclepro.2020.120860>
- Baka, V. (2016). The becoming of user-generated reviews: Looking at the past to understand the future of managing reputation in the travel sector. *Tourism Management*, 53, 148-162.
- Berné Manero, C., Ciobanu, A. V., & Pedraja Iglesias, M. (2020). The electronic word of mouth as a context variable in the hotel management decision-making process. *Cuadernos de Gestión*, 20(1), 111-136.
- Bohdanowicz, P. (2005). European Hoteliers' Environmental Attitudes: Greening the Business. *Cornell Hotel and Restaurant Administration Quarterly*, 46(2), 188-204. doi:10.1177/0010880404273891
- Bronner, F., & De Hoog, R. (2011). Vacationers and eWOM: who posts, and why, where, and what? *Journal of Travel Research*, 50(1), 15-26.
- Bulchand-Gidumal, J., Melián-González, S., & Lopez-Valcarcel, B. G. (2013). A social media analysis of the contribution of destinations to client satisfaction with hotels. *International Journal of Hospitality Management*, 35, 44-47.
- Chin, W. W. (1998). The partial least squares approach to structural equation modeling *Modern methods for business research* (Vol. 2, pp. 295-336). Mahwah, New Jersey: Lawrence Erlbaum Associates.
- Danish, R. Q., Hafeez, S., Ali, H., Shahid, R., & Nadeem, K. (2019). Impact of online consumer reviews on hotel booking intentions: The case of Pakistan. *European Scientific Journal ESJ*, 15(7), 144-159.
- Doosti, S., Jalilvand, M. R., Asadi, A., Pool, J. K., & Adl, P. M. (2016). Analyzing the influence of electronic word of mouth on visit intention: the mediating role of tourists' attitude and city image. *International Journal of Tourism Cities*, 2(2), 137.
- Fornell, C., & Larcker, D. F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research (JMR)*, 34(2), 161-188.
- Goh, S. K., Ho, V. T., & Jiang, N. (2015). The Effect of Electronic Word of Mouth on Intention to Book Accommodation via Online Peer-to-Peer Platform: Investigation of Theory of Planned Behaviour. *J Internet Bank Commer S*, 2, 22-24.
- Hair, J. F., Black, W. C., Babin, B., & Anderson, R. (2010). *Multivariate Data Analysis: A Global Perspective* (7 ed.). New Jersey: Prentice-Hall PTR.

- Hair Jr, J. F., Hult, G. T. M., Ringle, C., & Sarstedt, M. (2016). A primer on partial least squares structural equation modeling (PLS-SEM). *Personalwirtschaft und Arbeitsorganisation W-9*: Sage Publications. ISBN: 978-1-4833-7744-5.
- Han, H. (2015). Travelers' pro-environmental behavior in a green lodging context: Converging value-belief-norm theory and the theory of planned behavior. *Tourism Management*, *47*, 164-177.
- Han, H., Hsu, L.-T. J., & Lee, J.-S. (2009). Empirical investigation of the roles of attitudes toward green behaviors, overall image, gender, and age in hotel customers' eco-friendly decision-making process. *International Journal of Hospitality Management*, *28*(4), 519-528.
- Hennig-Thurau, T., Gwinner, K. P., Walsh, G., & Gremler, D. D. (2004). Electronic word-of-mouth via consumer-opinion platforms: what motivates consumers to articulate themselves on the internet? *Journal of interactive marketing*, *18*(1), 38-52.
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the Academy of Marketing Science*, *43*(1), 115-135. doi:10.1007/s11747-014-0403-8
- Husin, M. M., Ismail, N., & Rahman, A. A. (2016). The roles of mass media, word of mouth and subjective norm in family takaful purchase intention. *Journal of Islamic Marketing*, *7*(1), 59-73.
- Kang, M., & Schuett, M. A. (2013). Determinants of sharing travel experiences in social media. *Journal of Travel & Tourism Marketing*, *30*(1-2), 93-107.
- Kim, J., & Hardin, A. (2010). The impact of virtual worlds on word-of-mouth: Improving social networking and servicescape in the hospitality industry. *Journal of Hospitality Marketing & Management*, *19*(7), 735-753.
- Kun-Shan, W., & Yi-Man, T. (2011). Applying the extended theory of planned behavior to predict the intention of visiting a green hotel. *African Journal of Business Management*, *5*(17), 7579-7587.
- Lee, H., Jai, T.-M. C., & Li, X. (2016). Guests' perceptions of green hotel practices and management responses on TripAdvisor. *Journal of hospitality and tourism technology*.
- Lee, H., Min, J., & Yuan, J. (2021). The influence of eWOM on intentions for booking luxury hotels by Generation Y. *Journal of Vacation Marketing*, *27*(3), 237-251. doi:10.1177/1356766720987872
- Mathews, S., Prentice, C., Tsou, A., Weeks, C., Tam, L., & Luck, E. (2022). Managing eWOM for hotel performance. *Journal of Global Scholars of Marketing Science*, *32*(3), 331-350.
- May, K. (2014). How 16-24s use technology and social media during a trip, published on Tnooz, retrieved from <http://www.tnooz.com/article/social-media-technology-geny-voxburner/>

- Park, D.-H., Lee, J., & Han, I. (2007). The effect of online consumer reviews on consumer purchasing intention: The moderating role of involvement. *International Journal of Electronic Commerce*, 11(4), 125-148.
- Plidtookpai, N., & Yoopetch, C. (2021). The electronic Word-of-Mouth (eWOM) trustworthiness, brand image, and other determinants of purchase intention of the middle class to luxury hotel services. *Kasetsart Journal of Social Sciences*, 42(1), 61–68-61–68.
- Ponnasureddy, S., Priskin, J., Vinzenz, F., Wirth, W., & Ohnmacht, T. (2020). The mediating role of perceived benefits on intentions to book a sustainable hotel: a multi-group comparison of the Swiss, German and USA travel markets. *Journal of Sustainable Tourism*, 28(9), 1290-1309.
- Prabu, K. (2014). Vast majority of TripAdvisor users read at least 6–12 reviews before choosing hotel. Tnooz. Retrieved from <http://www.tnooz.com/article/tripadvisor-online-review-insights-phocuswright-study/>.
- Prendergast, G., & Man, H. W. (2002). The influence of store image on store loyalty in Hong Kong's quick-service restaurant industry. *Journal of Foodservice Business Research*, 5(1), 45-59.
- Ran, L., Zhenpeng, L., Bilgihan, A., & Okumus, F. (2021). Marketing China to US travelers through electronic word-of-mouth and destination image: Taking Beijing as an example. *Journal of Vacation Marketing*, 27(3), 267-286. doi:10.1177/1356766720987869
- Silverman, G. (2011). *The secrets of word-of-mouth marketing: How to trigger exponential sales through runaway word of mouth*. New York, NY: American Management Association.
- Sparks, B. A., & Browning, V. (2011). The impact of online reviews on hotel booking intentions and perception of trust. *Tourism Management*, 32(6), 1310-1323.
- Sulthana, A. N., & Vasantha, S. (2019). Influence of electronic word of mouth eWOM on purchase intention. *International Journal of Scientific & Technology Research*, 8(10), 1-5.
- Tsao, W.-C., Hsieh, M.-T., Shih, L.-W., & Lin, T. M. (2015). Compliance with eWOM: The influence of hotel reviews on booking intention from the perspective of consumer conformity. *International Journal of Hospitality Management*, 46, 99-111.
- Tseng, T. H., Chang, S.-H., Wang, Y.-M., Wang, Y.-S., & Lin, S.-j. (2021). An Empirical Investigation of the Longitudinal Effect of Online Consumer Reviews on Hotel Accommodation Performance. *Sustainability*, 13(1), 193.
- Verma, V. K., Chandra, B., & Kumar, S. (2019). Values and ascribed responsibility to predict consumers' attitude and concern towards green hotel visit intention. *Journal of business research*, 96, 206-216.

- Vermeulen, I. E., & Seegers, D. (2009). Tried and tested: The impact of online hotel reviews on consumer consideration. *Tourism Management*, 30(1), 123-127.
- Wijyaningtyas, M., Handoko, F., & Hidayat, S. (2019). The millennials' perceived behavioural control on an eco-friendly house purchase intention. In *Journal of Physics: Conference Series*. Vol. 1375, No. 1, p. 012060. IOP Publishing.
- Xie, H. J., Miao, L., Kuo, P.-J., & Lee, B.-Y. (2011). Consumers' responses to ambivalent online hotel reviews: The role of perceived source credibility and pre-decisional disposition. *International Journal of Hospitality Management*, 30(1), 178-183.
- Yadegaridehkordi, E., Nilashi, M., Nizam Bin Md Nasir, M. H., Momtazi, S., Samad, S., Supriyanto, E., & Ghabban, F. (2021). Customers segmentation in eco-friendly hotels using multi-criteria and machine learning techniques. *Technology in Society*, 65, 101528. doi:<https://doi.org/10.1016/j.techsoc.2021.101528>
- Yang, H.-d., & Yoo, Y. (2004). It's all about attitude: revisiting the technology acceptance model. *Decision Support Systems*, 38(1), 19-31.
- Zainal, N. T. A., Harun, A., & Lily, J. (2017). Examining the mediating effect of attitude towards electronic words-of mouth (eWOM) on the relation between the trust in eWOM source and intention to follow eWOM among Malaysian travelers. *Asia Pacific Management Review*, 22(1), 35-44.
- Zarrad, H., & Debabi, M. (2015). Analyzing the effect of electronic word of mouth on tourists' attitude toward destination and travel intention. *International research journal of social sciences*, 4(4), 53-60.
- Zhou, L., Ye, S., Pearce, P. L., & Wu, M.-Y. (2014). Refreshing hotel satisfaction studies by reconfiguring customer review data. *International Journal of Hospitality Management*, 38, 1-10.

Appendix 1. Items of the questionnaire

Factor	Items	References
ATT	<ol style="list-style-type: none"> 1. I think that using eWOM is very good for selecting green hotels 2. I think that using eWOM facilitates obtaining better results 3. I have a very positive opinion about the green hotels 4. My intention is to continue selecting green hotels 	(Berné Manero et al., 2020)
P eWOM	<ol style="list-style-type: none"> 1. I pay more attention to positive reviews 2. Positive reviews are of more values 3. I pay more attention to hotels that have a larger volume of positive reviews 	(Danish et al., 2019)
N eWOM	<ol style="list-style-type: none"> 1. An abundance of negative reviews will make you dislike a hotel 2. Negative reviews will terminate my booking intentions 3. I will not book a hotel if any negative reviews about it are spotted 	(Danish et al., 2019)
SN	<ol style="list-style-type: none"> 1. Most people who are important to me would approve of my decision to book the green hotel for my next vacation 2. People whose opinion matters to me would prefer that I book the green hotel for my next vacation 3. In my situation, most people would book the green hotel for their next vacation 4. I would rely on the recommendations made by other travelers 	(Ponnappureddy et al., 2020) (Zainal et al., 2017)
PBC	<ol style="list-style-type: none"> 1. Giving up something of my needs and wants 2. Spending more money than I usually do for vacations 3. Spending more time and effort for booking than I usually do 	(Ponnappureddy et al., 2020)
TGI	<ol style="list-style-type: none"> 1. I intend to book the green hotel for my next vacation 2. I would indeed book the green hotel for my next vacation 3. I recommend other tourists to select green hotels for their travel 4. In general, I wish to book the green hotel someday in the future 	(Ponnappureddy et al., 2020) (Doosti et al., 2016)

**Elaheh Yadegaridehkordi**

Dr. Elaheh Yadegaridehkordi worked in Amirkabir University of Technology as a postdoctoral researcher. Her research interests include big data analytics, educational technology, tourism management, cloud computing, mobile learning, and recommendation systems. Her contributions have been published in prestigious journals and international conferences.

**Saeedeh Momtazi**

Dr. Saeedeh Momtazi is an associate professor at Amirkabir University of Technology (AUT), Iran. She completed her BSc and MSc education at Sharif University of Technology, Iran. She received a PhD degree in Artificial Intelligence from Saarland University, Germany. After finishing her PhD, she worked at the Hasso-Plattner Institute at Potsdam University, Germany and the German Institute for International Educational Research (DIPF), Germany, as a postdoctoral researcher. Natural language processing is her research focus.

**Mohd Hairul Nizam Bin Md Nasir**

Dr. Mohd Hairul Nizam Bin Md Nasir is currently a Senior Lecturer in the University of Malaya. His research interests include project management, software quality, software process models. His contributions have been published in prestigious journals and international conferences.